2022 System Evaluation

King County
METRO
Moving forward together

Alternative formats available

206-263-3548 Relay: 711

Para solicitar esta información en español, sírvase llamar al 206-263-9988 o envíe un mensaje de correo electrónico a community.relations@kingcounty.gov

Table of Contents

Appendices

Executive Summary

This report presents Metro Transit's annual assessment of its transit network as required by King County Ordinances 17143, 18413, 19367 and Motion 13736. This 2022 System Evaluation uses the spring 2022 service change period from mid-March to mid-June. The report includes information about fixed-route, Dial-A-Ride Transit (DART), RapidRide, water taxi, and flexible services, all part of Metro's expanding portfolio of mobility solutions. In late 2021, the King County Council adopted updated service guidelines, which are reflected for the first time in the 2022 System Evaluation.

Our Findings

The 2022 System Evaluation highlights the following investment needs in Metro's fixed-route transit system:

» Zero hours of service to relieve crowding (Priority 1)

» 24,750 hours of service to improve reliability (Priority 2)

» 1,644,200 hours of service in service growth (Priority 3) over the next 15 years in order to implement the Metro Connects interim network (or approximately 110,000 hours per year)

Making the investments identified in this report would improve reliability (Priority 2) and grow our service network (Priority 3).

With ridership still rebounding from the pandemic, no additional investments are needed to address crowding (Priority 1). However, the reliability investment needs increased from last year's figure by about 18,250 annual hours. The new Priority 3 Service Growth methodology also highlights significant investment needs of over 1.6 million hours over the next 15 years. With ridership on the rise, regional growth in jobs and population, and increasing congestion on our roadways, the system evaluation priorities will require ongoing monitoring over the next year.

To achieve the full Metro Connects 2050 long-range vision and meet the demands of the Puget Sound Regional Council's Transportation 2050 plan, we will ultimately need to provide approximately 3.6 million more annual hours of service.

Metro's Prior Investment Activities

Metro invested over 118,000 annual service hours back into the transit system over the last three service changes in order to restore service on routes that were partially or fully suspended during the pandemic. Despite these investments, Metro continues to see overall bus reliability degrade and faces additional challenges in delivering future investments to the transit system. Sustained improvements in reliability will require additional service hours and infrastructure investments to mitigate the impacts of major construction projects and rising traffic congestion across the region. In addition, several nationwide challenges that emerged during the pandemic, including operator shortages and supply chain issues, are limiting Metro's ability to restore and grow service to meet demand. Recent base capacity expansions and shifting investments from peak to all-day service are helping relieve some of these constraints, but the challenges continue to affect transit service quality and limit Metro's ability to deliver additional service across the county.

Seattle Investments

Metro and the City of Seattle work together to plan and implement new service funded by the Seattle Transportation Benefit District (STBD; approved by voters in November 2014 and renewed in November 2020). As of spring 2022, the Seattle Department of Transportation is supporting 135,000 annual hours of service. In accordance with the contract between Metro and Seattle, Metro assumes funding for some of Seattle's investments that are consistent with Metro priorities as we expand service.

RapidRide

Metro currently operates six RapidRide lines throughout King County. The RapidRide network is expanding with both the G Line and the H Line under construction, and the I Line and J Line in the planning and design stage.

RapidRide G Line is expected to start operating in 2024. RapidRide H Line is scheduled to launch in March 2023. Design of the I Line is 60% complete and it is scheduled to launch in 2026. King County Council adopted the legislation accepting the J Line alignment and stations, which is expected to launch in 2026. Design of RapidRide R Line is 10% complete, but the project has been paused since 2020 due to funding constraints spurred by the COVID-19 pandemic. Funding has been designated to complete preliminary design of the K Line and to complete a RapidRide Prioritization plan, which will organize RapidRide candidate lines into priority tiers based on evaluation factors of equity, environment, service demand, capital need, and implementation.

Marine Services

The Marine Division was added to the System Evaluation Report beginning in 2016 and became a division of Metro in 2019. The report now includes data on the King County Water Taxi service. The Water Taxi serves two routes that connect Pier 50 at Colman Dock in downtown Seattle with Vashon Island and West Seattle. Metro plans to maintain and improve current service on the two existing routes while studying potential future routes. Information about Water Taxi services are included in a dedicated section. Additional details are available in the Marine Services section of the report, and details on the evaluation methodology are included in Appendix A.

Flexible Services

This report includes performance data for pilot services that were operating in spring, between March 2022 and June 2022. The program works with local governments and community partners to develop innovative and cost-efficient transportation solutions in areas of King County that do not have the infrastructure, density, street network, or land use to support regular fixed-route bus service. Although many pilot services were suspended or discontinued in 2020 because of the pandemic, Metro has gradually restored several of these flexible services over the last two years. Metro will continue to monitor existing pilots and new flexible services that were launched during the pandemic.

Our Future

Future investments will be included in the county's biennial budget process. Operator shortages and supply chain challenges—which are not limited to King County—hamper Metro's ability to invest and deliver additional service hours in the transit system.

The needs identified in this report are only part of the 3.6 million service hours needed by 2050 to nearly double our ridership and achieve the Metro Connects vision. As we move toward achieving this vision, we aim to improve coordination with external agencies and jurisdictions to identify opportunities to deliver more service efficiently and effectively. The updated Service Guidelines use the new Metro Connects interim network as targets for service growth and help incorporate all of Metro's mobility services in a common framework for evaluation.

Introduction

What is the System Evaluation?

This report is a snapshot of the health of Metro's transit system for fixed-route, Dial-A-Ride Transit (DART), water taxi, and flexible services. The System Evaluation provides the basis for decisions about adding, reducing, or changing service. It is based on Metro's Service Guidelines, which establish criteria and processes Metro uses to analyze and plan changes to our transit system. The guidelines were updated in 2021 and adopted by the King County Council (Ordinances 18301,18413, 19367, and Motion 13736). The 2022 report contains the following sections:

» Overview of COVID-19 pandemic impacts to the transit system

» Fixed route and DART evaluation metrics

» Integration with Sound Transit

» RapidRide progress report

» Flexible Services evaluation metrics

» Marine service (Water Taxi) evaluation metrics

» Appendices documenting the updated methods and data used for reporting

Reducing crowding and improving reliability—our primary service quality indicators—are Metro's top two investment priorities, as they directly affect the quality of our service. Improvements in these areas help us keep the riders we have and attract new ones. Our third priority investment represents growing the system. Service growth lets us provide better mobility options and helps meet existing demand, reach climate action goals, and help the region's economy to continue growing without expanding roadways.

How does Metro use the System Evaluation report?

We analyze data to learn how different services are performing, where problems exist in our system, and where we are not providing enough service. We combine this information with what we hear from customers, operators, and partners to develop proposals to change service. We take these proposals to the public, gather and incorporate feedback, and submit final plans for approval by the King County Council. After we make the approved service changes, the cycle begins again.

Our data analysis and the policies embedded in our Service Guidelines give us guidance on how to add, reduce, and restructure service. The Service Guidelines were recently updated in 2021—a crosswalk that highlights some of the changes in structure, format, and methodology is included on the next page.

How Can Transit Customers Use the System Evaluation Report?

Riders can find their route(s) on the maps and appendices in this report and can see how the route data compares to other routes in the system. They can easily identify problems on a route (such as crowding), and what is needed to fix those problems. This report provides a snapshot in time; some problems come and go, and Metro uses the latest available data to make service change proposals.

Updated Service Guidelines—Crosswalk of Changes

The 2022 System Evaluation is the first report to use the newest service guidelines approved in December 2021 by King County Council through Ordinance 19367. The most significant changes from the updated service guidelines are noted below.

Updated and new sections:

» **Priority 1 (Crowding):** This section reverted back to using spring service data—fall service quality data was used for 2020 and 2021 to reflect more typical service measures during the pandemic.

» **Priority 2 (Reliability):** This section reverted back to using spring service data—fall service quality data was used for 2020 and 2021 to reflect more typical service measures during the pandemic.

» **Priority 3 (Service Growth):** This section replaced the old Corridor Analysis with a route level analysis, includes an additional equity analysis, and features new growth targets determined by the Metro Connects interim network.

» **RapidRide Progress Report:** This new section is required by ordinance 19367.

» **Flexible services:** This section includes an updated methodology and performance metrics, and features additional analysis to evaluate locations in the county for new potential flexible services.

» **Marine services:** This section includes a slightly updated methodology and performance metrics.

» **Appendices:** The appendices are updated to reflect new methodologies and evaluation metrics according to the 2021 Service Guidelines.

Removed sections:

» **Priority 4 (Productivity):** No longer evaluated as a priority for service investments, but still included in the appendix for potential service reductions. The new methodology also uses equity to inform service reductions.

» **Peak Analysis:** Although some reporting measures include breakdowns by day period, the peak analysis is no longer a component of the annual system evaluation.

» **Metro Connects Progress Report:** This topic is now addressed separately through other reporting requirements.

COVID-19 Pandemic Impacts

The COVID-19 pandemic continues to have a significant impact on Metro service. Ridership declined dramatically in 2020 as people stayed home and limited travel. Metro reduced service on many routes and suspended others entirely. Growing Metro's operator workforce is essential for improving transit service and restoring suspended routes. Metro is in the process of continually recruiting new operators and training part-time operators to become full-time operators. Metro will continue to recruit and train new operators for the foreseeable future. This section summarizes changes to Metro's service and ridership, crowding implications, and equity impacts during the spring 2022 service-change period.

Service Changes during the Pandemic

» **Spring Service Change:** From March–April of 2020, Metro reduced service across the system in a series of cuts to fixed-route bus, DART, flexible services, and water taxi services. By the end of April, Metro was operating at 75% of pre-pandemic service levels.

» **Summer Service Change:** In June, Metro restored service to 85% of pre-pandemic levels. However, many non-peak Metro routes—including most routes in south King County—maintained more of their pre-pandemic ridership and provided full service throughout 2020.

» **Fall Service Change:** For the September 2020 service change, Metro continued operating at 85% of pre-pandemic service, with 58 routes fully suspended and 21 routes partially suspended. Peak-only routes comprised 73% of all suspended routes. COVID-19 related load limits did not affect most trips because of low ridership.[1] However, some routes did have trips where rider demand reached or exceeded the load limits. Drivers passed up people at stops when buses had reached load limits. Most of these trips occurred in the mid-day or late afternoon on high-ridership routes serving areas with a high proportion of priority populations. Just a few routes, particularly the A Line, E Line, 7, and 36, regularly had trips exceeding the load limits. To address these "crowded" trips or buses passing up riders at stops, Metro added scheduled and unscheduled supplemental trips for routes at times where trips were regularly at or above the load limits. For the September 2020 service change, Metro added 24,000 service hours of scheduled service to three routes to accommodate riders on trips regularly at or above the load limits.

2021 Service Changes

» **Spring Service Change:** With ridership gradually increasing, Metro added or restored service on 16 routes to maintain pandemic-related load limits and prevent crowding on popular routes. It also suspended trips on 10 peak commuter routes where ridership had not yet returned.

» **Fall Service Change:** Metro restored service on 36 routes in October 2021, bringing transit system back to about 90% of pre-pandemic levels. This service change also included a major service restructure in north King County as a part of the Link light rail expansion to Northgate.

2022 Service Changes

» **Spring Service Change:** Metro made minor cuts to service to align with existing workforce capacity. Capacity limitations hampered Metro's ability to restore service during the spring 2022 service change and will likely impact subsequent service changes. These issues also resulted in a higher number of unplanned trip cancelations. Canceled trips are not reflected in the reliability evaluation methodology because they cannot be resolved through additional service hour investments.

---

1 COVID-related load limits established maximum ridership capacity at 12 people for 40 foot buses and 18 people for 60 foot buses.

Ridership

The onset of the pandemic in March 2020 resulted in a dramatic decline in ridership. However, many non-peak Metro routes—including most routes in south Seattle and south King County—maintained more of their pre-pandemic ridership and provided full service throughout 2020. Ridership continues to recover across the system. Between the spring 2021 and spring 2022 service changes, average weekday ridership increased by 42%, a net increase of 64,000 daily boardings. Although ridership continues to rise, it has not yet recovered to pre-pandemic highs.

The ridership patterns throughout the day varied during the pandemic. Ridership declined more during the AM and PM peak periods than in off-peak periods. The ridership recovery information below compares May 2022 ridership data to pre-pandemic totals in May 2019.

»   **AM Peak ridership:** the morning peak period from 5–9 a.m., which initially saw the largest decline in ridership in the first year of the pandemic, has rebounded to 36% of 2019 levels.

»   **PM Peak ridership:** the afternoon peak period from 3–7 p.m. has recovered 42% of pre-pandemic ridership.

»   **Mid-Day and Evening ridership (off-peak):** The mid-day period from 9 a.m.–3 p.m. and the evening period from 7–10 p.m. both recovered 54% of pre-pandemic ridership.

»   **Night ridership:** The night service period from 10 p.m.–5 a.m. recovered 62% of pre-pandemic ridership.

Ridership changes by route also differed considerably by the type and location of the route. As expected, routes with the largest declines in ridership were peak-only and infrequent routes. Routes with the smallest declines were generally frequent, all-day routes; routes serving south Seattle and south King County; and RapidRide routes.

On-Time Performance

A positive outcome for service early in the pandemic was improved on-time performance. Traffic congestion decreased because more people were working at home and limiting non-essential trips. As a result, on-time performance initially increased dramatically at the start of the pandemic. On-time performance then dropped because buses arrived too early and ran ahead of schedule. Metro responded by adjusting schedules to account for less traffic congestion for the September 2020 service change. After the September 2020 service change, on-time performance increased to over 80%. In 2022, Metro observed a slight reduction in on-time performance to about 78%. This reduction is a result of rising congestion and an overall increase in travel as the region recovers from the pandemic. In comparison, on-time performance was around 76% for the same period in 2019.

Equity Impacts

Overall, the COVID-19 pandemic demonstrated the critical role of transit in providing mobility for essential workers, those unable to telecommute, and others who rely on transit. The ridership patterns and related service changes in 2020 highlight the specific services, routes, and times of day that support these essential trips.

Metro gives each route an Opportunity Score (1-5) based on the extent to which a route is judged to serve priority populations as defined in the Service Guidelines. Routes with high Opportunity Scores (4 or 5) retained more of their ridership than other routes since the start of the pandemic in 2020. Many of these routes serve south Seattle and south King County. Due to the large drops in ridership observed early in the pandemic, ridership recovery has been increasing at a faster rate on routes with lower opportunity scores (1-3). Overall, ridership is still higher on the routes with high opportunity scores.

The data and trends revealed during the pandemic provide valuable insights into who continued to use Metro services and where and when riders are returning to the system. For example, school and university students are bolstering Metro's ridership with the return to in-person classes. As a result, Metro has adjusted schedules on some routes to accommodate higher loads at certain times. These lessons can be carried forward in planning for the growth and improvement of the Metro system.

Fixed Route Service Evaluation

How the system evaluation informs service changes

Data > System Evaluation > Metro Connects > Budget > Service Changes

Service Quality

PRIORITY 1 Reduce Crowding

PRIORITY 2 Improve Reliability

PRIORITY 3 Service Growth

Route Productivity

Equity Needs

Investment Priorities

Reduction Priorities[2]

Service Changes
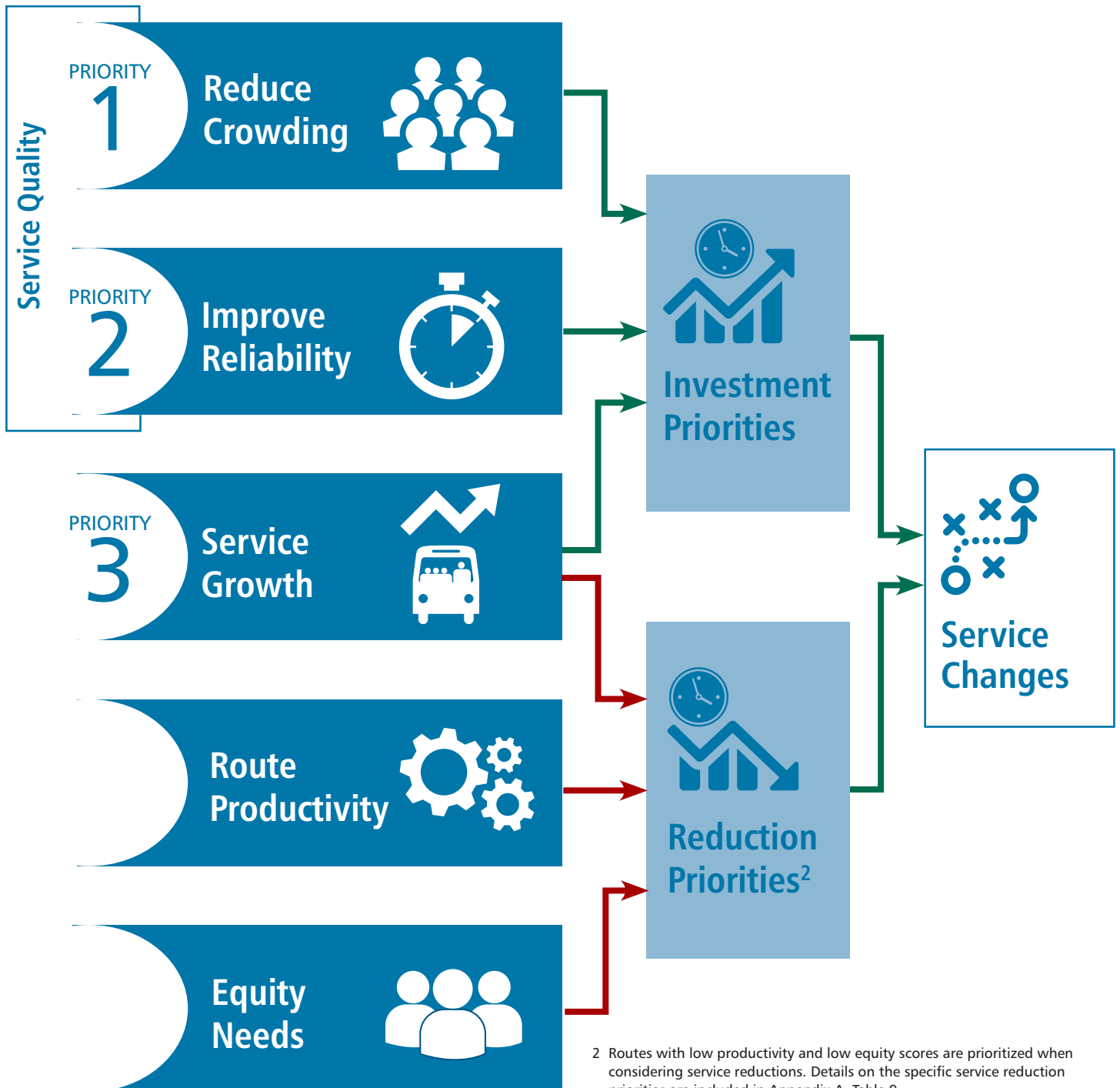
2 Routes with low productivity and low equity scores are prioritized when considering service reductions. Details on the specific service reduction priorities are included in Appendix A, Table 9.

