STRATEGIC BUSINESS PLAN

METROLINK®

ADOPTED
January 22, 2021

A Message from the CEO

Stephanie Wiggins
CEO, Metrolink

When I took the helm at Metrolink as its CEO, I knew it was an important transportation service that reduces congestion in one of the country's most sizable megaregions, which contributes to air quality improvements in support of local, regional and state goals. Today, two years later and as we emerge from one of the biggest challenges our country has seen in a generation, I see that Metrolink is essential to Southern California and its residents – on a very human level. More than a commuter rail service, Metrolink provides the people of Southern California a vital link to their friends and families. To career, educational and housing opportunities. And to all the experiences that make the Southern California region a special place to live. Importantly, throughout the COVID-19 pandemic we learned how vital Metrolink truly is, as we transported essential workers – first responders, healthcare workers and others essential to keeping our community functioning safely – to their jobs.

We kicked off the process to develop this Strategic Business Plan long before we first learned about COVID-19. Our intent then was to articulate the value of Metrolink to the region and chart a course towards a stronger future where our service, our role and our positive impact on our daily lives can grow and thrive. Little did I know when we started this endeavor that we would soon be at the beginning of a global pandemic that would forever change the course of our lives and force us to think very differently about our value proposition. The disruption caused by the COVID-19 pandemic drove us to reimagine our present, as well as our future. We must become a smarter, better, essential Metrolink.

Even while facing these challenges and maintaining our service at a level that helps get essential workers to their jobs, Metrolink forged ahead with initiatives that are vital to our future success. We doubled down on our commitment to safety by delivering new health and operating practices that put our customers' safety first and securing the communications spectrum we needed to ensure the long-term viability of our Positive Train Control safety system. We continued to advance our zero emissions future by retiring our last Tier 0 locomotive, adding more Tier 4 locomotives to our fleet, and adopting a Recovery Plan Framework that focuses on the triple bottom line: environment, economy and equity. And we reduced operating costs through better efficiencies

This Plan is being published as vaccines against the coronavirus make their way from the lab to the people – one reason for which we look to the future with renewed hope. The Plan laid out on the following pages represents our vision for a Metrolink that is customer focused first and foremost. A Metrolink whose commitment to its foundational value --- safety – is stronger than ever. And a Metrolink that is poised to nimbly respond to new challenges, to innovate as technology permeates more of our business, and to continuously modernize business practices that create value and exceed expectations.

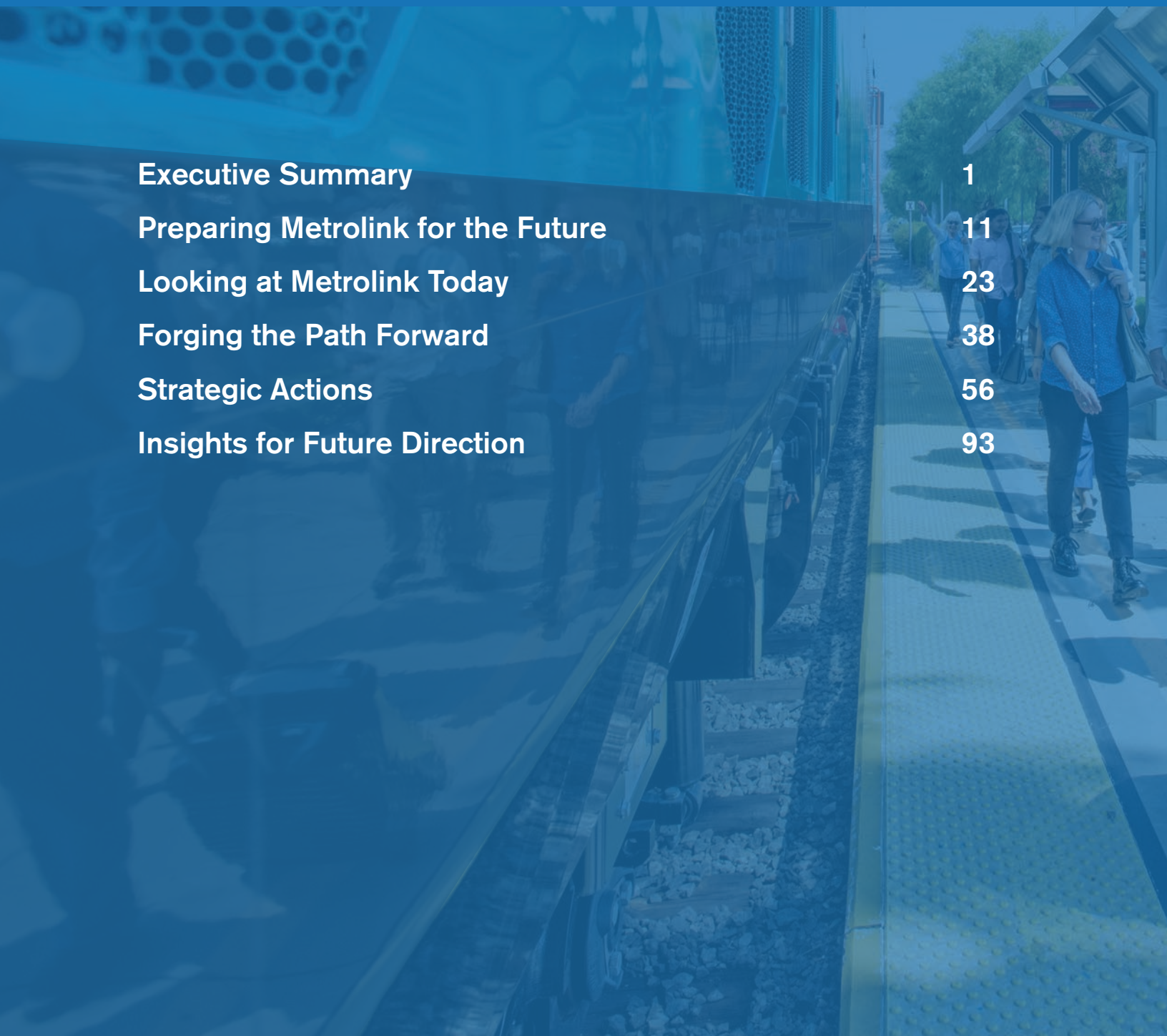
The Plan recognizes the creativity and resourcefulness of our team as we piloted new ideas like the 5-Day Flex Pass for telecommuters and our Kids Ride Free on Weekends promotion for families looking for a safe escape from their homes, and as we introduced new programs like our SoCal Explorer loyalty program. The Plan also lays the foundation for even more new approaches that will advance our transformation into a more independent, efficient and essential Metrolink for the future.

I could not be prouder of our Metrolink team and how they have delivered during the COVID-19 crisis, with exceptional levels of innovation and commitment, while at the same time adapting to the new ways of working that were forced upon us all. And I could not be more inspired by and grateful to those who have continued to go to our work locations every day – our essential workers. They stepped up with great selflessness and dedication to ensure we delivered safe uninterrupted service to the essential workers that still depend on us. The entire Metrolink team stepped up to every challenge and demonstrated their unwavering commitment to this organization and our important mission. Their enduring dedication humbles me.

Our Board and Member Agencies have been key to our ability to forge ahead to meet our aspirations on behalf of our customers. This Plan reflects their input, which is critical for success in meeting our shared goals. I particularly appreciate our Board of Directors for their support and engagement throughout this effort.

Our shared and enduring commitment will carry through to help make the mission, vision and commitments of this Plan a reality. The future is now, and together we will deliver on the promise.

Table of Contents



Executive Summary

Introduction

What started as three rail lines in 1992 has become the third largest commuter rail system in the U.S., cultivating a transit culture in Southern California once thought impossible.

This is Metrolink

In Fiscal Year 2019 (FY19), Metrolink achieved a record 11.9 million boardings, following five years of consistent ridership growth at a time when many transit systems had plateaued or seen declines. As the only rail service linking all six Southern California counties, Metrolink has proven to be an effective solution to several regional challenges, providing access to jobs and opportunities, reducing gridlock, connecting communities, and supporting a sustainable future. The COVID-19 pandemic disrupted ridership growth. However, Metrolink pivoted, modified service levels and addressed customer concerns about public safety. As a result, Metrolink is poised to recover stronger.

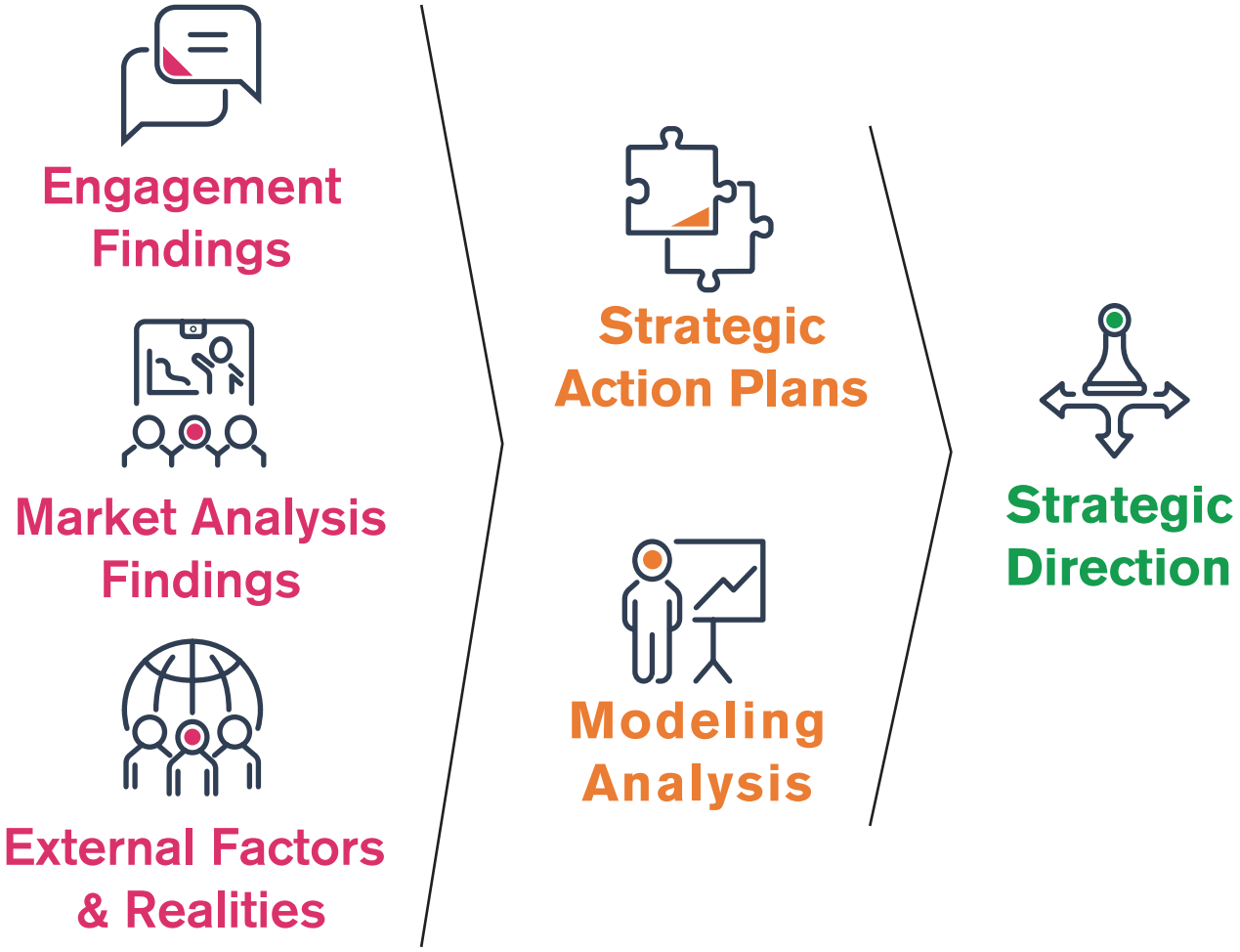
Looking ahead, planned and potential changes will revolutionize transportation in Southern California, with Metrolink setting the standard for passenger experience and transit innovation. These changes will stem from deliberate planning designed to accommodate major milestones and localized improvements, including the 2028 Olympic and Paralympic Games, the redevelopment of Los Angeles Union Station, and first- and last-mile innovations being advanced by all five of Metrolink's Member Agencies, by transit agency partners, and by cities served by Metrolink.

Metrolink is a transportation success story, and that success is a direct result of a committed team of professionals who collaboratively work to execute Metrolink's strategy for achievement: "Create Value, Exceed Expectations." That success sets the stage for the Metrolink organization to meet the challenges that lie ahead. The need to address pressing issues such as climate change, air quality, the jobs-housing imbalance, and to advance equity for all communities and populations in Southern California means that Metrolink must play an even larger role in the region.

So where to go next? Metrolink has developed this Strategic Business Plan (SBP) to guide its continued evolution into a smarter, more essential service that consistently broadens ridership and promotes safety and connectivity through innovation and strategic investments. The goal is to become a truly integrated, cohesive system that fully transforms passenger rail in Southern California. The SBP identifies a suite of actions that can double ridership and reduce reliance on Member Agencies' subsidies by 2030.

The Strategic Business Plan was developed considering multiple inputs, with strong emphasis on engagement, as shown on **Figure ES-1**.

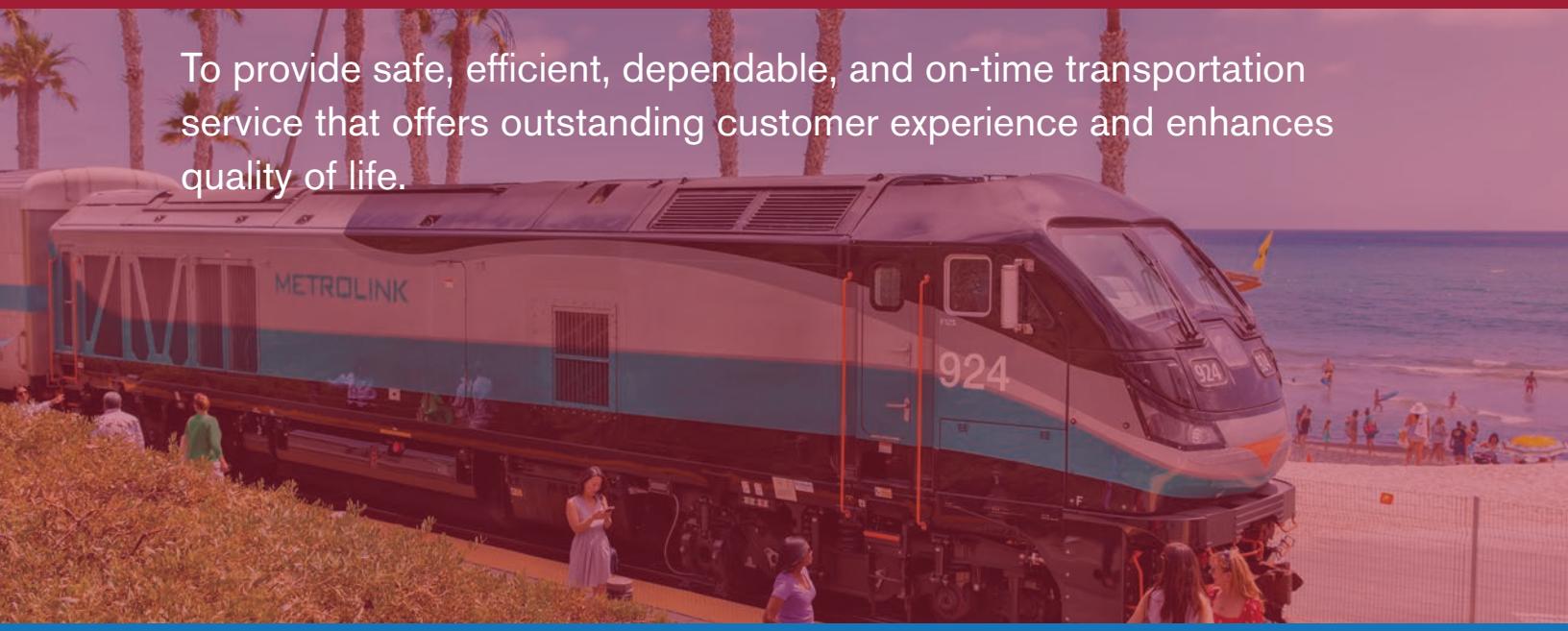
Figure ES-1: Pathway to Strategic Direction



METROLINK® connects people to jobs, housing, education and events throughout the Southern California region; a stronger METROLINK® improves our entire mobility ecosystem.

Brian Humphrey
Metrolink Board of Directors Chair

Our Mission



To provide safe, efficient, dependable, and on-time transportation service that offers outstanding customer experience and enhances quality of life.

Our Vision

To be Southern California's preferred transportation system built upon safety, reliability, customer service, leading-edge technology, and seamless connectivity.

Our Commitment

Based on the mission and vision statements that underpin Metrolink, the Metrolink Team makes these commitments:

1 **Safety is Foundational**
We will stay on the leading edge by deploying new technologies and processes to enhance the safety and security of our riders, employees and the communities we serve.

2 **Customers are Our Business**
We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to delight them.

3 **Connecting and Leveraging Partnerships**
We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving.

4 **Modernizing Business Practices**
We will improve our operational efficiency, through transparency, objective metrics and streamlined governance, reducing reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees.

5 **Advancing Key Regional Goals**
We will grow the role of regional rail in addressing climate change, air quality, and other pressing sustainability and economic issues by advancing toward zero emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for all communities throughout Southern California.

Forging the Path Forward

In setting a new strategic direction, Metrolink is emphasizing that the agency's focus is to move people, not trains. Metrolink's strategic direction is informed by a thorough quantitative analysis of markets, a multilayered stakeholder engagement, followed by the development of scenarios to explore the impact of programmed Member Agency subsidies on service forecasts.

Market Analysis

A market analysis using data collected before the COVID-19 pandemic was conducted to support this Plan for the long-term future of Metrolink.

The most important finding was that Metrolink has a lot of room to grow. There is significant untapped market demand, and not just from traditional commuter segments. There is even more potential outside of peak hours and with discretionary markets that are currently underserved, such as students, families and workers with non-traditional commutes. Over 770,000 potential daily trips within the general corridors served by Metrolink are currently taken by automobile. Even if a small percentage of these trips shifted, it would represent a significant opportunity for Metrolink. Major growth opportunities are outside of traditional commute trips, as over 40 percent of untapped demand is in the reverse peak direction or in the off-peak, primarily mid-day and evening.

Additionally, regional growth forecasts suggest an expanded role for Metrolink, as future housing and job growth in the region is focused along Metrolink corridors. Metrolink is viable to riders when it meets their travel needs – which is a function of both the schedules offered and station access.

Some changes will therefore be required to attract new riders, such as schedule and service integration, parking strategy reviews and other studies that will determine how best to partner with local transit providers and cities to enhance the transportation offer. Further, Metrolink is attractive to riders when the experience is easy, enjoyable, and a good use of their time. Ease of travel is determined by service design (e.g. intuitive schedules and timed transfers) and the strength of the tools available to navigate and pay for the service (e.g. a capable mobile app). Enjoyability is influenced both by the environment Metrolink cultivates (e.g. a friendly rider culture) and the amenities it offers (e.g. wi-fi or comfortable seats). A good use of time is possible when riders can use their time with Metrolink to "get time back" – whether it's texting friends or working onboard – compared to if they drove. All of these factors assume that short-term customer experience concerns relative to health and safety are resolved with Metrolink's significant efforts in its COVID-19 Recovery Plan Framework such as enforcement of cleanliness protocols such as masks and social distancing.

It is also important to acknowledge that key market segments may not use Metrolink due to current fares (cited by 19 percent of riders surveyed), accessibility, language barriers, or first/last mile connection issues. There are opportunities to increase access and affordability for customers from households with lower household income, as part of a broader equity strategy. The importance of this market was underscored by the relatively higher rates of Metrolink usage by essential workers during the pandemic restrictions.

Stakeholder Engagement

Metrolink has developed this Strategic Business Plan utilizing a multi-tiered stakeholder engagement process to support cohesive development and implementation of a shared vision. This engagement enabled Metrolink to identify stakeholder priorities and needs, which were layered with the quantitative inputs from the market analysis and operational data to identify a path forward that is practical, actionable, and measurable. Customers, staff, Member Agencies, and partner agencies were all part of the engagement process.

Key findings from the stakeholder engagement process were an emphasis on putting the customer first (moving people, not trains), with a strong support for increasing ridership, frequency, reliability, and partnerships. There was a strong and consistent view that Metrolink can and should play a larger role in helping address pressing regional issues, such as reducing greenhouse gas emissions and vehicle miles traveled, job-housing imbalance, and equity. Other themes that emerged were that Metrolink's services should be viewed through an equity lens, and that Metrolink should strive for financial stability, with greater ability to act independently from the Member Agencies. This will require new funding sources and cultivating trust between Metrolink and the Member Agencies by strengthening foundational aspects of the system (operations/business/infrastructure) and reinforcing the culture of safety.

Setting a Direction: Strategic Actions

Building off the market analysis and stakeholder engagement, the Strategic Business Plan explores different scenarios to develop different strategic actions over time. Scenarios frame a way to answer the questions:

- What beneficial outcomes can be realized for a given level of resources?
- What would ridership look like in ten years at different funding levels?

This approach to exploring strategic actions was pursued in order to follow three principles:

- **Preparing for an unknown future** - COVID-19, economic turbulence, and other unforeseen events have demonstrated the need for Metrolink to be adaptive and flexible in pursuit of its mandate to provide rail service to the region.
- **Leveraging past historic investment** - the delivery of crucial rail infrastructure offers an opportunity to optimize and expand rail service over the coming decade.
- **Changing market needs** – as the region grows, where people live, work, and travel will evolve.

The Strategic Business Plan provides a strategic outlook at key milestones for Metrolink, five, ten and 30 years out. The first ten years of the Strategic Business Plan serve as Metrolink's Short-Range Transit Plan. The strategic outlook is based on the development of scenarios, with both constrained and unconstrained funding scenarios and the common goal to improve performance, reduce over-reliance on Member Agency subsidy and facilitate ridership growth. Action plans stemming from the scenarios vary from each other based on the following variables:

- Policy changes
- Service changes
- Rehabilitation and State of Good Repair (SOGR)
- Capital expansion

In order to fully explore the range of potential decision paths that Metrolink can pursue, a total of five scenarios were developed, each representing a different situation of resource availability. Different tactics were articulated for each time horizon:

1. Reduced Operating Resources
2. Similar Operating Resources as Today (pre-COVID trends)
3. Expanded Operating Resources
4. Similar Operating Resources as Today + Additional Capital Resources
5. Expanded Operating Resources + Additional Capital Resources

Key findings from the scenario analysis were:

- In the short term, optimization through policy action plans and service changes can achieve modest ridership gains (Scenario 2).
- Increased operating resources, alongside a suite of pilot projects and policies can support a doubling in ridership by 2030 and a significantly more financially efficient system (Scenarios 3 & 5).
- Additional operating resources have the greatest impact if made available 2024-2030, to allow for Metrolink to make use of new infrastructure due to be complete by 2024-2025 (Scenarios 3 & 5).
- Further capital expansion beyond the current funded and committed capital projects offers only minor benefits in the next 10 years - benefits are more apparent after 2030 and most pronounced by 2050 (Scenarios 4 & 5).

External events have played a large role in shaping Metrolink to date and will continue to impact the system. This Strategic Business Plan identifies new directions and tools, such as a better understanding of and tighter connection to the markets that can be served, and an array of actions that can be taken in various scenarios to improve service and grow ridership. Implementing these new tools will help Metrolink to not only respond effectively to changing conditions, but to proactively shape its future as a key foundation of a more sustainable, competitive, and equitable Southern California.

Figure ES-2 provides a summary of how strategies align with Strategic Business Plan Commitments and time periods of the Strategic Business Plan.

Mission & Vision

Mission

To provide safe, efficient, dependable, and on-time transportation service that offers outstanding customer experience, and enhances quality of life.

Vision

To be Southern California's preferred transportation system built upon safety, reliability, customer service, leading-edge technology, and seamless connectivity.

Figure ES-2: The Strategic Business Plan at-a Glance

Commitments

2021-2025 Short-Range Transit Plan
Restoring & Optimizing

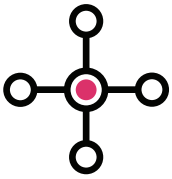
Safety Is Foundational

- Focus on **safety and cleanliness**
- Secure consensus on **State of Good Repair (SOGR)** program
- Continue fleet modernization
- **Deliver** SCORE projects (Phase 1) and Redlands Passenger Rail Project

Customers Are Our Business

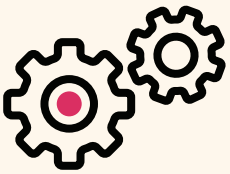
- Introduce **market-based** service planning for equity and accessibility
- Continue **customer experience improvements** (wi-fi, app, etc.)
- Develop **flexible policies** on fares, bundling, etc.
- Introduce more **off-peak services**
- Develop **customer-focused metrics**
- Seek unified ticketing and scheduling

Connecting and Leveraging



- Enhance **partnerships** to improve services and integration
- Implement partnership programs with other transit agencies, TNCs, private sector employers and businesses
- Reach agreement for high speed rail connections (i.e. CHSRA and DXE)

Modernizing Business Practices



- Seek **new funding sources**
- Pursue RRIF **financing** for long-term needs
- Advance federal **legislative strategies**
- Employ new **metrics** for efficiency
- Build **workforce development** program
- Implement **dashboard** reporting
- Deliver **constant communications**
- Pursue higher farebox return

Advancing Key Regional Goals

- Tie **VMT reductions** to SCAG GHG goals, SB743
- Accelerate efforts to zero emissions fleet
- Complete Climate Vulnerability Plan

2026-2030 Short-Range Transit Plan Expanding

- Continue to Implement SOGR plan
- Bring on new rolling stock, considering zero-emissions technologies and multiple units
- **Deliver** SCORE projects (Phase 1)

- Update market analyses
- **Implement SCORE** (Phase 1) improvements

- Expand partnerships

- Develop ancillary revenues
- Refine and adapt metrics
- Expand information sharing

- Target further GHG reductions
- Align services with 2028 Olympics
- Continue to accelerate efforts to zero emissions fleet

2030-2050 Delivering the Vision

- Continue to Implement and update SOGR plan

- Double ridership
- Expand SCORE-enabled service

- Develop and implement a holistic (equitable, accessible, social and financial) plan for connections to major employment centers and housing

- Seek dedicated funding stream
- Pursue continued efficiencies
- Utilize new technologies to track and share performance

- Zero emissions fleet

Mission & Vision

Mission

To provide safe, efficient, dependable, and on-time transportation service that offers outstanding customer experience, and enhances quality of life.

Vision

To be Southern California's preferred transportation system built upon safety, reliability, customer service, leading-edge technology, and seamless connectivity.