Bus Service Evaluation

Crowding (Priority 1)

What is Crowding?

Crowding needs in the system evaluation are defined by the following factors:

» The vehicle's average maximum load is more than the crowding threshold for the type of vehicle.

» The average passenger load is more than the number of seats for 20 or more minutes.

» Trips must be crowded consistently for several months to be identified for investment.

Findings

The 2022 System Evaluation found that zero bus hours are needed to reduce crowding. Although ridership is on the rise, it is still relatively low from the ridership declines during the pandemic and no routes had chronically crowded trips.

What's Been Done

No additional investments were needed between fall 2020 and spring 2022 to reduce crowding as defined in the Service Guidelines.

What's Next?

As ridership continues to recover across the system, Metro will continue to monitor ridership trends, including employees returning to central workplaces and students attending class, to understand when and where to expect ridership growth and potential crowding.

Reliability (Priority 2)

What is Reliability?

In a transit context, reliability refers to the extent to which buses arrive on time. Metro considers routes to be candidates for investment when buses do not arrive on time or fail to meet their scheduled headways more than 20% of the time all day. To improve reliability, Metro can invest by adding running time to schedules, and partner with cities on infrastructure improvements. These improvements help buses move faster and more reliably, saving money and providing a better customer experience.

Findings

The 2022 System Evaluation found that 24,750 additional bus hours are needed to improve reliability. The investment need increased from last year's figure by about 18,250 annual hours. This report lists 40 routes needing investment; nineteen of them are new to the list. Seventeen routes on last year's list are now within standards, and fifteen routes that were on last year's list are no longer active routes. The rest have new or outstanding needs.

See Appendix C for route-by-route reliability numbers.

» **South county routes:** Ten routes were identified as needing reliability investments. Routes 113, 120, 128, 193E, and the A Line are new to the list. The other five (106, 124, 125, 131, and 132) still have outstanding needs. The investment needs are relatively small.

» **East county routes:** Four routes were identified as needing reliability investments. One route on the list, 208, was also on last year's list, and all four routes (208, 250, 271, and the B Line) have relatively small investment needs.

» **Seattle routes:** Twenty-six routes were identified as needing reliability investments. The eleven routes that are new to this list are routes 20, 27, 31, 32, 44, 45, 49, 67, 70, 75, and the D Line. The other 15 routes still have outstanding needs.

What's Been Done

From spring 2021–2022, there has been a modest hours savings to address reliability, as defined in the Service Guidelines. Although the 2021 System Evaluation highlighted a small investment need of 6,500 additional service hours, all service investments noted in this evaluation prioritized restoring partially and fully suspended service from the pandemic. At the same time, the recent declines in ridership and traffic have allowed Metro scheduling to shift its primary focus from lateness-related service reliability issues (which require investment), to earliness related service reliability issues (which are either cost neutral or sometimes involve savings). Earliness remains the current focus, though Metro continues to monitor the system for any evidence of service reliability issues in either direction, late or early.

What's Next?

Metro uses various tools to improve reliability across the system. For example, active headway management helps Metro monitor and prevent bus "bunching" across the transit system and ensures that buses can adhere to their frequent schedules throughout the day. Additionally, Metro's speed and reliability infrastructure investments help facilitate large improvements in the rider experience. However, traffic congestion is increasing as the region and economy recovers from the pandemic. Reliability remains a concern for 2022 and the future.

Metro will monitor routes and adjust schedules to reflect evolving conditions while continuing to seek opportunities to provide transit–supportive infrastructure that enables fast and reliable transit service as travel demand increases.

Figure 1. Metro Bus Routes Needing Investment to Improve Reliability per the Service Guidelines

Reliability Hours Needed

250 ┈┈┈┈┈┈┈┈┈┈▶ 2050

King County
Equity Priority Areas
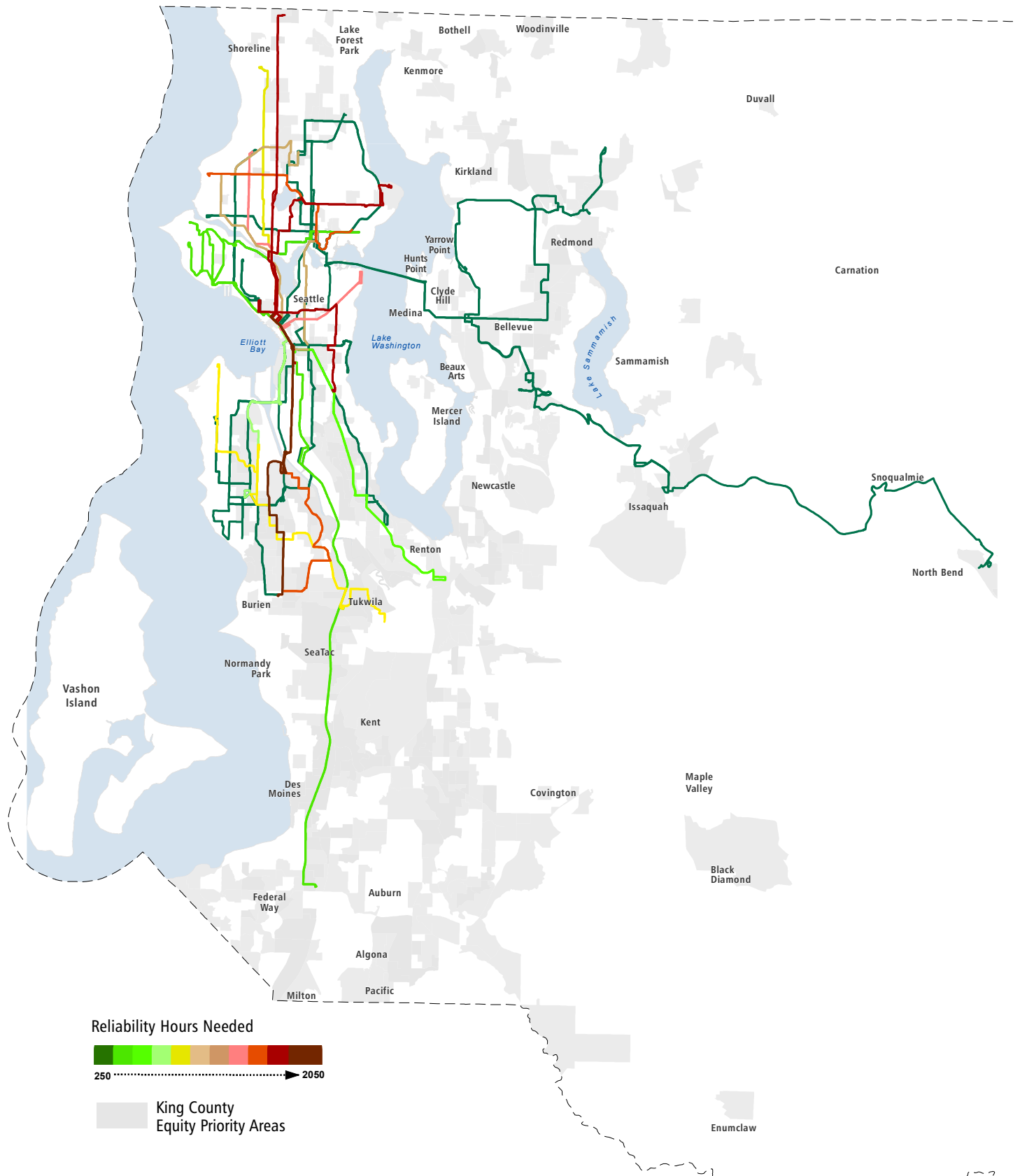
Service Growth (Priority 3)

What is Service Growth?

Service growth is based on routes' target service level. The Service Guidelines include criteria for determining target service levels (how often buses should arrive throughout the day in Metro's existing system). The target service level for each route is based on the higher of either the Metro Connects interim network value or the service growth methodology, which uses land use, equity, and geographic value factors to establish a target service level. The gap between how much service Metro currently provides and how much service is needed constitutes the investment needed to meet target service levels. Investment needs recommended in this section include any service hour gaps caused by suspended services.

Table 1: Summary of typical service levels

Service	Service Level: Frequency (minutes between trips) and Time Period				Days of Service	Hours of Service
	AM Peak (5–9 a.m.) PM Peak (3–7 p.m.)	Off-peak (9 a.m.–3 p.m., 7–10 p.m.)	Night (10 p.m.–5 a.m.)	Weekend (Sat.–Sun.)		
Very frequent/ RapidRide	<= 10 mins	<= 15 mins	<= 15 mins	<= 15 mins	7 days	16–24 hrs
Peak Frequent	<= 15 mins	<= 30 mins	<= 30 mins	<= 30 mins	7 days	16–24 hrs
Local	<= 30 mins	<= 30 mins	<= 60 mins	<= 60 mins	5–7 days	12–18 hrs
Hourly	<= 60 mins	<= 60 mins	--	--	5 days	8–12 hrs
Peak-only	8 trips/day minimum	--	--	--	5 days	Peak
Flexible Services	Determined by demand and community collaboration process					

Findings

To meet target service levels envisioned in the Metro Connects interim network or the service growth methodology, service needs to grow on 114 routes by approximately 1,644,200 service hours.

» **Current network:** 99 existing routes need 1,352,500 additional service hours

» **Metro Connects routes (no current service):** 13 new routes need 291,700 additional service hours

Typically, this analysis would compare 2022 service growth needs to 2021. However, the service growth methodology changed significantly due to the adoption of new service guidelines in 2021, updated targets in Metro Connects, and updated data from the 2020 census. Furthermore, the 2021 System Evaluation did not include the service growth analysis because the data for that timeframe was not representative of typical conditions due to the pandemic and suspension of many Metro services.

The maps on the following pages show service growth needs by route and time of day.

What's Been Done

Since 2020, network growth focused on restoring services that were suspended or reduced during the pandemic.

Through the Renton-Kent-Auburn Area and North Link Connections mobility projects implemented in 2020 and 2021, respectively, Metro redesigned bus service networks to focus service resources on identified service needs, including those identified for service growth in Metro's System Evaluation. Also, Metro added service on selected high-ridership routes to provide additional capacity and further address needs for service growth in March 2021.

What's Next?

Metro's top priority is to bring back currently suspended service hours to respond to changing travel needs throughout the county while centering on the needs of priority populations. As King County continues to grow, investments in Priority 3 remain important. Metro plans to continue working to expand mobility based on available resources. As we look at future projects and investments, we will use the analysis of Priority 3 needs to inform service proposals.

Figure 2. Metro Routes Needing Investment per the Service Guidelines (Total Investment Needed)

Investment Hours Needed

300 ·········· ► 54,000

King County
Equity Priority Areas
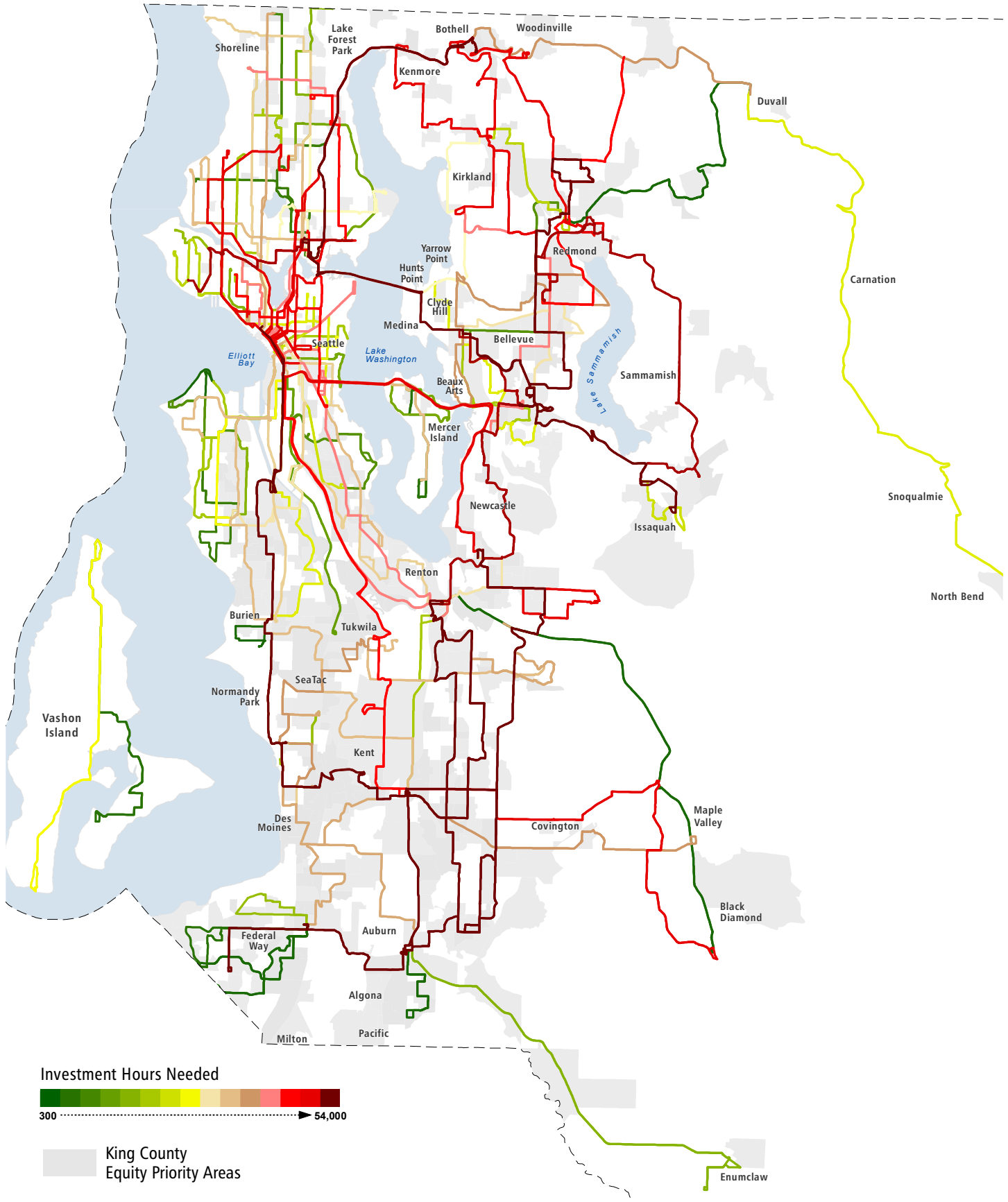
Figure 3. Metro Routes Needing Investment per the Service Guidelines (AM Peak)

Routes Needing
AM Peak-Period
Trip Adds

— 1 to 2 trips
— 3 to 4 trips
— 5 to 6 trips
— 7 to 8 trips

King County
Equity Priority Areas
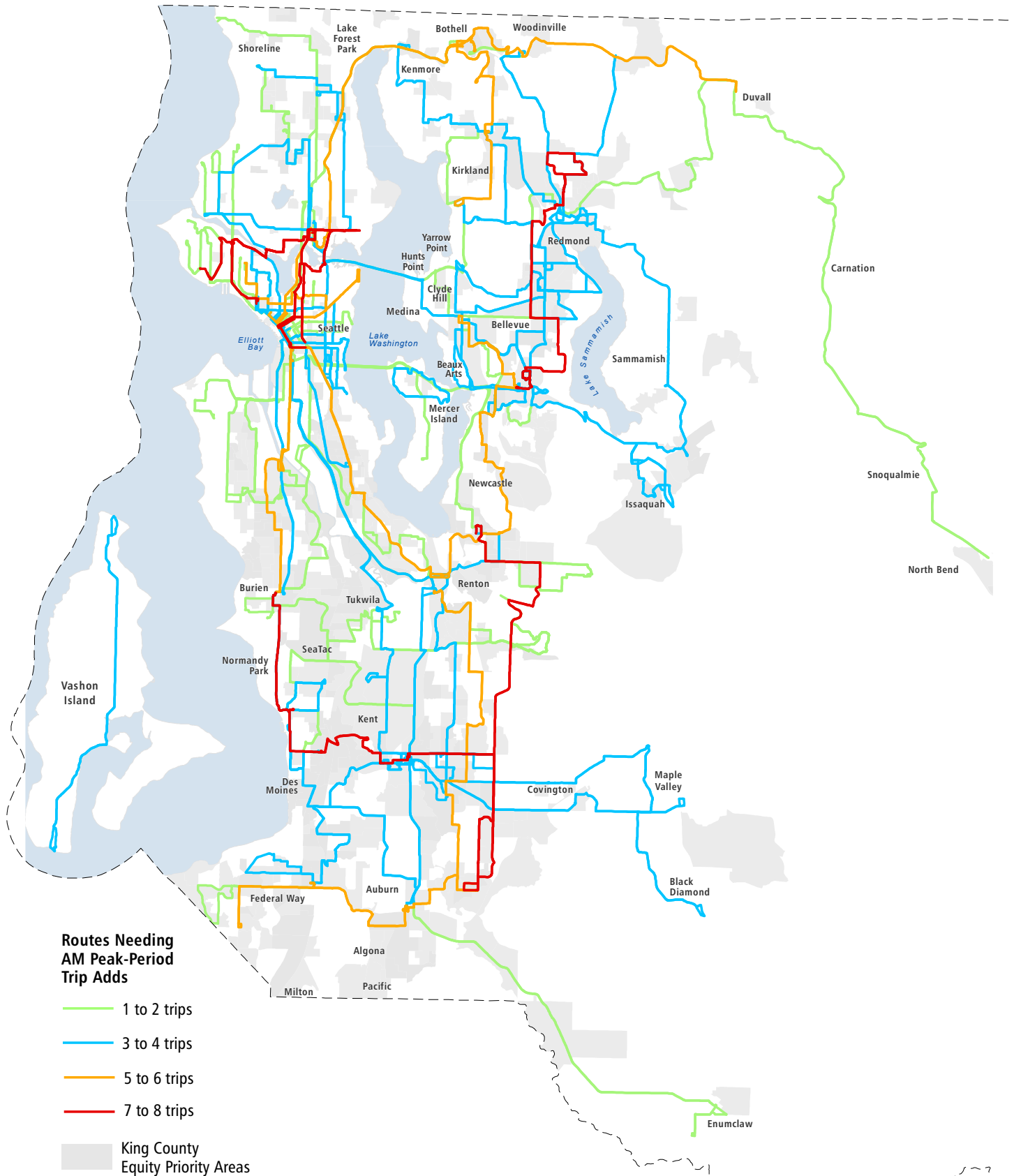
Figure 4. Metro Routes Needing Investment per the Service Guidelines (PM Peak)

Routes Needing PM Peak-Period Trip Adds

— 1 to 2 trips
— 3 to 4 trips
— 5 to 6 trips
— 7 to 8 trips
— 9 to 14 trips

King County Equity Priority Areas
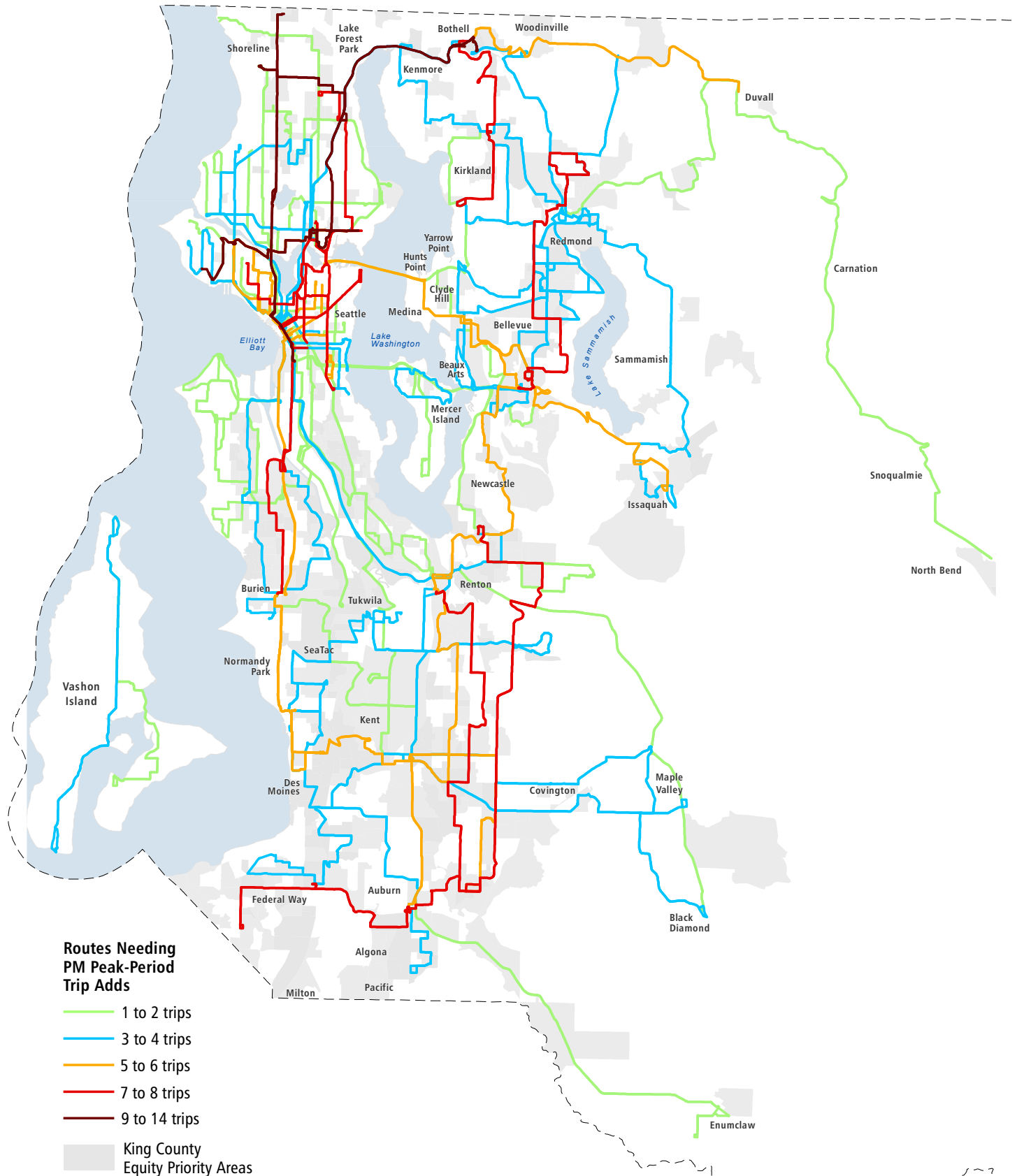
Figure 5. Metro Routes Needing Investment per the Service Guidelines (Midday)

Routes Needing Midday-Weekday Trip Adds
- 1 to 2 trips
- 3 to 4 trips
- 5 to 6 trips
- 7 to 8 trips
- 9 to 10 trips
- King County Equity Priority Areas
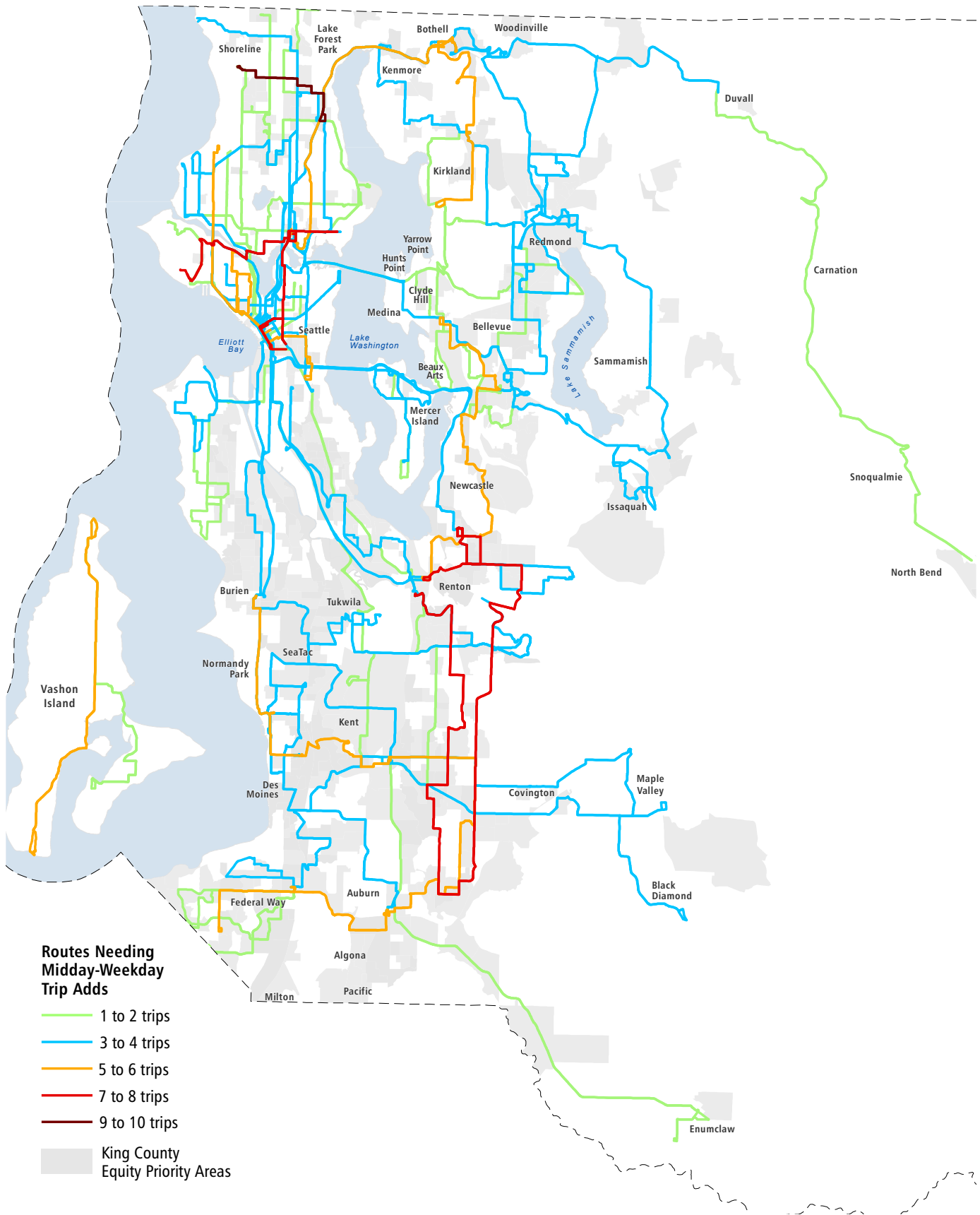
Figure 6. Metro Routes Needing Investment per the Service Guidelines (Evenings)

Routes Needing Evening Weekday Trip Adds

— 1 to 2 trips
— 3 to 4 trips
— 5 to 6 trips

King County Equity Priority Areas
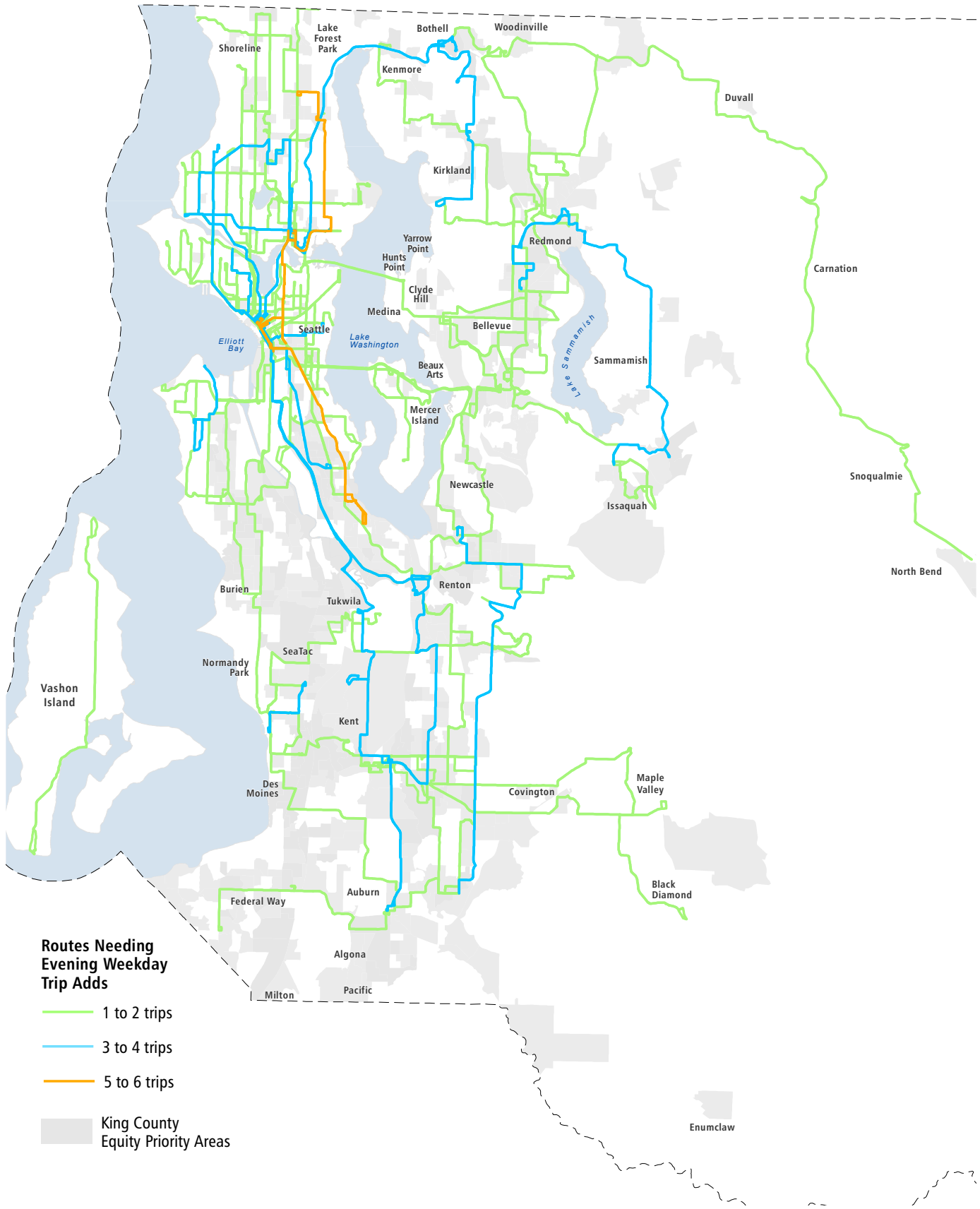
Figure 7. Metro Routes Needing Investment per the Service Guidelines (Saturday)

Routes Needing Saturday Trip Adds

— 1 to 2 trips

— 3 trips

— 7 trips

King County Equity Priority Areas
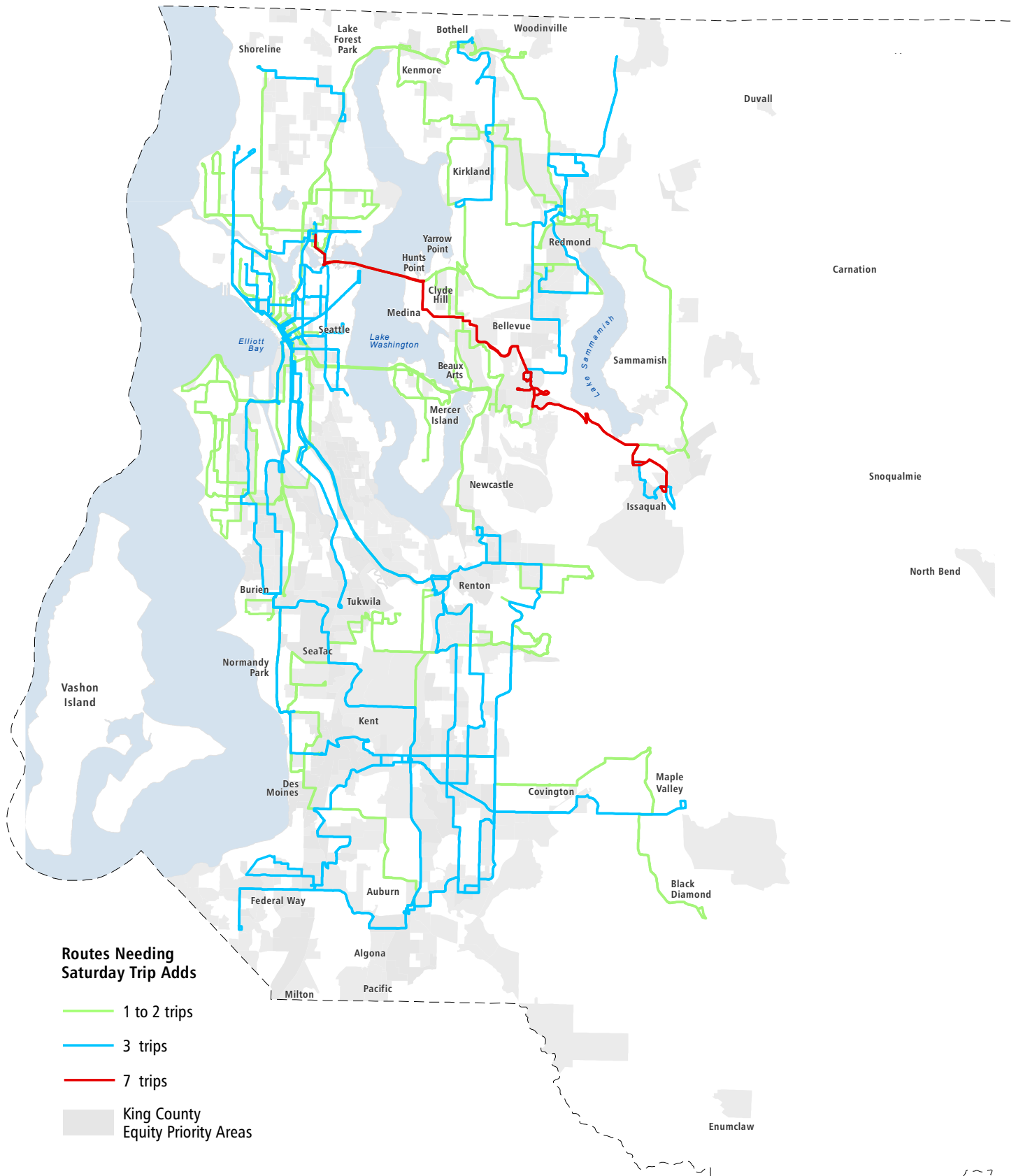
Figure 8. Metro Routes Needing Investment per the Service Guidelines (Sunday)