Preparing Metrolink for the Future

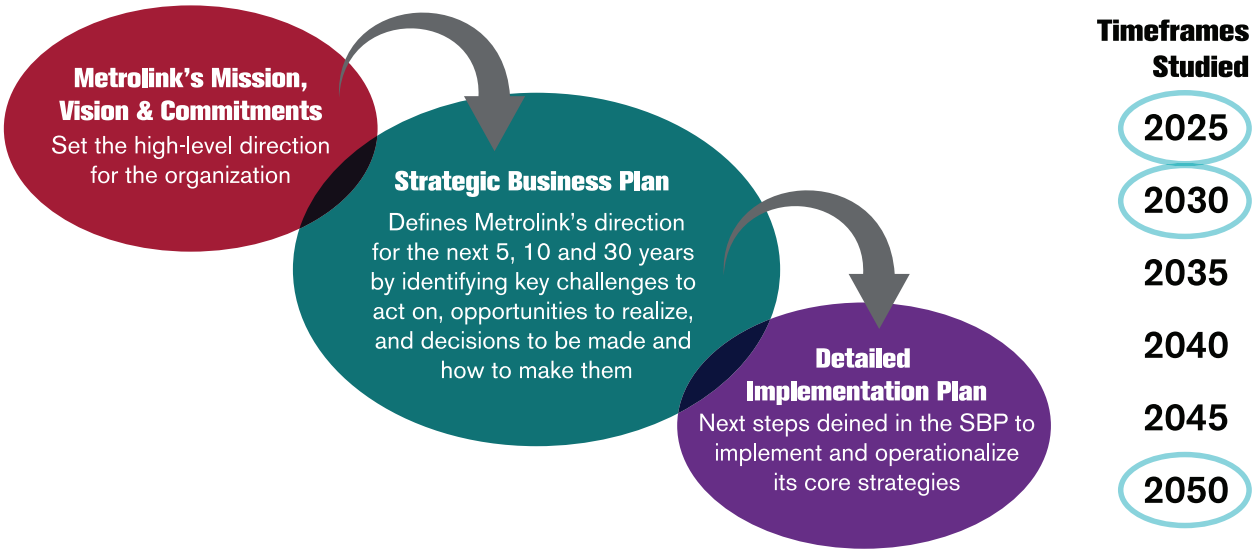
Objectives of the Strategic Business Plan

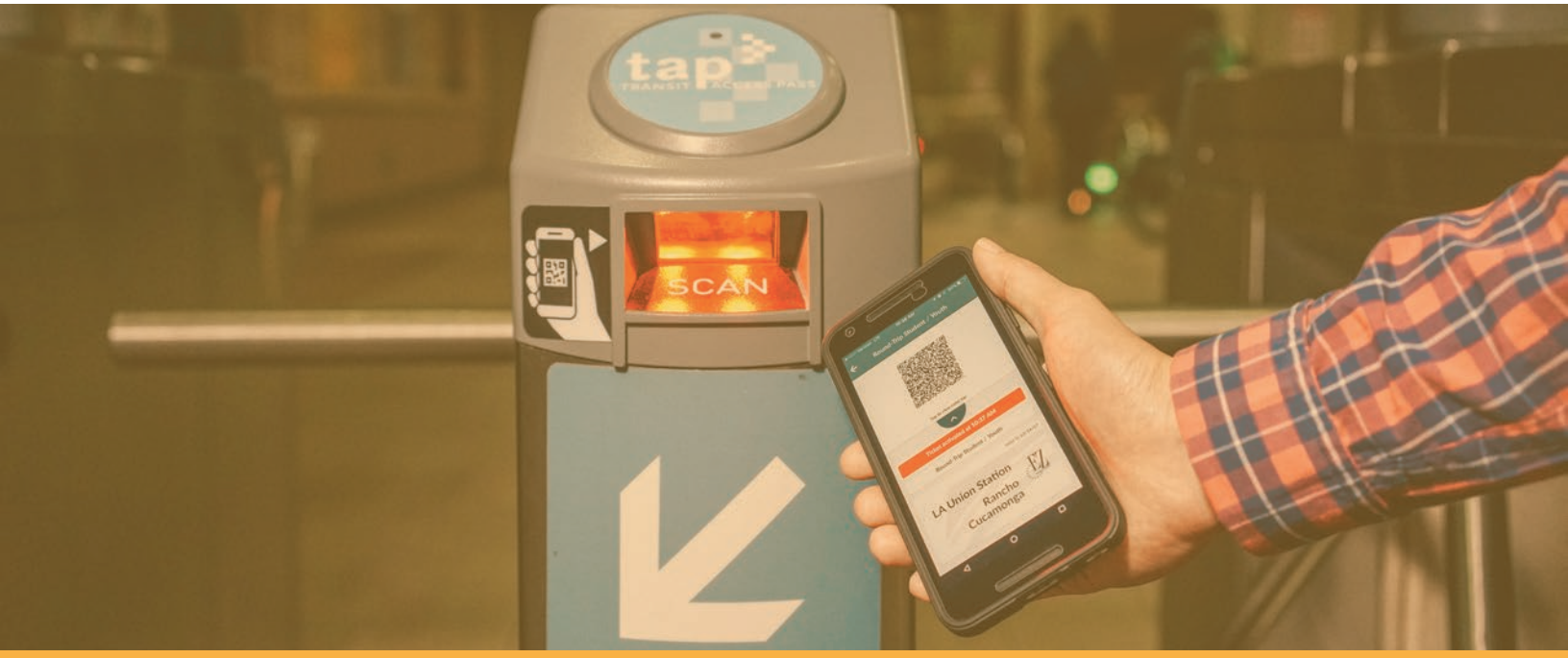
The Strategic Business Plan ("the SBP" or "the Plan") serves as a business planning tool that looks ahead as far as 30 years to set a sustainable course for the Southern California Regional Rail Authority (SCRRA, Metrolink) as the agency evolves into the rail travel option of choice for Southern Californians. As Metrolink is completing its 27th year of operation, the SBP presents a prime opportunity to re-evaluate the organization's value proposition going forward, particularly as the world emerges from the COVID-19 pandemic. The SBP develops a shared vision for strategic implementation of a stronger Metrolink, optimizing and improving system performance, and gaining regional consensus on operational and capital needs and priorities.

The SBP builds upon SCRRA's previous strategic plan, covering fiscal years 2015-2025, and the supplemental five-year short-range transportation plan, which were adopted in March 2016. However, the SBP takes a slightly different approach that focuses at the same time on both constrained options for growth and longer-term aspirational goals. The plan builds on Metrolink's recent achievements in terms of safety, ridership and reliability, and it contemplates future-proofing the system's operations by becoming even more efficient and resilient. It also reflects the realities of COVID-19 and incorporates the Recovery Plan Framework (adopted by the Board in September 2020) which includes a pillar of a triple bottom line (Economy, Environment, Equity), placing equal emphasis on social and environmental concerns in addition to financial results. The SBP identifies opportunities to benefit and engage new and existing riders to support regional goals, and structures capital investments that deliver near-term benefits to the system

For this SBP, Metrolink undertook extensive engagement and outreach among Board Members, Member Agencies and Metrolink staff to ensure that the strategies being developed reflected the collective commitments to the future of Metrolink. The Plan also reflects input received from riders and non-riders through various surveys. These strategies, which are developed in the subsequent chapters of this Plan, were refined using analytical tools and underpin actions to be taken to realize the vision over the next five, ten and 30 years, and position Metrolink to be a crucial part of Southern California's economy. The first ten years of the analysis are Metrolink's Short Range Transit Plan (SRTP). Further detailed studies and plans will be developed as the SBP is implemented (see **Figure 1**).

Figure 1: Where do the SBP and SRTP fit?





METROLINK® is one of the region's greatest assets going into the future, considering its capacity for growth, the access it provides to job centers and its ability to generate significant reductions in greenhouse gas emissions.

Eric Garcetti, Mayor of Los Angeles

It is important to note that the Plan does not authorize SCRRA staff to enter into any contracts, nor does it appropriate any funds. Decisions on specific programs and projects and associated funding appropriations are subject to consultation with the Member Agencies, as well as approval by the SCRRA Board of Directors.

Metrolink's Commitments

Within the Metrolink Team, we make these commitments:

- **Safety Is Foundational**: We will stay on the leading edge by deploying new technologies and processes to enhance the safety and security of our riders, employees and the communities we serve.
- **Customers Are Our Business**: We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to delight them.
- **Connecting and Leveraging**: We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving.
- **Modernizing Business Practices**: We will improve our operational efficiency, through transparency, objective metrics and streamlined governance, reducing reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees.
- **Advancing Key Regional Goals**: We will grow the role of regional rail in addressing climate change, air quality, and other pressing issues by advancing toward zero emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for ALL communities throughout Southern California.

What is a Short-Range Transit Plan (SRTP)?

The SRTP is a requirement of the Federal Transit Administration (FTA) for all agencies receiving formula grant funds directly. This is the not the case of Metrolink; however, the SRTP is a useful planning tool, covering a ten-year horizon.

The SRTP, which is included in this SBP, covers:

- System overview (governance, organization, services provided and areas served, fare structure, fleet and facilities)
- Goals, objectives and standards (mission, vision and commitments in this plan)
- Service and system evaluation (performance)
- Operations plan and budget (here covered in the scenario action plans)
- Capital Improvement program (also covered in the scenario action plans)

Creating Value and Exceeding Expectations: Recent Achievements and Trends

The SBP acknowledges recent achievements and challenges in order to build towards a resilient present and sustainable future.

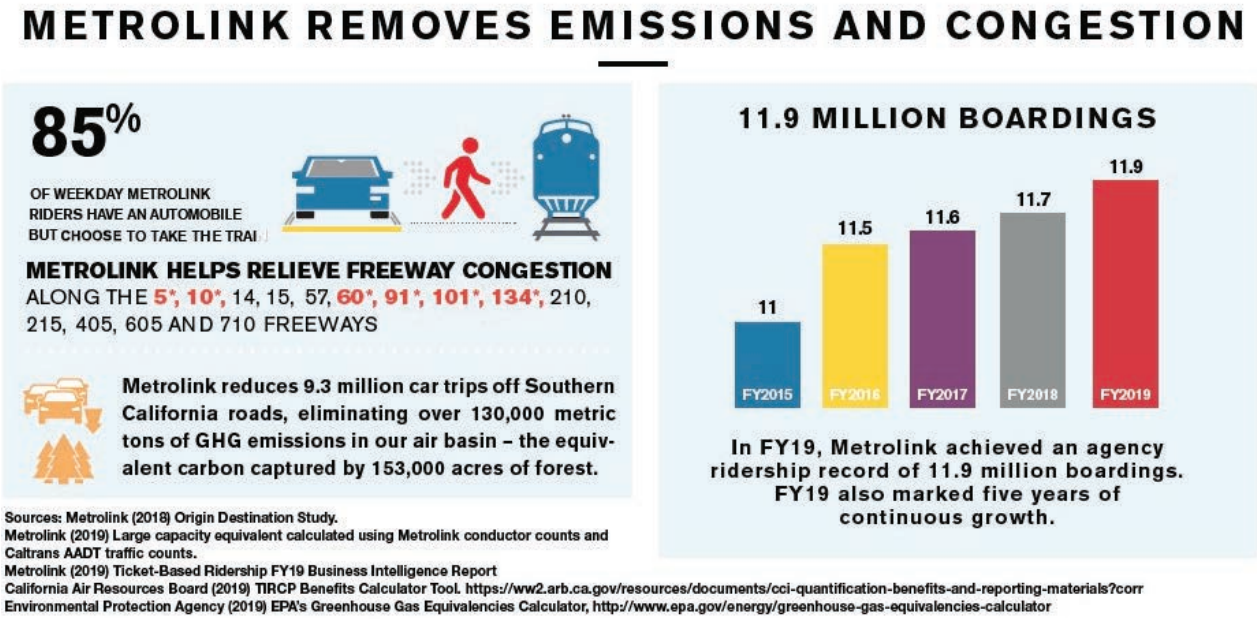
Metrolink has determined that it is time to see the organization less as a railroad and more as a technology-focused company that is in the business of moving people. This is a seminal shift facilitated by the advent of Positive Train Control and advanced signal and communication systems. In addition to the foundational safety benefits, these systems provide significantly more data by which Metrolink can understand its performance and make more nimble decisions for its customers.

In Fiscal Year 2019 (FY19), Metrolink achieved a record 11.9 million boardings, following five years of consistent ridership growth at a time when many transit systems had plateaued or seen declines. Metrolink's ridership represents a 28 percent reduction in automobile traffic volume during peak hours – equivalent to one parallel freeway lane. In FY19, Metrolink removed 9.3 million car trips off Southern California roads, eliminating over 130,000 metric tons of GHG emissions in our air basin – the equivalent carbon captured by 153,000 acres of forest, as shown in **Figure 2**.

Continuing on a trend of modernizing business practices, Metrolink recently installed new ticket vending devices that are fully Americans with Disabilities Act (ADA) compliant, are accessible for English and Spanish speakers and support contactless payment options like Apple Pay and Google Pay. Mobile app usage has surged to account for more than half of all ticket purchases. The next generation of Metrolink's mobile ticketing will ease understanding and reduce the friction for customers when they want to ride the system.

New Ticket Vending Machine

Figure 2: Metrolink's Impact on the Environment



Sources: Metrolink (2018) Origin Destination Study.
Metrolink (2019) Large capacity equivalent calculated using Metrolink conductor counts and Caltrans AADT traffic counts.
Metrolink (2019) Ticket-Based Ridership FY19 Business Intelligence Report
California Air Resources Board (2019) TIRCP Benefits Calculator Tool. https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials?corr
Environmental Protection Agency (2019) EPA's Greenhouse Gas Equivalencies Calculator, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Metrolink responded in innovative fashion to the most requested amenity for the last decade – onboard Wi-Fi. Metrolink conducted two Wi-Fi tests in late 2019 and early 2020 to gather data and understand the opportunities and challenges associated with deploying onboard Wi-Fi. Metrolink also held its first ever reverse pitch session in April 2020 to gauge industry interest in onboard Wi-Fi. The reverse pitch was enabled by procurement policies that were modernized in late 2019 and included the ability for Metrolink to accept unsolicited proposals.

Metrolink is investing in the Southern California Optimized Rail Expansion (SCORE) Program. This $10 billion capital program is meant to transform the Metrolink system by the 2028 Olympic and Paralympic Games. Through these investments, Metrolink will evolve from a system mostly focused on commute hours in peak commute direction to one where commuters and leisure travelers can rely on trains operating throughout the day. Metrolink was awarded a $875.7 million Transit and Intercity Capital Rail Program grant from the California State Transportation Agency (CalSTA) to fund the initial phase of SCORE, valued at approximately $2.3 billion.

According to the economic impact analysis conducted by the Los Angeles County Economic Development Corporation (LAEDC), SCORE is expected to create over 1.3 million jobs over the life of the program, including over 110,000 construction jobs. Additionally, these improvements benefit Metrolink's rail partners like the State supported LOSSAN service, NCTD "Coaster" service, and the Class I freight railroads who help fuel the economic engine of California.

Metrolink is continuing its investment in the rehabilitation and replacement of its maturing assets resulting in operational and environmental benefits to the region. With the support of its Member Agencies, Metrolink has invested $140 million since FY 2017 in the rehabilitation of the system. The new programmatic approach to rehabilitation has proven successful, with 94 percent of rehabilitation projects accomplished within expected schedule milestones and a 36 percent cost savings achieved for the Railtop Bridge replacements.

Capital Improvements: SCORE Highlights

The $10 billion Southern California Optimized Rail Expansion (SCORE) program (of which approximately $2 billion is funded) includes, among others, the following:

- Link Union Station, which will deliver run-through tracks for more efficient connections between the northern and southern portions of the region (this project is delivered by LA Metro)
- Increased throughput near Burbank
- Double tracking more of the San Bernardino line
- Constructing additional track on the Los Angeles-Perris Valley line
- Expanding current maintenance facilities and constructing new ones
- Increasing capacity across an array of rail lines

As part of its commitment to reducing its environmental and community impacts, Metrolink has converted 75 percent of its fleet to Tier 4 locomotives, the highest level of emission control for diesel technology, which reduces emissions by 65 to 85 percent compared to Tier 2 and Tier 0 locomotives, respectively. In March 2020, Metrolink retired its last Tier 0 locomotive, saying goodbye to the most polluting vehicle in the fleet. The major step forward will be zero-emissions locomotives and rail equipment. Metrolink and member agency SBCTA are also exploring the implementation of Zero-Emissions Multiple Units on the rail extension to Redlands due to open in 2022. This concept can potentially be extended to other parts of the Metrolink network.

Finally, Metrolink has heart. In 2019, the Metrolink Cares program was launched and serves to better highlight the environmental and social impact of the service through community-focused partnerships with organizations that have not traditionally been a part of the conversation, such as the American Heart Association.

Recovering from COVID-19

Any discussion of strategy beginning in 2020 must address the impacts of and recovery from the COVID-19 global pandemic. In the midst of the preparation of Metrolink's SBP, the World Health Organization (WHO) declared a global pandemic of the novel coronavirus COVID-19 on March 11, 2020. On March 12, 2020 the Los Angeles Unified School District made the determination to institute remote learning for its approximately 700,000 students; ridership dropped 15 percent compared to the prior year. On March 16, 2020, the City of Los Angeles and Los Angeles County issued "Safer at Home" orders that shut down all but essential businesses and pushed others to telecommuting and other online means of work and educational instruction. The transit community nationwide saw drastic ridership and revenue decreases, exacerbated by the loss of local and state sales taxes due to the shuttered economy. The lowest ridership decline for the system occurred in April 2020 with an average ridership drop of 91 percent compared to the prior year. Southern California's economy was severely affected by the pandemic, with the unemployment rate going from 6 percent in February 2020 to 18 percent in April, compared to 14 percent across the United States[1].

1 Southern California Association of Governments, July 2020 Monthly Economic Report

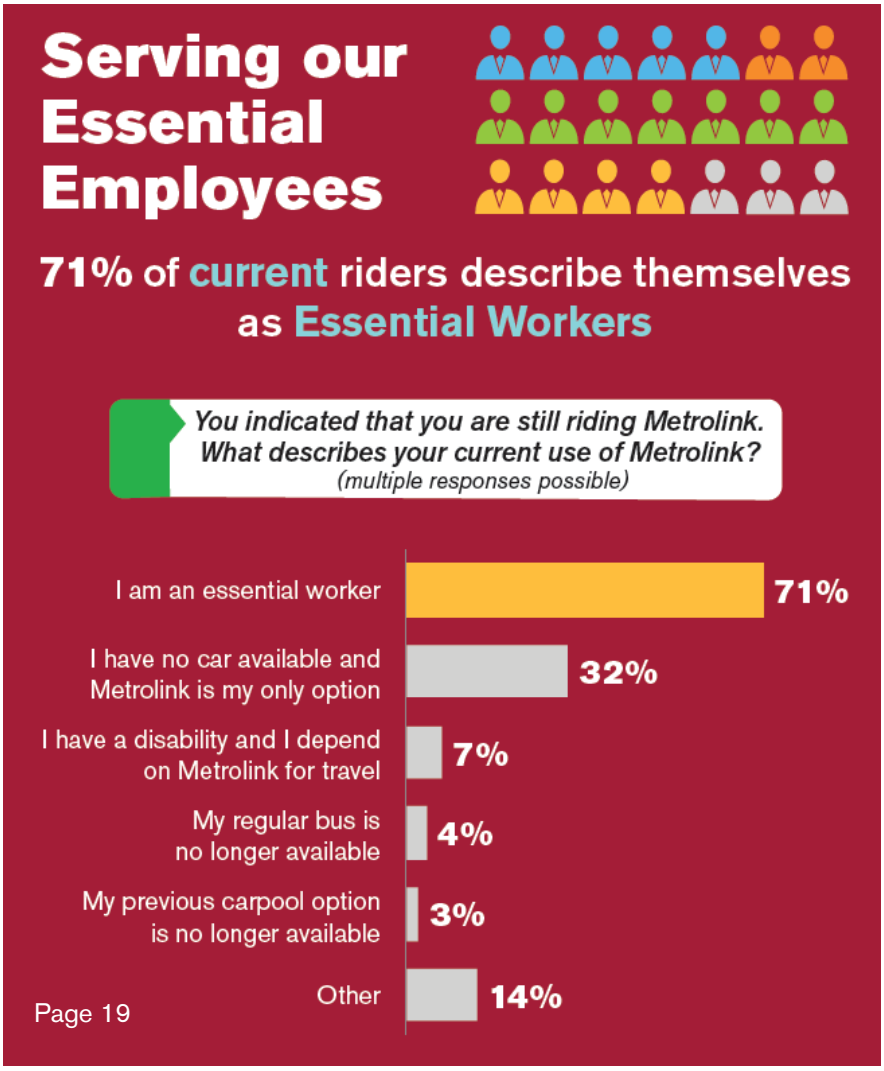
Tier 4 Locomotives

Metrolink Springs to Action

Upon declaration of the state of emergency on March 4, 2020, Metrolink initiated increased cleaning and disinfecting protocols on its trains and in its work facilities and reduced its operating costs. On March 26, 2020, Metrolink temporarily reduced service by 30 percent - a level that reduced operating costs for the agency while still providing enough space for essential workers still using the system to follow the appropriate social distancing guidance from the public health community. On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law, resulting in Metrolink ultimately receiving a total of $226 million through its Member Agencies, helping to offset revenue losses and pay for additional operating costs to protect our employees and the riding public against COVID-19.

In late April 2020, Metrolink conducted an online customer survey to gauge sentiment about returning to Metrolink once the "stay at home" orders are lifted. While 81 percent of riders responded they expected to return, they did not all expect to do so at once or even for the full five days per week, like they had ridden before. Of those that were still riding, 71 percent identified themselves as essential employees, with 39 percent of those stating they work in the health care industry. Additionally, while the pre-COVID average income of riders was $93,000 per year, 40 percent of riders during COVID identified as making $50,000 or less per year. The pandemic changed the perceptions about who a Metrolink customer is and leadership started to think about how we should serve our customers differently and appeal to new ones, who are not white-collar employees commuting to Downtown Los Angeles.

Figure 3: Metrolink COVID-19 Ridership



Recovery Plan Framework

In March 2020, staff developed a Draft Recovery Plan Framework (**Figure 4**) that was adopted by the Board of Directors at its September 25, 2020 meeting. The Framework is designed to protect employees and riders against the spread of COVID-19, while taking a phased approach to position Metrolink as smarter, better and essential for essential workers today and future returning riders through the following five strategies:

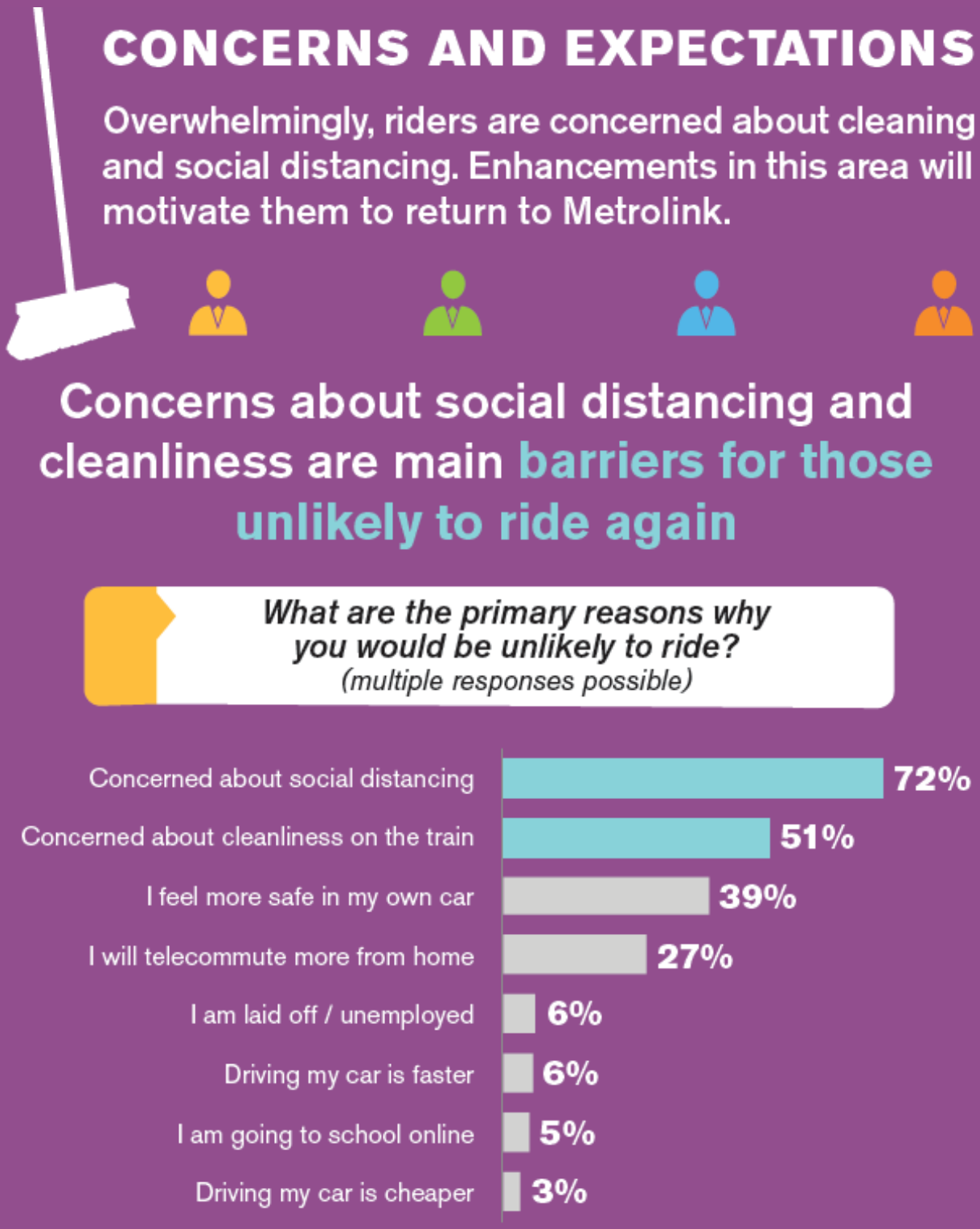
1. Health and Safety
2. Operational Transparency
3. The Triple Bottom Line
4. Future-Proof Operations
5. Sustainable Financial Performance

Figure 4: Recovery Plan Framework

Knowing that restoring customer confidence is key to getting people back on the system, the first two strategies focused on Health and Safety and Operational Transparency. In accordance with direction from public health officials, Metrolink requires face coverings and social distancing. To date, Metrolink has a 99 percent compliance rate with customers wearing face masks. Metrolink also launched its "How Full is my Train?" crowding tool page (Figure 8) on its website. The page is easily viewed on a mobile device and empowers riders to determine how comfortable they are taking a particular train based upon the occupancy the last time the train ran. Also, Metrolink has installed two hand sanitizers on every train car in its fleet, is using electrostatic sprayers to disinfect trains and has onboard clean teams disinfecting high touch point surfaces. These definitive actions, along with others have made Metrolink eligible to join more than 100 transit agencies in receiving the American Public Transportation Association (APTA) Health & Safety Commitments Program seal.

Opportunities to restore ridership mean connecting more meaningfully to local businesses and communities and recognizing the ongoing importance of essential workers. The Triple Bottom Line approach is nimble and meant to provide greater value for a greater number of people. Recognizing that Metrolink enables many to realize the American dream of homeownership while conveniently getting to well-paying jobs, we have developed a 5-Day Flex Pass and increased the eligible age for children, age 5 to age 17, to ride free. That way, a family of four can enjoy a ride together for $20 since each adult ticket is only $10 for weekend rides. Also, Metrolink launched its SoCal Explorer loyalty program, which will provide rewards for those using Metrolink so that they can redeem points in support of local businesses. Finally, Metrolink has begun marketing more aggressively to essential industries, such as more than 600 healthcare facilities in our service area.

Figure 5: Metrolink COVID-19 Ridership Survey



As Metrolink thinks about how to Future-Proof Operations and ensure Sustainable Financial Performance, research indicates that businesses may decide to stagger work hours, which creates an opportunity to reduce the crowding on trains during peak hours and allows Metrolink to expand off-peak service options. At the same time, Metrolink also faces changes in travel patterns due to increased prevalence of teleworking, which could affect Metrolink's service delivery plans. Global Workplace Analytics forecasted, based on their Global Work from Home Survey, a greater adoption of teleworking. They projected that 25 to 30 percent of the global workforce will be working from home multiple days of week by the end of 2021.

As a result, trains cannot necessarily return to full-service levels exactly as they were before, even when riders come back to the system. Metrolink is evaluating new service scenarios and taking a more focused line by line approach to that evaluation. We are also continuing to push for installation of customer amenities like onboard Wi-Fi. Additionally, we are building tools to ensure transparency with our partners and stakeholders to highlight our innovations and generate confidence as we progress through and recover from this crisis.

In later ridership and revenue analysis, there is an assumption of full recovery to pre-COVID ridership levels by 2024. Continued monitoring of trends willl be necessary to determine if full recovery can be realized.

Organization of the Strategic Business Plan

Following this discussion of recent achievements and key recent challenges with the COVID-19 era, the SBP is organized along the following sections:

- Looking at Metrolink Today – presents an overview of the Metrolink organization, service profile and network
- Forging the Path Forward – characterizes the evolving nature of markets, relationships, and partnerships
- Strategic Actions – with scenarios presenting both constrained and unconstrained views of resources and a range of actions over the next five, ten and 30 years
- Insights for Future Direction based on the outcome of the scenario analysis

The 2020 SBP recognizes that Metrolink is developing an SBP and SRTP in the context of an uncertain future. As a result, the SBP identifies new tools and strategies required to navigate this uncertain future. One of these tools is the application of 'scenario analysis' to map out potential action plans and enable Metrolink to respond and make continuous and sustained progress towards the Plan's goals in an ever-changing and uncertain world.

In this COVID-19 era, we have to assume that at least 20% of the workforce will eventually telecommute as their new normal. When people don't have to travel every day, they will start wondering if they need that extra car. That will open the door for more people to see METROLINK® as a better transportation option.

Andrew Do, Orange County Supervisor
Member of Metrolink Board of Directors

Looking at Metrolink Today

To understand Metrolink today, it is important to provide a bit of background on the overall governance structure, organizational leadership, and the service area. This chapter provides highlights of a look at the Metrolink organization and system. More details are provided in Appendix A (Baseline Conditions) and Appendix B (Historical Financial Profile).

Governance and Institutional Structure

SCRRA is a five-county Joint Powers Authority (JPA) formed by the Los Angeles County Metropolitan Transportation Authority (LA Metro), San Bernardino County Transportation Authority (SBCTA), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), and Ventura County Transportation Commission (VCTC) – collectively the Member Agencies. SCRRA has a 538-route mile network that serves Southern California. The purpose of SCRRA is to plan, design, construct, and administer the operation of regional commuter rail lines serving the counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and northern San Diego.

Member Agencies each develop regional, short- and long-range, and specific plans focused on the unique needs of their counties. Elements of these plans related to regional transportation are key inputs to the development of the SBP and were used in developing the market analysis outlined in Chapter 3.

We at SCAG haven't been shy about where METROLINK® belongs in the hierarchy of transportation in the region. As we look forward, METROLINK® needs to be the backbone of our transportation system.

Kome Ajise, CEO Southern California Association of Governments

Leadership and Organization

Board of Directors

SCRRA's Board of Directors is composed of 11 primary and alternate representatives of its Member Agencies, and ex-officio members. Additionally, there are three non-voting ex-officio members: Southern California Association of Governments (SCAG), the San Diego Association of Governments (SANDAG), and the State of California (Caltrans District 7). In 2020, voting Board members are as follows:

Brian Humphrey, Chair
Commissioner, Ventura County Transportation Commission (VCTC)

Ara Najarian, Vice-Chair
Member, Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors
Council Member, City of Glendale

Kathryn Barger
Member, Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors
Supervisor, 5th District, Los Angeles County Board of Supervisors

Paul Krekorian
Member, Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors
Council Member, 2nd District, City of Los Angeles

Hilda Solis
Member, Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors
Supervisor, 1st District, Los Angeles County Board of Supervisors

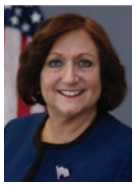
Larry McCallon 2nd Vice-Chair
Member, San Bernardino CountyTransportation Authority (SBCTA) Board of Directors
Mayor Pro Tem, City of Highland

Alan D. Wapner
Member, San Bernardino County Transportation Authority (SBCTA) Board of Directors
Mayor Pro Tem, City of Ontario

Andrew Do
Member, Orange County Transportation Authority (OCTA) Board of Directors
Supervisor, 1st District, Orange County Board of Supervisors

Doug Chaffee
Member, Orange County Transportation Authority (OCTA) Board of Directors
Supervisor, 4th District, Orange County Board of Supervisors

Andrew Kotyuk
Commissioner, Riverside County Transportation Commission (RCTC)
Mayor, City of San Jacinto



Karen Spiegel
Commissioner, Riverside County Transportation Commission (RCTC)
Supervisor, 2nd District, Riverside County Board of Supervisors

Board of Directors Alternates

Tony Trembley, Mayor, City of Camarillo, VCTC Board

Walter Allen, III, Council Member, City of Covina, Metro Appointee

Roxana Martinez, Metro Appointee

Pam O'Connor, Metro Appointee

Paul Philips, Metro Appointee

Javier Dutrey, Mayor, City of Montclair, SBCTA Board

Ray Marquez, Vice Mayor, City of Chino Hills, SBCTA Board

Mark A. Murphy, Mayor, City of Orange, OCTA Board

Brian Berkson, Council Member, City of Jurupa Valley, RCTC Board

Jeff Hewitt, Supervisor, 5th District, County of Riverside, RCTC Board

Executive Leadership and Organization

SCRRA/Metrolink is a stand-alone entity with its own executive management team and staff, as shown in **Figure 6**.

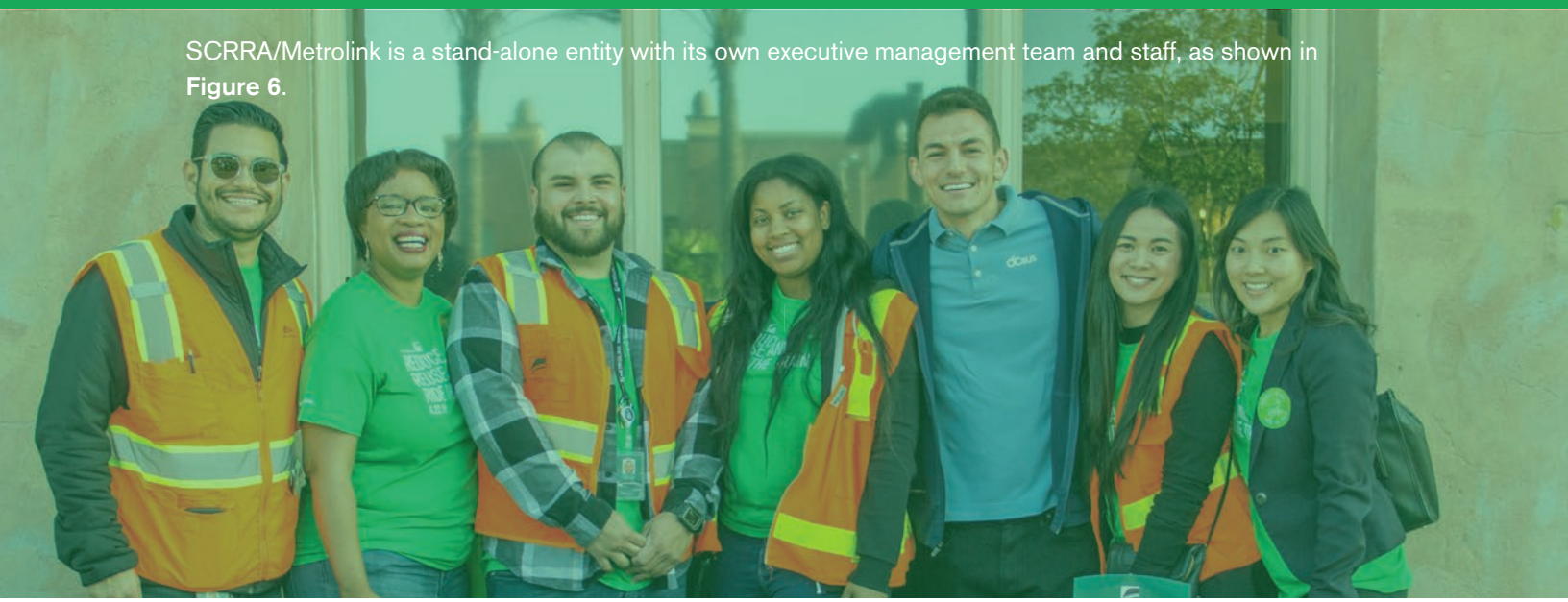
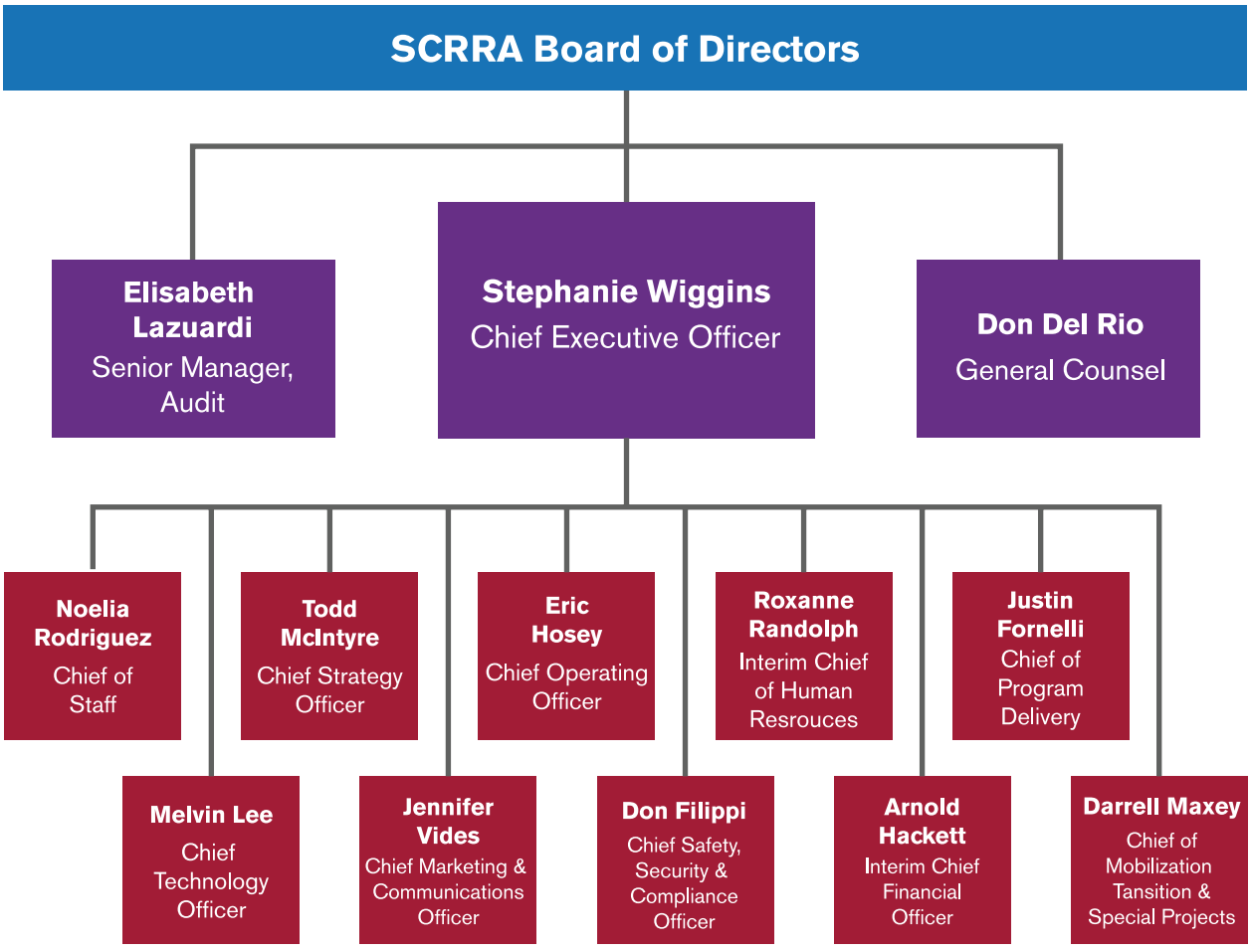


Figure 6: Metrolink Organization Chart



Service Area and Lines

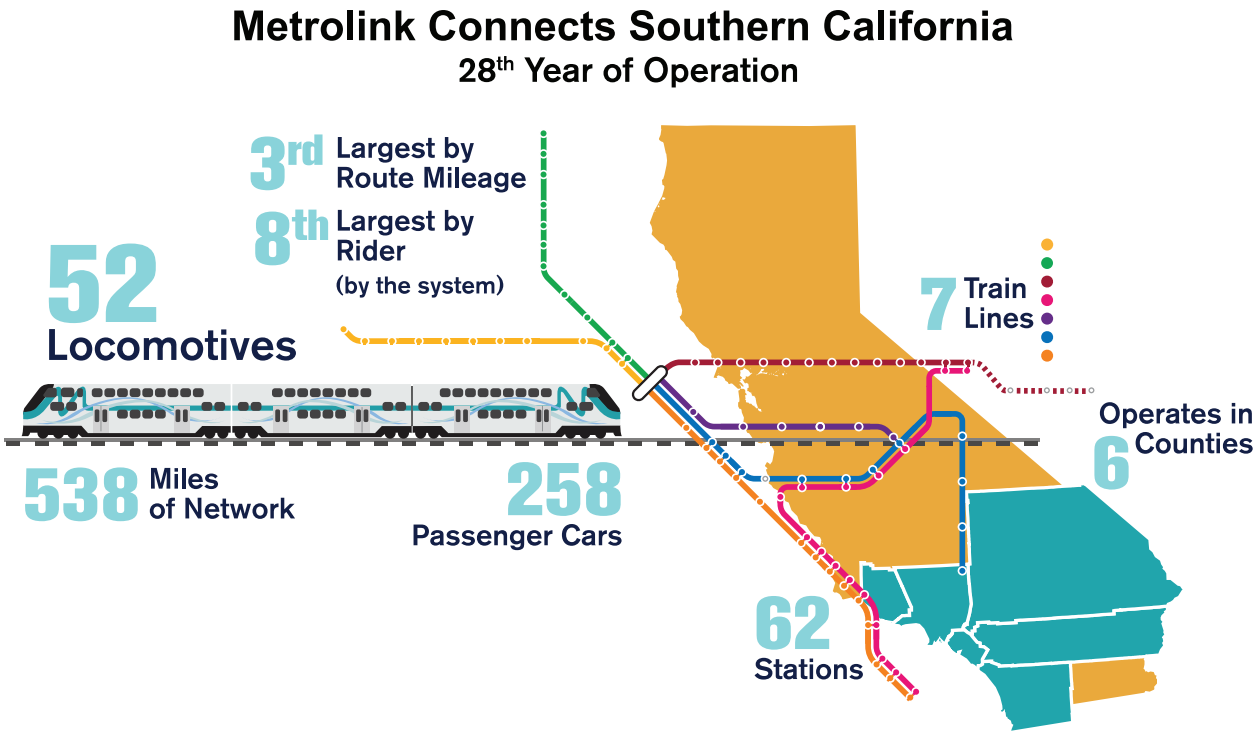
Service Area

Metrolink's services include the operation of seven lines, as follows:

- **Ventura County Line (VCL)** – running between Ventura and Los Angeles Union Station
- **Antelope Valley Line (AVL)** – running between Lancaster and Los Angeles Union Station
- **San Bernardino Line (SBL)** – running between San Bernardino and Los Angeles Union Station
- **Riverside Line (RL)** – running between Riverside and Los Angeles Union Station via City of Industry
- **91/Perris Valley Line (91/PVL)** – running between Perris and Los Angeles Union Station via Fullerton
- **Orange County Line (OCL)** – running between Oceanside and Los Angeles Union Station
- **Inland Empire-Orange County Line (IE-OCL)** – running between San Bernardino and Oceanside

Figure 7: Metrolink Service Map

Figure 8: Metrolink service highlights



Metrolink is the largest commuter rail operation in California based on route miles, and the eighth largest in the United States in terms of ridership. It is also one among a newer generation of commuter railroads, having started operations in October 1992. During the last 28 years, Metrolink's network has grown from three routes to seven, providing service to 63 stations in six counties.

Over the FY14-FY19 period, Metrolink's network grew by 26 route miles with the initiation of service in the Perris Valley corridor and San Bernardino – Downtown extension, Metrolink's first service extensions since 2002. In May 2018, the new Burbank Airport-North station on the Antelope Valley Line was opened, which expanded Metrolink's train-to-plane connectivity by providing additional access to Burbank Airport from northern Los Angeles County and from Los Angeles Union Station.

Metrolink Facts (Pre-COVID)

- Operates seven lines totaling 538 route miles of service
- Operates 167-169 revenue trains on weekdays (FY19)
- Five Metrolink lines also provide weekend service, with a total of 48 trains on Saturdays and 42 trains on Sundays
- Average weekday ridership of 43,000 (FY19)
- Average on-time performance is 91-95% (FY 19)
- Fleet of 52 diesel locomotives and 258 commuter rail cars
- Total operating budget of $251million for FY19

Ventura County Line

The Ventura County Line (100 series trains) operates between Los Angeles Union Station and East Ventura via the San Fernando Valley. In addition to providing service between Los Angeles and Ventura County terminals in Moorpark and East Ventura, Metrolink also operates additional trains between Los Angeles and the Burbank Airport – South Station (900 series trains) throughout the day to serve short-distance travelers. Metrolink monthly pass holders can also ride free of charge on Amtrak Pacific Surfliner trains through the Rail-to-Rail Program that also operate on the line, providing five daily round trips between Los Angeles and Goleta or San Luis Obispo.

Counties Served	Los Angeles, Ventura
Route Miles	70.9
No. of Stations/ Connecting Transit Operators	12/9
Top 5 Ridership Stations in FY19	LA Union Station, Glendale, Burbank – Downtown, Chatsworth, Simi Valley
Weekday Service	• 3 Los Angeles - East Ventura round trips • 4 Los Angeles - Moorpark round trips • 3 Los Angeles - Chatsworth round trips • 7 westbound, 6 eastbound Burbank Airport shuttles
Weekend Service	No service
Average Weekday Ridership (FY19)	4,416
Average Weekday End-to-End Trip Time vs Freeway Time	1 hour : 53 minutes vs 2 hours: 42 minutes
On-time Performance (FY 19 average)	95%

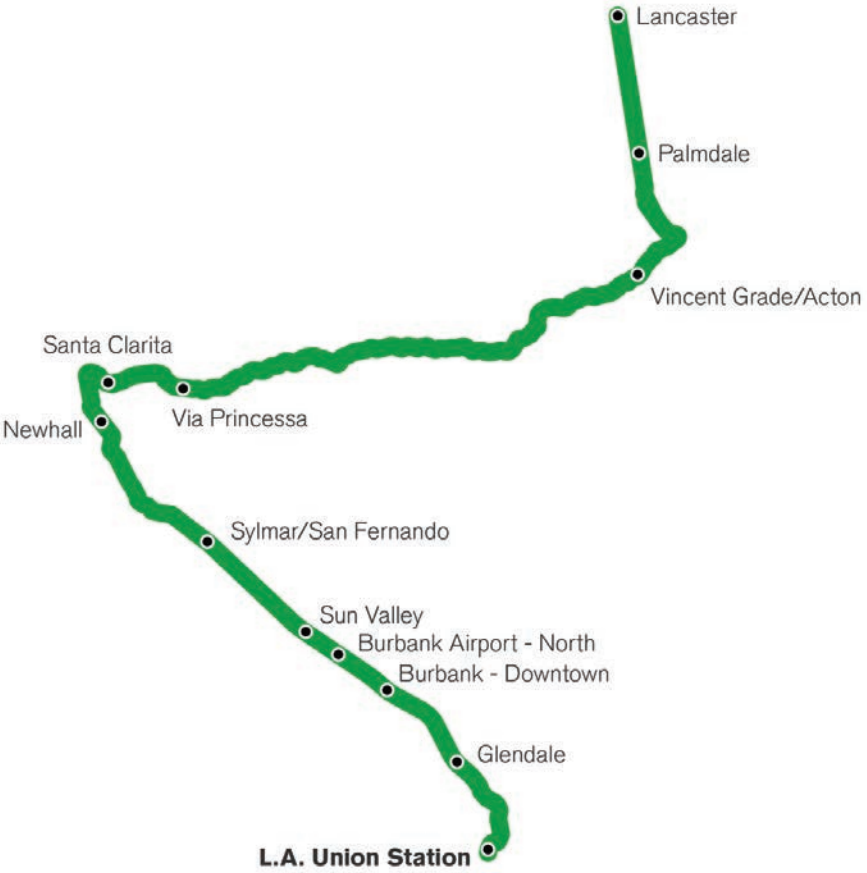
Figure 9: Ventura County Line Map

Antelope Valley Line

The Antelope Valley Line (200 series trains) operates between Los Angeles Union Station and Lancaster. Most trains operate to and from Lancaster, with additional midday service provided to the city of Santa Clarita.

Counties Served	Los Angeles
Route Miles	76.6
No. of Stations/ Connecting Transit Operators	12/9
Top 5 Ridership Stations in FY19	LA Union Station, Glendale, Burbank – Downtown, Sylmar/ San Fernando, Via Princessa
Weekday Service	• 9 Los Angeles - Lancaster round trips • 1 Los Angeles - Palmdale round trip • Los Angeles - Via Princessa round trips • 1 Los Angeles - Santa Clarita round trips
Weekend Service	6 Los Angeles - Lancaster round trips
Average Weekday Ridership (FY19)	6,588
Average Weekday End-to-End Trip Time vs Freeway Time	2 hours : 10 minutes vs 2 hours: 34 minutes
On-time Performance (FY 19 average)	94%

Figure 10: Antelope Valley Line Map

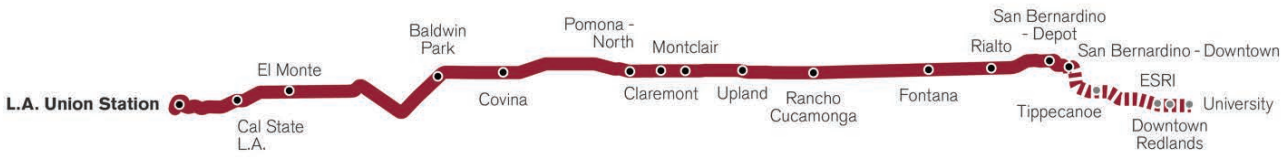


San Bernardino Line

The San Bernardino Line (300 series trains) operates between Los Angeles Union Station and the San Bernardino - Downtown station, part of the San Bernardino Transit Center complex. The San Bernardino Line was extended to the San Bernardino - Downtown station in 2017. In 2022, the San Bernardino Line will be extended to a new station in Downtown Redlands with all day local service extended between San Bernardino and the University of Redlands as part of the Redlands Passenger Rail Project under construction by SBCTA.

Counties Served	Los Angeles, San Bernardino
Route Miles	57.6 (66.5 in 2022)
No. of Stations/ Connecting Transit Operators	14/13
Top 5 Ridership Stations in FY19	LA Union Station, Cal State LA, Covina, Pomona-North, Rancho Cucamonga
Weekday Service	• 19 Los Angeles - San Bernardino round trips (1 additional round trip on Fridays)
Weekend Service	10 Los Angeles - San Bernardino round trips on Saturday, 7 Los Angeles- San Bernardino rounds trips on Sunday
Average Weekday Ridership (FY19)	10,411
Average Weekday End-to-End Trip Time vs Freeway Time	1 hour : 46 minutes vs 2 hours : 37 minutes
On-time Performance (FY 19 average)	95%

Figure 11: San Bernardino Line Map

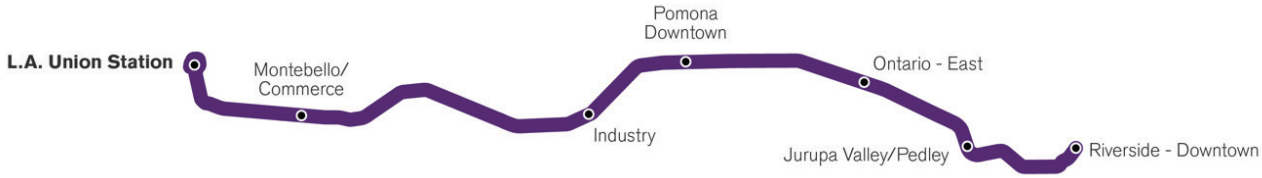


Riverside Line

The Riverside Line operates between Los Angeles Union Station and the Riverside-Downtown station on weekdays only via the City of Industry.

Counties Served	Los Angeles, San Bernardino, Riverside
Route Miles	59.1
No. of Stations/ Connecting Transit Operators	7/8
Top 5 Ridership Stations in FY19	LA Union Station, Montebello/ Commerce, Industry, Ontario-East, Riverside-Downtown
Weekday Service	• 6 Los Angeles- Riverside-Downtown round trips
Weekend Service	No service
Average Weekday Ridership (FY19)	3,868
Average Weekday End-to-End Trip Time vs Freeway Time	1 hour : 26 minutes vs 3 hours : 2 minutes
On-time Performance (FY 19 average)	93%

Figure 12: Riverside Line Map

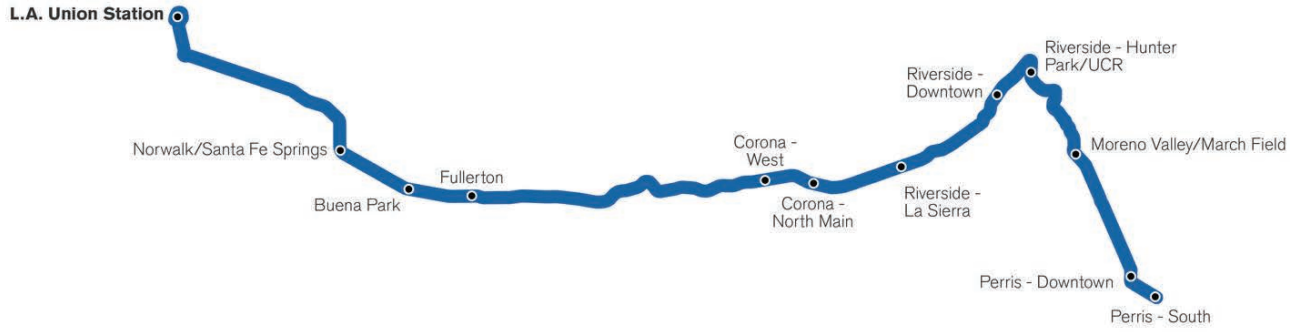


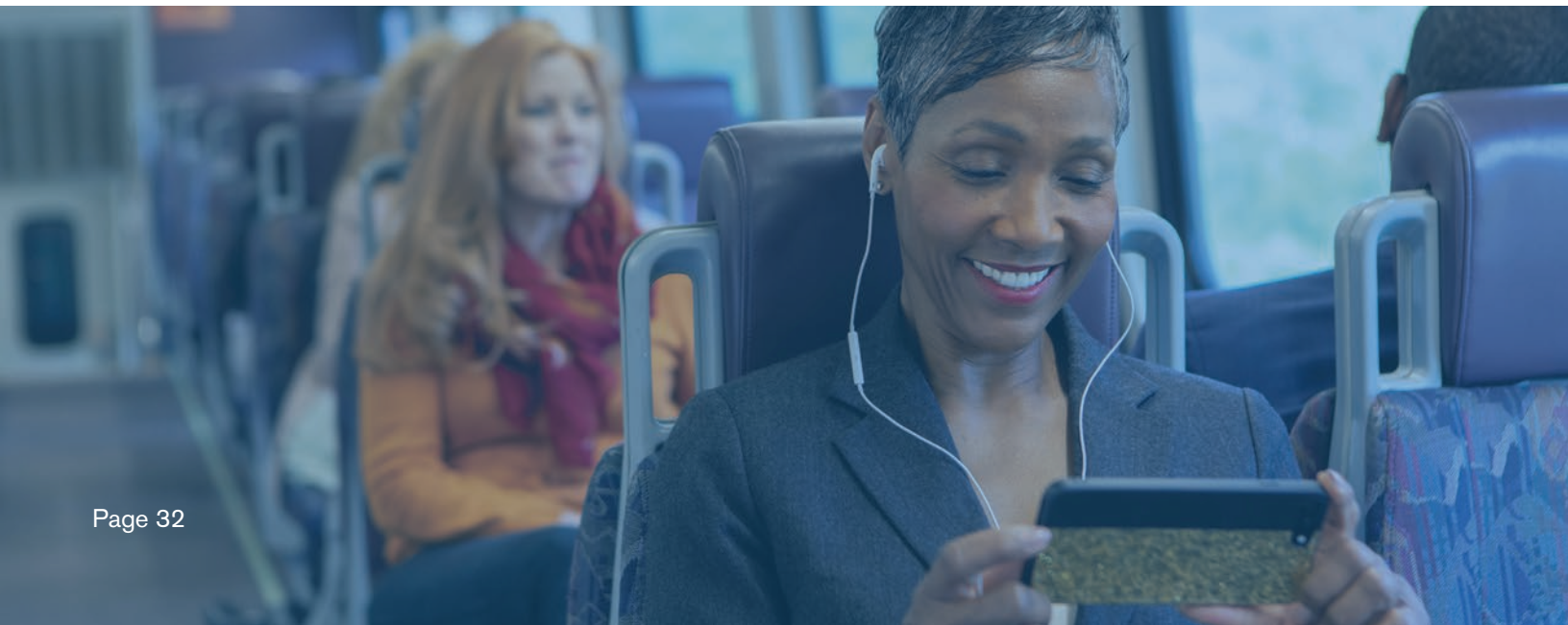
91/Perris Valley Line

The 91/Perris Valley Line operates between Los Angeles Union Station, Riverside and Perris via Orange County. The line was extended 24 miles from downtown Riverside to Perris in 2016.

Counties Served	Los Angeles, Orange, Riverside
Route Miles	85.1
No. of Stations/ Connecting Transit Operators	12/6
Top 5 Ridership Stations in FY19	LA Union Station, Norwalk/Santa Fe Springs, Fullerton, Corona-North Main, Riverside-Downtown
Weekday Service	• 4 Los Angeles - Perris-South round trips • 1 Los Angeles - Riverside-Downtown round trip
Weekend Service	2 Los Angeles- Perris-South round trips
Average Weekday Ridership (FY19)	3,293
Average Weekday End-to-End Trip Time vs Freeway Time	2 hours : 18 minutes vs 3 hours : 46 minutes
On-time Performance (FY 19 average)	92%

Figure 13: 91/Perris Valley Line Map



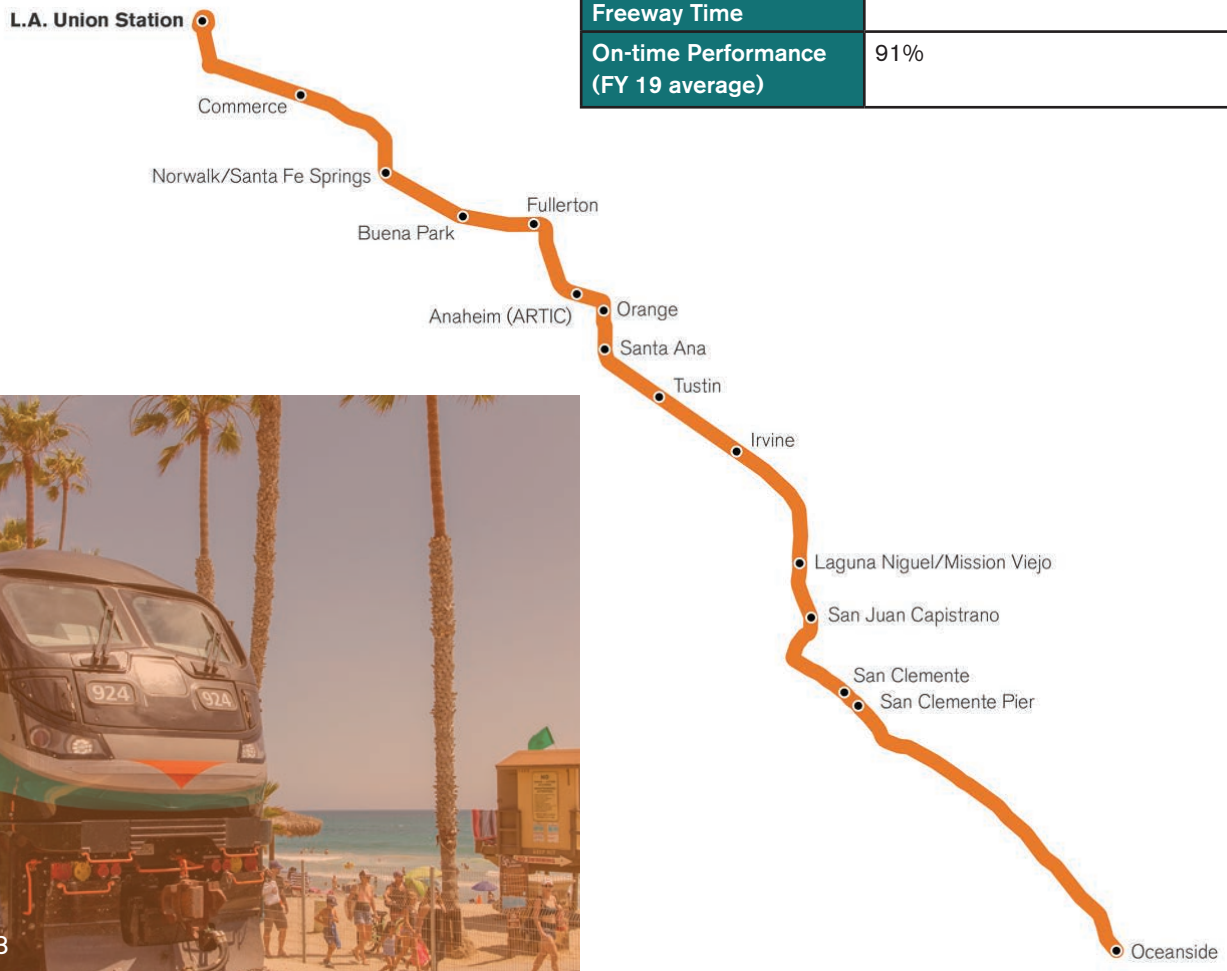


Orange County Line

The Orange County Line (600 Series trains) operates between Los Angeles Union Station and Oceanside. Service consists of direct trains between Los Angeles and Oceanside, Laguna Niguel/Mission Viejo, or Irvine, as well as shuttle trains between Fullerton and Oceanside or Laguna Niguel/Mission Viejo. Metrolink monthly pass holders can also ride free of charge on Amtrak Pacific Surfliner trains through the Rail-to-Rail Program. At Oceanside, Metrolink passengers can transfer to North County Transit District (NCTD) Coaster commuter rail trains to San Diego, or Sprinter hybrid rail trains to Escondido.