Routes Needing Sunday Trip Adds

- 1 to 2 trips
- 3 trips
- 5 trips
- 7 trips
- King County Equity Priority Areas
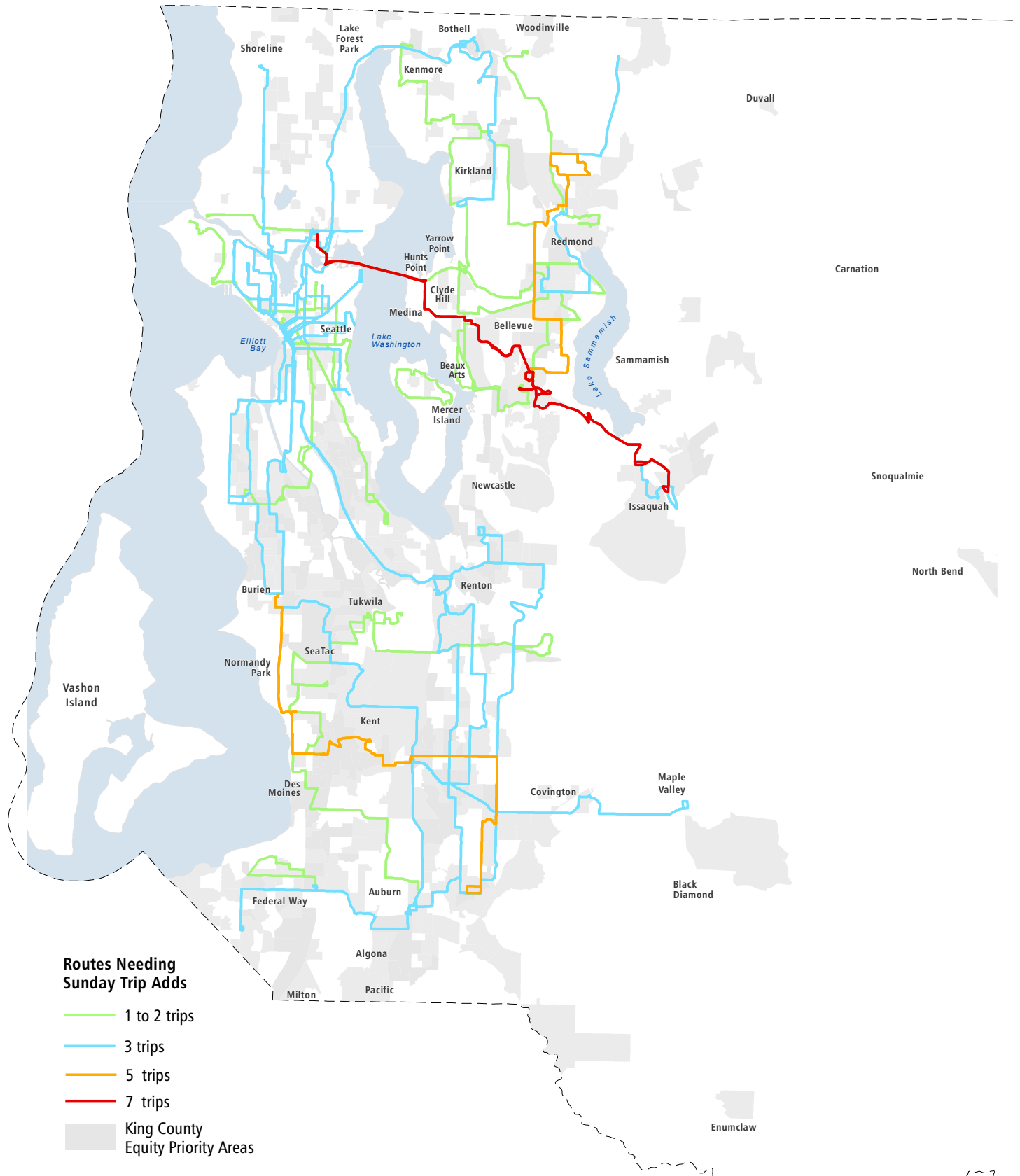
The Complete Network:
Integration with Sound Transit

Metro and Sound Transit continue joint planning together and with jurisdictions. Our collective goal is to create an integrated network that gives riders the best possible transfers as Link light rail continues to expand. Our coordinated work will maximize the total regional investment in transit service.

In October 2021, Sound Transit opened three new Link stations in north Seattle, extending from University of Washington–Husky Stadium to Northgate Transit Center. Together with the opening of the Link extension, Metro implemented the North Link Connections Mobility Project in north King County. The project serves the north Seattle, Shoreline, and North Shore communities. The project provides an updated mobility network that integrates with and complements Link.

Sound Transit is currently partnering with Metro (co-leads) on the East Link Connections Mobility Project and with Metro and Community Transit on the Lynnwood Link Connections Mobility Project. Through these projects, the transit agencies will restructure their respective bus networks to complement the Link extensions to Redmond Technology Station and Lynnwood. Metro is preparing for this expanded Link service by improving transit connections throughout the county as Link service expands. Metro and Sound Transit are coordinating with their many agency and jurisdictional partners to meet the area's diversity of mobility needs, including integration with Link. This coordination will offer current and future Metro customers fast, frequent, and reliable connections to jobs, education, and other opportunities that advance social equity for all. Similar to the East Link and Lynnwood Link restructure efforts, Metro is engaging with Sound Transit and Pierce Transit on the Federal Way Link Extension project for a major south King County restructure (Federal Way Link Connections).

Last, Metro is participating in planning, design, and environmental review for the West Seattle and Ballard Link Extensions, Tacoma Dome Link Extension, 130th Street Infill Station, I-405 BRT, SR 522/NE 145th BRT, and Kent Station Parking and Access Improvements projects.

Table 2 lists key corridors in King County where Sound Transit is the primary provider of two-way, all-day transit service. As Link service continues to expand, Sound Transit will become the high-capacity transit provider in more corridors. As services are introduced and modified, Metro and Sound Transit will continue to integrate them to maximize mobility.

Table 2. Corridors Served Primarily by Sound Transit

Between	And	Via	Major Route
Woodinville	Downtown Seattle	Bothell, Kenmore, Lake Forest Park, Lake City	522
UW Bothell	Bellevue	Totem Lake	535
Redmond	Downtown Seattle	Overlake	545
Bellevue	Downtown Seattle	Mercer Island	550
Issaquah	Downtown Seattle	Eastgate, Mercer Island	554
Burien	Bellevue	SeaTac, Renton	560
Auburn	Overlake	Kent, Renton, Bellevue	566
SeaTac	Federal Way	I-5	574
Federal Way	Downtown Seattle	I-5	577/578
Angle Lake	University District	SeaTac, Rainier Valley, downtown Seattle, Capitol Hill	Link light rail

RapidRide Progress Report

RapidRide is a network of easy to use, high-quality, and convenient bus rapid transit lines, and it is an integral part of the region's high-capacity transit network. Metro's RapidRide service includes many important features.

» **Frequent and reliable service:** RapidRide buses are more frequent and stay on time more often, with added service at night and on weekends.

» **Bus stop upgrades:** RapidRide stations include better lighting, signs with real-time arrival information, and more seating.

» **Better access:** Metro is working with local cities to improve sidewalks, street crossings, and other pathways to bus stations to ensure a safe and convenient experience.

Metro currently operates six RapidRide lines throughout King County. The RapidRide network is expanding with the G Line and the H Line currently under construction, and I Line and J Line in the planning and design stage. Following the J Line, Metro is planning two additional RapidRide lines, the K Line, and the R Line. Planning for these two lines started in 2019, but both projects were paused in response to the financial impacts of the COVID-19 pandemic. Design of RapidRide R Line is 10% complete, including conceptual improvements to speed and reliability, passenger facilities, communications and technology, and access to transit. If funding were to become available as a part of the 2023–2024 biennial budget, the project could be reactivated by spring 2023.

Table 3: RapidRide Expansion Status Update

Route name	To / From / Via	Comparable Route(s)	One-Way Miles	Project Status	Expected Opening	Federal Funding (FTA) Funding
G Line*	Madison Valley - Seattle CBD - E Madison St	11, 12	2.4	Construction	2024	Small Starts grant, American Rescue Plan funding, & Congestion Mitigation and Air Quality Improvement funding
H Line	Burien – Seattle CBD – Westwood Village	120	13.8	Construction	2023	None
I Line	Renton – Auburn – Kent	160	17.9	Design - 60%	2026	Pending Small Starts Grant
J Line*	U. District – Seattle CBD – Eastlake	70	5.2	Design - 60%	2026	Pending Small Starts Grant, Congestion Mitigation and Air Quality funding, & Surface Transportation Program funding
K Line	Totem Lake – Eastgate - Kirkland	255, 271	14.6	Preliminary planning	TBD	TBD
R Line**	Rainier Beach - Seattle CBD - Mt Baker	7	9.4	Paused: Design - 10%	TBD	TBD

* City of Seattle is leading the design and construction of the G and J Lines
** R Line work is currently on hold

RapidRide Prioritization Plan

Metro adopted an updated Metro Connects long-range plan in December 2021 which envisions a significant expansion of the RapidRide network. The ordinance adopting Metro Connects requires the creation of a RapidRide Prioritization Plan to determine the specific candidate corridors to be developed as part of the interim network.

The RapidRide Prioritization Plan will determine the number and specific candidates to be developed as RapidRide lines as part of the interim network after the K and R lines are developed. The evaluation of the candidates will lead with racial and social equity and sustainability to update the evaluation factors (equity, environment, service demand, capital need, and implementation) used in the Metro Connects RapidRide assessment and in creating a new prioritization framework. The prioritization framework will organize RapidRide candidate lines into tiers by their priority and potential timeframe for implementation. The top tier RapidRide candidates will include those planned to be implemented for the interim network and the second tier will be the lines next to be developed if additional funding becomes available. The third tier will include candidate routes not prioritized for development as part of the interim network.

Table 4 summarizes the performance of the closest equivalent routes for each candidate corridor. The service growth factors in the System Evaluation are not measures of performance but are included in Table 4 because they have similarities to some evaluation factors included in the prioritization plan.

Table 4: Interim Network RapidRide Candidate Corridors[3]

RapidRide Candidate Corridor ID (Metro Connects)	Current Route Equivalent	Service Demand	Service Quality factors		Service Growth factors		
		Ridership (weekday)	Crowding (weekday)	Reliability (weekday)	Equity Score (2–10)	Land Use Score (2–26)	Geographic Value Score (2–10)
1027 (K)	255	2,069	-	6.3%	2	11	10
	271	2,270	-	12.3%	4	11	10
1071 (R)	7	8,515	-	11.3%	6	21	7
1012	44	4,733	-	16.1%	2	21	7
1049	150	3,734	-	11.4%	6	15	10
1052	181	1,384	-	9.6%	6	4	10
1056	165	2,113	-	8.1%	4	4	7
1064	36	5,795	-	10.8%	8	20	7
	49	2,428	-	22.7%	4	22	10
1993	40	6,383	-	17.6%	2	21	10
1999	B Line*	3,305	-	14.4%	6	15	10
3101+1028	B Line*	3,305	-	14.4%	6	15	10
	271	2,270	-	12.3%	4	11	10

*RapidRide weekday reliability is based on headway adherence analysis

3 Data consolidated from Appendix C, Appendix D, Appendix E, and Appendix G

Figure 9. RapidRide service network (current and planned routes)

Legend:
- Current RapidRide network
- Future RapidRide expansion in design or construction
- Future RapidRide expansion in preliminary planning
- King County Equity Priority Areas
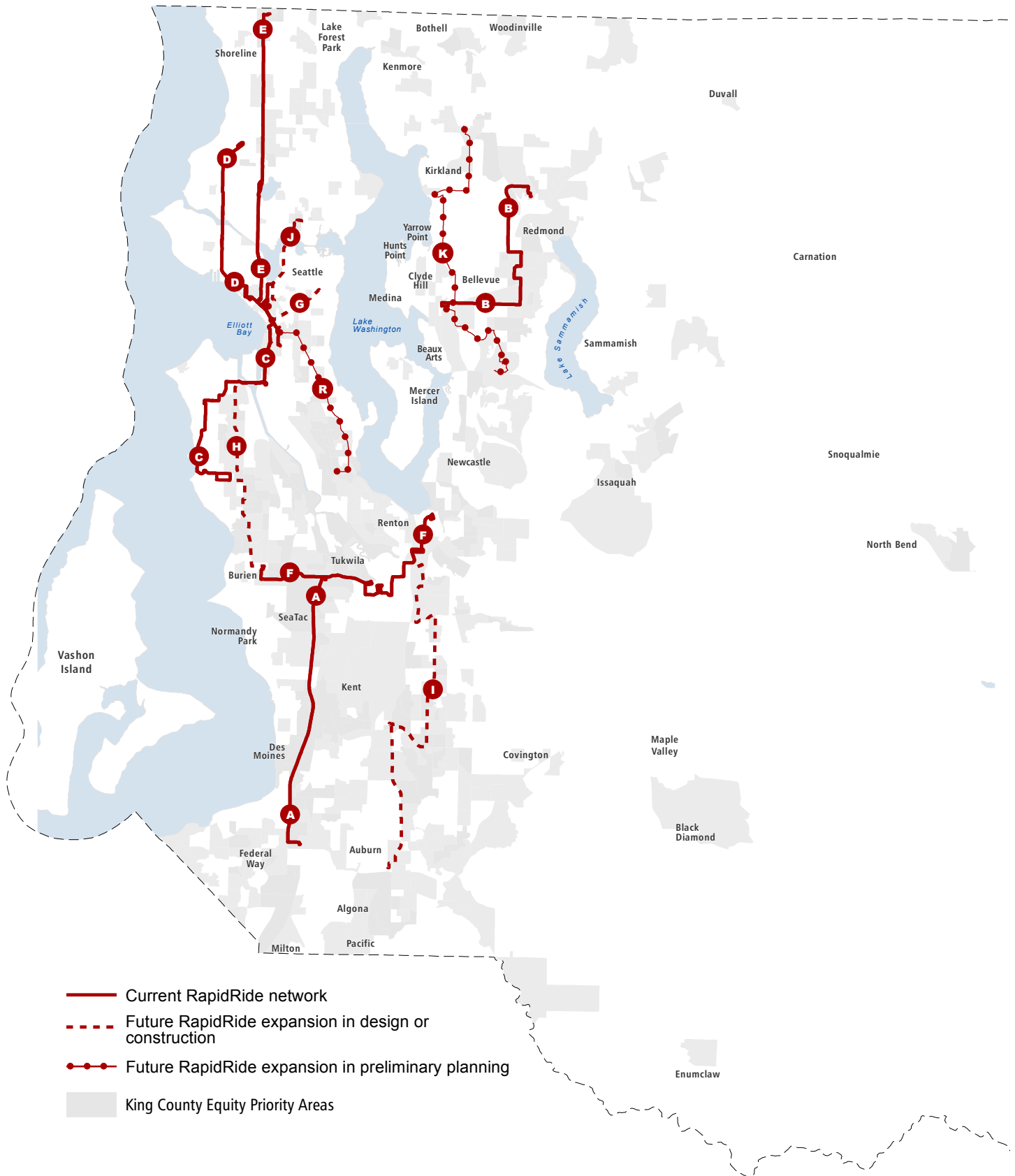
Flexible Services

Metro's flexible services program complements fixed-route bus service across King County where the fixed-route network isn't meeting community needs on its own. These services develop and advance projects that build Metro's understanding and experience with new, innovative mobility solutions.

A defining feature of the flexible services program is the ability to launch, test, and refine innovative service solutions in partnership with communities. These services leverage Metro's long-standing success in both DART and ridesharing services in combination with emerging mobility technologies. In addition to the current pilot services described below, Metro is continuing to develop new products and services through ideas that emerge from community partnerships and needs, as well as emerging national and international best practices for mobility services.

Pilot Services

Metro offers various types of innovative flexible services through the pilot programs listed below.

» **On-Demand:** Users can hail trips on-demand using a phone or mobile app to and from a transit, or other community resource hubs, or for local trips point-to-point within a service area. Ongoing pilots in On-Demand service include Community Ride, Via to Transit, and Ride Pingo.

» **Community Shuttle:** Metro routes with flexible service areas, provided through community partnerships.

Pilot Service Performance

Metro collects and analyzes ridership data for pilot services deployed through the flexible services program.

Existing flexible services are evaluated based on productivity, efficiency, and equity. Pilot services in operation during spring (March 2022–June 2022) are listed in Table 5. Appendix A includes additional details on the methods used to evaluate performance.