Counties Served	Los Angeles, Orange, San Diego
Route Miles	87.2
No. of Stations/ Connecting Transit Operators	15/8
Top 5 Ridership Stations in FY19	LA Union Station, Norwalk/Santa Fe Springs, Fullerton, Tustin, Irvine
Weekday Service	• 3 Los Angeles- Oceanside round trips • 5 Los Angeles- Laguna Niguel/ Mission Viejo round trips • 1 southbound Los Angeles- Irvine trip • 2 northbound Irvine - Los Angeles trips • 1 Oceanside - Fullerton round trip • 1 Laguna Niguel/Mission Viejo - Fullerton round trip
Weekend Service	4 Los Angeles-Oceanside round trips
Average Weekday Ridership (FY19)	10,600
Average Weekday End-to-End Trip Time vs Freeway Time	2 hours : 5 minutes vs 3 hours : 13 minutes
On-time Performance (FY 19 average)	91%

Figure 14: Orange County Line Map

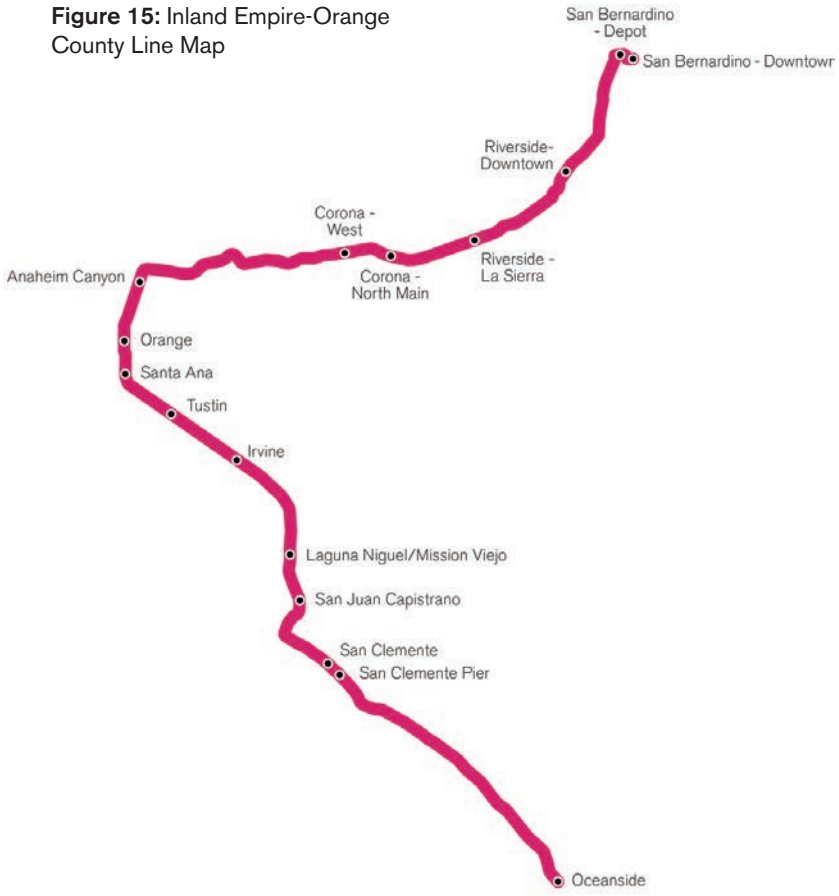


Counties Served	San Bernardino, Riverside, Orange, San Diego
Route Miles	101.3
No. of Stations/ Connecting Transit Operators	16/7
Top 5 Ridership Stations in FY19	Riverside-Downtown, Corona-North Main, Santa Ana, Tustin, Irvine
Weekday Service	• 2 San Bernardino - Oceanside southbound trips • 1 Oceanside - San Bernardino northbound trip • 1 Oceanside - Riverside northbound trip • 3 Riverside - Laguna Niguel/Mission Viejo round trips • 1 Riverside - Laguna Niguel/Mission Viejo southbound trip • 1 San Bernardino - Laguna Niguel/Mission Viejo southbound trip • 3 Laguna Niguel/ Mission Viejo - San Bernardino northbound trips • 1 San Bernardino - Irvine southbound trip
Weekend Service	2 San Bernardino – Oceanside round trips
Average Weekday Ridership (FY19)	4,656
Average Weekday End-to-End Trip Time vs Freeway Time	2 hours : 36 minutes vs 3 hours : 8 minutes
On-time Performance (FY 19 average)	93%

Inland Empire-Orange County Line

The Inland Empire-Orange County Line (800 Series trains) operates between the Inland Empire communities of San Bernardino and Riverside and southern Orange County and Oceanside in San Diego County. As the only Metrolink line that does not serve Los Angeles Union Station, the Inland Empire-Orange County Line is one of the only commuter rail lines in the nation providing suburban passenger rail service that does not serve an anchor big-city passenger rail station.

Figure 15: Inland Empire-Orange County Line Map



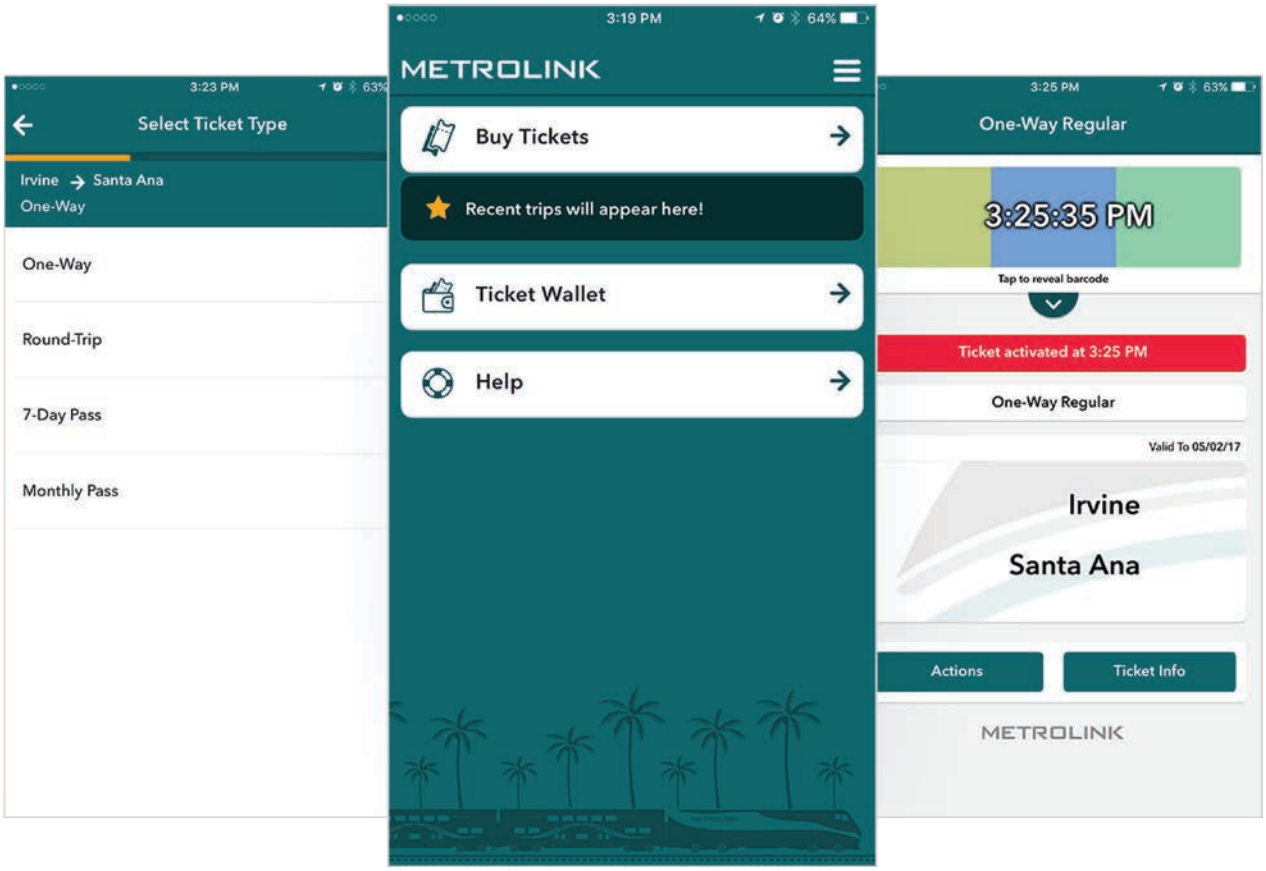
Fare Policy and Structure

Metrolink's fare structure is currently distance-based with separate fares for each station pair combination, rider category, fare type, and weekend or weekday travel. As a result, the ticketing system includes more than 50,000 distinct fares.

Metrolink has traditionally offered several options for fares, including single- and round-trip tickets, weekend day passes, seven-day passes, and monthly passes. It also offers weekend day passes. The average fare collected per passenger is just under $7. Metrolink also provides free rides for children on weekends, when they are accompanied by a fare-paying adult. To entice people to use Metrolink for family escapes during the COVID-19 pandemic, the Metrolink Board approved raising the eligible age of children from 5 to 17. Also, in response to COVID-19, Metrolink introduced a five-day Flex Pass to allow greater flexibility given the increase in telecommuting and changing work schedules among our customers. As part of the fare, free transfers are available to more than 30 local bus services throughout Southern California.

In 2018, monthly passes were the most common fare type for weekday riders, accounting for just over half (52 percent) of all riders and agency revenue. Tickets for Metrolink service can be purchased from Metrolink's mobile app, the self-serve ticket vending devices (TVDs) found at all Metrolink stations, or online with Metrolink's online ticket portal (**Figure 16**). The mobile app enables easy connections to the Metro Rail system via scanners installed at Metro Rail stations.

Figure 16: Metrolink Mobile App



It's all about enticing people on that first trip – once they try it, they will go on a second and third trip. Ultimately, they find it's convenient, relaxing. No one wants to sit in traffic.

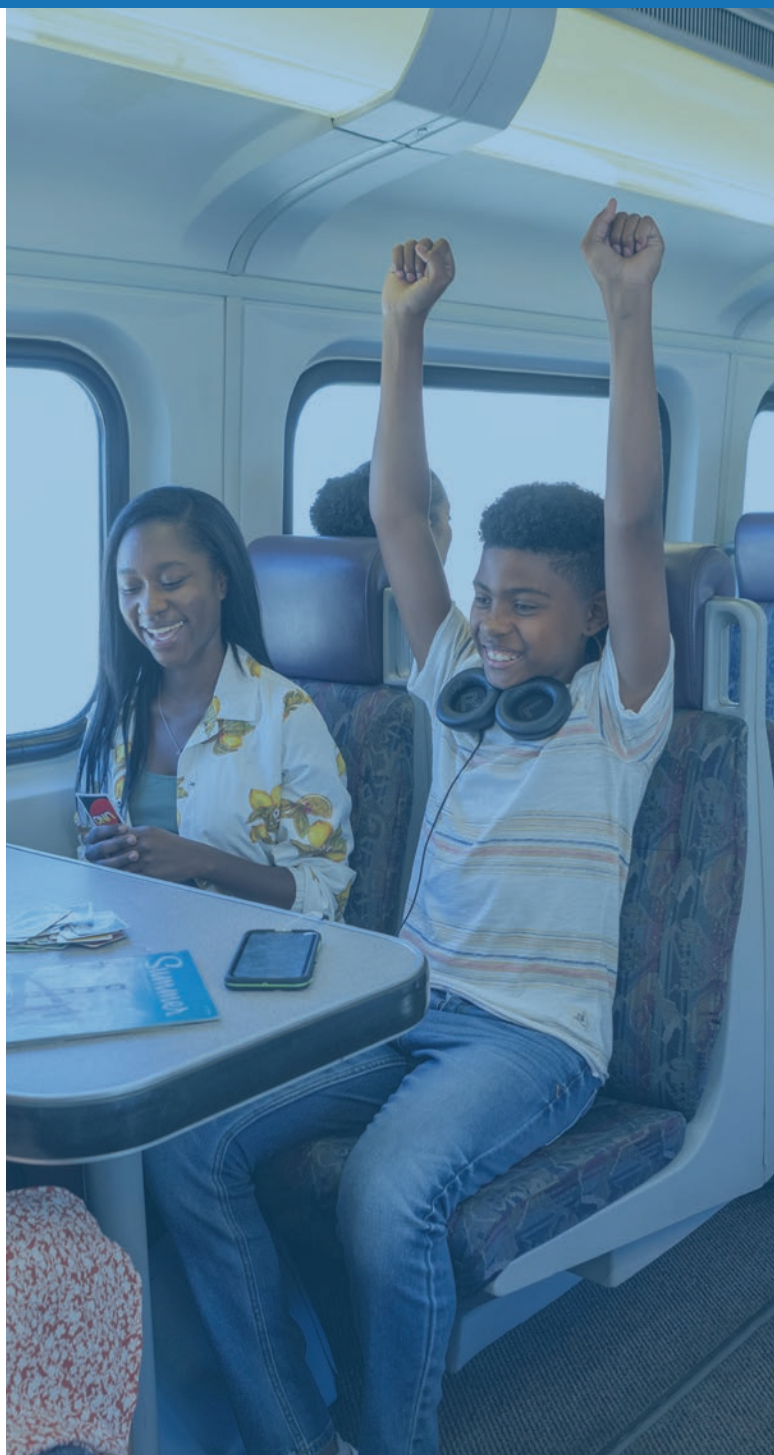
Karen Spiegel, Riverside County Supervisor,
Member Metrolink Board of Directors

Ridership Trends

Since its inception in 1992, Metrolink has seen an overall growth in ridership supported by a proportional growth in service, with the exception of FY10 due to the economic recession. Between Fiscal Years 2014 and 2019, Metrolink saw a steady increase in ridership, culminating with a record 11.9 million boardings in FY19. Ridership was on pace to grow approximately 5 percent above that through February 2020, prior to the declines precipitated by the COVID-19 pandemic and resulting stay at home orders. Metrolink anticipates it may take up to three years to see ridership return to pre-COVID levels.

Metrolink has undertaken service overhauls and capital investments to improve service reliability and, by extension, customer satisfaction. Furthermore, Metrolink has explored innovative ways to attract and retain riders, for example through the implementation of a 25 percent fare discount program on the Antelope Valley Line in FY16 and on the San Bernardino line in FY18 and the launch of a customer loyalty program in FY21 to reward its customers.

Consistent with Metrolink CEO Stephanie Wiggins' stated goal of doubling ridership, Metrolink staff aggressively pursued and secured funding for infrastructure projects that would allow for improved rider safety, expanded service and increased frequencies.



Metrolink's Network and Equipment

Metrolink's seven commuter rail lines operate 538 route miles of service on an extensive network composed of a combination of track owned by Metrolink and its member agencies, and by partner railroads, with a conventional signal system equipped with a state-of-the art Positive Train Control safety overlay. Metrolink shares approximately 60 percent of its network with the Class I freight railroads. Also, state-supported Amtrak service on the San Luis Obispo-Los Angeles-San Diego (LOSSAN) corridor operates along corridors shared with Metrolink between Ventura and LA Union Station, and between LA Union Station and Oceanside, and Metrolink and the Coaster service share the Oceanside station.

Positive Train Control

Metrolink's work in developing and implementing Positive Train Control (PTC) is recognized nationwide. PTC provides collision avoidance, prevention of overspeed derailments, unauthorized work zone incursions, and movement through a main track switch in the improper position, as well as working and enforcements for authorities and wayside signal indications. It operates as a critical safety overlay on top of the conventional signal network. In 2015, Metrolink was the first commuter railroad in the nation to implement PTC on all Metrolink-owned tracks and locomotives. Metrolink was only one of four railroads to complete interoperability testing and implementation with its railroad partners (BNSF Railway, Union Pacific Railroad, Amtrak, and North County Transit District) ahead of the December 31, 2018 deadline established by Congress. To date, Metrolink continues to serve as a resource for other North American rail operators for testing and deployment of PTC and works with the rail industry to advance the state of PTC technology.

Clean Vehicle Technology

As a key step in its drive to reduce greenhouse gas emissions in the region, Metrolink was the first commuter railroad in the United States to use diesel-electric locomotives with "Tier 4" clean technology. Tier 4 locomotives are compliant with the latest U.S. Environmental Protection Agency (EPA) emissions standards and reduce particulate matter and nitrogen oxide emissions by up to 85 percent compared to legacy Tier 0 locomotives and up to 65 percent compared to Tier 2 locomotives. Metrolink placed the first of its 40 new "F125" model Tier 4 locomotives into revenue service in 2017. Currently, all Tier 0 locomotives have been decommissioned, 37 Tier 4 locomotives are in service, and the remaining three will enter service in early 2021. Moving forward, Metrolink plans to accelerate a zero-emissions future for the procurement of future locomotives and trainsets. This will be undertaken to respond to anticipated requirements and regulations by EPA and the California Air Resources Board (CARB). For example, CARB is exploring regulations to adopt low or zero-emission technologies on an accelerated basis.

Furthermore, as part of the launch of local rail service between San Bernardino and Redlands as part of SBCTA's Redlands Passenger Rail Project, SBCTA is exploring the implementation of Zero-Emission Rail Multiple Unit technology.

Sustainability and air quality are directly impacted by METROLINK®. The relationship between ridership growth and air quality should be emphasized strongly and explored further.

Larry McCallon, 2nd Vice-Chair, Metrolink Board of Directors;
Mayor Pro Tem, City of Highland

Forging the Path Forward

This chapter highlights how Metrolink moves forward from the Metrolink of today to potential futures in three steps.

- Market Analysis – We reviewed past growth trends and conducted a market scan to better understand the growth opportunities to serve growing and evolving residential areas and job markets.
- Reflecting a Shared Vision through Engagement – Additionally, we used the results from the extensive stakeholder engagement process to complement the technical analysis.
- Responding to Constraints and Opportunities through Scenario Analysis – The preceding analyses serve as the backdrop for the development of resource scenarios, which, in turn, lay the foundation for framing investment options and Strategic Actions that will lead Metrolink into the future.

Market Analysis: Defining A Growing and Changing Market for Metrolink

This market analysis was undertaken to better understand who currently uses Metrolink and to explore what factors can maintain and grow ridership. In a dynamic region, where markets have evolved over time, Metrolink felt this was key in the development of demand-focused planning and strategic development to yield the most favorable results from future investments and service changes.

The market analysis used data from previous Metrolink studies (such as the 2018 on-board survey of riders), from the National Household Travel Survey (NHTS), and the Regional Travel Demand Model developed by the Southern California Association of Governments (SCAG). The analysis also took into account documents developed by Member Agencies related to travel demand at the county level including the RCTC Next Generation Rail Study (2019), the OCTA Transit Vision (2018), the SBCTA ARRIVE Study (2014) the LA Metro Long Range Transportation Plan (2020), and information provided by VCTC on Metrolink markets.

The market assessment identified 12 insights and related opportunities for Metrolink to improve market capture, thereby increasing ridership and revenue to the agency.

Figure 17: Insights from the Market Assessment Table

Insight	Opportunities	Implications for Development of Scenarios
1. Significant untapped market demand	• Market potential of an additional 770,000 trips per day. • Roughly 40% of demand is in the reverse peak direction or in the off-peak. • Larger growth opportunities are outside of traditional commute trips and where travel times are competitive with the automobile.	• Nearly half of potential demand is in the evening or mid-day. • Target markets are where Metrolink has high potential demand and high time competitiveness and productivity compared with travel by automobile.
2. Regional growth forecasts suggest an expanded role for Metrolink	• Future housing and job growth in the region are focused along Metrolink corridors. • SCAG regional planning has emphasized utilizing TOD to support housing/ transportation balance.	• Use flexible approach to service expansion that can be adapted based on market development and delivered Transit Oriented Development. • Identify opportunities to direct planned development into station areas.
3. Customer value proposition is driven by schedule and access	• Roughly 60-80% of customers say that traffic congestion was the key reason they switched to Metrolink. • Approximately 85% of customers have access to a private vehicle. • Limited marketing has been done to advertise Metrolink service options apart from working to attract commuters to Downtown Los Angeles.	• Identify key enablers for maintaining travel time advantage and reliability on a line by line basis. • Schedule/service integration review and pilots with local transit agencies to expand upon station access, which is a key determinant of customer satisfaction. • To support the use of the service by a wider range of customers, identify key stations for access audits and station access strategy development. • Advertise schedules and availability to support pilots and schedule/service integration.
4. On most lines, ridership growth can start with frequency of trip making	• Roughly half of all customers use Metrolink five days a week. • Roughly a quarter of all customers use Metrolink three days a week or less.	• Pilot loyalty programs that encourage customers to 'earn the fare reduction' and family discounts for off-peak and weekends that can lead to Metrolink becoming the go-to mode for a wider range of trips. A loyalty program is already being planned with some initial implementation – this will be further developed in conjunction with other initiatives such as the 5-day flex pass. • Target market these programs to diverse communities in multiple languages.

Insight	Opportunities	Implications for Development of Scenarios
5. Opportunity to convert commuters to multi-use travelers 6. Opportunity for new customers	• For the peak hour, peak direction (dominant) market, all lines are used primarily by commuters, with 80-90% of all trips on these lines being for work or business.	• Consider programs and marketing efforts to encourage existing riders to use the service for non-commute or non-educational travel. • Review and expand promotional programming for major events to enable regular commuters to see Metrolink as useful for non-commute trips. • Review service provision and marketing for travel to major leisure destinations. This is currently being developed as part of the Explore California campaign.
7. User experience features that augment productivity to optimize customer value	• Customers consider Wi-Fi, electrical outlets, and emergency call buttons as very important amenities.	• Consider determining Wi-Fi, electrical outlets, and emergency call button as 'necessities'. • Market the amenities as support mechanisms for those who "start their workday as soon as they step on the train." • Create a Partnerships Roundtable with employers or leverage existing transportation demand management programs such as IE Commuter and OC Rideshare to incentivize use of Metrolink as a flexible, productive commute
8. Opportunity to optimize station access on a line by line basis	• The majority of customers choose to drive to stations (84-91%) – they are either dropped off or make use of parking or carpool. • Few riders currently use public transit for station access (2-5%).	• Station access audits and strategy development through partnership with cities in targeted areas. • Schedule and service integration review and consideration of pilots through collaboration with local transit agencies to drive mutually beneficial growth in ridership. • Collaborate with station stakeholders to enhance station design to incorporate convenient facilities for transfer to and from ride-hailing services. • Potential for partnerships with ride-hailing companies to pilot station access services and guaranteed ride home. • Parking strategy review. • Explore advertising and marketing initiatives to encourage use.

Insight	Opportunities	Implications for Development of Scenarios
9. Market growth will depend on last mile connections	• While most customers use an automobile to access Metrolink, modes used for last mile connections (egress mode) vary significantly by destination station. • Roughly 30% of customers use another train service, while 25% are dropped off or use a ride sharing company, and 20% transfer via bus.	• Consider further fare integration options and service integration opportunities with local transit, ride hailing services, bike share and shuttle services to better connect passengers to their final destinations. • Consider opportunities for improved wayfinding and harmonized branding and advertising to support customer understanding of how to use multiple modes and access multiple service providers as one integrated network. • Consider opportunities for improved urban realm/pedestrian facilities to extend acceptable walking distances. Walking paths radiating out from stations could significantly increase walking catchments. • Leverage new connections such as the Redlands Extension, the OC Streetcar, and several Metro fixed guideway projects including Gold Line Phase 2B, the Regional Connector, and East San Fernando Valley BRT.
10. Existing customers desire more frequency	• Additional service outside the peak period has been identified as a key enabler for ridership growth – both for existing and potential customers.	• Develop service standards and key performance indicators for emergent markets that make use of new frequency. • Identify opportunities to pilot new off-peak service with existing infrastructure. • Explore how to fully leverage major capital investments and other improvements to provide new service. • Target market these programs to emergent markets and diverse communities in multiple languages.

Insight	Opportunities	Implications for Development of Scenarios
11. Time competitive stations (vs auto) have lower than expected market capture	• Trips with the greatest time competitiveness (vs auto), have lower than expected market capture rates.	• Review service, fare and first/last mile connections at high time-competitive stations. • Consideration of the role of services that are provided to guarantee customer flexibility. Such services would have lower revenue and ridership expectations and would be provided with the understanding there are there to make help increase ridership in the peaks. • Consider fare incentives to support diverse socioeconomic utilization. • Coordinate marketing of fare incentives with rideshare incentives offered by member agencies. • Target market the benefits of rail travel in these time competitive stations. Include information about the environmental benefits, while also ensuring this marketing is conducted in multiple languages, highlighting diverse riders.
12. Key market segments may not use Metrolink due to current fares, accessibility, language barriers, first/ last mile	• For the reverse peak direction and off-peak markets, roughly 30-50% of customers are in the lowest income band, but make up only 10-20% of dominant peak direction market riders. • Approximately 20% of customers say that a more affordable fare would incentivize increased ridership.	• Conduct listening sessions with diverse communities to determine the resistance to rail travel. Is it financial or are there other barriers? • Review where and when diverse commuters who live near Metrolink stations travel, to identify factors beyond fares that may suppress demand. • Review fares and identify opportunities to increase access and affordability for customers from households with lower household income. • Create pilot programs designed to attract first time riders with the intent of creating consistent riders. • Consider differentiating fares by time of day to support access for off-peak travelers with lower income. • Specifically, advertise Metrolink to diverse communities – particularly in station cities and in time-competitive markets. • Utilize language-appropriate materials in marketing and advertising.

Ridership Growth Potential

Although Metrolink carried a record **11.9 million passengers** in FY 2019, or approximately 40,000-45,000 passengers a day on average, high-level analysis using the National Household Travel Survey suggests there are an additional **770,000 daily trips in the region that could be fulfilled using Metrolink**.

Trips that currently do not use Metrolink but share an origin-destination pair with a trip that uses Metrolink include:

340,000 commute trips

50,000 recreational trips

70,000 shopping trips

80,000 other home-based trips

230,000 non-home-based trips

Furthermore, potential customers make trips by time of day as follows:

23% morning (AM) peak

34% mid-day

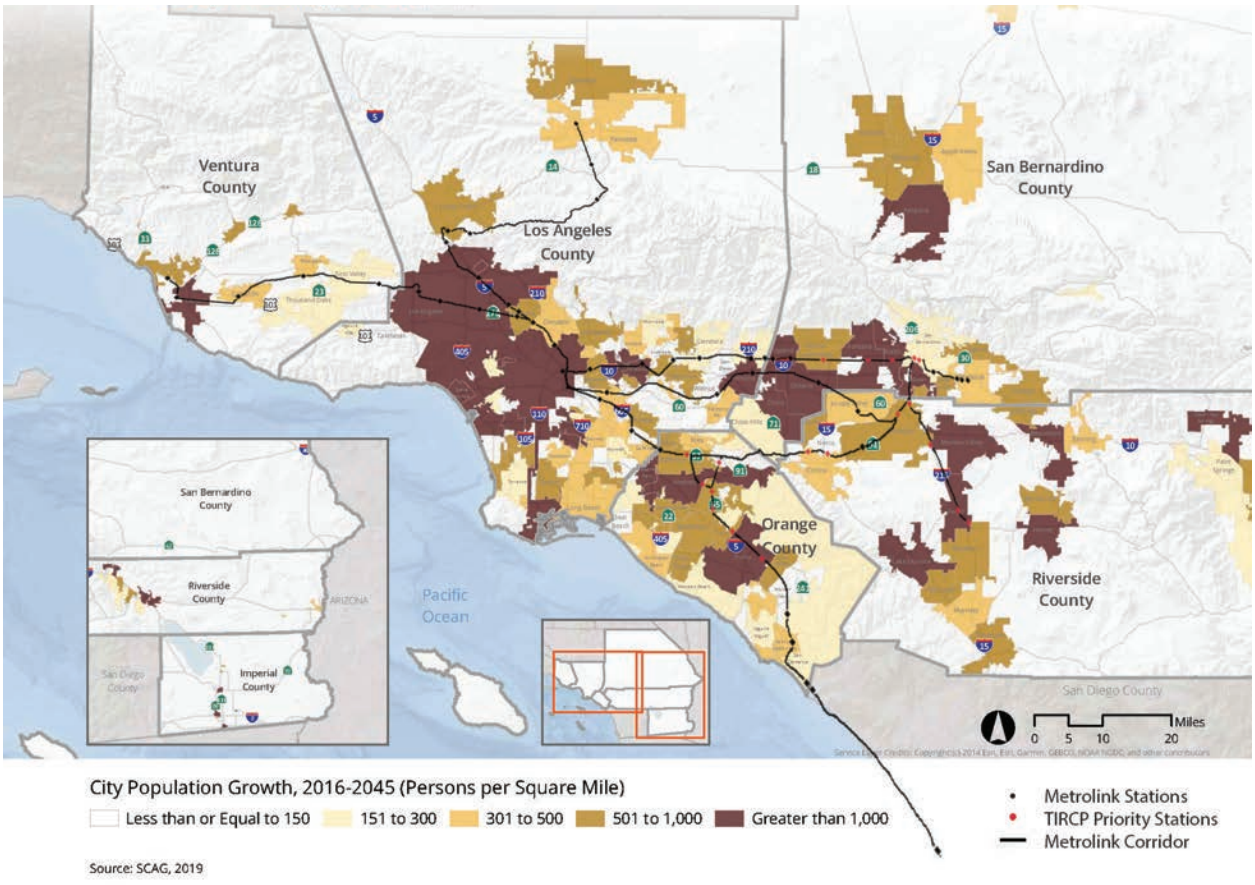
21% afternoon (PM) peak

22% evening/night

This means Metrolink has captured approximately 15% of the commuter market – strong performance for commuter rail - but has opportunities to grow ridership from other markets, particularly off-peak hours and directions.