Table 5: Pilot Service Performance in Spring (March 2022 to June 2022)[4]

Service	Rides per Vehicle Hour	Cost per Boarding	% of riders picked up/ dropped off in Equity Priority Area	Launch Date
Community Ride – Juanita	1.15	$115.00	39%	September 2020
Community Ride – Sammamish	2.09	$60.00	12%	June 2019
Community Shuttle – Des Moines (Route 635)	4.61	$31.00	20%	January 2018
Via to Transit – Othello	2.76	$15.23	93%	April 2019
Via to Transit – Rainier Beach	3.62	$11.62	93%	April 2019
Via to Transit – Tukwilla	3.02	$13.93	88%	April 2019
Via to Transit – Renton Highlands	3.27	$12.86	87%	August 2021
Via to Transit – Skyway	1.95	$21.62	64%	August 2021
Ride Pingo – Kent Industrial Valley	1.51	$83.00	95%	September 2021

What's Next

Metro initially suspended operations of many flexible services along with other Metro services during the COVID-19 pandemic. Small vehicle size was a particular challenge for flexible services during the pandemic because of the need to ensure safety for customers and drivers. Metro took actions such as using barriers between customers and drivers, requiring masks, and limiting loads on flexible services as well as on bus service. More recently, the focus of Metro has shifted to restoring these suspended services. Via to Transit service was restored in June 2020 and Sammamish Community Ride was restored in September 2020. Trailhead Direct was canceled for the 2020 season (April to September) and later restored with reduced service for the 2021 and 2022 seasons.

Despite these challenges, Metro also launched new, additional flexible services pilot programs during the pandemic. Although it was delayed by the pandemic, Metro launched the Juanita Community Ride in September 2020. Flexible services pilots launched in 2021 included the expansion of Via to Transit into Renton Highlands and Skyway, and the Kent Industrial Valley Ride Pingo on-demand service. Most of these new services were developed as part of the Renton-Kent-Auburn Area Mobility Plan and the North Eastside Mobility Project. For these projects, Metro engaged communities to assess needs and develop flexible services that complement bus service changes, contributing to expanded mobility.

In addition to providing annual data in the system evaluation, Metro will continue to monitor and improve both existing and new flexible services (launched during the pandemic). Although some newer pilots have higher costs than longstanding ones, Metro will make occasional adjustments to improve efficiency and increase ridership. Such changes will include marketing campaigns to boost awareness, and adjusting service levels or areas. These changes will allow Metro to maximize the effectiveness of services during the pilot period, serve locations outside of our fixed route transit network, better meet the demand for each service, and keep costs low. Furthermore, Metro will continue to evaluate how each flexible service aligns with agency policies around equity and sustainability. If a pilot program consistently meets both the community needs and staff expectations during evaluation, and funding is available for sustained service, Metro may recommend individual pilots be converted into permanent programs.

4 Via and Ride Pingo services are calculated on a weekly basis and use data from
February 28–June 29, 2022.

Developing New Flexible Services

King County Metro works closely with jurisdiction partners and flexible services providers to develop new flexible service pilots. A new component of the annual system evaluation is a county-wide analysis to prioritize locations with conditions conducive for successful on-demand pilots, continued learning, and innovation.

To determine which locations would be best served by new flexible services, Metro evaluates over 140 Transit Connection Locations (TCLs), which includes transit activity centers, park and rides, Link stations, transit centers, and other types of transit hubs.

The evaluation measures used for this analysis are included below in Table 6.

Table 6: Prioritizing Locations for New Flexible Services

Factor	Measurement
Transit Connection Location Service Area	Includes a 2-mile walkshed around the primary facility and excludes the closest 1/4 mile buffer around the connection location (which is already within walking distance of the transit network).
Screening Criteria	**Equity** – average equity priority area score for the block groups in the service area is within the top 40 percent of all Transit Connection Locations.
	Density – service area has a moderate population density between 5–18 people per acre. Denser areas would be a stronger candidate for fixed route service, and less dense areas would lack the demand to support a new flexible service.
Scoring Criteria (accessibility)	Access scores determine the extent that a new flexible service would improve the surrounding area's ability to get to jobs and other community assets. Scores are broken into quintiles - a high score of 5 indicates the largest improvement in access and the low score of 1 denotes the smallest improvement in access to these resources.
Implementation	Implementation of new flexible services is contingent on resources, including staff time and funding.

The map on the next page shows potential locations for flexible services across the county. Each potential area is centered around a Transit Connection Location and includes a 2-mile walkshed. Each location is shaded based on how well it meets the screening and scoring criteria from Table 6. This analysis serves as one of many tools to help identify potential locations for new pilot services. Restructures, partnerships with jurisdictions, input from the community, grant funding, and other factors create opportunities for identifying potential locations and implementing new flexible services. Additional details on the flexible services methodology are included in Appendix A.

Figure 10. Flexible Service Potential Prioritization – Spring 2022, Accessibility of Service Areas[5]

Legend:

Level of Increased Access to Jobs & Community Assets for Proposed Service Areas

- 1 Lowest Priority
- 2
- 3
- 4
- 5 Highest Priority
- Screened out Service Areas
- TCL Hubs
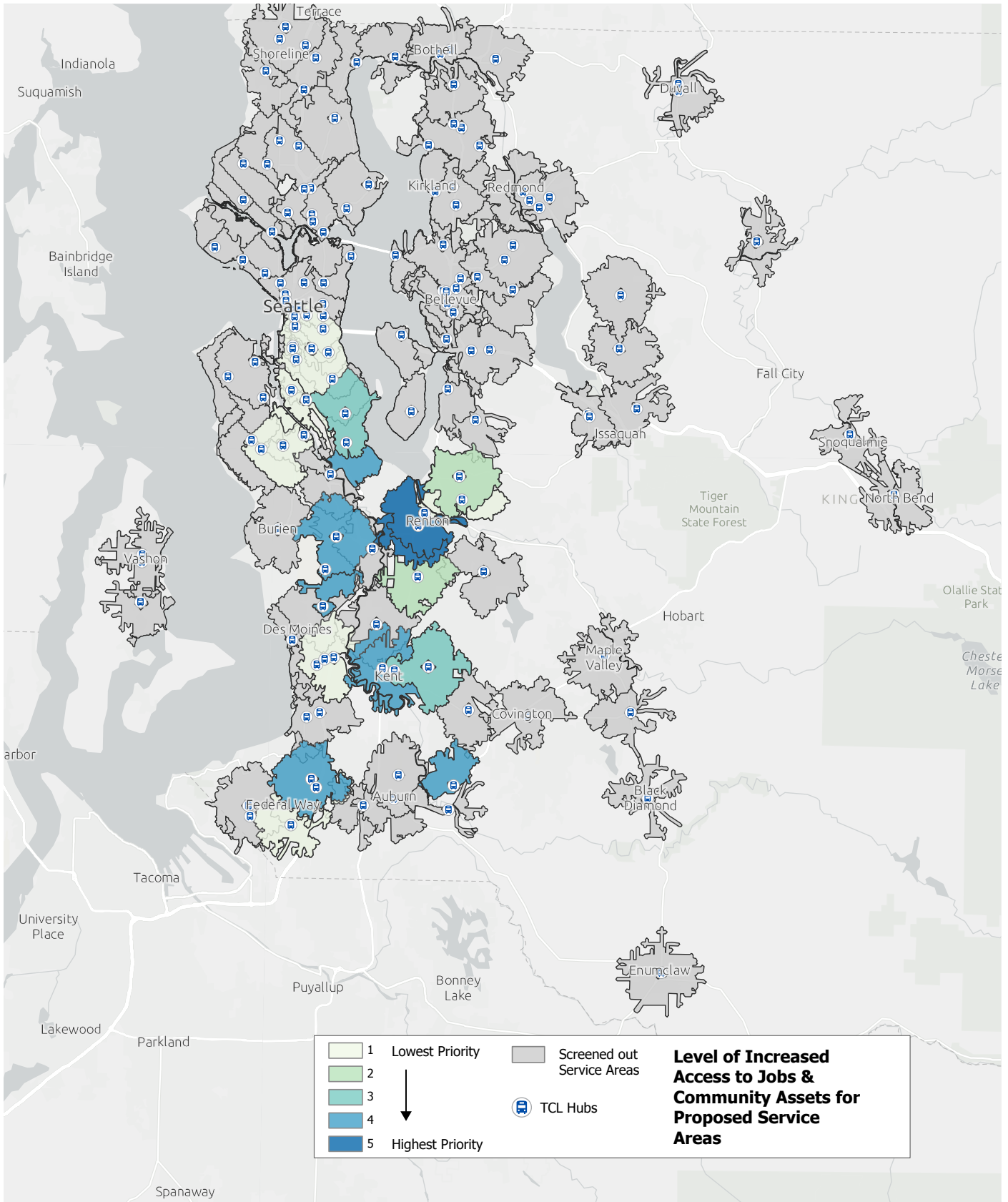
5 Prioritized locations for new flexible services meet both density screening
criteria (between 5 and 18 people per acre) and equity screening criteria
(equity rank in the top 40%).

Marine Service

Metro's Marine Division operates water taxi service in King County. As of September 2022, Metro operates two water taxi routes. The Vashon Island/downtown Seattle route provides year-round service during weekday commute periods. The West Seattle/downtown Seattle route provides a similar weekday commuter ferry service year-round and expands in the summer to include all-day service, seven-days-a-week, and late-night service on Friday and Saturday.

Water Taxi Performance

Metro monitors water taxi performance with four performance measures: ridership, productivity, passenger loads, and schedule reliability. Please see Appendix A for the method used to develop performance measures. See Table 7 for a summary of service performance from March 2022 to June 2022.

What's Been Done

In response to the pandemic and the resulting drop in ridership in 2020, Metro maintained the winter schedule for water taxi service throughout the year, with commute period service only for both routes. In April 2020, commute service was further reduced to two round trips to West Seattle and one round trip to Vashon. From May through October 2020 the water taxi returned to providing commute period service for both routes on a Monday-through-Friday only schedule. Metro restored daily service on the West Seattle route for the summer season, with daily service every day, all day, and late nights on Friday and Saturday. As part of the West Seattle high bridge closure mitigation, the City of Seattle funded additional water taxi and shuttle services in fall 2021. Metro maintained summer midday and weekend service throughout the winter from October 2021 through March 2022 to provide alternate transportation options.

What's Next

While no major service changes are planned for the West Seattle and the Vashon Island routes, the West Seattle route will maintain the increased summer sailing schedule through the winter service period (except for increased evening service on Fridays and Saturdays). Service will be continuously monitored based on ridership recovery.

Table 7. Marine Service Data: March 15, 2022–June 15, 2022

Route	Average Weekday Boardings	Average Saturday Boardings	Average Sunday Boardings	Average Rides per Round Trip	Trips operating at over 95% of Capacity	Percent Late Trips
West Seattle	791	1179	834	55	0	0.42%
Vashon Island	285	NA	NA	48	0	0.51%

Appendices

Appendix A: Methodologies and Process Descriptions

Fixed-Route Service Growth

Crowding (Priority 1)

Data is processed for two metrics: crowding and 20-minute standing loads.

Crowding. Data from Automated Passenger Counters (APCs) are collected, validated, cleaned, and compiled for each unique trip in the system (for example, the Route 5 trip that leaves Shoreline Community College at 5:15 a.m. on weekdays). Metro uses several months of data to determine the average maximum load on each trip. This figure is compared to the crowding threshold of the scheduled coach assignment. Each coach type Metro operates has its own crowding threshold. This threshold is determined by adding the number of seats on the coach to the number of standing passengers the coach can accommodate if each passenger has at least 4 square feet of floor space. For example, a coach with 50 seats and 100 square feet of floor space available for passengers to stand would have a crowding threshold of 50 + 100/4 = 75. If a trip's average maximum load is greater than its crowding threshold, it is then determined if other trips that arrive within 15 minutes have the capacity to take the excess load without being overcrowded themselves. If excess capacity does not exist, the route is identified as needing investment. This process prevents Metro from adding too much capacity where it already exists. Estimated investment need is based on the number of hours it takes to provide a trip on the identified route in the identified time period.

Twenty-minute standing loads. Metro compiles data from APCs for each unique trip in the system. Several months of data is used to determine the average departing load from each bus stop served by the trip. The data is also used to determine the average time when buses leave each stop (known as the "passing minute"). These data are then processed to determine whether the passenger load exceeded the number of seats on the scheduled coach assignment for a period of at least 20 consecutive minutes. Where this happens, other trips that arrive within 15 minutes are checked to determine if they have the capacity to take those standing passengers without having standing loads themselves. If excess capacity is not found, the route is identified as needing investment. Note that this measure does not determine if any individual passengers were standing for more than 20 minutes, as Metro is unable to collect such data. Investment need is estimated as above.

Reliability (Priority 2)

On-time performance is measured by comparing actual arrival times at bus stops to scheduled arrival times. Buses that arrive at bus stops up to 1.5 minutes before the scheduled time and up to 5.5 minutes after the scheduled time are considered on time. This allows for random variations resulting from operating in mixed traffic without prompting an unnecessary allocation of resources. All arrivals at stops are recorded by systems on the bus. For the System Evaluation, late arrivals are analyzed by route and by time period.

RapidRide service reliability is determined by headway adherence for weekdays because the route runs more frequently than every 15 minutes. When scheduled headways are between 1 and 7 minutes, actual headways at stops within two minutes of scheduled headways are considered acceptable. When scheduled headways are between 8 and 15 minutes, actual headways at stops within three minutes of scheduled headways are considered acceptable.

Metro evaluates reliability over three time periods, including weekdays, Saturdays, and Sundays. For each route and time period, Metro calculates the percentage of late arrivals at stops (more than 5.5 minutes after the scheduled arrival time). Routes that arrive late more than 20% of the time are identified for reliability investments. Metro estimates these investment needs by calculating how much additional service a route needs to meet the 20% goal.

Methodologies and Process Descriptions continued

Service Growth (Priority 3)

Metro uses the higher of target service levels from the Metro Connects interim network[6] and a service growth methodology from the Service Guidelines to establish a route's target service level, calculate the necessary investment to meet that target, and determine the relative priority for each route. Additional details on the growth methodology are included in table 8.

Table 8: Service growth methodology

Factor	Priority	Weighting (investment needed)	Purpose	Measures
Equity	1	25%	Serve communities where needs are greatest.	Equity Prioritization Score
Land Use	2	50%	Support areas of higher employment and household density, areas with high student enrollment, and the function of park-and-rides in the transit network.	(1) Households within quarter mile (2) Park-and-ride stalls within quarter mile (1) jobs within quarter mile (2) low-income jobs within quarter mile (3) enrolled students at high schools and colleges within quarter mile
Geographic Value	3	25%	Provide appropriate service levels throughout King County for connections between all centers.	(1) Connection between regional growth centers (2) Connection between activity centers (3) Connection between manufacturing & industrial centers

Metro evaluates different measures in equity, land use, and geographic value to develop a series of scores for each route. These scores are converted into service hours and compared to the target service levels envisioned for the interim network to determine which value higher–the largest value determines much additional service Metro needs to invest in each route. These service hour investment needs are prioritized by route in the following order.

1. **Equity score:** determined by the proportion of priority populations within each census block with a bus stop.

2. **Land Use score:** determined by the number of households, park and ride stalls, jobs, low-income jobs, and enrolled students at high schools and colleges within a quarter mile of the route.

3. **Geographic Value score:** determined by how well the route connects regional growth centers, activity centers, and manufacturing and industrial centers in the county.

---

6 The Metro Connects interim network envisions the fixed-route Metro transit network before the implementation of the West-Seattle Ballard Link Extension. Prioritizing these investments needs by route helps the agency make these investments gradually over the next 15 years.

Methodologies and Process Descriptions continued

Fixed Route Service Reductions Methodology

Priorities for reduction are listed in the table below. Productivity and equity measures are used to prioritize candidates for service reduction. Routes with low performance on the productivity measures, and specifically those that also have low equity scores, are generally the first to the prioritized for reduction. Within all priorities, Metro ensures that equity is a primary consideration in any reduction proposal, complying with all state and federal regulations.

The priority list is intended to address reductions to multiple trips within a time period, cuts to all service in a time period, or deletion of routes. Individual low-performing trips may also be considered for reductions outside of the priority list.[7]

Table 9: Priorities in fixed route service reductions

Priority	Factors
1	Routes within the bottom 25% on both productivity measures and with Opportunity Index Scores of 3 or less
2	Routes within the bottom 25% on both productivity measures and with Opportunity Index Scores of 4 or 5
3	Routes within the bottom 25% on one productivity measure and with Opportunity Index Scores of 3 or less
4	Routes within the bottom 25% on one productivity measure and with Opportunity Index Scores of 4 or 5
5	Routes within the bottom 50% on one or both productivity measures and with Opportunity Index Scores of 3 or less
6	Routes within the bottom 50% on one or both productivity measures and with Opportunity Index Scores of 4 or 5

Flexible Services

Evaluating Existing Flexible Services

Flexible services are evaluated in terms of productivity, efficiency, and equity.

Table 10: Evaluating Existing Flexible Services

Type of Measure	Description
Productivity: Rides per vehicle hour	Number of total riders who board a vehicle relative to the total number of hours that a vehicle operates
Efficiency: Cost per boarding	Cost per boarding relative to the cost of operating the service
Equity: Boardings/exits that are in equity priority area	Total number of boardings or exits which are in an equity priority area relative to the total number of boardings or exits

---

7 This 2022 System Evaluation report did not classify routes into the top and bottom 25% because suspended and partially suspended routes skew relative performance.

Adding New Flexible Services

To determine which locations would be best served by new flexible services, Metro evaluates over 140 Transit Connection Locations (TCLs), which include transit activity centers, park and rides, Link stations, transit centers, and other types of transit hubs. These TCLs (and their surrounding 2-mile walkshed) are evaluated using both screening criteria and evaluation measures. This approach helps identify areas that lack sufficient access to the existing transit network and would benefit the most from a flexible service.