There is untapped demand for Metrolink services from non-traditional hours and non-traditional commuters and other user groups (students and families). This appears even more evident when we look at how Metrolink truly connects affordable housing and job centers (**Figures 18 and 19**).

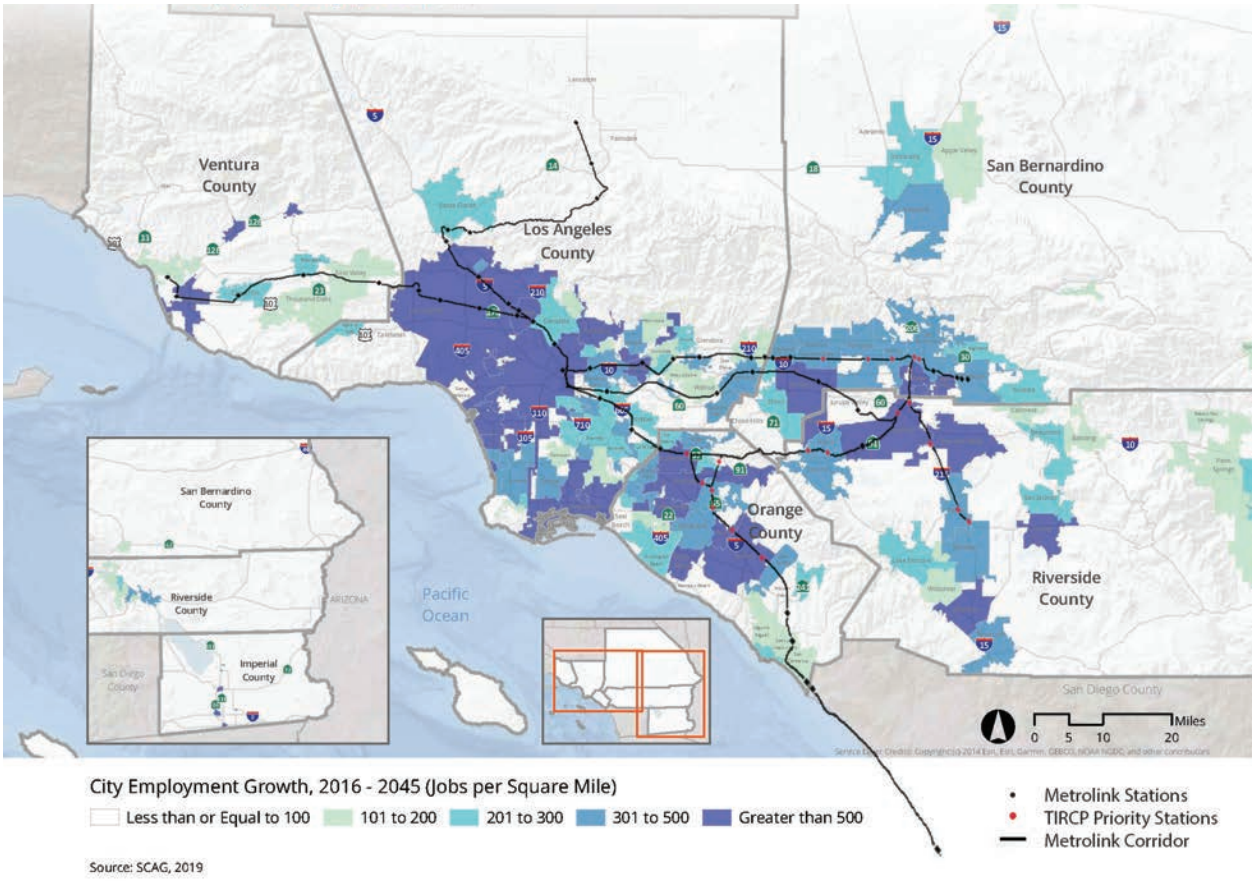
Figure 18: Household growth forecasts in the region served by Metrolink 2016-2045 (source: Metrolink Housing Affordability Analysis)



We need to get more people out of their cars and help make them aware that METROLINK® is a safe, reliable option that promotes a more sustainable future. A major part of our growth has to be in reaching markets that we currently don't connect with as well as we do with traditional commuters. Off-peak, leisure, weekend, students – we need to focus there.

Ara Najarian, Vice Chair, Metrolink Board of Directors;
Glendale City Council Member

Figure 19: Job growth forecasts in the region served by Metrolink 2016-2045
(source: Metrolink Housing Affordability Analysis)



Examining this ridership potential further, riders in the Metrolink 2018 On Board Survey, which captures pre-COVID trends, were asked for their main motivation for using Metrolink and noted the following:

- Over 60 percent noted that traffic was the key reason they switched to Metrolink
- Over 70 percent (and up to 90 percent) of customers on all lines have a car (with the exception of the Antelope Valley Line, where only 65 percent have a vehicle)
- Metrolink is less stressful than driving
- Travel by train offers cost savings and more productive use of time

Customers further noted the following rationale for using more Metrolink service:

- They changed jobs and the new job is close to a station
- They moved and their home is closer to a station
- They are travelling more and are looking for an alternative to the automobile

Customers also noted reasons why they may reduce their use of Metrolink:

- Schedule does not align with travel requirements
- Cost of parking
- Reduced total travel

Figure 20: Market Potential By Line Table

Line	Existing Ridership (2018)			Overall Travel Market (2018)			Market Capture			Journey Time Competitiveness vs Auto	
	Dom	Non-Dom	Total	Dom	Non-Dom	Total	Dom	Non-Dom	Total	Dom	Non-Dom
Ventura County	2,700	500	3,200	90,000	23,000	113,000	3%	2%	3%	Med	Low
Antelope Valley	4,000	4,400	8,400	210,000	260,000	470,000	2%	2%	2%	Med/ High	Low
San Bernardino	7,000	6,000	13,000	180,000	240,000	420,000	4%	3%	3%	Med	V Low
Riverside	4,500	100	4,600	120,000	10,000	130,000	4%	1%	4%	Med/ High	Low / V Low
Orange County	7,000	3,000	10,000	160,000	140,000	300,000	4%	2%	3%	Med	Low
91/ Perris Valley	3,000	1,000	4,000	110,000	60,000	170,000	2%	2%	2%	Med	Low
IE - OC	4,100	1,200	5,300	160,000	75,000	225,000	3%	2%	2%	Med	Low
Total	32,000	16,000	48,000	1,000,000	800,000	1,800,000	3%	2%	3%	Med	Low

Dom = (Peak Period, Peak-Direction) | Non-Dom = (Off-Peak + Reverse Direction)
Note: There is significant overlap between service markets. Removing the overlap results in an overall market of 770,000 unique trips.

Reflecting a Shared Vision through Engagement: Customers are Our Business

Customers are our business – this is Metrolink's core business focus and the basis for all decisions in establishing short- and long-term planning.

As such, as Metrolink embarks on a path forward, it is essential that the organization and its partners share a vision for a passenger experience that is seamless, accessible, and enjoyable. This shared vision supports consistent implementation of initiatives that will increase ridership across the region, ensures equitable funding at appropriate levels through the five-member SCRRA joint-powers authority, and fosters trust in decision-making among the Member Agencies. Further, this shared vision will help lay the groundwork for moving Metrolink – an autonomous transportation agency – closer to financial independence, finding new funding sources and increasing farebox revenue, benefitting transportation and related initiatives across Southern California.

Metrolink has developed this SBP utilizing a multi-tiered stakeholder engagement process to support cohesive development and implementation of a shared vision. Through this engagement, stakeholder priorities and needs have been identified, layered on a foundation of data and infrastructure capacity, to identify a path forward that is practical, actionable, and measurable.

Customers, staff, Member Agencies, and partner agencies were all part of the engagement process, which kicked off March 1, 2020. This date is significant given the COVID-19 "safer at home" environment, necessitating creative and extremely cooperative outreach efforts. Despite pandemic-related restrictions, participation in engagement exercises was very high.

Due to the changes in how people work, communicate, and travel, outreach methodology has varied. The Member Agency Advisory Council (MAAC) provided feedback via written questions; survey tools were also used for current riders and employees, including the April online customer survey conducted by Metrolink. In-depth interviews were conducted with Metrolink Board Members and three stakeholders representing the California Transportation Commission (CTC), LA Mayor's office, and Southern California Association of Governments (SCAG). Workshops were facilitated with the Member Agency CEOs to mine their experience regarding Metrolink's development and now partnership in the region.

Continued strategic investments in METROLINK® and its infrastructure will be crucial to Southern California's economic recovery and will result in dramatic benefits for our economic future, for our environment and for our quality of life.

Paul Krekorian, Los Angeles City Council Member,
Member of Metrolink Board of Directors

METROLINK® provides great opportunities for our women and minority businesses, while also serving as a key transportation option for our diverse communities along the METROLINK® corridors.

Hilda L. Solis, Los Angeles County Supervisor,
Member of Metrolink Board of Directors

Across all stakeholder feedback, there were convergent themes.

- All stakeholders supported the customer-first emphasis, with consistent support for increasing ridership, frequency of service when needed, and availability of service throughout the day.
- Partnerships were emphasized – partnerships with other transportation agencies to address first mile-last mile and connectivity issues; and partnerships with station cities, large employers, and recreational organizations to support event train coordination for special events, sports activities, concerts, and day trips.
- There is a desire to strengthen foundational aspects of the system, such as operations, business, and infrastructure – focusing Metrolink's policy and marketing initiatives on the system as a regional asset.
- Safety continues to be an emphasis, most noting that Metrolink embraces safety as a standard part of their work and operations culture.

Stakeholders also noted that Metrolink's recent COVID-19 recovery framework and initiatives are positioning the organization differently, leveraging the regional aspect of the rail network to support broader regional goals, such as greater jobs-housing balance, strategically increasing housing inventory, redefining land use and economic development opportunities, and greenhouse gas reduction goals. By utilizing a policy lens that emphasizes greater racial equity and social justice in planning and investment, Metrolink begins to truly capture the portion of its mission statement that calls for the system to enhance the quality of life for all residents in Southern California, regardless of race or socioeconomic status.

Customers

Customers provided key feedback regarding Metrolink's impact on their lives. In April, Metrolink launched a public health and safety concerns survey surrounding COVID-19, reaching more than 11,000 riders who shared their thoughts about continuing to ride through the pandemic as essential workers, or returning once stay at home orders were lifted. More than ever, riders emphasized how critical the system is to getting workers safely to and from work. Utilizing the highest cleaning standards and communicating that commitment to riders, Metrolink has demonstrated their commitment to making the system as clean, safe, and comfortable as possible so that those who rely on Metrolink today can count on this safe system in the future.

Member Agencies

The five Member Agencies serve a critical role in the collaborative effort required to successfully fund and provide connections into the system. They represent diverse regions and hold valuable insights on regional goals and how to best meet their communities' needs. Across Member Agency technical leads, Board Members, and CEOs, all agree that the greatest assets of this system are the extensive railroad network and the commitment by Metrolink's leadership to collaboration, safety, and financial independence through increased ridership and customer service. Feedback gained from working with the Member Agencies allows Metrolink to find ways to optimize service and reach new riders.

The Member Agencies were also in agreement that financial independence needs to be a universal goal, with intentionality behind policy decisions that can ultimately lead to that independence. There should also be a culture shift, with agreed upon commitments, that will ultimately lead to less of a paternal relationship between the agencies and Metrolink, fostering a new level of autonomy that will allow this regional agency, that was formed as a joint powers authority from the county transportation agencies, to stand on its own.

Staff

Metrolink staff is what makes Metrolink run safely and efficiently. The organization's culture of diversity is embraced and valued, furthering the ability to uplift the communities and customers served by the system. By investing in people, promoting a culture of collaboration and support, and continuing to embed safety in every aspect of the business, Metrolink strengthens their devotion to their customers. As many of Metrolink employees are riders themselves, customer experience is at the forefront of all that Metrolink does and strives to accomplish.

Outreach by the Numbers

Surveys

	Participants
Customer Public Health & Safety Survey	**11,000+**
Employee Health & Safety Survey	**175**
Employee Workplace Climate & Culture Survey	**166**
Member Agency Advisory Council Survey	**5**

Workshops

Member Agency CEOs Workshop:	**5**

Interviews

Metrolink Board of Directors Interviews	**18**
Partner Agency Interviews	**3**

Responding to Constraints and Opportunities through Scenario Analysis

Development of a Strategic Business Plan requires an acknowledgement of constraints on financial and human resources. This can be accomplished through an analysis of various scenarios of different levels of available resources – constrained and unconstrained. As much as the market analysis and stakeholder engagement revealed key insights that help shape thinking about opportunities and potential strategies, there are uncertainties that need to be explored through an analysis of various scenarios.

Defining Uncertainty using Resource Scenarios in the SBP and SRTP

The 2020 SBP provides continuity to the 2015 plan by supporting the continued development and deployment of previous strategies. While key elements of the regional context remain constant, the 2020 SBP and SRTP were developed recognizing that the foundation future has already evolved in the last 5 years:

- New External Factors - COVID-19, economic turbulence, and other unforeseen events have demonstrated the need for Metrolink to be adaptive and flexible in its mandate to provide rail service to the region.
- Leveraging past historic investment - the delivery of crucial rail infrastructure that has been advanced over the past five years offers an opportunity to optimize and expand rail service over the coming decade.
- Changing market needs – as the region continues its rapid pace of growth, where people live, work, and travel will change. Customer needs will continue to evolve and change in ways that previous plans may not or could not have predicted - including how, when, why, and where people travel.

These factors are examples of transportation demand drivers and influencers that are challenging to predict in advance and are certain to change in unpredictable ways over the 30-year period covered by this SBP.

To take METROLINK® where we want to go – we need to invest. There needs to be short-term investment for a long-term gain.

Kathryn Barger,
Los Angeles County Supervisor,
Member of Metrolink Board of Directors

The 2028 Olympics will be a game changer for this entire region, but it goes without saying that METROLINK® will be key to help manage the people coming into town to participate as athletes and spectators.

Walter Allen, III
Council Member,
City of Covina

Use of Scenarios in Advancing the Strategic Business Plan

Looking forward, scenario analysis recognizes that the success of future decisions is affected by many factors, and that the state of these factors evolves over time. These factors include:

- The resources Metrolink has available – in particular, resources available from Member Agencies, partner organizations, and county, state, or federal government
- Changing population, employment, and land use patterns in the region
- Changing trip making behavior – including where people travel to, why they travel, and the modes they choose
- Competition – including modes provided by other transit agencies and the roadway network

Scenarios are a way of exploring situations of varying constraint. Consequently, the scenarios included in this Plan are intended to be used in two ways:

- Guiding active management and prioritization of resources – the scenarios each define a given level of resources (in essence, a resource constraint) and motivate a package of strategic actions that Metrolink can deliver given that level of resources. This allows Metrolink to pivot and prioritize investment into high potential actions that support market development.
- Advocacy, planning, and development – the scenarios can also be used to articulate potential future states for the region and resources and funding levels that will be needed to meet these future needs. This allows Metrolink to identify a strategic direction, the level of resources required to deliver it and its benefits in order to advocate for expanded programming.

Resource-constrained scenarios acknowledge the limitations of funding generated by member agencies. Recent forecasts indicate that funding from local tax measures increases only slightly more than 3% per year, limiting the amount of growth in costs they can be assumed to cover in a constrained baseline scenario. Historical cost increases in the recent past have often exceeded these programmed rates of increase. Furthermore, tax measures expire. Some recent history suggests that when presented with a compelling program, voters often renew or add to local tax measures, such as with a regional measure that recently passed to support Caltrain in Northern California. Nonetheless, long-term dependence upon them can be uncertain. Three of Metrolink's five member agencies have tax funding measures that expire between 2039 and 2041) roughly a decade after the SRTP time frame. This suggests a gap that may need to be filled to continue operation of the current set of services.

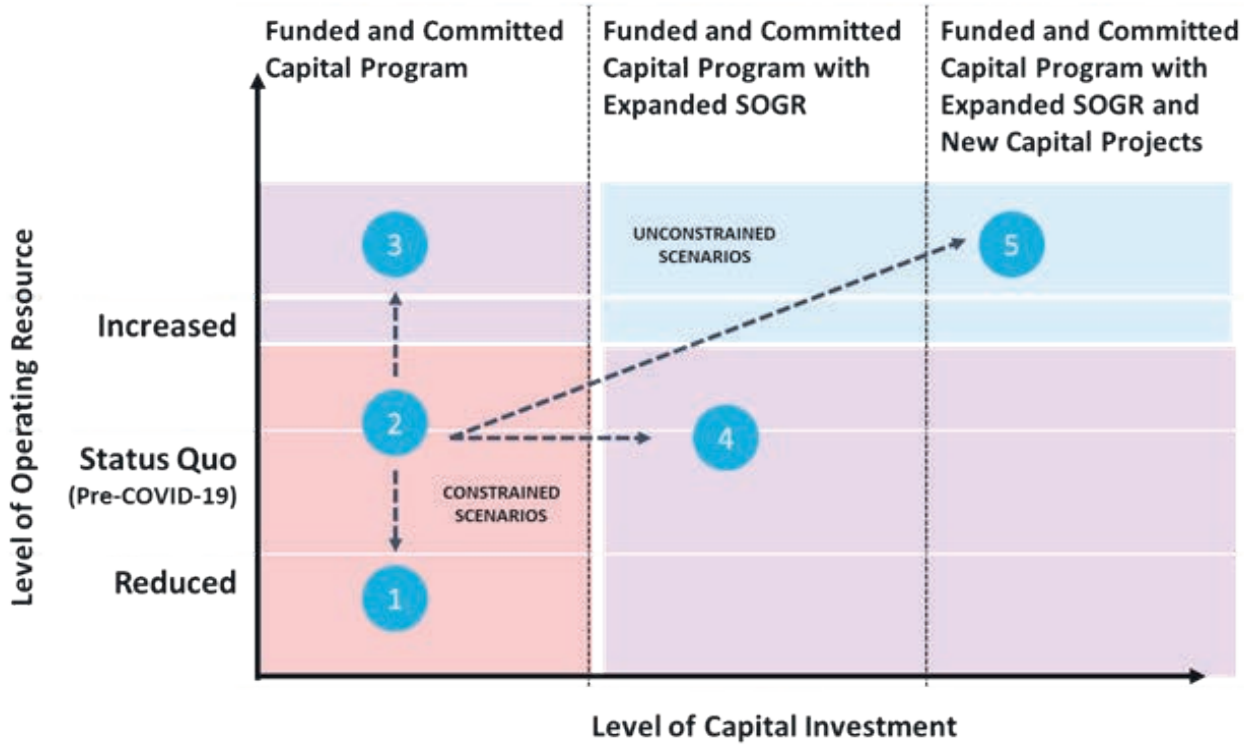
Figure 21: Member Agency Tax Funding Measures

County	County Transportation Commission	Most Recent Sales Tax Measure for Transportation	Expiration Date
Los Angeles County	Metro	Measure M	None
Orange County	OCTA	Measure M, aka OC GO	2041
Riverside County	RCTC	Measure A	2039
San Bernardino County	SBCTA	Measure I	2040

Scenarios Explored in the Plan

Five scenarios were developed to reflect five different states of resource availability and constraint. 'Resources' refers to both financial resources (such as subsidies, grants, and revenues) and human resources. The resources can be applied in two dimensions: (1) for operating the system and (2) planning and delivering capital projects. Two scenarios can be considered constrained resource scenarios. Scenario 2 represents similar operating resources as pre-COVID-19 trends and just the committed capital resources in the current Capital Program. Scenario 1, which represents even fewer operating resources available than historical trends. The three remaining scenarios represent a less constrained resource availability (Scenario 3 – more operating subsidy, Scenario 4 – more capital investment, and Scenario 5 – an increase in investment in both operating support and capital programs.

Figure 22: Metrolink SBP Scenarios and Operating and Capital Resources



We must ensure METROLINK® continues to become a broader system. It is imperative that service continues to expand so commuters, families and tourists can get to more places with more frequency

Doug Chaffee, Orange County Supervisor,
Member of Metrolink Board of Directors

Figure 23: Metrolink SBP Resource Scenarios

Scenario	Description	Role in the Plan	Constrained or Unconstrained
1 Reduced Operating Resource Growth	A future Constrained Funding state where Metrolink has reduced operating resources – either due to declining ridership, other factors (slower COVID-19 recovery) or constraints on subsidy funds.	To identify strategic actions that optimize and rationalize services to mitigate losses in a resource-constrained environment.	Constrained
2 Baseline Constrained Scenario (Similar Operating Resources as pre-COVID-19)	The Baseline or 'business as usual' scenario. (Funding is constrained to existing levels with adjustments for inflation.)	To identify strategic actions that optimize existing resources to meet market needs and grow ridership as in-delivery, funded, and committed capital projects come online.	Constrained
3 Expanded Operating Resources	This unconstrained scenario describes a future where Metrolink has access to additional operating resources to grow ridership through targeted service expansion as the current capital program of projects comes online.	To identify strategic actions that expand Metrolink services in the short term and expand services in the medium to long term to make use of new capital projects.	Unconstrained
4 Similar Operating Resources as Today + Additional Capital Resources	An unconstrained scenario describes a future where Metrolink's operating resources grow at a comparable rate as the last decade and the organization has access to additional resources for capital expenditure.	To identify strategic actions that make use of additional capital resources to contribute to rehabilitation, new equipment, or minor capital projects to enhance service and make best use of new capital projects as they come online.	Unconstrained
5 Expanded Operating Resources + Additional Capital Resources	This unconstrained scenario describes a future where Metrolink has access to expanded operating and capital resources.	To identify strategic actions that expand service and accelerate rehabilitation, new equipment, and new capital programs.	Unconstrained

Strategic Actions

This section of the Plan defines actions that Metrolink can take within each resource scenario to achieve key strategic goals, such as ridership growth and improved financial performance. These Strategic Actions answer the question, "How should Metrolink respond based on changes to its operating environment?" by exploring the optimal combination of actions that could be taken across the five scenarios, for both the SRTP and the longer range SBP. This section includes the following sub sections:

- Strategic Action Development – a summary of the approach used to develop action plans in each scenario
- Strategic Action Summary – a summary of the action plans, including policy, service, capital, and state of good repair

METROLINK® can be the great equalizer. Considering the vast issues this one system can impact – land use, housing, jobs, and even air quality – expanding service to meet the needs of our diverse region can provide some of the equilibrium we all crave in supporting greater equity across Southern California.

Roxana Martinez, Metro Appointee, Metrolink Board of Directors

Strategic Action Development

Strategic Actions were developed for each scenario based on findings from the market analysis and the engagement process, peer agency experience and an exploration of historic network performance.

There are four types of Strategic Actions that respond to each of the five resource scenarios:

- **Policy Actions** detail changes to the policies including station access and plans and improved wayfinding, parking strategy review, partnerships with cities, and fare strategies. Internally, policy changes may include developing an equity framework and identifying and measuring key performance indicators.
- **Service Actions** show how services could adapt to an expanding or contracting market
- **State of Good Repair Actions** detail SOGR and rehabilitation projects based on condition and historical performance of the assets and the resource constraints
- **Capital Actions** detail projects (including equipment) that contribute most positively to Metrolink under a specific scenario

For each resource scenario, a package of Strategic Actions was developed with consideration of each scenario's constrained available resources to respond to the state of the Metrolink system at the time.

Figure 24: Strategic Actions

2021-2025	COVID-19 recovery and ridership stabilization, completion of San Bernardino Line extension to Redlands
2025-2027	Completion of most first phase of SCORE Program
2027-2030	Completion of Link US Phase A and SCORE Phase 1

Actions were laid out in three different time horizons. The first two horizons comprise the SRTP, and include greater detail, while the third and longest-term horizon is more exploratory:

- **Five-Year Horizon (2020-2025) (SRTP)** – used to understand the immediate actions Metrolink has identified to advance towards its commitments to the region and its customers that can be used to lay foundations for the future.
- **Ten-Year Horizon (2025-2030) (SRTP)** – used to understand the range of potential actions Metrolink can take to build on the in-delivery capital and state of good repair programs and achieve further progress towards its strategic goals. The role of this horizon is to articulate different medium-term futures for Metrolink after the delivery of the current capital expansion program (SCORE) and could include additional changes to policies, service, SOGR, and capital programs
- **30-Year Horizon (2030-2050)** – used to illustrate the range of potential future actions Metrolink could take in the long term to continue to achieve its strategic goals and leverage strategic investment in the first two horizons. Beyond 2030, Metrolink will need to manage changing land use (population and employment) patterns that will influence where, when, why, and how people travel; broader macro-economic trends that impact commuter and non-commuter travel markets; and disruptions in the mobility ecosystem (example: changing travel behavior, new types of mobility). The role of this time horizon is to enable Metrolink to plan in an adaptable and future focused manner.

There are great opportunities to partner with major employers, tourist destinations, local chambers of commerce and others to expand ridership and deliver mutual benefits.

Pam O' Connor, Metro Appointee, Metrolink Board of Directors

Strategic Action Summary

This subsection articulates packages of Strategic Actions by type (policy, service, capital investment, SOGR), over the three time horizons (five-year, ten-year, thirty-year), and responding to the five scenarios. It describes in detail the action packages for each time horizon (the grey boxes in Figure 20). For each type of strategic action, there are different components which are deployed in varying degrees for each time horizon and for each resource scenario.

The discussion is organized according to each type of Strategic Action:

- Policy
- Service
- Rehabilitation / State of Good Repair Investment
- New Capital Expansion Investment

Policy Strategic Actions

For policy actions, Metrolink will both lay foundations by developing detailed plans and implement new and innovative programming that advances strategic priorities. These actions can be divided into three overall categories, shown in **Figure 25**.

Policies support the realization of this Plan's goals either by directly incentivizing use of the Metrolink service or by enabling Metrolink and riders to derive greater value from the service and infrastructure.

Figure 25: Types of Policy Actions

Category	Description
Plan and Strategy Development	Analysis and studies to identify interventions for delivery.
Pilots	Pilots of previously identified interventions or pilots that follow on from new plans. Pilots allow Metrolink to 'test' an intervention before significant investment in line wide or network wide delivery.
Interventions	Specific interventions that have been identified from previous work and have been included in the Plan for implementation.

Policies Action Delivery

Figure 26 presents the range of policy actions included in this Plan by scenario and time horizon. All policies included in **Figure 26** are 'system wide' – that means they are delivered across the Metrolink network with an aim of optimizing ridership, revenue, and customer experience. Each policy action included in the Plan will require further development as the Plan is implemented in order to refine, optimize, and deliver their intended benefits. The SRTP includes the policies to be delivered through 2030.

Since policy actions can be implemented with relative few resources, the recommendation for policy actions is generally the same across all five resource scenarios. Most policy actions are recommended to be pursued in the first five years of the SBP, regardless of resource availability. Some variations:

- Constrained Scenarios:
  - Scenario 2 (and Scenario 4) – Baseline Scenario – Attention to wayfinding and service integration are stretched over ten years, rather than five since service rationalization takes longer.
  - Scenario 1 – If resources are further constrained, the priority for fare strategy, wayfinding, Wi-Fi procurement, and expanded marketing are deferred.
- Unconstrained Scenarios:
  - Scenarios 3 and 5: Without operating resource constraints, all policy actions are pursued by the first five years of the SBP.