Flexible Services Screening Criteria

» **Population density:** between 5–18 people/acre within the 2-mile walkshed buffer, excluding the quarter mile walkshed around the TCL center point. This analysis omits those living within a quarter mile of the TCL because they are considered within walking distance of the transit facility and would be unlikely to use the flexible services. This range of density seeks to serve areas with sufficient demand for service, while also excluding more populous areas of the county with existing, robust transit service.

» **Equity priority area score:** TCLs meeting the density screening criteria are given an Equity Priority Score based on the block groups covered by their service area. Only the top 40% of the transit connection locations move forward for scoring in access to jobs and community assets. This screening criteria prioritizes areas in King County with proportions of priority populations greater than the median block group. Additionally, this analysis omits households within a quarter mile of the TCL because they are considered within walking distance of the transit facility and would be unlikely to use the flexible services.

Flexible Services Evaluation Measures

» **Transit access to jobs and community assets:** TCLs are evaluated based on the difference in access to jobs and community assets between the center point and the surrounding 2-mile walkshed. The greater the difference, the higher the score. This approach prioritizes TCL service areas that serve to gain the most relative mobility throughout the county with the addition of a flexible service.

Implementation

» **Available resources and partnerships:** This analysis will serve as a guide for jurisdictions or other partners offering to fund pilots to make partner investments that are equitable and more likely to succeed. Likewise, Metro's pursuit of grants or use of available funds will look for the highest ranked locations and coordinate with service restructures. Projects that already have resources (money or staffing) or an active partnership in place are considered strong candidates for pilots.

Marine Service

Metro monitors performance and manages marine services using a set of performance measures included in the System Evaluation Report. The Marine Division uses these measures to determine when and where to consider adding service through an expanded service window or additional vessels serving the route, reallocating service from existing routes, or adjusting schedules to improve performance. Four performance measures are used to evaluate ferry service performance: ridership, service productivity, passenger loads, and schedule reliability.

Table 11: Evaluating Marine Services

Type of Measure	Measures Used
Ridership: Average daily boardings	Average daily ridership is measured and reported for each route for weekdays, Saturdays, and Sundays.
Productivity: Riders per round trip	Total passengers per round trip include the average number of riders on a vessel for both the initial departure and return trip.
Passenger loads (Crowding): Trips at or greater than 95% of capacity	Trips are crowded if they reach 95% or greater capacity as regulated by the U.S. Coast Guard, more than five times per month over a 12-month period.
Schedule reliability: trips departing more than five minutes late	Trip departures within five minutes of the published schedule are on time. The overall goal is for 98% of all trips to be on time.

Appendix B: Equity Priority Areas & Route Equity Scores

Figure 11. Census block groups by equity priority score

King County Equity Priority Area Scores*

- 1
- 2
- 3
- 4
- 5

*Scores of 4 and 5 are considered King County Equity Priority Areas
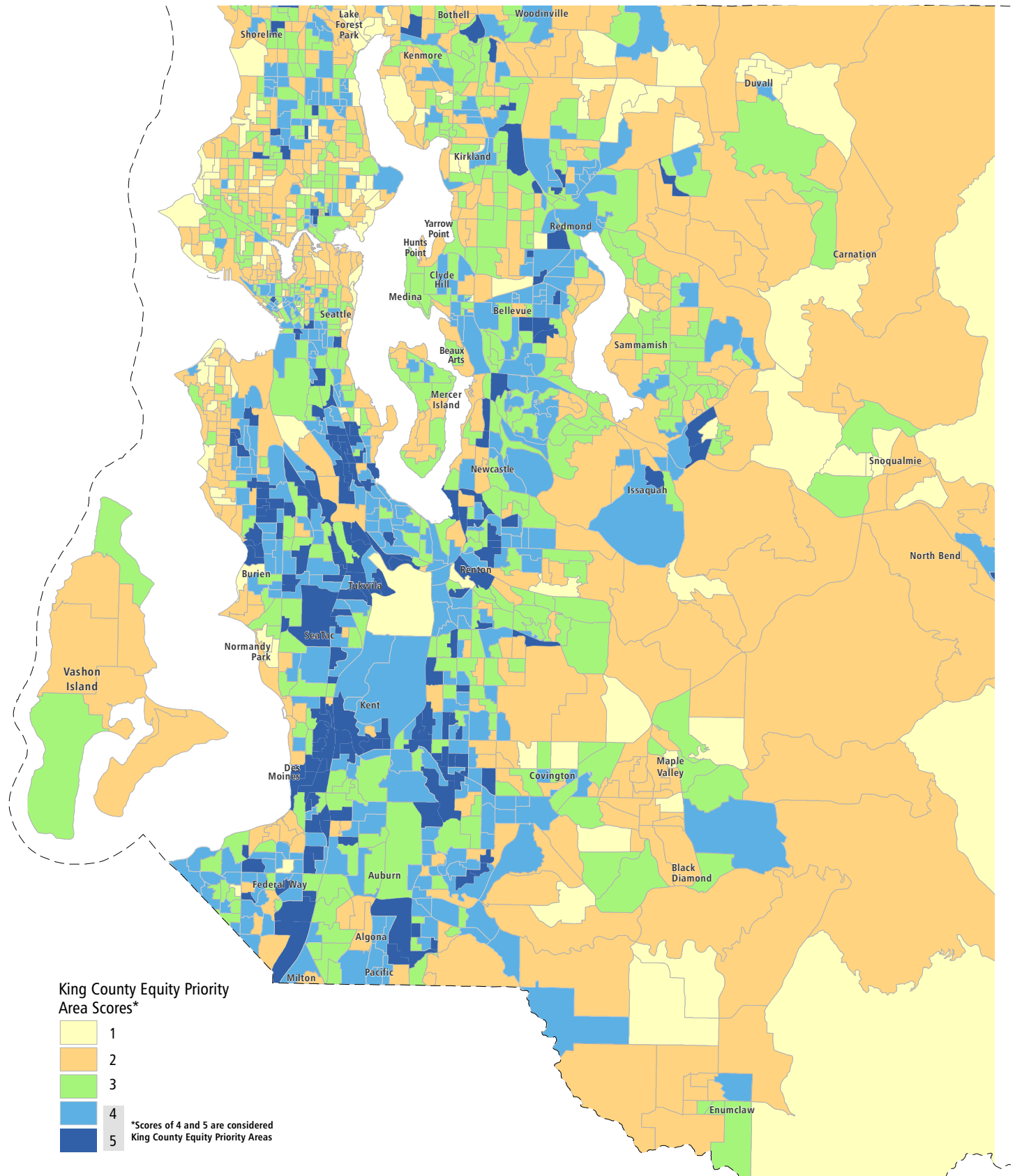
Route Equity Priority Scores

Route Name	Equity Priority Score
1	2.8
2	2.8
3	2.9
4	3.0
5	2.6
7	3.7
8	3.3
9	3.5
10	2.6
11	2.6
12	2.8
13	2.8
14	3.6
15	2.7
16	3.0
17	2.1
18	2.7
20	3.0
21	2.6
22	2.4
24	2.4
27	2.9
28	2.6
29	2.7
31	2.7
32	2.7
33	2.9
36	4.2
40	2.8
43	2.9
44	2.7
45	2.7
48	3.2
49	3.1
50	2.6
55	2.5

Route Name	Equity Priority Score
56	2.3
57	2.1
60	3.6
62	2.5
64	2.6
65	2.8
67	2.6
70	2.9
73	3.1
75	3.0
79	2.4
101	3.8
102	3.5
105	4.2
106	4.0
107	4.0
111	3.3
113	3.6
114	3.9
118	2.2
119	2.2
120	3.9
121	3.1
124	3.1
125	3.3
128	3.5
131	3.4
132	3.6
148	3.6
150	3.5
153	3.1
156	3.6
160	4.1
161	4.3
162	4.4
165	3.4

Route Name	Equity Priority Score
167	3.5
168	3.4
177	3.6
181	3.8
182	4.2
183	3.8
184	4.2
187	3.6
190	3.8
193	3.8
204	2.6
208	2.3
212	3.7
214	2.9
216	3.0
217	3.4
218	3.5
221	3.3
224	3.3
225	3.1
226	3.6
230	2.6
231	2.7
232	2.8
237	2.8
239	3.2
240	3.9
241	4.0
245	3.6
246	3.7
249	3.2
250	3.0
255	2.6
257	3.1
268	3.5
269	2.9

Route Equity Priority Scores continued

Route Name	Equity Priority Score
271	3.2
301	3.6
302	2.9
303	3.4
304	2.9
311	3.1
320	3.1
322	2.9
330	3.1
331	2.5
342	3.2
345	3.4
346	3.2
347	3.4
348	3.3
372	3.3
629	2.1
630	2.8
631	3.4
635	3.0
773	2.2
775	2.0
901	4.1
903	3.7
906	2.8
907	2.6
914	4.0
915	3.0
917	4.1
930	3.9
A Line	4.6
B Line	3.6
C Line	2.5
D Line	2.8
E Line	3.2
F Line	3.2

Figure 12. Opportunity index route scores

Routes by
Opportunity Index Score*

— 1
— 2
— 3
— 4
— 5

*Routes scoring 4 and 5
are considered our Opportunity
Index Routes - those routes with the
greatest concentration of stops within
the highest Equity Priority Areas.

King County
Equity Priority Areas
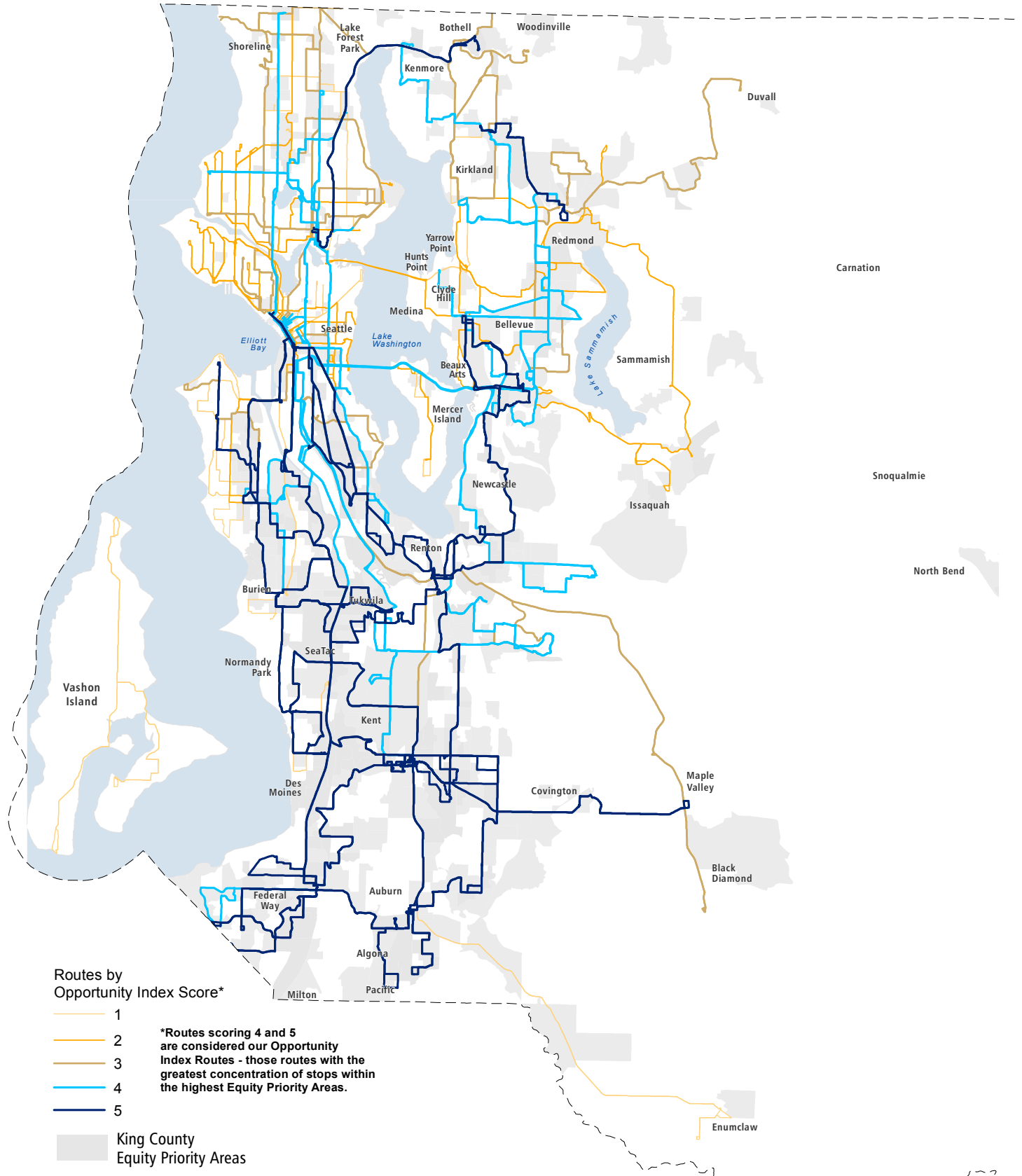
Appendix C: Crowding (Priority 1)

There are no crowding investment needs for 2022.

Appendix D: Reliability (Priority 2)

Trip productivity has been and continues to be based on scheduled hours and miles due to the nature of legacy processes and current limitations in data availability and processing methods.

▨ over the lateness threshold

Route	Weekday % Late	Saturday % Late	Sunday % Late
1	13%	18%	24%
2	9%	10%	16%
3	6%	13%	8%
4	12%	15%	8%
5	17%	40%	25%
7	11%	23%	16%
8	26%	21%	23%
9X	12%		
10	10%	9%	7%
11	25%	48%	29%
12	17%	10%	9%
13	11%	13%	9%
14	9%	16%	16%
15X	8%		
16X	6%		
17X	6%		
18X	5%		
20	8%	26%	17%
21	17%	33%	16%
21X	9%		
22	25%		
24	17%	34%	27%
27	12%	38%	18%
28X	24%	50%	31%
29	5%		
31	16%	30%	21%
32	15%	32%	18%
33	14%	26%	26%
36	11%	10%	13%
40	18%	24%	34%
43	17%	20%	14%
44	16%	27%	12%
45	26%	23%	18%
48	11%	17%	10%

Route	Weekday % Late	Saturday % Late	Sunday % Late
49	23%	28%	22%
50	11%	13%	14%
55	7%		
56	5%		
57	6%		
60	19%	18%	23%
62	24%	26%	27%
64X	10%		
65	16%	14%	13%
67	21%	14%	13%
70	14%	21%	15%
73	5%	16%	8%
75	17%	22%	17%
79	9%		
101	6%	8%	5%
102	9%		
105	3%	2%	5%
106	21%	21%	18%
107	15%	8%	5%
111	9%		
113	25%		
114	3%		
118	20%	15%	19%
119	16%		
120	11%	22%	17%
121	6%		
124	18%	25%	24%
125	24%	42%	
128	22%	24%	12%
131	30%	31%	20%
132	25%	41%	32%
148	15%	14%	8%
150	11%	12%	8%

Reliability continued

Route	Weekday % Late	Saturday % Late	Sunday % Late
153	14%		
156	11%	8%	3%
160	10%	11%	9%
161	16%	20%	14%
162	14%		
165	8%	8%	14%
167	11%		
168	18%	18%	14%
177	18%		
181	10%	12%	8%
182	8%	7%	5%
183	11%	12%	
184	10%	4%	0%
187	7%	4%	2%
190	9%		
193X	21%		
208	26%	19%	
212	3%		
214	2%		
216	7%		
217	3%		
218	1%		
221	10%	9%	10%
225	14%	6%	8%
226	14%	16%	17%
230	7%	9%	4%
231	6%	13%	7%
232	6%		
237	2%		
239	15%	6%	7%
240	13%	15%	4%
241	13%	15%	16%
245	8%	11%	11%
246	8%		
249	8%	3%	8%
250	9%	20%	11%
255	6%	11%	9%
257	12%		
268	8%		
269	10%		

Route	Weekday % Late	Saturday % Late	Sunday % Late
271	12%	18%	22%
301	5%		
302	9%		
303	7%		
304	17%		
311	6%		
320	9%		
322	8%		
330	10%		
331	6%	15%	7%
342	10%		
345	5%	9%	8%
346	4%	7%	4%
347	12%	12%	8%
348	10%	12%	7%
372X	13%	17%	11%
895X	6%		
981X	2%		
982X	15%		
984X	1%		
986X	12%		
987X	28%		
988X	31%		
989X	13%		
994X	40%		
A Line*	21%	11%	12%
B Line*	14%	10%	23%
C Line*	19%	12%	10%
D Line*	17%	22%	13%
E Line*	24%	16%	12%
F Line*	15%	8%	8%