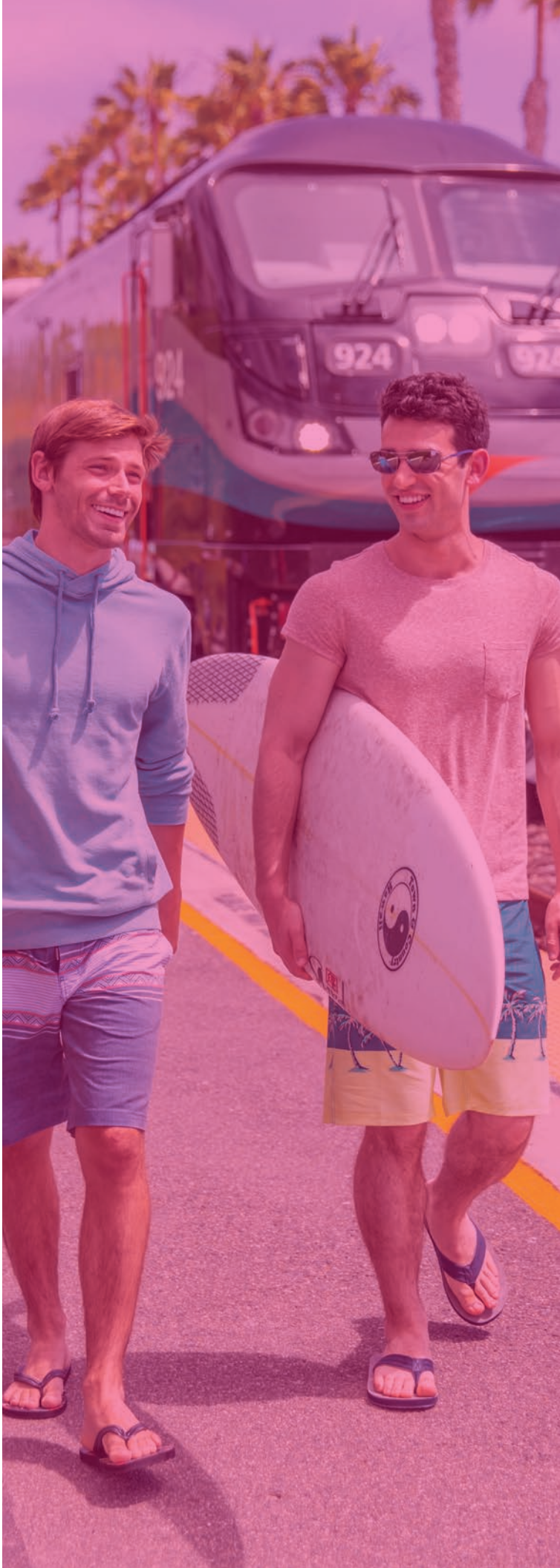


Figure 26: Policy Actions

#	Policy Action	Description	Scenario 1 Reduced Operating Resources	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today + Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Resources
P1	Station Access Strategy	Developing a multi-modal access strategy to improve first and last mile connections in order to attract new ridership. This plan reviews first/last mile connections by transit, active modes, and shared mobility (including commercial partnerships) as well as parking use and long-term parking outlook. The strategy also sets station specific peak and off-peak access mode targets and identifies marketing and infrastructure programs that support their realization.	05	05	05	05	05
P2	Fare Strategy	Developing a revised fare strategy that optimizes fares to meet ridership, revenue, equity goals and improves the customer experience. The study to develop fare strategy needs to be market-based such that it can identify targeted discounts to key customer segments to maximize accessibility for riders of all means, while also considering willingness to pay.	↗	05	05	05	05
P3	Wayfinding and Signage Harmonization Plan	Identifying and piloting harmonized signage and wayfinding to support use of transit as a first/last mile connection	↗	10	05	10	05
P4	Wi-Fi Expansion	Continuing to procure Wi-Fi system on-board trains and then at stations in later phases	↗	05	05	05	05

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

↗ Consider if additional resources become available in ten-year or thirty-year horizon

#	Policy Action	Description	Scenario 1 Reduced Operating Resources	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today + Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Resources
P5	Service Integration Plan	Developing a service integration strategy with connecting transit agencies to optimize ridership, including a review of schedule integration and potential fare integration incentives to support increased ridership.	05	10	05	10	05
P6	Expand Special Events and Weekend New Fare Products and Promotions	Developing a range of new fare products/discounts/promotions, informed by an equity analysis of affordability and accessibility, to encourage use of Metrolink for special events and weekend travel, which will increase ridership and network efficiency.	05	05	05	05	05
P7	Expanded Ridership Development and Marketing Program	Studying the feasibility of new Ridership Development and Marketing program and pilot where feasible. Actions could include: • Commuter benefits programs and Pass programs • Trip planning tools • Support for van pooling and carpooling to access stations	↗	05	05	05	05
P8	Customer Experience Plan	Reviewing the existing customer experience for a range of rider profiles and identifying point improvements to the customer experience that can drive ridership. Pilot these improvements on high priority lines and scale when resources are available.	05	05	05	05	05

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

↗ Consider if additional resources become available in ten-year or thirty-year horizon

#	Policy Action	Description	Scenario 1 Reduced Operating Resources	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today + Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Resources
P9	Service and Loading Standards Policy	Reviewing existing loading standards and develop a new loading standard policy with upper thresholds (add service) and lower thresholds (consider rationalizing service) on a line by line basis by type of market (example: emerging, off-peak, established). The loading standard policy would be based on a range of metrics, to create a decision-making process to optimize service provision based on ridership, revenue, and revenue goals.	05	05	05	05	05
P10	Update and Continuous Improvement	Update the plans and policies included in the second five-year horizon with an emphasis on continuing to refine actions from the first five-year horizon and: • Scaling, expanding, or discontinuing pilots initiated in the first 5-year horizon based on lessons learned, and overall scalability • Delivering additional interventions identified in plans or policies that have been advanced to implementation readiness	10	10	10	10	10
P11	Cost and Revenue Allocation Review	With the forecast of COVID recovery and completion of SCORE Phase 1 as motivating milestones, conduct a review of cost and revenue allocation methodologies in the second five-year period.	10	10	10	10	10

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

Consider if additional resources become available in ten-year or thirty-year horizon

Policy Actions at a Station Level

Many of the proposed policy actions defined in **Figure 27** are focused on improving station accessibility and customer experience. Based on the market analysis, an initial set of priorities for the station access plan, expanded Ridership Development and Marketing program, parking strategy, and service integration plan have been developed and are shown in the chart. Priorities are based on a four-point system: green for highest priority, yellow for high priority, pink for moderate priority, and grey for consideration as resources become available. The following considerations were taken in the prioritization process:

- **Station Access** – population and employment within station catchment.
- **Ridership Development and Marketing Program** – the number of people who work within the station's catchment.
- **Parking** – parking utilization and number of people who live or work within driving access distance. Stations with low utilization and high population catchment have been classified as 'marketing'. These stations will receive increased marketing efforts to make use of available spaces. Those stations with higher utilization and high catchment have been classified as 'management' for increased management, such as through a yield management mechanism, to control demand for constrained parking supply.
- **Service Integration** – based on the number of people who live or work within transit access of a station and the number of surface transit routes that connect to the station.

Like other policy actions, moving forward on station-level policy actions does not vary significantly across resource scenarios.

Riding is fun, for the younger generation especially. If you want someone to ride, you need to make the experience enjoyable. We have a lot of choice riders who have the option to drive, but choose to take the train because it's enjoyable.

Javier "John" Dutrey, Mayor, City of Montclair

Figure 27: Station Priorities for Policy Action Delivery

Station	Station Access (P1)	Parking Utilization	Parking Strategy (P1)	Service Integration (P5)	Ridership Dev. & Marketing Program (P7)
Anaheim		85%			
Anaheim Canyon		68%			
Baldwin Park		17%	Marketing		
Buena Park		100%	Management		
Burbank – Downtown		73%			
Burbank Airport – North		No Data			
Burbank Airport – South		100%	Management		
Cal State LA		No Data			
Camarillo		80%			
Chatsworth		69%			
Claremont		68%			
Commerce		41%	Marketing		
Corona – North Main		71%			
Corona – West		89%	Management		
Covina		68%			
El Monte		62%	Marketing		
Fontana		79%			
Fullerton		75%			
Glendale		72%			
Industry		56%	Marketing		
Irvine		58%	Marketing		
Jurupa Valley / Pedley		56%	Marketing		
LA Union Station		No Data			
Laguna Niguel		59%	Marketing		
Lancaster		49%	Marketing		
Montclair		63%	Marketing		
Montebello / Commerce		11%	Marketing		
Moorpark		51%	Marketing		
Newhall		59%	Marketing		

Highest Priority High Priority Moderate Priority Implement Policy when resources permit

Marketing to be considered to make use of unutilized parking spaces.
Management of parking spaces to be considered to regulate parking demand.

Station	Station Access (P1)	Parking Utilization	Parking Strategy (P1)	Service Integration (P5)	Ridership Dev. & Marketing Program (P7)
Northridge		62%	Marketing		
Norwalk / Santa Fe Springs		93%	Management		
Orange		80%			
Oxnard		75%			
Palmdale		24%	Marketing		
Pomona – Downtown		No Data			
Pomona – North		93%	Management		
Rancho Cucamonga		69%			
Rialto		46%	Marketing		
Riverside – Downtown		93%	Management		
Riverside – La Sierra		89%	Management		
San Bernardino – Depot		72%			
San Bernardino – Downtown		No Data			
San Clemente North Beach		67%			
San Clemente Pier		86%	Management		
San Juan Capistrano		88%	Management		
Santa Ana		80%			
Santa Clarita		87%	Management		
Simi Valley		34%	Marketing		
Sun Valley		54%	Marketing		
Sylmar / San Fernando		54%	Marketing		
Tustin		63%	Marketing		
Upland		100%	Management		
Van Nuys		54%	Marketing		
Ventura East		52%	Marketing		
Via Princessa		98%	Management		
Vincent Grade / Acton		92%	Management		

Highest Priority High Priority Moderate Priority Implement Policy when resources permit

Marketing to be considered to make use of unutilized parking spaces.
Management of parking spaces to be considered to regulate parking demand.

Service Strategic Actions

Service improvements define an expanded train service by line, direction of travel, and time of day to serve market needs and unlock increased ridership. The Plan identifies principles and a general direction for service changes, which will be studied and developed further as part of service strategies to be developed over the next five years. These service actions will support Metrolink's strategic goals, leverage the key insights identified in the market analysis, and leverage funded and committed infrastructure programs. Service Actions in **Figure 28** are based on three simple options:

- **Service Rationalization**: identifying opportunities to reduce expenditure, if required, by removing services that are poorly utilized or by reducing services where existing demand is overserved. This applies to resource-constrained scenarios only (1, 2, and 4).
- **Service Optimization**: identifying ways to optimize existing operating resources and equipment to provide services where there is unmet demand and reduce services where existing demand is overserved.
- **Service Expansion**: identifying ways to expand service to better serve high potential markets, either with existing capital assets or after the successful delivery of funded and committed assets. This applies to additional resource scenarios only.

Service Action Delivery

All service actions included in the Plan will be developed to support Metrolink's strategic goals, leverage the key insights identified in the market analysis, and leverage funded and committed infrastructure programs. Each service action seeks to make optimal use of infrastructure. The SRTP includes the service changes to be delivered through 2030. Metrolink is currently delivering a range of capital projects that will increase the level of service Metrolink can operate (i.e. increase the capacity for expanded service).

It should be noted that capacity on the Orange County Line, 91/Perris Valley Line, Inland Empire – Orange County Line and Riverside Line is currently limited by agreements with track owners and not by track capacity.

The service actions deployed in each scenario respond to this new infrastructure differently based on the level of operating resources available to Metrolink, with some scenarios also making use of expanded capital programming from 2025 onward to deliver further service expansions. **Figure 28** provides an overview of how each scenario leverages this available capacity.

For each scenario and horizon, an analysis has been conducted to determine a set of potential service improvements that would make best use of the infrastructure and operational resources available. Resource availability has the most significant impact on strategy related to service deployment:

- Constrained Scenarios:
  - Scenario 2 (and Scenario 4) – Baseline Scenario – In response to constrained baseline resources, a mix of potential service adjustments, both increases and reductions are required to optimize service.
  - Scenario 1 – Constraining resources more with Scenario 1 involves even more significant service reductions, as much as 40% cut in service spread unevenly across Metrolink's 7 lines.
- Unconstrained Scenarios:
  - Scenarios 3 and 5: Scenarios that allow for resource growth, allow for increased frequency of service especially beyond 2025, when new infrastructure associated with the SCORE program is available. Due to projected revenue growth, subsidy growth may be less than 3% per year.

Figure 29 identifies specific line by line service changes included in each service action package.

Figure 28: Service Actions

Action #	Service Action	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
S1	Service Rationalization 1	• P9 – loading standards alongside an expanded market analysis to prioritize markets to sustain service and those for which rationalization will be required and opportunities for service efficiencies • Capital program disruption mitigation plan (ensuring that the current ongoing capital program does not have a severe impact on service)	05	Lite 05		Lite 05	
S2	Service Optimization	• Opportunities to prepare for future infrastructure to be delivered beyond 2025 and opportunities to reallocate services on line between peak and off-peak or by direction to unlock new demand • Application of P9- loading standards to prioritize markets for development • Expanded market and operational analysis to identify a range of service pilots to implement by 2023, including service pilots for special events • Opportunities to align with policy actions, including P2 (fare strategy), P6 (special events fares), P7 (expanded Ridership Development and Marketing), and P8 (customer plan) • Capital program disruption mitigation plan		05		05	

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

30 Initiated in thirty-year horizon

Consider if additional resources become available in ten-year or thirty-year horizon

Lite = Scenarios that focus on a service optimization strategy will also consider a lite version of the rationalization and expansion strategies in order to prepare for unpredictable changes in operating resources.

Action #	Service Action	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
S3	Service Expansion 1	• Initial ways to rationalize or optimize existing services prior to expansion to align with market need • Identifying optimal services to capture unmet demand or potential markets by time of day, direction of travel, and line • Piloting new services where possible prior to scaling them • Applying P9 (loading standards) to inform service expansion • Broader 're-thinks' of the service strategies to best leverage additional resources • Opportunities to prepare for future infrastructure to be delivered in 2025 and beyond • Opportunities to negotiate additional capacity to support additional service 2025 and beyond • Opportunities to align with Policy Bundle 2 or 3, including P5 (service integration) and policies identified in S2 • Capital program disruption mitigation plan • This service action may also be developed under scenarios without operations growth but should be completed as an expansion to the Service Optimization (S2).		Lite 		Lite 	

 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

 Initiated in thirty-year horizon

 Consider if additional resources become available in ten-year or thirty-year horizon

Lite = Scenarios that focus on a service optimization strategy will also consider a lite version of the rationalization and expansion strategies in order to prepare for unpredictable changes in operating resources.

Action #	Service Action	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
S4	Service Rationalization 2	Following the implementation of new infrastructure planned for delivery before the 10-year horizon, S1 (Service Rationalization 1) is revised and includes: updated P9 – loading standards alongside an expanded market analysis to prioritize markets to sustain service and those for which rationalization will be required.	10	10		10	
S5	Service Optimization 2a	Service Optimization 2a(S5) will focus on the application of an updated P9- loading standards and other policies where relevant, while also re-optimizing services to make best use of new infrastructure that comes online during the five-year horizon.		10			
S6	Service Optimization 2b	Similar to Service Optimization 2A (S5), however this service action can also make use of additional equipment included in capital expansion scenarios.				10	
S7	Service Expansion 2a	Under scenarios where Metrolink has access to expanded operating resources but does not have additional capital resources, a service expansion service action will be developed to make best use of new capital projects and expand strategically within capital constraints (such as equipment).		Lite 10	10		

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

30 Initiated in thirty-year horizon

Consider if additional resources become available in ten-year or thirty-year horizon

Lite = Scenarios that focus on a service optimization strategy will also consider a lite version of the rationalization and expansion strategies in order to prepare for unpredictable changes in operating resources.

Action #	Service Action	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
S8	Service Expansion 2b	Under scenarios where Metrolink has access to expanded operating resources, service expansion will continue and will build upon Service Expansion 1 (S3). This service action will consider the long-term potential for new capital investment, leveraging new equipment and online infrastructure (SCORE Phase 1, Link US Phase A, AVL Improvements), and updates policies (including P9 – loading standards (Table 4.2)).				Lite 10	10
S9	Service Optimization 3 (supersedes optimization Strategy 2b – S6)	Develop a revised optimization service action to fully leverage the outcomes of equipment strategy 1 (C2) and rehabilitation plans completed in 10-year horizon based on changing market needs, customer feedback, and system performance.				30	
S10	Service Expansion Strategy 3 (supersedes expansion Strategy 2b – S8)	Develop an extensive service expansion and improvement strategy that fully leverages implementation of an updated Rail Fleet Management Plan and associated equipment upgrades completion of equipment strategy 1 (C2), capital plan 1 (C2), and major rehabilitation preparing for service commitments in the SCAG SoCal Connect RTP/SCS by 2035.					30

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

30 Initiated in thirty-year horizon

Consider if additional resources become available in ten-year or thirty-year horizon

Lite = Scenarios that focus on a service optimization strategy will also consider a lite version of the rationalization and expansion strategies in order to prepare for unpredictable changes in operating resources.

Figure 29: Line by Line Service Improvements for Each Scenario

Scenario	Five-Year Horizon	Ten-Year Horizon	Thirty-Year Horizon
Ventura County Line			
Scenario 1 – Reduced Operating Resource	• Removed AM peak train in each direction Moorpark-LAUS • Removed off-peak train in each direction Moorpark-LAUS • Removed late evening train in each direction Burbank Airport-LAUS	• Removed a mix of Los Angeles to Burbank Airport and Los Angeles to Ventura County trains in each direction throughout the day	
Scenario 2 – Similar Operating Resources as Today	• New Saturday service • Removed off-peak train in each direction Moorpark-LAUS	• New Half-Hourly Peak-Direction Service • New Hourly reverse-peak service	
Scenario 3 – Expanded Operating Resources	• Service improved over period to 30 mins peak hour, 60 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service at 30 mins peak hour, 30 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• New Saturday service • Removed off-peak train in each direction Moorpark-LAUS	• New Half-Hourly Peak-Direction Service • New Hourly reverse-peak service	• Service improvements realized due to service optimization for new capital improvements
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Service improved to 30 mins peak hour, 60 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak
Antelope Valley Line			
Scenario 1 – Reduced Operating Resource	• Removed two shoulder peak AM trains in each direction Lancaster-LAUS • Removed evening train in each direction Lancaster-LAUS	• Removed an additional three services in each direction throughout the day	
Scenario 2 – Similar Operating Resources as Today	• Hourly all-day service to Santa Clarita • Bi-hourly service to Lancaster	• Reduced evening service	
Scenario 3 – Expanded Operating Resources	• Service improved over period to 60 mins peak hour, 60 mins off-peak	• Service improved over period to 30 mins peak hour, 60 mins off-peak	• Service at 30 mins peak hour, 60 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Hourly all-day service to Santa Clarita • Bi-hourly service to Lancaster	• Reduced evening service	• Service improvements realized due to service optimization for new capital improvements.
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Service improved to 60 mins peak hour, 60 mins off-peak	• Service improved over period to 60 mins peak hour, 60 mins off-peak	• Service improved over period 30 mins peak hour, 30 mins off-peak

Increased Service from Existing

Similar Service to Existing

Reduced Service from Existing

Scenario	Five-Year Horizon	Ten-Year Horizon	Thirty-Year Horizon
San Bernardino Line			
Scenario 1 – Reduced Operating Resource	• Removed two early morning trains in each direction. • Removed two late evening trains in each direction	• Removed an additional four services in each direction throughout the day	
Scenario 2 – Similar Operating Resources as Today	• Hourly all-day service • Half hourly reverse peak service • Expanded peak service (including express-type service)	• Reduced evening service • New Hourly reverse-peak service	
Scenario 3 – Expanded Operating Resources	• Service improved over expanded peak period to 30 mins bidirectional, 60 min off-peak	• Service improved over period to 30 mins peak hour, 60 mins off-peak	• Service at level of 30 mins peak hour, 60 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Hourly all-day service • Half hourly reverse peak service • Expanded peak service (including express-type service)	• Reduced evening service • New Hourly reverse-peak service	• Service improvements realized due to service optimization for new capital improvements.
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Service improved over expanded peak period to 30 mins bidirectional, 60 min off-peak	• Service improved over period to 30 mins peak hour, 60 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak
Riverside Line			
Scenario 1 – Reduced Operating Resource	• Reduced one peak service in each direction	• Reduced additional two peak services in each direction	
Scenario 2 – Similar Operating Resources as Today	• Optimize service		
Scenario 3 – Expanded Operating Resources	• Optimize service		
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Optimize service		
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Optimize service		• Service improved over period to 30 mins peak hour, 30 mins off-peak

Increased Service from Existing

Similar Service to Existing

Reduced Service from Existing

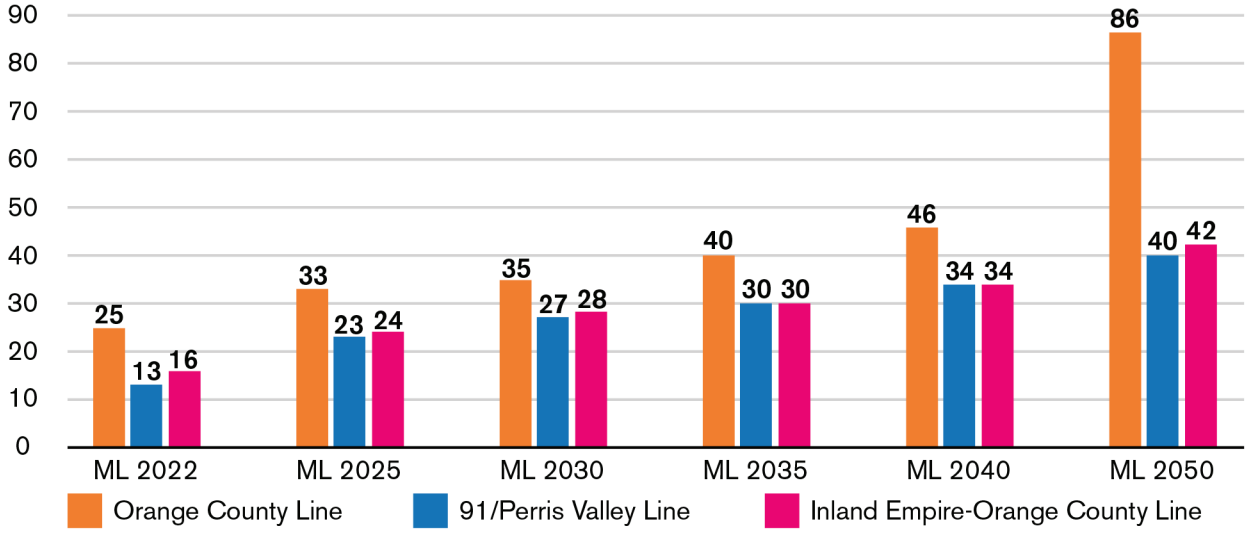
Scenario	Five-Year Horizon	Ten-Year Horizon	Thirty-Year Horizon
Orange County Line			
Scenario 1 – Reduced Operating Resource	• Removed an off-peak in each direction. • Removed a late evening train in each direction	• Removed an additional two services in each direction throughout the day	
Scenario 2 – Similar Operating Resources as Today	• Increased OCL Service	• Increased OCL service	
Scenario 3 – Expanded Operating Resources	• Service improved to 30 mins peak hour, 60-180 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service at level of 30 mins peak hour, 30 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Increased OCL Service	• Increased OCL service	• Service improvements realized due to service optimization for new capital improvements
Scenario 5 – Expanded Operating Resources and + Additional Capital Resources	• Service improved to 30 mins peak hour, 60-180 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak
IE-OC Line			
Scenario 1 – Reduced Operating Resource	• Removed two morning services in each direction	• Removed an additional two services in each direction throughout the day	
Scenario 2 – Similar Operating Resources as Today	• Increase Service		
Scenario 3 – Expanded Operating Resources	• Service improved to additional peak hour service, 120-180 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service at 30 mins peak hour, 30 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Increase Service		
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Service improved to additional peak hour service, 120-180 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak
Perris Valley Line			
Scenario 1 – Reduced Operating Resource	• Removed two peak direction services in each direction • Removed one off-peak service in each direction	• Removed one additional peak direction service in each direction	
Scenario 2 – Similar Operating Resources as Today	• Increase Service		
Scenario 3 – Expanded Operating Resources	• Service improved to 30 mins peak hour service, additional off-peak service	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service at 30 mins peak hour, 30 mins off-peak
Scenario 4 – Similar Operating Resources as Today + Additional Capital Resources	• Increase Service		• Service improvements realized due to service optimization for new capital improvements.
Scenario 5 – Expanded Operating Resources + Additional Capital Resources	• Service improved to 30 mins peak hour service, additional off-peak service	• Service improved over period to 30 mins peak hour, 30 mins off-peak	• Service improved over period to 30 mins peak hour, 30 mins off-peak

Increased Service from Existing

Similar Service to Existing

Reduced Service from Existing

Figure 30: Projected Metrolink Weekday Op Slots - Metrolink Lines (Does Not Include Weekend Services)



State of Good Repair Strategic Actions

The third type of strategic action involves investment in rehabilitation and SOGR. Given the significant capital expansion and the existence of assets that are beyond a State of Good Repair, investment in the rehabilitation program and SOGR is warranted. Rehabilitation and SOGR programming targets investment into Metrolink's existing capital assets to support the SBP strategic goals by:

- Ensuring the network remains at the highest state of operational readiness;
- Proactively addressing potential risks to safety, reliability, and customer comfort;
- Delivering day to day maintenance requirements;
- Implementing asset renewal once they are lifecycle-expired; and
- Responding to emergent and unplanned needs as well as planned and anticipated needs for rehabilitation.

Tying SOGR to the commitments outlined in this Plan will enable Metrolink to continue improving service, achieve greater reliability and ensure safety remains at the forefront of all priorities. In turn, this will give Metrolink staff the ability to further optimize service and will contribute to increased ridership. Risk and costs are also taken into account in Action R2 – "Develop a 10 Year SOGR Plan" (included explicitly within the prioritization framework), leading to a balanced, transparent set of decision criteria.

Reviewing SOGR projects through the lens of the Plan's commitments will result in a prioritization of projects that contribute the most to the achievement of the goals outlined in this Plan, based on clear performance metrics such as level of service, on-time performance, and increased operational flexibility.

This can only be achieved with an ongoing commitment to fund SOGR projects, primarily coming from Metrolink's Member Agencies, as has traditionally been the case, but also seeking additional outside funding, such as competitive state and federal grants and Railroad Rehabilitation and Improvement Financing (RRIF) loans.

State of Good Repair Action Delivery

SOGR and rehabilitation are delivered across the following asset categories:

- Track
- Structures
- Systems
- Maintenance of Way (MOW) Vehicles
- Rolling Stock
- Facilities

Figure 31 outlines the range of SOGR and rehabilitation actions identified in this Plan and **Figure 32** shows the average annual costs required to maintain SOGR. The SRTP includes the SOGR improvements to be delivered through 2030. In the initial five-year horizon, the focus of SOGR is delivering the committed backlog of SOGR projects, while proactively identifying the next slate of projects. The ten-year horizon for rehabilitation and SOGR programming expands upon the five-year horizon with a continued emphasis ensuring seamless and safe operations of the Metrolink network. The 30-year horizon for rehabilitation and SOGR is a continuation of the approach taken for the five-year and ten-year horizons. For the 30-year horizon, Metrolink's approach to rehabilitation and SOGR will be influenced by which scenario Metrolink acted within in previous horizons, otherwise known as a "path dependency":

- Constrained Scenarios:
    - Scenarios 1 and 2 – Scenarios with constrained capital funding resources continue the existing trend of investing in a limited set of rehabilitation projects, limiting investment in long-term multi-year projects and potentially growing the backlog. The same applies to Scenario 3.

      Without access to resources in the five-year and ten-year plan, a new 30-year horizon rehabilitation needs assessment will be conducted to prioritize and advance urgent rehabilitation needs
- Unconstrained Scenarios:
    - Scenarios 4 and 5 – If Metrolink had access to capital resources to invest in rehabilitation and SOGR, the initial ten-year plan identified in the five-year horizon will be complete.

Figure 31: SOGR Actions

#	State of Good Repair Strategic Actions (APC)	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
R1	Complete Funded Rehabilitation Plan	Metrolink will complete rehabilitation programming in its current capital budget.	05	05	05	05	05
R2	Develop 10-Year Rehabilitation and SOGR Plan	Metrolink is already developing a 10-year plan that identifies key priorities for SOGR and rehabilitation across Metrolink's capital assets. The development of the plan will be coordinated with the Member Agencies. This plan will include: • The existing network • In delivery, funded, and committed capital projects • Prioritization framework linking rehabilitation and SOGR gaps to strategic goals • Funding needs/gap analysis • Timelines for planned needs and currently unfunded backlog • Frameworks to effectively manage unplanned and urgent needs	05	05	05	05	05
R3-8	Expanded Rehabilitation Programs	Under scenarios where Metrolink has access to additional capital resources, urgent and high-priority elements of R2 10-year rehabilitation plan will be expedited and delivered as needed in the five-year horizon. These rehabilitation programs will aim to improve the utility, functionality, and performance of capital assets and all funded rehabilitations will be clearly linked to goals and objectives with an emphasis on reliability, safety, and comfort.				05	05

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

30 Initiated in thirty-year horizon

#	State of Good Repair Strategic Actions (APC)	Description	Scenario 1 Reduced Operating Resource	Scenario 2 Similar Operating Resources as Today	Scenario 3 Expanded Operating Resources	Scenario 4 Similar Operating Resources as Today, Additional Capital Resources	Scenario 5 Expanded Operating Resources and Additional Capital Budget
R4	Rehabilitation Plan Update	If previous horizons had expanded rehabilitation programming, Metrolink will update the 10-year plan to note complete projects and prioritize an additional five years' worth of projects. Metrolink will consider new technologies, techniques, and emergent market needs when updating the plan.				10	10
R10	Develop New Rehabilitation Plan	If previous horizons did not have expanded rehabilitation investment, a new 10-year plan will be developed that focuses on key rehabilitation backlog, new technologies, changing techniques, and emergent market needs to develop a new plan.	30	30	30		

05 Initiated in five-year Horizon, continued as needed in ten and thirty-year horizons

10 Initiated in ten-year horizon and continue as needed to the thirty-year horizon

30 Initiated in thirty-year horizon

Figure 32: SOGR Estimated Average Annual Costs

Asset Category	Backlog	Annual Cost
Track	$109.63m	$28.71m
Structures	$125.05m	$8.73m
Systems	$98.40m	$17.95m
MOW Equipment and Vehicles	$16.52m	$2.49m
Rolling Stock	$87.67m	$24.03m
Facilities	$32.57m	$4.77m
Total	**$469.83m**	**$86.68m**

State of Good Repair Financial Plan

Metrolink developed a programmatic approach to SOGR with the creation of the Metrolink Rehabilitation Plan (MRP). As a supplement to this Strategic Business Plan, Metrolink will develop an SOGR Financial Plan that will ensure the network remains at the highest state of operational readiness. The SOGR Financial Plan will describe the condition, risk and age-based assessments used to determine priorities, and will identify the backlog, provide effective options to address the backlog and funding or financing methods to eliminate the backlog. That way, Metrolink can:

- Proactively address potential risks to safety, reliability, and customer comfort;
- Deliver day-to-day maintenance requirements;
- Implement asset renewal once they are lifecycle expired; and
- Respond to emergent and unplanned needs as well as planned and anticipated needs for rehabilitation.

Capital Strategic Actions

Capital programming and investments allow Metrolink to augment customer service and increase service frequency throughout the day to better serve existing and potential customers. Capital programming includes:

- Corridor-based projects such as additional tracks and signal improvements that improve reliability, increase potential frequency, or allow for faster service
- Station works that improve customer experience and station connectivity to communities, places of employment, and other transit agencies
- Equipment expansion that allows Metrolink to deploy more trains throughout the day

The Plan explores how incremental capital programs beyond the existing portfolio of funded and committed projects can support Metrolink's strategic goals across the five scenarios. This Capital Strategic Action includes the existing Funded and Committed Projects alongside potential capital projects for each scenario.

Funded and Committed Projects

Prior to the development of this SBP, Metrolink embarked on a historic capital program that will transform the railway network. This program includes the major investments and their associated benefits identified in **Figure 32**, which broadly fit into three major capital investment programs:

- Early SCORE Phase 1, in delivery until 2025
- Link US Phase A (two run-through tracks), in delivery until 2027
- Antelope Valley Line Improvements, in delivery until 2027, with some infrastructure coming online in the interim

In addition, Metrolink member SBCTA led the development of the Redlands Passenger Rail Project, extending service to Redlands using a new vehicle time - rail multiple units, and ready for service in 2022.

New and Expanded Sources of Funding and Financing

These programs award funds on a discretionary (competitive) basis rather than based on allocation formulas. Metrolink can apply directly to these programs, or in conjunction with one or more Member Agencies.

- Federal discretionary grant and loans programs
  - FRA Consolidated Rail Infrastructure and Safety Improvements (CRISI)
  - FRA Federal-State Partnership for State of Good Repair
  - Railroad Rehabilitation and Improvement Financing (RRIF) loan program (financing, not funding source; funding source to be explored)
  - Better Utilizing Investments to Leverage Development (BUILD), if change in priorities occurs
- State programs
  - Transit and Intercity Rail Capital Program (TIRCP)
- VMT Banking (proposed at State/ regional level to respond to SB 743)
- A region wide fee (potentially from TNC's) dedicated to operations to mitigate GHG emissions and congestion
- Local/regional sales tax measures

The successful delivery of the investments in **Figure 33** will form a crucial element of the Plan and are assumed to be included in all scenarios. This table articulates the desired benefits and, where relevant, the frequency improvements facilitated by the funded program.

Figure 33: Funded and Committed Capital Investments (Included in all Scenarios/Capital Strategic Action Packages)

Line	2020-2022	2023-2025
Ventura County Line		• **Improvements**: Simi Valley Double Track, Chatsworth Station, Burbank Junction, Burbank-LA signal improvements • **Benefits**: Enables 30-minute peak headways, 60-minute off-peak LAUS-Moorpark
Antelope Valley Line		• **Improvement**: Brighton to Roxford Double Track (Planning and Final Design) • **Benefit**: Reduces trip time and improves reliability and therefore the customer experience • **Improvement**: Brighton to McGinley Double Track, Balboa Double Track, Canyon Sidney Extension, Lancaster Terminal Improvements • **Benefit**: Enables 30-minute headways Los Angeles to Santa Clarita, 60-minute headways Los Angeles to Lancaster
San Bernardino Line	• **Improvements**: Redlands Passenger Rail • **Benefits**: Extends service 9 miles east of San Bernardino to Redlands and provides access to new markets	• **Improvements**: Lone Hill to White Double Track and Lilac to Rancho Double Track (Planning, Environmental Review, and Final Design) • **Benefits**: Reduces trip time and improves reliability • **Improvements**: Marengo Siding, Rancho Cucamonga Siding, El Monte Station • **Benefits**: Enables 30-minute peak headways, 60-minute off-peak headways, peak skip-stop service
Riverside Line		• **Improvements**: Riverside Downtown Station • **Benefits**: Improves reliability and therefore the customer experience
Orange County Line		• **Improvements**: Rosecrans/Marquardt Grade Separation, Fullerton Area Improvements, Irvine Station, Orange County Signals (Avery-Songs), OC Line Capacity Improvements (Laguna Niguel-San Juan Capistrano, Serra-Beach, County Line-Songs), OCMF • **Benefits**: Builds towards 30-minute headways Fullerton-Laguna Niguel, 60-minute headways to Oceanside, improves safety, allows for more cost-efficient fleet deployment
Inland Empire - Orange County Line		• **Improvements**: Riverside Downtown Station, Anaheim Canyon Station, Olive Sub Signals (Atwood-Orange), Irvine Station, Orange County Signals (Avery-SONGS), OC Line Capacity Improvements (Laguna Niguel-San Juan Capistrano, Serra-Beach, County Line-Songs), OCMF • **Benefits**: Builds towards 30-minute headways Atwood-Laguna Niguel, 60-minute headways to Oceanside
91/Perris Valley Line	• **Improvement**: Rosecrans/ Marquardt Triple Track • **Benefit**: Adds 22 new slots for a total of 50 train movements, LA-Fullerton	• **Improvements**: Rosecrans/Marquardt Grade Separation, Fullerton Area Improvements, Placentia Station, Riverside Downtown Station • **Benefits**: Improves reliability, increases ridership with addition of new Placentia station, providing Metrolink access to a key employment area

Capital Action Delivery

Figure 34 outlines the range of capital programs included in this Plan. Each Capital Strategic Action Package illustrates how Metrolink's capital investment plan will evolve based on the level of resources available across the three time horizons.

- Constrained Scenarios:
  - Scenarios 1 and 2 – Scenarios with constrained capital funding resources focus on completing the pipeline of funded capital projects through 2027.
- Unconstrained Scenarios:
  - Scenarios 4 and 5 – If Metrolink had access to additional capital resources to invest in further capital expansion, overlapping cycles of investment and project development could be pursued:
  - Five-year horizon (SRTP) - Plan an expanded portfolio of capital projects for delivery in the ten-year and thirty-year horizons.
  - Ten-year horizon (SRTP) – In addition to already funded projects, deliver additional capital projects identified in the five-year horizon and plan for an expanded capital build out.
  - 30-year horizon - Continue projects in progress for delivery by 2035 and explore future longer-term plans to deliver additional capital in response to a changing market

How should Metrolink respond to known and unexpected challenges and opportunities? How can Metrolink focus effort and resources to improve service and grow ridership? If the context Metrolink operates in was to change, would Metrolink be prepared to respond in an intentional and strategic manner?

Figure 34: Capital Actions by Scenario

				Scenario				
Project	**Line**	**Year**	**$ (m)**	**1**	**2**	**3**	**4**	**5**
2020-2022 Funded and Committed (SRTP) (C1)								
Redlands Passenger Rail	SBL	2020-22	359.7	✓	✓	✓	✓	✓
2023-2025 Funded and Committed (SRTP) (C1)								
Brighton to Roxford Double Track (Planning and Final Design)	AVL	2023-25	120*	✓	✓	✓	✓	✓
Simi Valley Double Track	VCL	2023-25	67.5	✓	✓	✓	✓	✓
Chatsworth Station	VCL	2023-25	25.2	✓	✓	✓	✓	✓
Burbank Junction	AVL/VCL	2023-25	0	✓	✓	✓	✓	✓
Burbank-LA signal improvements	AVL/VCL	2023-25	8.2	✓	✓	✓	✓	✓
Lone Hill to White Double Track (Planning and Final Design)	SBL	2023-25	71*	✓	✓	✓	✓	✓
Marengo Siding	SBL	2023-25	9.7	✓	✓	✓	✓	✓
Rancho Cucamonga Siding	SBL	2023-25	46.6	✓	✓	✓	✓	✓
El Monte Station	SBL	2023-25	22.2	✓	✓	✓	✓	✓
Lilac to Rancho Double Track (Planning and Final Design)	SBL	2023-25	101.5*	✓	✓	✓	✓	✓
Riverside Downtown Station	RIV/PVL	2023-25	14.5	✓	✓	✓	✓	✓
Fullerton Interlocker (Phase 1)	OCL	2023-25	132	✓	✓	✓	✓	✓
Commerce Station	OCL	2023-25		✓	✓	✓	✓	✓
Irvine Station	OCL	2023-25	61.4	✓	✓	✓	✓	✓
Orange County Signals (Avery-SONGS)	OCL	2023-25	6.5	✓	✓	✓	✓	✓
OC Line Capacity Improvements (Laguna Niguel-San Juan Capistrano, Serra-Beach)	OCL	2023-25	18.8	✓	✓	✓	✓	✓
OCMF	OCL	2023-25	58.3	✓	✓	✓	✓	✓
Anaheim Canyon Station	IE–OC	2023-25	29.86	✓	✓	✓	✓	✓
Olive Sub Signals (Atwood-Orange)	IE–OC	2023-25	1.1	✓	✓	✓	✓	✓
Placentia Station	PVL	2023-25	36	✓	✓	✓	✓	✓
Moreno Valley/March Field Station	PVL	2023-25	16	✓	✓	✓	✓	✓
Balboa Double Track Extension	AVL	2023-25	221	✓	✓	✓	✓	✓
Lancaster Terminal	AVL	2023-25		✓	✓	✓	✓	✓
Canyon Siding Extension	AVL	2023-25		✓	✓	✓	✓	✓
Brighton to McGinley Double Track	AVL	2023-25		✓	✓	✓	✓	✓
2025-30 Capital Plan 1 (SRTP) (C2)								
Moorpark Layover Yard improvements	VCL	2025-30	TBD				✓	✓
Additional Rolling Stock / Rolling Stock Retrofits	System	2025-30	TBD				✓	✓
Zero-Emissions Rolling Stock	System	2025-30	TBD				✓	✓
South Perris Station and Layover Facility Expansion	PVL	2025-30	38.8				✓	✓
Additional Equipment	PVL	2025-30	TBD				✓	✓

*Capital implementation (construction) costs require funding

				Scenario				
Project	**Line**	**Year**	**$ (m)**	**1**	**2**	**3**	**4**	**5**
2030 and Beyond (Capital Plan 2) (C3)								
Downtown Ventura Fairgrounds Station and Layover Facility	VCL	2030-	TBD				✓	
Santa Clarita-Lancaster capacity expansion	AVL	2030-	244.4				✓	
Lancaster Layover Facility Expansion	AVL	2030-	TBD				✓	✓
UP Los Angeles Subdivision Double Track	RIV	2030-	TBD				✓	✓
Riverside Layover Facility	RIV	2030-	TBD				✓	✓
BNSF San Bernardino Sub Triple Track (Atwood-Riverside-Rana)	IE-OC	2030-	TBD				✓	✓
Link US Phase B	System	2030-	TBD				✓	✓
BNSF San Bernardino Subdivision Triple Track (Fullerton-Atwood-Riverside)	OCL/PVL	2030-	2,274				✓	✓
TOTAL ($M)				1,310	1,310	1,310	3,883+	3,883+

Scenario Analysis

The scenarios and strategic action packages described in the previous sections of this Plan provide potential answers to these questions. Each of the four types of strategic actions make best use of available resources in any given scenario, for both constrained and unconstrained resources. They support Metrolink's goals and objectives within the SBP and demonstrate how Metrolink could act to answer these strategic questions and optimize:

- Ridership
- Revenue
- Change in automobile VMT and roadway congestion (as a proxy for environmental, economic prosperity, and quality of life metrics)
- Capital Expenditure
- Operating Expenditure

Low, medium, and high estimates for these metrics were estimated using historic data, regional travel models, strategic analysis and planning tools, and cost estimates developed in parallel studies. Ridership was forecast through to 2050, while financial assessment was conducted for the five and ten-year horizons based on best available information.

Ridership and Revenue Performance

The Strategic Action Package for each scenario was assessed using strategic ridership modeling over a five, ten (SRTP), and 30-year planning horizon. This analysis considered changes to services over time and supporting policy actions to estimate a range of potential ridership levels. **Figure 35** illustrates the medium level of ridership forecast for each scenario. Revenue forecasts for each scenario were generated based on ridership forecasts on a line by line basis using average fare data. The data presented in **Figure 36** illustrates forecast revenues with an assumed comparable fare structure to today.

Figure 35: Estimated Ridership by Scenario

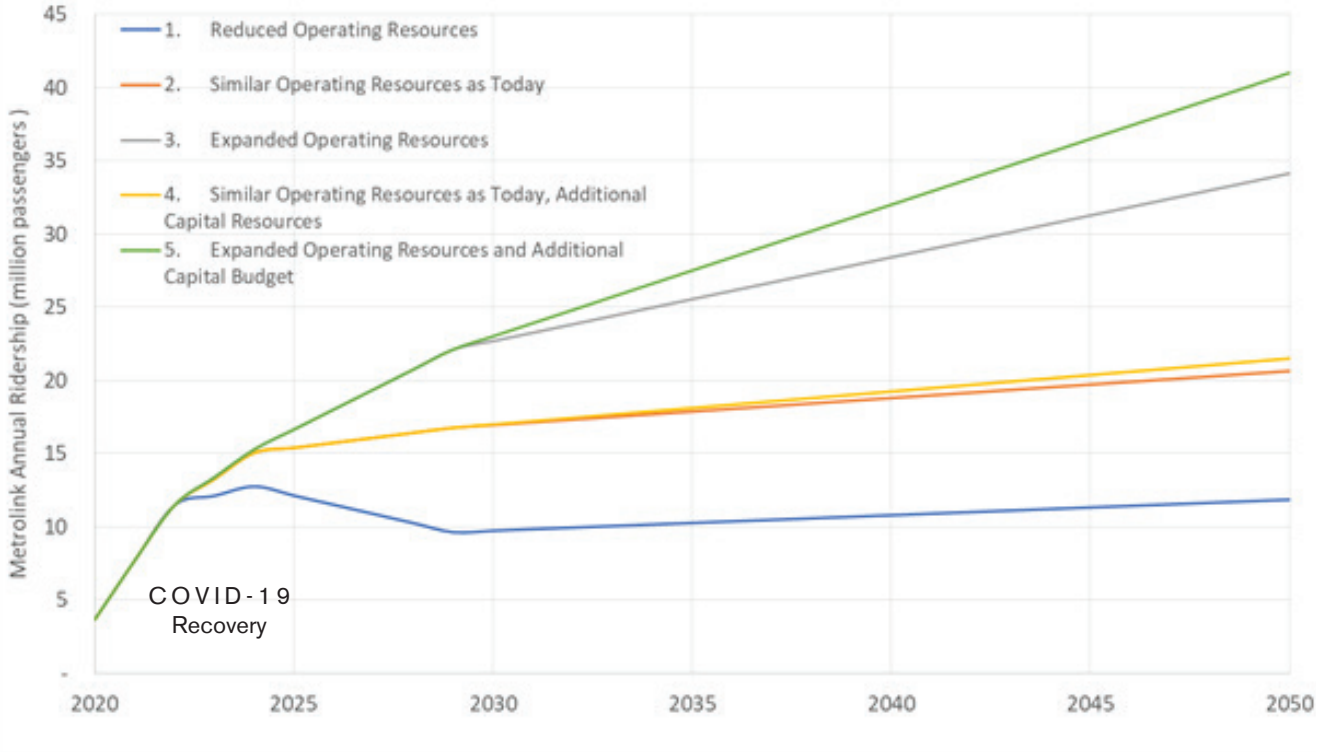
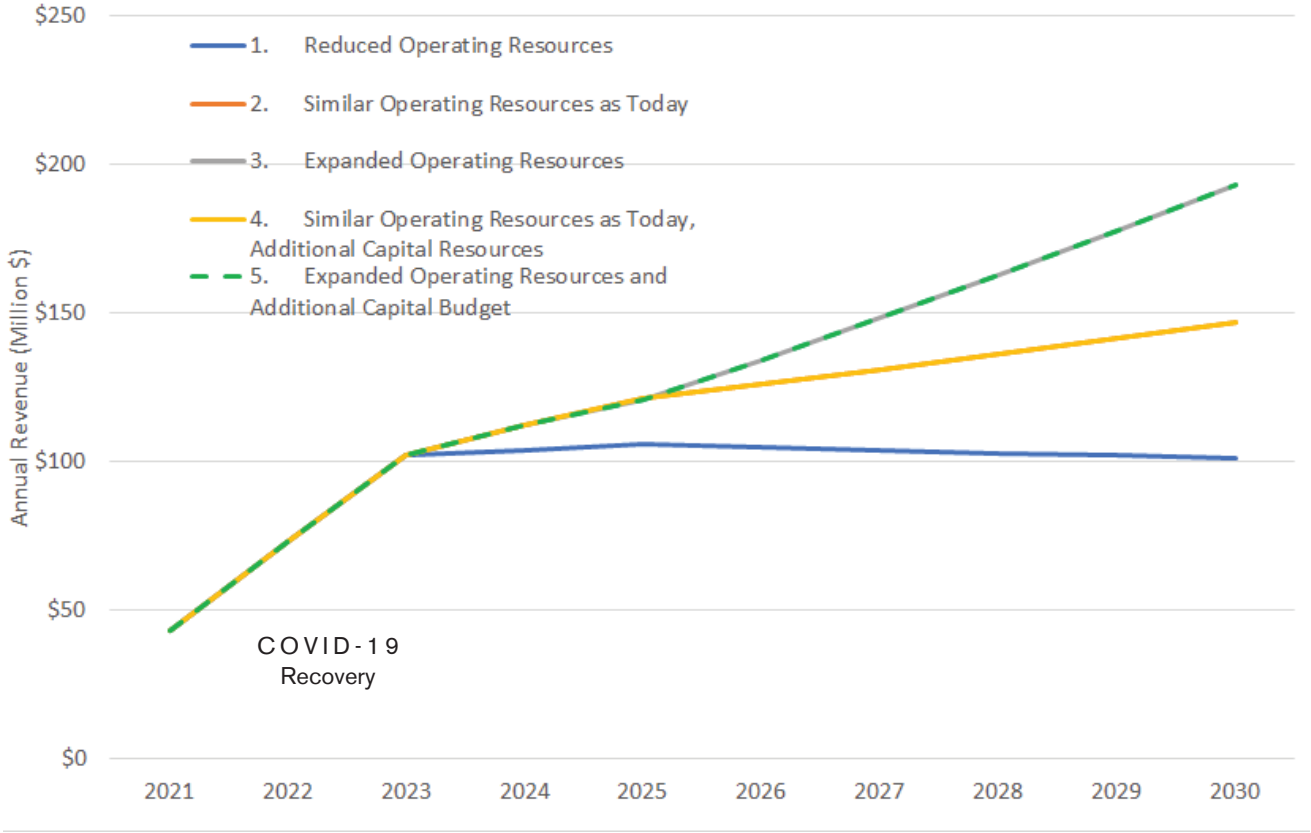


Figure 36: Estimated Revenue by Scenario



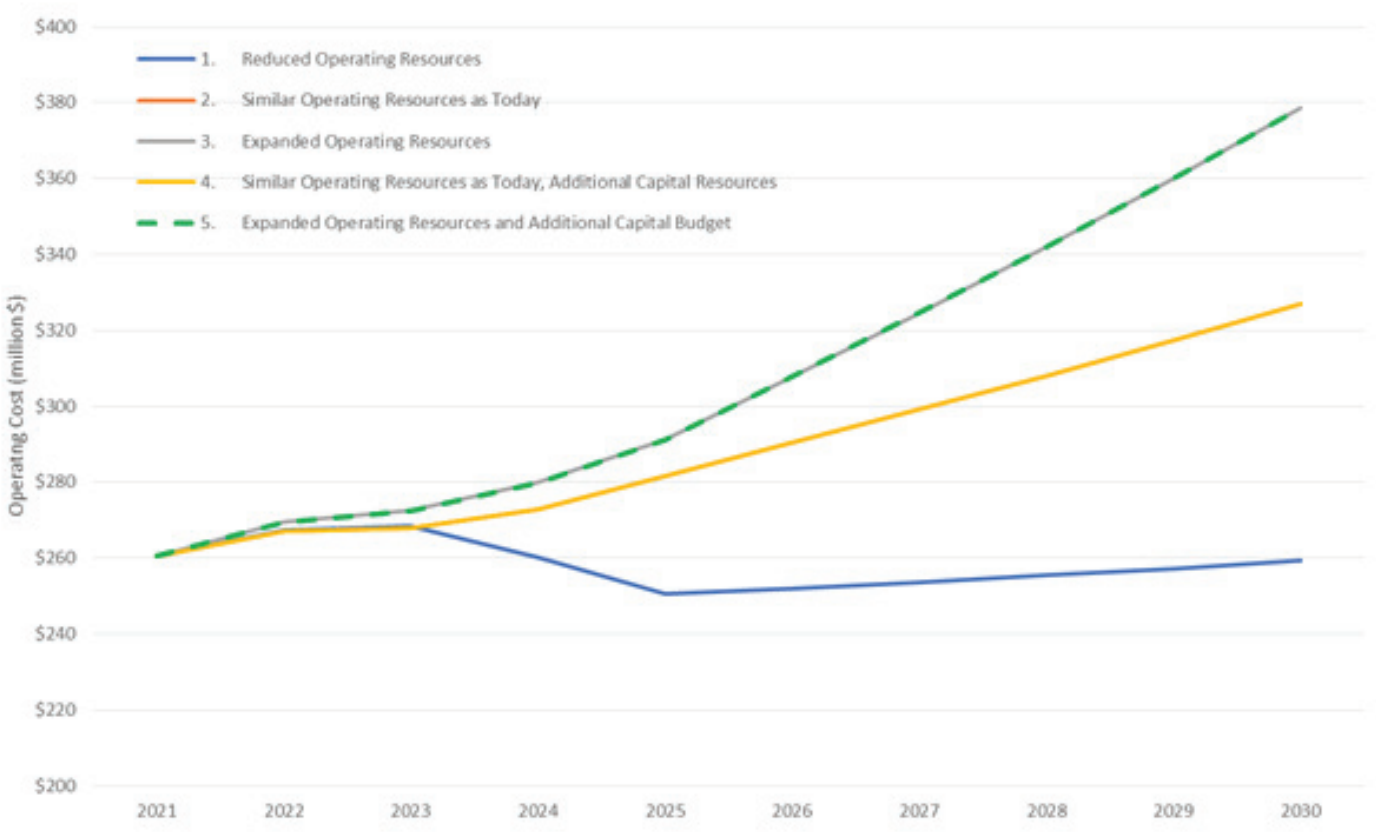
These forecasts demonstrate that:

- **All scenarios (constrained or unconstrained) are focused on recovery until 2022-2023 and will have similar ridership and revenue below 2019 levels** – this period reflects recovery from COVID-19, which has had severe impact on Metrolink's ridership and the overall Southern California economy.
- **Assuming that operating cost efficiencies and COVID-19 recovery are achieved between 2023 and 2025, increased operating resources beyond 2025 can double ridership compared to 2019 (11.9 million) by 2030 (end of the SRTP forecast period).** Scenarios 3 and 5 (with Unconstrained operating resources) invest operating resources into new service once new infrastructure comes online, between 2025 and 2027. By 2030, this increased service generates 35-40 percent more ridership than Constrained scenarios (2, and 4).
- **Increased ridership will also generate substantial revenue increases** – (Unconstrained) Scenarios 3 and 5 are forecast to increase revenue by over 35 percent compared to Constrained Scenarios 2 and 4.
- **New capital investment has a long term pay off, but benefits require time to demonstrate full impact. Limited impacts are demonstrated before 2035** – The new infrastructure in Scenario 5 allows for expanded service compared to all other scenarios. It enables 10 percent more ridership in 2035 and 20 percent more ridership in 2050 compared to Scenario 3.

Operating Expenditure

A ten-year capital and operating cost forecast were developed for each scenario. **Figure 37** shows forecast operating costs for each scenario over the next ten years. Each scenario assumes that Metrolink has optimized the operation to achieve maximum cost efficiency.

Figure 37: Scenario Operating Cost Forecasts



These operating cost forecasts indicate that:

- Operating costs from 2021-2022/2023 are targeted on stabilization and recovery – as a result, all scenarios have the same level of operating expenditure.
- Beyond 2023, service is ramped up to respond to new infrastructure in 2025 - Scenarios 3 and 5 diverge from the other scenarios between 2023 and 2025 as gradual service enhancements are made in advance of new infrastructure being completed. This leads to a 3.5 percent increase in operating costs in these scenarios compared to Scenario 2 by 2025 and a 15 percent higher operating cost by 2030.
- All scenarios 'pivot' from the baseline (Scenario 2, 4) to benchmark potential outcomes from revenue investment in **Figure 37** – scenarios 3 and 5 have higher operating requirements (and therefore higher operating costs), while Scenario 1 has reduced operating costs compared to the baseline.

The financial impact of each operating scenario has been forecast based on operating costs and level of revenue, as shown in **Figure 38**.

Figure 38: Net Subsidy Requirements (Operating Costs – Revenue)

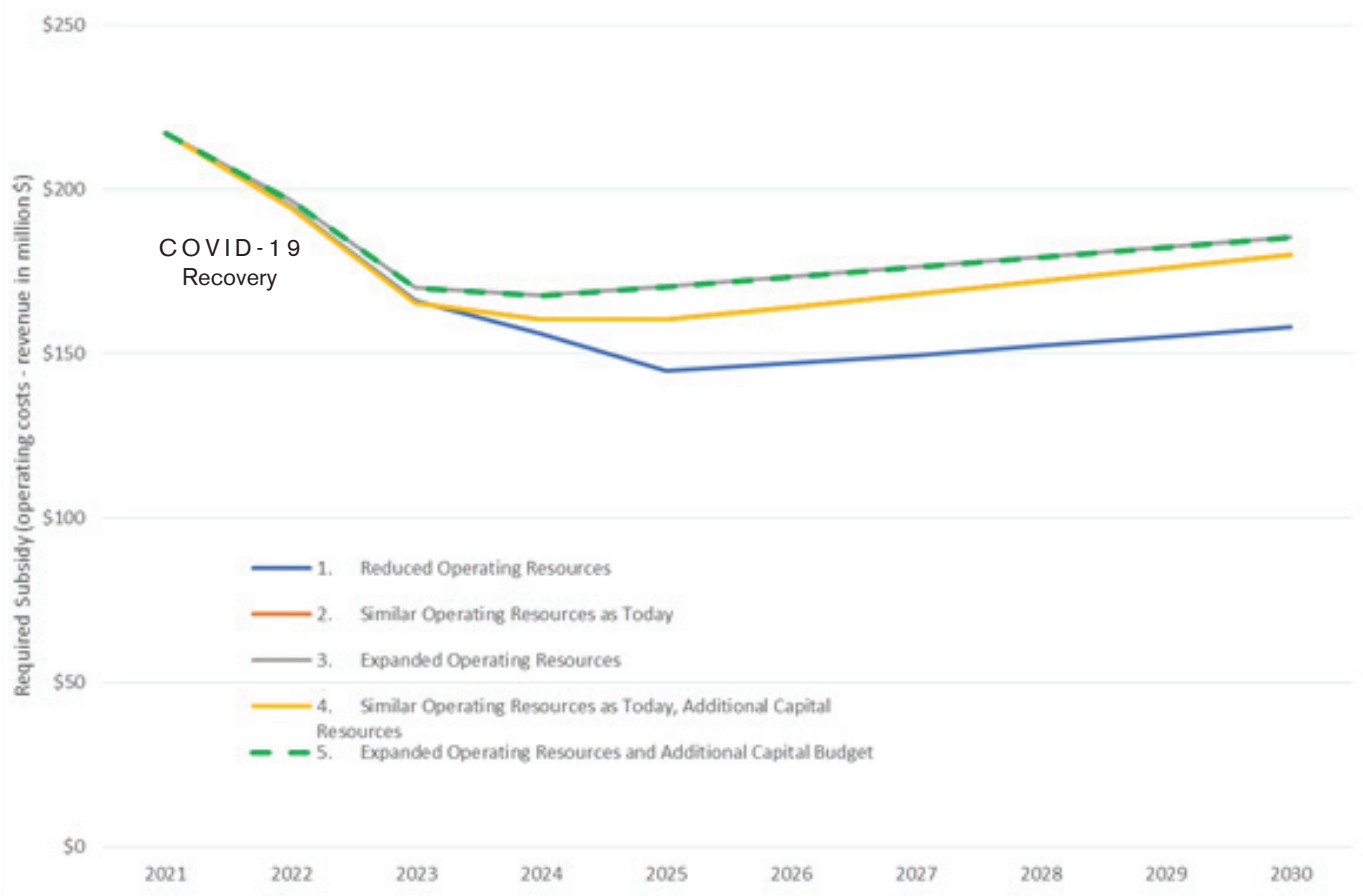


Figure 38 illustrates that:

- **Navigating COVID-19 recovery will require augmented subsidy** – the initial 4 years have high subsidies due to low fare revenues during COVID recovery – additional funding sources, including federal funds may help generate the required increased subsidy. This increased subsidy need is forecasted to decline as ridership recovers. It is estimated that funding from the Coronavirus Aid, Relief, and Economic Security (CARES) Act can help keep subsidy requirements from member agencies stable through 2023. More funding will be needed if more time is needed to fully recover.
- Despite different outcomes, operating subsidy is forecast to only vary by 2-5 percent by 2030 (end of the SRTP forecast period) - the scenarios are forecast to have comparable subsidy requirements across the lifecycle, as higher operating cost scenarios generate higher ridership due to a more regular service offering to both existing and new markets and higher revenue that offsets increased expenditure.
- **Reducing operating resources (scenario 1) results in a comparable loss in revenue** – this means that if operating resources are constrained, the required subsidy will 'increase' – resulting in comparable subsidy needs as scenario 2, only with lower service provision. If this additional subsidy is not available, further service constraints would be imposed which will result in lower ridership and revenue and a potential further need for subsidy.