*RapidRide all-day weekday reliability based on headway adherence analysis

Service Growth Scoring and Prioritization

Route Number	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)
	AM Peak Trips	PM Peak Trips	Off-Peak Midday Trips	Night Trips	Saturday Trips	Sunday Trips	AM Peak Service Hours	PM Peak Service Hours	Off-Peak Midday Service Hours	Night Service Hours	Saturday Service Hours	Sunday Service Hours	
1	2	2	0	2	2	0	988	1,273	-	2,375	514	-	5,100
2	2	2	4	2	0	0	1,758	-	-	2,568	-	2,021	6,300
3	2	2	4	0	3	3	1,459	2,069	-	3,258	1,341	1,358	9,500
4	0	0	0	0	0	0	3,034	6,524	6,683	2,390	-	-	18,600
5	2	2	2	0	1	1	-	2,387	3,262	2,667	1,028	2,262	11,600
7	0	0	2	1	0	0	-	-	-	11,870	-	1,221	13,100
8	0	1	0	0	1	1	3,317	2,042	-	2,345	-	1,010	8,700
10	2	0	0	1	0	3	864	2,785	1,472	2,667	-	558	8,300
11	2	5	2	2	0	2	3,501	4,734	3,660	3,090	1,163	1,176	17,300
12	3	4	0	2	3	3	-	2,652	1,472	1,838	833	965	7,800
13	0	1	1	0	1	1	2,129	4,535	5,370	3,356	541	-	15,900
14	0	2	2	1	0	0	2,442	3,182	-	3,700	1,325	1,357	12,000
15	7	6	4	2	3	3	1,532	2,864	7,903	7,903	1,612	1,798	23,600
17	0	0	0	1	0	0	1,199	1,495	3,951	3,951	806	899	12,300
18	1	1	3	2	1	1	1,285	1,442	4,349	4,349	887	989	13,300
20	0	2	2	0	0	0	-	-	-	2,570	-	-	2,600
21	4	4	0	3	3	3	1,834	-	2,546	2,290	757	1,719	9,100
22	2	0	3	2	1	1	248	693	610	414	227	253	2,400
24	0	3	0	2	3	3	1,666	3,872	-	1,617	-	-	7,200
27	3	4	0	0	1	1	1,799	2,387	-	-	-	487	4,700
28	4	6	2	4	3	3	-	2,175	2,228	1,665	-	-	6,100
31	8	6	6	1	3	5	6,213	9,905	11,298	3,911	-	-	31,300
32	4	4	4	1	3	3	6,041	6,444	5,649	4,807	1,812	1,960	26,700
33	6	8	6	1	3	3	1,235	1,538	2,029	488	-	633	5,900
36	4	4	4	1	2	2	2,347	-	-	5,403	-	-	7,800
40	0	0	0	0	0	0	4,186	4,933	8,990	8,592	-	-	26,700
44	5	8	6	3	3	3	1,921	2,466	2,307	5,470	730	814	13,700
45	6	6	6	2	0	0	-	-	-	2,367	-	-	2,400
48	4	4	0	0	0	2	3,056	6,590	5,171	3,171	1,595	-	19,600

Route Number	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)
	AM Peak Trips	PM Peak Trips	Off-Peak Midday Trips	Night Trips	Saturday Trips	Sunday Trips	AM Peak Service Hours	PM Peak Service Hours	Off-Peak Midday Service Hours	Night Service Hours	Saturday Service Hours	Sunday Service Hours	
49	3	4	2	2	0	0	4,428	5,569	7,101	9,786	1,271	1,267	29,400
50	3	4	2	0	1	1	-	-	-	3,404	-	-	3,400
57	0	0	0	0	0	0	1,520	1,370	4,084	4,084	833	929	12,800
60	2	2	2	0	2	2	2,425	3,050	-	3,118	1,379	1,186	11,200
62	3	4	4	4	1	0	-	2,811	3,859	3,459	-	-	10,100
65	1	2	2	1	0	0	2,863	6,219	4,774	7,407	-	-	21,300
67	0	0	2	1	0	0	2,238	2,917	3,978	4,119	-	-	13,300
70	2	2	4	2	0	0	4,310	2,824	5,171	5,709	-	-	18,000
73	5	14	5	3	1	3	1,185	1,671	4,614	3,008	-	-	10,500
75	2	2	3	2	1	1	-	1,962	2,824	-	-	-	4,800
79	0	1	4	3	1	1	-	-	-	-	330	368	700
101	2	2	0	3	3	3	3,719	4,402	-	6,111	2,028	2,172	18,400
102	3	6	6	1	0	0	2,705	-	4,402	4,953	898	1,001	14,000
105	0	2	2	1	2	3	1,387	1,803	5,251	873	839	852	11,000
106	0	0	0	6	0	2	6,683	2,599	3,620	6,277	-	-	19,200
107	4	2	0	1	0	2	2,360	2,493	7,320	-	-	-	12,200
111	6	7	4	2	3	3	3,218	1,370	7,081	7,081	1,444	1,611	21,800
118	0	5	2	2	3	3	2,440	2,069	4,230	900	-	112	9,800
119	3	6	6	2	2	0	-	648	1,193	63	-	-	1,900
120	2	3	5	3	3	3	-	4,217	-	4,643	2,461	2,624	13,900
121	1	1	3	2	1	1	3,350	4,196	3,076	-	627	700	11,900
124	1	1	3	2	1	1	-	2,095	-	-	1,866	-	4,000
125	0	0	0	1	0	0	1,486	1,591	-	793	469	647	5,000
128	2	0	2	1	2	3	-	-	-	-	-	-	-
131	2	4	0	1	0	0	6,606	11,138	8,513	5,147	2,033	2,151	35,600
132	3	4	0	0	0	1	2,816	5,728	-	-	-	-	8,500
148	7	9	8	2	0	0	-	-	-	-	-	-	-
150	2	2	2	0	0	2	5,315	2,917	4,217	7,652	-	-	20,100
153	3	0	0	3	0	0	2,237	3,023	-	-	573	639	6,500

Route Number	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)
	AM Peak Trips	PM Peak Trips	Off-Peak Midday Trips	Night Trips	Saturday Trips	Sunday Trips	AM Peak Service Hours	PM Peak Service Hours	Off-Peak Midday Service Hours	Night Service Hours	Saturday Service Hours	Sunday Service Hours	
156	3	3	4	3	0	0	1,516	3,766	5,569	3,658	851	935	16,300
160	3	3	2	4	2	2	5,834	10,104	4,734	12,021	2,975	3,257	38,900
161	0	0	0	1	0	0	1,750	1,962	5,569	-	1,731	1,870	12,900
165	4	7	4	2	3	0	13,366	11,298	16,111	3,138	3,349	5,791	53,100
168	7	7	7	6	3	3	2,934	3,819	5,171	1,345	1,653	1,757	16,700
181	2	2	0	1	2	1	6,782	10,714	11,457	2,034	2,461	2,564	36,000
182	0	2	2	1	0	0	-	-	1,591	-	-	-	1,600
183	4	7	4	5	0	0	2,631	3,607	5,012	721	1,452	1,448	14,900
184	4	4	4	3	0	0	-	1,591	-	-	-	-	1,600
187	5	3	4	3	0	0	530	-	1,273	359	-	-	2,200
204	0	0	0	0	1	1	-	529	1,074	-	-	175	1,800
221	3	4	8	1	3	3	9,082	11,138	7,797	3,290	2,352	3,529	37,200
225	6	2	2	2	0	0	4,276	5,304	7,638	4,181	1,260	1,406	24,100
226	2	2	4	0	0	0	3,741	4,880	-	1,267	-	905	10,800
230	2	1	3	2	1	1	-	-	-	-	-	-	-
231	4	4	5	1	0	0	-	-	-	-	-	-	-
239	0	1	1	0	0	0	4,116	7,532	7,996	5,093	1,785	1,960	28,500
240	4	5	3	0	1	1	7,658	9,309	12,292	5,018	-	-	34,300
241	0	2	0	0	3	0	2,233	2,970	-	651	-	648	6,500
245	2	2	0	0	1	1	4,115	6,206	4,137	4,195	-	-	18,700
246	0	0	0	0	0	0	1,685	2,262	3,103	-	354	395	7,800
249	5	8	4	2	3	3	4,376	6,061	4,455	-	856	905	16,700
250	2	4	0	0	0	0	-	-	-	-	-	-	-
255	0	0	0	0	0	0	2,079	2,519	3,262	-	1,122	1,237	10,200
269	4	2	2	3	0	0	4,330	5,533	8,592	12,862	1,109	-	32,400
271	2	4	4	2	2	2	5,446	7,028	7,638	3,984	7,132	7,546	38,800
330	0	0	2	0	0	0	2,172	6,723	7,359	265	746	832	18,100
331	3	4	4	0	3	3	-	-	-	-	-	-	-
345	0	4	0	0	0	0	933	1,512	2,228	1,492	-	-	6,200

Service Growth Scoring and Prioritization continued

Route Number	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)
	AM Peak Trips	PM Peak Trips	Off-Peak Midday Trips	Night Trips	Saturday Trips	Sunday Trips	AM Peak Service Hours	PM Peak Service Hours	Off-Peak Midday Service Hours	Night Service Hours	Saturday Service Hours	Sunday Service Hours	
346	1	0	2	0	0	0	-	-	1,830	1,162	-	-	3,000
347	0	1	2	0	0	1	-	-	2,466	2,640	-	-	5,100
348	8	8	4	1	3	5	1,184	1,697	4,774	4,108	-	-	11,800
372	4	4	0	1	0	2	5,768	19,307	9,448	8,727	632	1,508	45,400
630	4	5	4	1	7	7	1,676	1,828	3,660	3,660	746	832	12,400
631	4	13	10	0	3	3	276	902	-	-	92	103	1,400
635	0	0	0	0	0	0	903	955	1,432	1,909	-	217	5,400
773	1	4	0	0	1	1	-	376	2,669	2,334	308	344	6,000
775	4	4	4	3	0	1	-	301	-	-	184	205	700
901	4	4	4	0	3	2	1,113	1,326	1,830	225	574	541	5,600
903	0	0	2	0	0	0	-	-	1,512	102	-	-	1,600
906	2	4	4	2	2	2	1,404	4,084	4,058	2,511	625	657	13,300
907	0	1	0	0	0	0	-	999	-	-	-	-	1,000
914	4	0	0	1	0	1	7,001	-	-	3,501	-	796	11,300
915	1	1	2	0	0	1	983	1,132	2,466	-	117	360	5,100
917	0	0	0	0	0	0	-	-	-	-	-	-	-
930	3	4	0	0	1	1	2,168	3,235	-	-	671	748	6,800
2204	4	4	4	1	3	3	4,296	5,967	3,819	2,685	-	-	16,800
2515	3	4	4	1	2	2	2,044	7,585	7,638	1,442	1,476	1,647	21,800
3028	3	4	4	1	3	3	4,535	6,047	5,331	2,307	1,028	1,146	20,400
3061	7	8	4	2	3	3	8,274	10,820	17,185	10,393	3,326	3,710	53,700
3062	6	8	8	2	3	3	4,699	6,206	8,274	1,916	516	576	22,200
3069	4	4	4	1	2	2	2,427	3,395	5,251	1,830	1,311	1,463	15,700
3085	1	2	2	1	0	0	1,343	1,485	2,307	771	865	965	7,700
3090	0	0	0	0	0	0	5,316	6,948	10,820	3,205	757	844	27,900
3091	2	0	0	1	0	0	2,865	3,819	5,967	2,306	2,324	2,592	19,900
3122	0	0	0	2	2	0	5,861	6,683	5,887	3,288	1,136	1,267	24,100
3162	0	0	0	2	3	0	7,763	10,078	17,503	6,109	2,915	3,252	47,600
3214	0	9	0	2	0	0	992	1,114	1,432	359	500	557	5,000

Service Growth Scoring and Prioritization continued

Route Number	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)
	AM Peak Trips	PM Peak Trips	Off-Peak Midday Trips	Night Trips	Saturday Trips	Sunday Trips	AM Peak Service Hours	PM Peak Service Hours	Off-Peak Midday Service Hours	Night Service Hours	Saturday Service Hours	Sunday Service Hours	
3220	0	0	0	0	0	0	1,313	2,334	3,540	1,750	-	-	8,900
A Line	5	6	3	1	0	0	-	-	-	-	-	-	-
B Line	1	4	3	0	1	1	1,667	-	-	2,053	-	-	3,700
C Line	6	8	4	1	3	3	-	-	-	4,842	1,217	-	6,100
D Line	7	8	8	3	3	3	-	-	-	3,808	1,947	-	5,800
E Line	4	4	4	1	1	1	-	11,457	-	4,392	-	-	15,800
F Line	3	4	4	1	2	2	-	-	-	-	-	-	-

Appendix F: Summary of Fixed Route Investment Needs[8]

| Route | Investment Need | | |
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
1	-	250	5,100
2	-	-	6,300
3	-	-	9,500
4	-	-	18,600
5	-	750	11,600
7	-	250	13,100
8	-	1,700	8,700
9	-	-	-
10	-	-	8,300
11	-	1,150	17,300
12	-	-	7,800
13	-	-	15,900
14	-	-	12,000
15	-	-	23,600
16	-	-	-
17	-	-	12,300
18	-	-	13,300
20	-	250	2,600
21	-	300	9,100
21E	-	-	-
22	-	250	2,400
24	-	500	7,200
27	-	250	4,700
28	-	1,150	6,100
29	-	-	-
31	-	500	31,300
32	-	250	26,700
33	-	500	5,900
36	-	-	7,800
40	-	1,050	26,700
43	-	250	-
44	-	250	13,700
45	-	1,250	2,400
48	-	-	19,600
49	-	900	29,400

| Route | Investment Need | | |
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
50	-	-	3,400
55	-	-	-
56	-	-	-
57	-	-	12,800
60	-	250	11,200
62	-	1,700	10,100
64	-	-	-
65	-	-	21,300
67	-	250	13,300
70	-	250	18,000
73	-	-	10,500
75	-	250	4,800
79	-	-	700
101	-	-	18,400
102	-	-	14,000
105	-	-	11,000
106	-	550	19,200
107	-	-	12,200
111	-	-	21,800
113	-	250	-
114	-	-	-
118	-	-	9,800
119	-	-	1,900
120	-	250	13,900
121	-	-	11,900
124	-	500	4,000
125	-	650	5,000
128	-	750	-
131	-	2,050	35,600
132	-	1,500	8,500
148	-	-	-
150	-	-	20,100
153	-	-	6,500
156	-	-	16,300

8 Investment needs are not totalled for each route because the service growth investment needs would alleviate service quality investment needs for crowding and reliability.

Summary of Fixed Route Investment Needs continued

Route	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth	Route	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
160	-	-	38,900	250	-	250	-
161	-	-	12,900	255	-	-	10,200
162	-	-	-	257	-	-	-
165	-	-	53,100	268	-	-	-
167	-	-	-	269	-	-	32,400
168	-	-	16,700	271	-	250	38,800
177	-	-	-	301	-	-	-
181	-	-	36,000	302	-	-	-
182	-	-	1,600	303	-	-	-
183	-	-	14,900	304	-	-	-
184	-	-	1,600	311	-	-	-
187	-	-	2,200	320	-	-	-
190	-	-	-	322	-	-	-
193	-	250	-	330	-	-	18,100
204	-	-	1,800	331	-	-	-
208	-	250	-	342	-	-	-
212	-	-	-	345	-	-	6,200
214	-	-	-	346	-	-	3,000
216	-	-	-	347	-	-	5,100
217	-	-	-	348	-	-	11,800
218	-	-	-	372	-	-	45,400
221	-	-	37,200	629	-	-	-
224	-	-	-	630	-	-	12,400
225	-	-	24,100	631	-	-	1,400
226	-	-	10,800	635	-	-	5,400
230	-	-	-	773	-	-	6,000
231	-	-	-	775	-	-	700
232	-	-	-	901	-	-	5,600
237	-	-	-	903	-	-	1,600
239	-	-	28,500	906	-	-	13,300
240	-	-	34,300	907	-	-	1,000
241	-	-	6,500	914	-	-	11,300
245	-	-	18,700	915	-	-	5,100
246	-	-	7,800	917	-	-	-
249	-	-	16,700	930	-	-	6,800

Summary of Fixed Route Investment Needs continued

Route	Investment Need		
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
A Line	-	400	-
B Line	-	250	3,700
C Line	-	-	6,100
D Line	-	250	5,800
E Line	-	1,900	15,800
F Line	-	-	-
2204*	N/A	N/A	16,800
2515*	N/A	N/A	21,800
3028*	N/A	N/A	20,400
3061*	N/A	N/A	53,700
3062*	N/A	N/A	22,200
3069*	N/A	N/A	15,700
3085*	N/A	N/A	7,700
3090*	N/A	N/A	27,900
3091*	N/A	N/A	19,900
3122*	N/A	N/A	24,100
3162*	N/A	N/A	47,600
3214*	N/A	N/A	5,000
3220*	N/A	N/A	8,900

*These Metro Connects routes have no current service or corresponding route in the existing transit network—as a result, they do not have any service quality data and are only evaluated for service growth investment needs.

Appendix G: Route-Level Ridership and Hours (2021–2022)[9]

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
1	Active	Active	1,021	1,535	514	77	78	0
2	STM Reduction	STM Reduction	2,401	3,379	978	136	133	-2
3	STM Reduction	STM Reduction	2,646	3,328	682	170	168	-2
4	STM Reduction	STM Reduction	1,486	1,972	486	102	108	6
5	Active	STM Addition	2,118	3,050	932	142	142	0
7	Active	Active	7,143	8,515	1,372	304	309	5
8	Active	Active	2,917	4,828	1,911	163	158	-5
9	Partial Restoration	Partial Restoration	0	139	139	0	17	17
10	STM Reduction	STM Reduction	1,608	1,648	40	88	76	-12
11	STM Reduction	STM Reduction	1,447	1,730	283	82	83	1
12	STM Reduction	STM Addition	1,213	1,532	319	84	75	-9
13	Active	Active	891	1,154	263	63	61	-2
14	Active	STM Addition	1,533	2,069	536	92	91	-1
15	Partial Restoration	Partial Restoration	0	158	158	0	19	19
16	New	New	0	188	188	0	23	23
17	Partial Restoration	Partial Restoration	0	110	110	0	14	14
18	Partial Restoration	Partial Restoration	0	60	60	0	11	11
20	New	STM Addition	0	1,558	1,558	0	161	161
21	Partial Suspension	Reduced	1,695	2,257	562	150	151	1
22	Partial Restoration	Partial Restoration	0	114	114	0	16	16
24	STM Reduction	STM Reduction	621	980	359	70	67	-3
26	Deleted	Deleted	740	0	-740	92	0	-92

9 Some of Metro's transit service is directly supported through the Seattle Transit Measure (STM). This STM service was adjusted during the pandemic based on funding availability, as noted in the Fall 2021 Status and Spring 2022 Status columns.