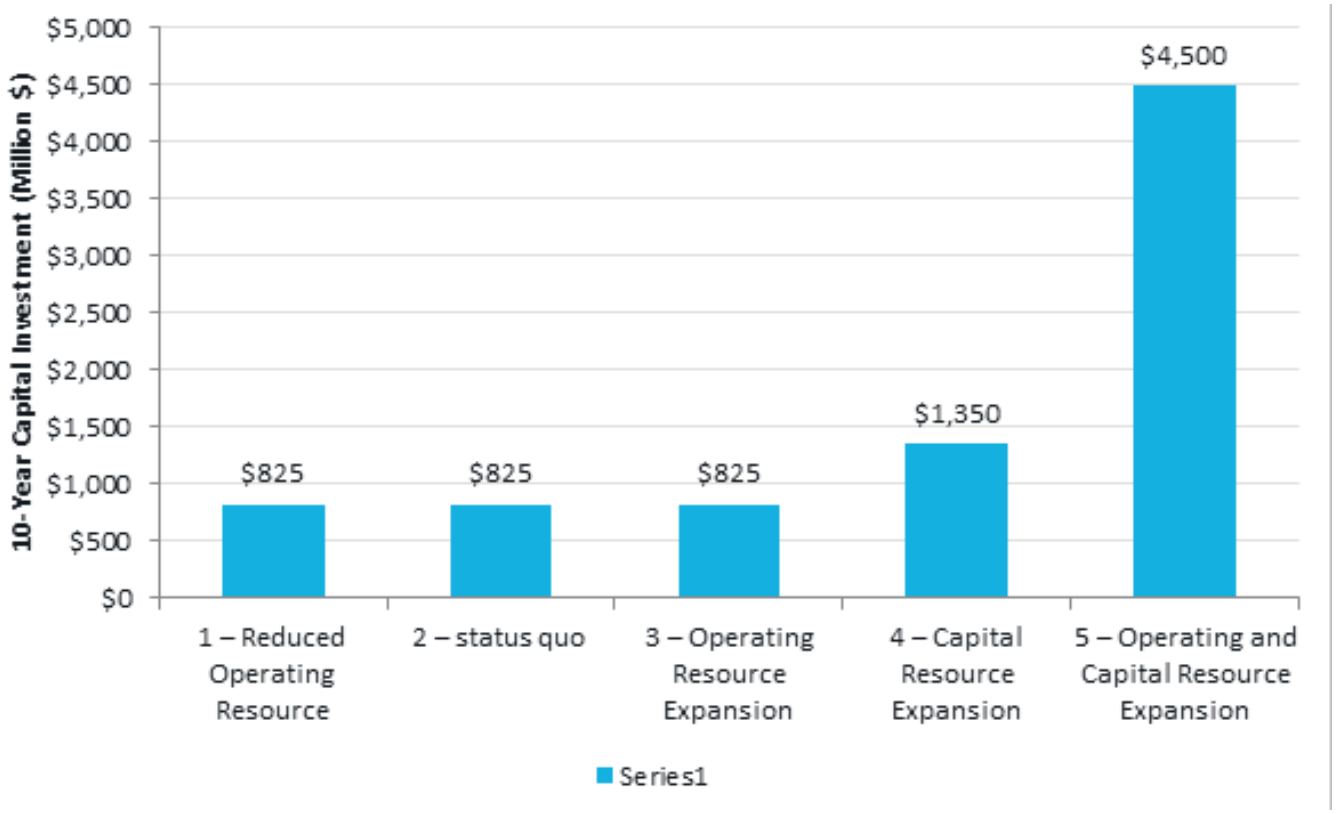
Scenario Analysis

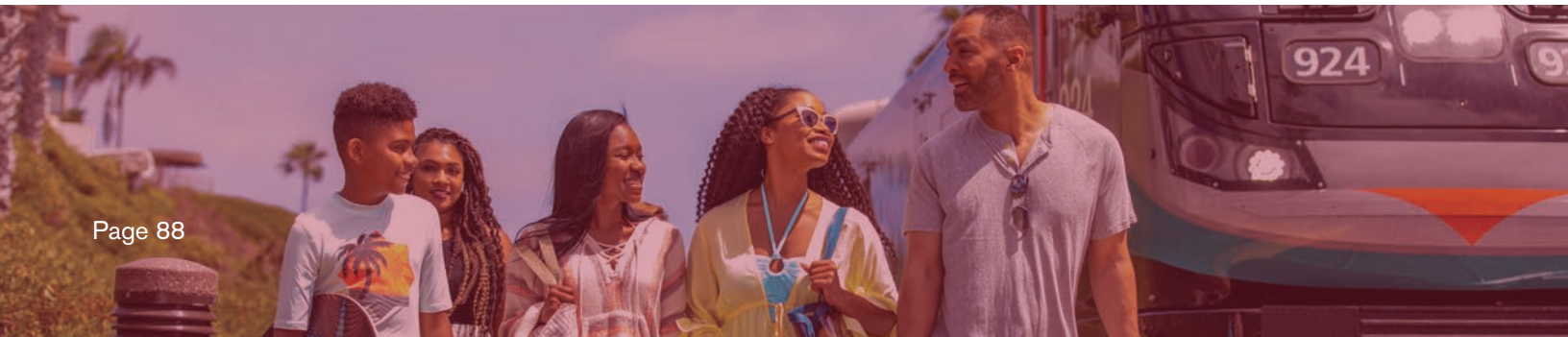
Each scenario includes a set of capital investments – including funded and committed investments in all scenarios and expanded programs in scenarios 4 and 5. **Figure 39** illustrates the ten-year total capital investment for each scenario.

The values in **Figure 39** represent the following capital action plans for each scenario:

- Scenarios 1-3 invest in the existing capital plan and required SOGR and have the smallest capital programs. This level of investment can only complete the delivery of projects already underway and those for which a funding decision or formal commitment to advance has been made.
- Scenario 4 includes expanded SOGR investment as well as some new capital projects to optimize the network, however it has fewer projects than Scenario 5 due to operating constraints.
- Scenario 5 has the most significant capital program which includes expanded SOGR, new equipment, and a next wave of major corridor improvement projects to unlock expanded service beyond 2030.

Figure 39: Scenario Capital Cost Forecasts





Cash Flow Impacts

Each scenario has a different impact on costs and revenues – the net cash flow impact is summarized in the series of figures below.

Figure 40: Scenario 1 Cash Flow, 2020-2030

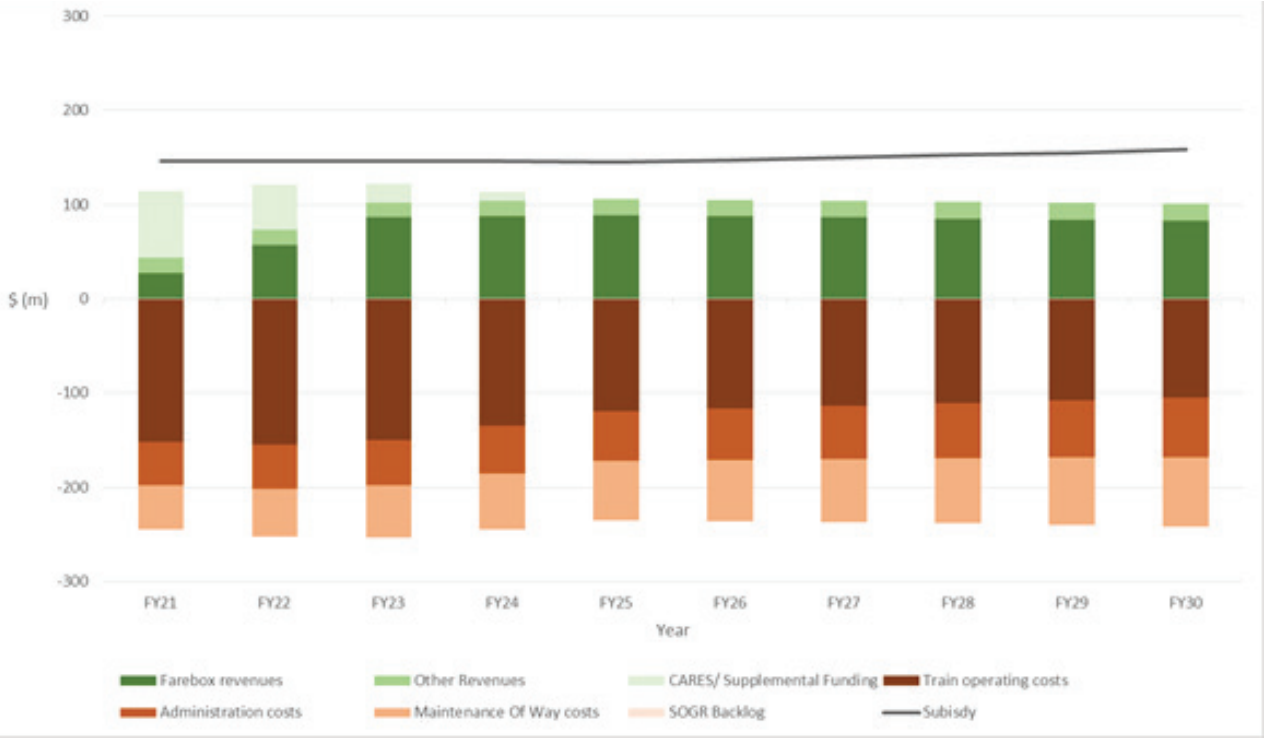


Figure 41: Scenario 2 Cash Flow, 2020-2030

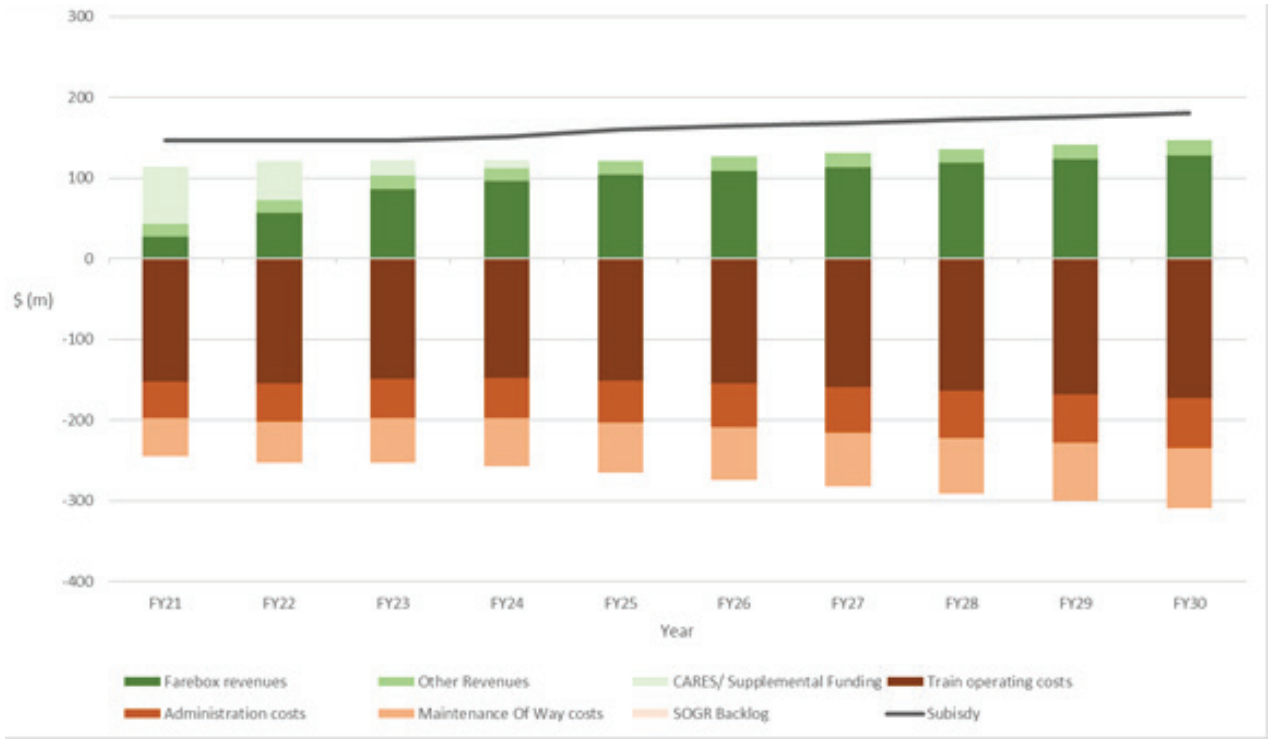


Figure 42: Scenario 3 Cash Flow, 2020-2030

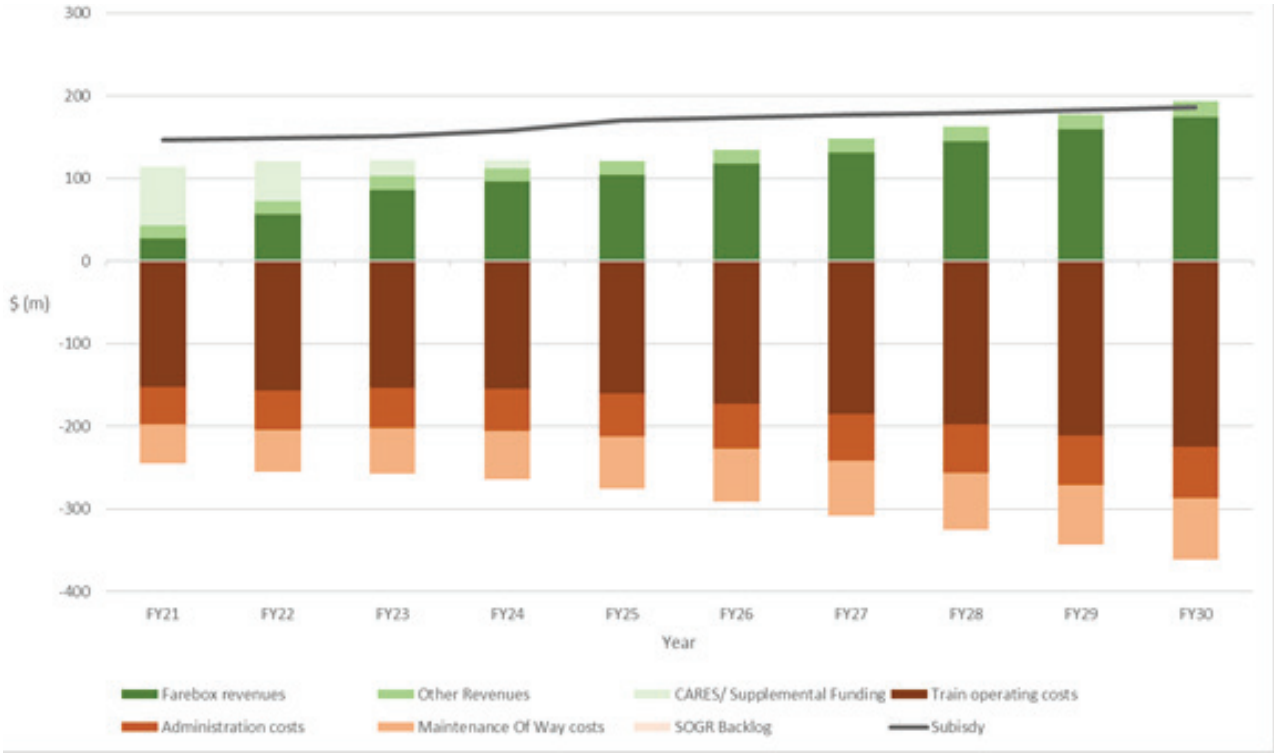


Figure 43: Scenario 4 Cash Flow, 2020-2030

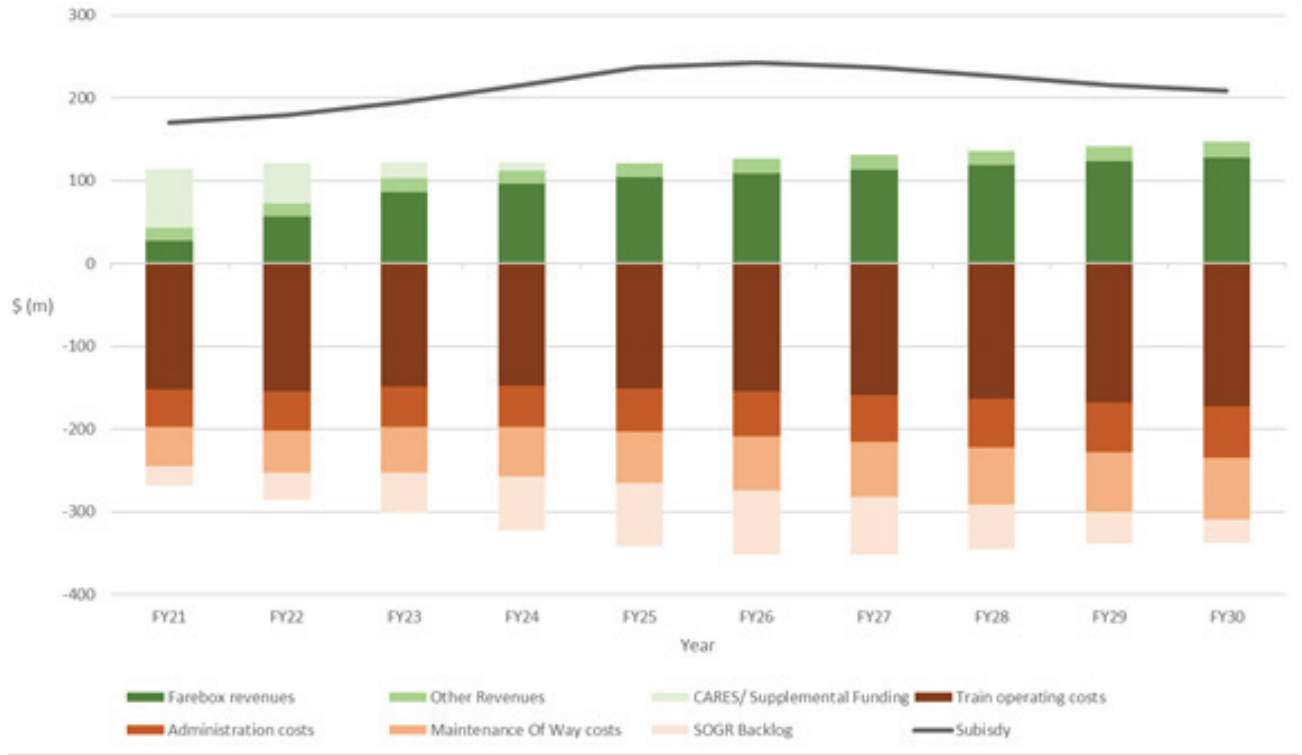
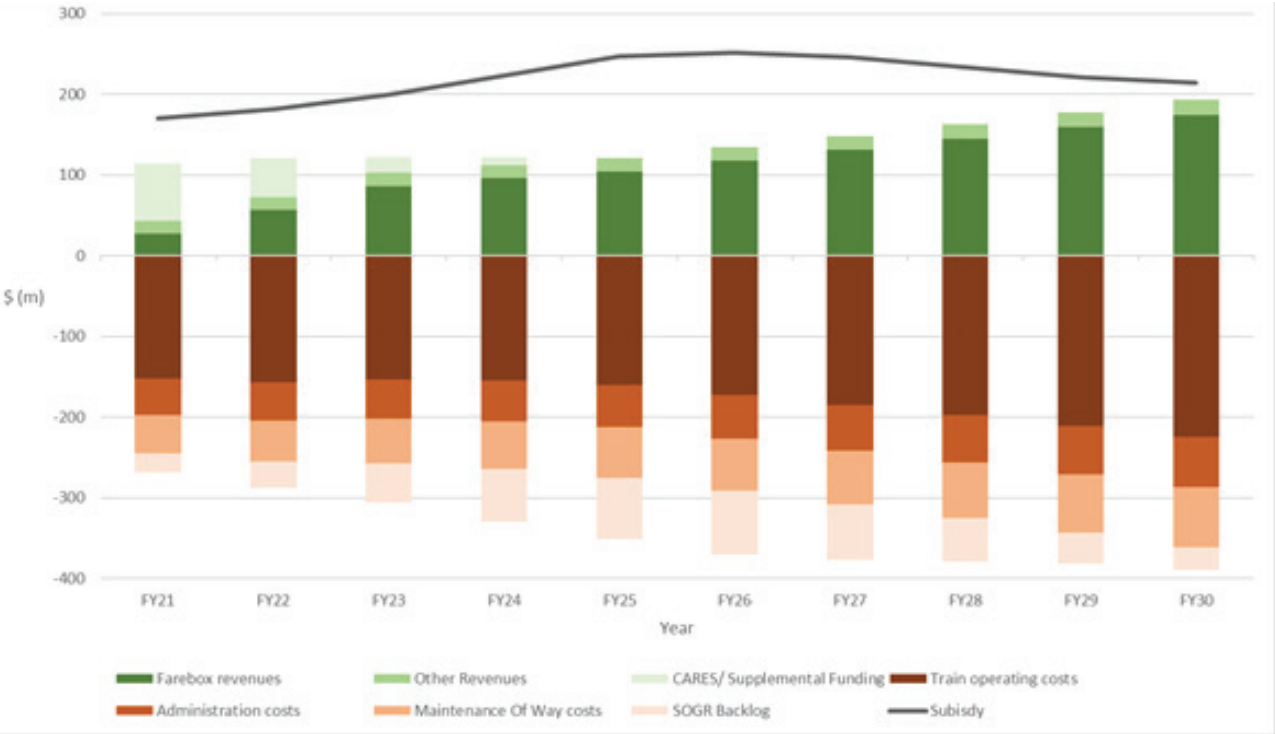


Figure 44: Scenario 5 Cash Flow, 2020-2030



Scenario Comparison

The performance of each scenario in the SRTP period (2020-2030) is summarized in **Figure 45**, including: ridership, revenue, and VMT reduction in 2030; operating costs and required subsidy in 2030; ten-year capital costs; and operating cost per trip in 2030. Each metric is presented in ranges based on the low to high forecasts employed in scenario analysis. The broad conclusion from the scenario analysis is that it identifies a suite of actions that can double ridership and reduce reliance on Member Agencies' subsidy by 2030.

The data in **Figure 45** illustrates the following key strategic considerations:

- Scenario 3 and 5 can generate significant ridership – both scenarios nearly double ridership in 2030 compared to 2019 ridership by increasing operating resources by approximately 20 percent to leverage new infrastructure result. This results in a 30 percent increase in ridership. Alongside operating investment, SOGR Rehabilitation investments are essential to support ridership gains.
- Investment in service can lead to an overall more efficient network - Scenarios 3 and 5 have lower cost per trip than other scenarios, noting that deploying more operating resources to make use of infrastructure that comes online in 2025 supports a more financially efficient system (roughly 20 percent more efficient in terms of subsidy per trip). These scenarios deploy more service in response to the completion of the SCORE program and expand service to respond to market needs, resulting in better utilized trains and increased customer choice.
- The benefits of an expanded capital program will be realized beyond 2030 – as illustrated in Figure 26, additional capital investment is not forecast to generate returns on ridership until beyond 2030 (earliest 2035), with the full benefits unlikely to be realized until 2050. This presents an expanded window for Metrolink to refine and optimize its next wave of projects beyond the current funded and committed capital program.

Figure 45: Comparative Scenario Performance (SRTP - 2030 Horizon)

	1 – Reduced Operating Resource	2 – Baseline (Pre-COVID-19 Status Quo)	3 – Operating Resource Expansion	4 – Capital Resource Expansion	5 – Operating and Capital Resource Expansion
Daily One–Way Train Trips	92	171	384	171	384
Annual Outcomes (2030)					
Ridership	9.6M	16.8M	22.1M	16.8M	22.1M
Revenue	$101M	$147M	$193M	$147M	$193M
VMT Reduction	-160.0M	86.3M	292.7M	86.3M	292.7M
Annual Operating Cost (2030)	$250M	$330M	$380M	$330M	$380M
Annual Operating Subsidy Required in 2030 (Year of Expenditure $)	$158M	$180M	$185M	$180M	$185M
10-Year Capital Costs (2020-2030)	$825M	$825M	$825M	$1,350M	$4,500M
Subsidy Per Trip in 2030	$16.45	$10.73	$8.39	$10.73	$8.39

Insights for Future Direction

The SBP was developed to inform Metrolink as it navigates the next five, ten, and 30 years. It is both an illustration of potential outcomes and a business planning tool to navigate future investment and planning decisions as the agency continues to be the rail travel option of choice for Southern Californians.

Chapter 1 of the Plan set out the foundation for future action by defining objectives and articulating a pathway to recovery from the COVID-19 pandemic. Chapter 2 outlined the current state of Metrolink including how decisions are made, how the network is currently organized, the assets available to Metrolink, and trends shaping travel in the region. Chapter 3 harnessed these existing conditions and trends to present a strategic market analysis and set of resource scenarios to articulate urgent needs, strategic opportunities, and key factors that will shape the next five to 30 years. Finally, Chapter 4 provided summaries of Strategic Actions for each resource scenario to illustrate how Metrolink can respond to and leverage different levels of resource and the range of outcomes these plans can realize.

Combined, these chapters inform the next steps for Metrolink. The Plan equips Metrolink with five packages of strategic actions across a range of resource scenarios to help decision-making over the next decade – this is the SRTP. Combined with a robust marketing program targeting diverse communities, these scenarios and their accompanying strategic actions will be used alongside regular market analysis and planning activities to prioritize, evaluate, and select actions to be taken to prepare for the thirty-year horizon. Across these chapters the following conclusions and key initiatives have been identified:

Initiative 1 – Establish Policies, Practices and Structured Decision-Making Frameworks to Guide Investment Over the Next 30 Years

Choices made and resources leveraged in the next five years can lead to vastly different outcomes by 2030. This underscores the value of continuous market analysis, policy development, and service optimization alongside the identification and prioritization of capital programming (including corridor, equipment, and rehabilitation/SOGR investment) to achieve long term organizational goals. Strategic Actions across each scenario include the goal of developing structured decision-making frameworks and processes to strengthen future investment decisions. These early actions will equip Metrolink to navigate an increasingly uncertain future.

Each scenario presents unique trade-offs and will lead to different outcomes in the long-run – however all scenarios have a common element: Metrolink will develop structured decision-making approaches to guide the execution of actions in this plan to maximize outcomes for customers and the region.

Initiative 2 – Accelerated Delivery of Policy Actions

All action plans begin with new policies and improvements to customer experience. Whether resources are constrained or expanded, Metrolink will explore the range of high-priority policy actions identified in the policy action plans. These short- and long-term policies range from partnerships to optimized parking usage, marketing to new types of customers, and expanding integration with other services.

Metrolink will initiate policy action plans based on Scenarios 1 and 2. These plans will be developed and delivered in a flexible manner and scaled as resources become available or focused if resources become constrained.

Initiative 3 – Develop a funding and resourcing plan to leverage new infrastructure completed by 2025

The benefits of the current in-delivery (funded and committed) infrastructure program can be fully utilized with strategic investment and service expansion between 2025-2030 to double ridership by 2030 (as compared to 2019). However, without new operating resources these investments will not realize their full benefit.

Metrolink will explore funding programs and opportunities to secure these resources early and prepare to ramp service up in the 2025-2030 period in response to the SCORE program.

Initiative 4 – Monitor and Evaluate Five and Ten-year Action Plans to Optimize Future Investment

There is a crucial opportunity in the leading up to the 2030 horizon to consider when to advance an expanded capital and service action plan, including complementary policy action plans, that can support longer term ridership and revenue growth. When combined with targeted service investment, the current capital program can maximize ridership through to 2030; however, beyond 2030, additional capital investment could unlock an additional 20% growth in ridership.

As the current capital program concludes, Metrolink can use the 2025-2030 window to deploy new services as infrastructure is commissioned, evaluate market response, and develop an expanded plan for future capital investment.

Metrolink will conduct focused monitoring and evaluation for the range of actions, pilots, studies, service improvements, and capital programs identified in the Plan to understand market response to programs and service and best practice to deliver capital programs and SOGR. Lessons harnessed will be leveraged to define a ‘next wave’ of investments starting in 2025. These investments will be optimized to unlock further benefits and ridership growth from 2030-2050.

Next Steps

Advancing passenger rail in Southern California is essential for augmenting environmental sustainability, quality of life, and economic prosperity alongside key state, regional and county priorities. This SBP provides a foundation for advancing rail to meet regional needs by defining the context Metrolink operates in, the progress it has made and lessons it has learned over the past five years, the changing needs of its markets, and scenarios it can use to navigate decisions over the coming decades.

However, this plan is a starting point. As a strategic direction, the SBP will provide guidance for future technical work, investment planning, stakeholder engagement, and priority setting with an emphasis on continuous progress towards the five organizational commitments. Long term, future service augmentations and marketing efforts will need to include an equity component designed to intentionally go after diverse riders. Coordination with Member Agencies, robust action and decision-making, and deliberate implementation will ensure a bright future for rail in Southern California.