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
27	Active	Active	379	539	160	47	48	1
28	STM Reduction	STM Reduction	672	1,047	375	102	92	-10
29	Partial Restoration	Partial Restoration	0	96	96	0	19	19
31	Revision	Revised	500	1,443	943	61	86	25
32	Revision	Revised	603	1,629	1,026	69	100	31
33	STM Reduction	STM Reduction	489	750	261	54	47	-8
36	Active	Active	4,706	5,795	1,089	268	241	-27
40	Revision	Revised	4,087	6,383	2,296	304	310	6
41	Deleted	Deleted	2,385	0	-2,385	264	0	-264
43	Revision	Revised	241	289	48	24	23	-2
44	Revision	Revised	2,947	4,733	1,786	162	168	6
45	Revision	Revised	2,259	3,824	1,565	179	148	-31
48	Revision	Revised	1,842	3,285	1,443	161	144	-17
49	Revision	Revised	2,287	2,428	141	140	125	-15
50	Revision	Revised	1,278	2,149	871	138	153	15
55	Partial Suspension	Reduced	78	143	65	22	23	1
56	STM Reduction	STM Reduction	118	203	85	24	21	-3
57	STM Reduction	STM Reduction	61	130	69	13	11	-1
60	STM Addition	STM Addition	2,970	4,412	1,442	201	225	24
62	Revision	Revised	2,448	4,503	2,055	224	223	-2
64	Revision	Revised	221	144	-77	32	19	-14
65	Revision	Revised	1,579	2,760	1,181	113	116	3
67	Revision	Revised	1,635	2,763	1,128	104	105	1
70	Revision	Revised	2,925	3,476	551	200	176	-24
73	Revision	Revised	156	949	793	16	82	66
74	Deleted	Deleted	217	0	-217	41	0	-41
75	Revision	Revised	1,288	2,945	1,657	124	145	21
79	New	New	0	944	944	0	100	100
101	Active	Active	1,807	2,320	513	154	153	-1
102	Partial Suspension	Reduced	325	504	179	35	35	0
105	Active	Active	546	718	172	53	53	0

Route-Level Ridership and Hours continued

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
106	STM Reduction	STM Addition	2,931	3,798	867	174	177	2
107	STM Reduction	STM Reduction	1,017	1,643	626	121	117	-3
111	Partial Suspension	Reduced	114	154	40	42	37	-5
113	Partial Restoration	Partial Restoration	0	45	45	0	11	11
114	Partial Restoration	Partial Restoration	0	90	90	0	18	18
118	Partial Suspension	Reduced	119	147	28	25	25	0
119	Partial Suspension	Reduced	72	96	24	13	13	0
120	STM Addition	STM Addition	4,352	5,347	995	291	306	16
121	Partial Restoration	Partial Restoration	0	105	105	0	21	21
124	Partial Suspension	Reduced	2,131	2,437	306	138	139	1
125	STM Reduction	STM Reduction	344	553	209	64	63	-1
128	Active	Active	1,667	2,558	891	177	183	7
131	Revision	Revised	1,769	1,986	217	103	111	8
132	Revision	Revised	1,661	2,023	362	112	108	-4
148	Active	Active	307	391	84	43	43	0
150	Active	Active	2,799	3,734	935	200	200	0
153	Active	Active	407	513	106	42	42	0
156	Active	Active	485	670	185	71	72	0
160	Active	Active	3,068	3,867	799	216	200	-15
161	Active	Active	1,191	1,386	195	101	101	0
162	Active	Active	247	270	23	44	44	0
165	Active	Active	1,517	2,113	596	142	142	0
167	Partial Restoration	Partial Restoration	0	84	84	0	16	16
168	Active	Active	782	1,071	289	70	70	0
177	Partial Restoration	Partial Restoration	0	111	111	0	19	19
181	Active	Active	1,152	1,384	232	106	106	0
182	Active	Active	262	334	72	29	29	0

Route-Level Ridership and Hours continued

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
183	Active	Active	581	788	207	52	52	1
184	Active	Active	581	588	7	45	45	0
187	Active	Active	232	293	61	20	20	0
190	Partial Restoration	Partial Restoration	0	58	58	0	15	15
193	Active	Active	275	256	-19	36	34	-2
204*	Active	Active	NA	52	NA	17	17	0
208	Active	Active	59	95	36	14	20	6
212	Partial Suspension	Reduced	153	259	106	37	35	-2
214	Partial Restoration	Partial Restoration	0	103	103	0	21	21
216	Partial Restoration	Partial Restoration	0	77	77	0	15	15
217	Active	Active	0	57	57	0	11	11
218	Partial Suspension	Reduced	104	211	107	36	34	-1
221	Partial Restoration	Partial Restoration	473	720	247	79	81	2
224*	Active	Active	NA	95	NA	16	16	0
225	Active	Active	306	540	234	77	85	8
226	Active	Active	481	837	356	71	70	0
230	Active	Active	165	263	98	53	53	0
231	Active	Active	187	227	40	55	55	0
232	Partial Restoration	Partial Restoration	0	50	50	0	16	16
237	Active	Active	0	9	9	0	6	6
239	Active	Active	335	481	146	69	69	0
240	Partial Suspension	Reduced	980	1,379	399	120	120	0
241	Partial Restoration	Partial Restoration	210	323	113	48	48	0
245	Partial Suspension	Reduced	1,124	1,887	763	154	154	0
246	Active	Active	0	138	138	0	29	29
249	Active	Active	0	365	365	0	57	57
250	Active	Active	1,185	1,702	517	154	160	6
255	Partial Restoration	Partial Restoration	1,084	2,069	985	182	197	16
257	Active	Active	92	143	51	25	21	-3

Route-Level Ridership and Hours continued

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
268	Partial Restoration	Partial Restoration	0	70	70	0	14	14
269	Partial Suspension	Reduced	341	512	171	77	77	0
271	Partial Restoration	Partial Restoration	1,206	2,270	1,064	196	212	16
301	Revision	Revised	138	129	-9	30	22	-9
302	New	New	0	224	224	0	15	15
303	Revision	Revised	388	191	-197	38	16	-22
304	Revision	Revised	66	34	-32	17	9	-8
309	Deleted	Deleted	124	0	-124	20	0	-20
311	Partial Suspension	Reduced	132	288	156	42	39	-3
320	New	New	0	210	210	0	35	35
322	New	New	0	306	306	0	36	36
330	Active	Active	89	128	39	14	14	0
331	Revision	Revised	287	405	118	49	58	9
342	Partial Restoration	Partial Restoration	0	90	90	0	16	16
345	Revision	STM Addition	432	713	281	44	64	19
346	Revision	STM Addition	421	814	393	46	55	8
347	Revision	Revised	545	907	362	55	64	9
348	Revision	Revised	608	915	307	57	67	10
372	Revision	Revised	1,757	4,805	3,048	212	208	-4
373	Deleted	Deleted	563	0	-563	63	0	-63
627*	No Service	Partial Restoration	NA	NA	NA	8	8	0
629*	No Service	Partial Restoration	NA	NA	NA	28	28	0
630*	Partial Restoration	Partial Restoration	NA	14	NA	0	8	8
631*	Active	Active	NA	34	NA	13	13	0
635*	Active	Active	NA	NA	NA	21	14	-8
773*	Active	Active	NA	NA	NA	7	7	0
775*	Active	Active	NA	NA	NA	8	8	0
893*	School Restoration	School Restoration	NA	NA	NA	0	2	2

Route-Level Ridership and Hours continued

Route	Fall 2021 Status	Spring 2022 Status	Weekday Rides in Spring 2021	Weekday Rides in Spring 2022	Change in Rides	Platform Hours in Spring 2021	Platform Hours in Spring 2022	Change in Platform Hours
895*	School Restoration	School Restoration	NA	NA	NA	0	2	2
901*	Active	Active	NA	NA	NA	19	19	0
903*	Active	Active	NA	NA	NA	19	19	0
906*	Active	Active	NA	358	NA	65	65	0
907*	Active	Active	NA	43	NA	17	17	0
914*	Active	Active	NA	98	NA	22	22	0
915*	Active	Active	NA	185	NA	33	33	0
917*	Active	Active	NA	117	NA	28	28	0
930*	Active	Active	NA	172	NA	40	40	0
981*	School Restoration	School Restoration	NA	NA	NA	0	3	3
982*	School Restoration	School Restoration	NA	NA	NA	0	5	5
984*	School Restoration	School Restoration	NA	NA	NA	0	3	3
986*	School Restoration	School Restoration	NA	NA	NA	0	4	4
987*	School Restoration, Revised	School Restoration	NA	NA	NA	0	4	4
988*	School Restoration, Revised	School Restoration	NA	NA	NA	0	3	3
989*	School Restoration	School Restoration	NA	NA	NA	0	4	4
994*	School Restoration, Revised	School Restoration	NA	NA	NA	0	3	3
A Line	Active	Active	6,083	7,116	1,033	212	212	0
B Line	Active	Active	2,206	3,305	1,099	167	167	0
C Line	STM Reduction	STM Reduction	4,212	5,791	1,579	317	332	15
D Line	STM Reduction	STM Reduction	5,419	7,666	2,247	272	264	-8
E Line	STM Reduction	STM Reduction	8,225	10,310	2,085	386	365	-21
F Line	Active	Active	3,337	4,098	761	193	193	0

* Daily ridership data for DART is not available - DART vehicles are not outfitted with automated passenger counters on board.

Appendix H: Route Productivity

Thresholds are different for each service type and day period. Rural and Dart routes are not evaluated based on Saturday and Sunday productivity data.

Productivity data for partially and fully suspended routes is not representative of typical performance. Similar to the 2021 System Evaluation, this productivity analysis will not directly inform service reductions for the 2022 system evaluation because many routes are still suspended or have canceled trips due to lingering impacts from the pandemic.

Service Family	Time Period	Bottom 25 Threshold Rides	Bottom 25 Threshold Miles
Urban	Night	9.0	2.8
Urban	Off-Peak	14.6	4.7
Urban	Peak	8.9	3.9
Urban	Saturday	14.6	4.2
Urban	Sunday	13.5	3.6
Suburban	Night	5.7	1.9
Suburban	Off-Peak	9.2	3.3
Suburban	Peak	7.2	2.4
Suburban	Saturday	8.5	2.7
Suburban	Sunday	7.4	2.3
Rural and DART	Weekday	NA	NA
Rural and DART	Saturday	NA	NA
Rural and DART	Sunday	NA	NA

Route Productivity continued

■ bottom 25% in terms of productivity

Route	Peak Rides per Platform Hour	Peak Passenger Miles per Platform Mile	Off Peak Rides per Platform Hour	Off Peak Passenger Miles per Platform Mile	Night Rides per Platform Hour	Night Passenger Miles per Platform Mile	Saturday Rides per Platform Hour	Saturday Passenger Miles per Platform Mile	Sunday Rides per Platform Hour	Sunday Passenger Miles per Platform Mile	Opportunity Index Score	Route Type
1	20.3	5.3	20.5	4.8	15.9	3.6	26.0	4.7	22.8	4.3	3	Urban
2	29.1	6.9	29.2	6.4	15.3	3.8	24.7	5.3	23.3	5.3	2	Urban
3	23.4	5.1	21.1	5.0	8.6	1.7	16.6	3.7	14.5	3.2	3	Urban
4	23.0	5.1	18.2	4.7	11.8	3.0	17.7	4.1	16.3	3.7	2	Urban
5	23.8	8.5	21.5	8.0	15.9	5.1	24.5	7.9	21.0	7.1	3	Urban
7	28.5	8.8	28.7	8.8	22.6	6.4	30.5	8.3	28.3	7.5	4	Urban
8	34.7	7.7	32.3	7.3	19.8	4.5	27.0	6.3	28.0	6.1	2	Urban
9	8.7	1.9	4.2	1.1	NA	NA	NA	NA	NA	NA	4	Urban
10	22.7	4.6	26.7	5.5	14.4	2.8	23.1	4.5	20.6	3.7	1	Urban
11	21.3	5.0	26.0	5.9	15.2	3.1	23.5	5.6	20.7	4.9	1	Urban
12	26.0	5.0	20.3	4.4	8.4	2.1	13.1	3.1	10.0	2.4	1	Urban
13	20.4	5.3	22.0	6.0	13.7	3.1	22.3	5.0	13.9	3.3	2	Urban
14	24.2	4.4	25.2	4.3	14.2	2.7	20.7	3.5	21.8	3.3	4	Urban
15	8.9	3.2	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
16	9.5	3.4	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
17	9.8	4.2	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
18	9.9	3.5	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
20	10.8	3.3	9.6	3.5	6.6	2.0	8.2	3.0	7.1	2.4	4	Urban
21	8.9	4.4	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
24	16.0	5.4	14.4	5.4	8.8	3.1	14.1	4.8	13.5	4.2	2	Urban
27	13.3	2.8	10.4	2.5	7.9	1.8	13.2	3.6	16.0	3.3	2	Urban
28	12.7	3.9	12.3	4.7	7.3	2.1	12.9	4.2	10.6	3.4	2	Urban
29	5.9	1.5	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
31	19.7	5.4	17.8	4.5	13.1	3.1	15.6	3.9	13.6	3.2	2	Urban
32	19.6	5.5	20.2	6.1	10.6	3.0	20.0	5.5	18.3	5.1	2	Urban
33	17.3	5.1	17.7	5.5	7.9	2.7	14.8	4.2	9.6	3.9	2	Urban
36	25.3	6.5	27.5	7.1	16.8	3.7	24.6	5.9	24.0	5.8	5	Urban

Route Productivity continued

Route	Peak Rides per Platform Hour	Peak Passenger Miles per Platform Mile	Off Peak Rides per Platform Hour	Off Peak Passenger Miles per Platform Mile	Night Rides per Platform Hour	Night Passenger Miles per Platform Mile	Saturday Rides per Platform Hour	Saturday Passenger Miles per Platform Mile	Sunday Rides per Platform Hour	Sunday Passenger Miles per Platform Mile	Opportunity Index Score	Route Type
40	21.5	7.0	24.0	8.2	14.3	4.6	22.4	7.2	19.8	6.5	2	Urban
43	14.9	3.0	15.2	2.9	9.1	2.1	8.1	1.8	6.0	1.3	3	Urban
44	32.2	9.7	29.4	9.0	18.2	4.8	26.7	7.1	21.9	6.1	3	Urban
45	26.0	6.6	32.2	9.3	19.4	4.4	19.9	6.1	19.1	5.3	4	Urban
48	28.7	7.4	27.2	7.2	9.0	2.3	12.6	3.7	13.1	3.2	4	Urban
49	20.4	5.4	20.9	5.8	16.0	4.1	21.0	5.0	17.0	4.4	4	Urban
55	6.9	2.7	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
56	10.1	4.5	10.4	4.6	NA	NA	NA	NA	NA	NA	1	Urban
57	11.3	5.0	NA	NA	NA	NA	NA	NA	NA	NA	1	Urban
60	21.7	6.7	20.3	6.2	11.9	3.6	19.0	6.0	16.6	4.7	4	Urban
62	24.3	6.9	19.3	6.4	12.0	3.5	18.3	5.6	15.3	4.8	2	Urban
64	10.1	3.1	9.3	3.1	NA	NA	NA	NA	NA	NA	1	Urban
65	29.5	7.9	25.0	7.3	12.3	3.3	17.9	5.1	14.7	4.0	1	Urban
67	28.6	6.9	29.7	7.5	18.1	3.6	20.7	5.1	16.2	4.1	3	Urban
70	24.3	6.9	21.8	6.4	10.4	3.0	17.8	4.9	14.9	4.1	3	Urban
73	13.4	3.9	11.2	3.9	6.8	1.9	8.6	2.6	8.6	2.5	4	Urban
75	22.2	6.0	24.3	6.4	12.4	3.4	17.0	4.6	13.9	3.8	3	Urban
79	10.4	2.0	8.5	2.1	6.4	1.1	NA	NA	NA	NA	3	Urban
101	15.5	10.0	15.0	10.1	14.0	9.8	18.1	12.8	15.6	11.2	3	Urban
102	14.9	9.0	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
106	22.6	5.9	23.7	6.6	14.8	4.5	20.0	5.8	16.3	4.6	5	Urban
111	5.5	4.0	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
113	4.7	1.9	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
114	4.9	3.3	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban
120	18.1	8.9	18.2	8.3	15.1	7.1	20.2	8.9	17.4	7.4	5	Urban
121	4.9	2.7	NA	NA	NA	NA	NA	NA	NA	NA	1	Urban

Route Productivity continued

Route	Peak		Off Peak		Night		Saturday		Sunday		Opportunity Index Score	Route Type
	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile		
124	17.9	6.6	19.8	6.1	13.2	5.0	20.1	6.8	13.6	5.6	4	Urban
125	9.4	4.2	9.0	4.3	5.5	2.1	6.5	2.9	NA	NA	3	Urban
131	17.2	7.1	22.3	9.3	12.2	4.8	13.7	6.0	12.3	5.2	4	Urban
132	19.8	7.7	23.7	8.0	11.3	4.3	15.2	5.6	13.5	5.0	5	Urban
150	19.8	11.7	17.8	11.6	16.9	10.8	17.3	11.7	14.8	9.9	4	Urban
162	7.1	4.0	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban
167	5.7	4.6	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
177	5.8	4.4	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
190	3.8	2.3	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban
193	10.2	7.4	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban
212	8.2	4.5	4.4	2.2	NA	NA	NA	NA	NA	NA	3	Urban
214	4.8	2.8	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
216	5.8	3.5	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
217	5.1	3.4	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
218	6.7	5.1	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
255	11.9	5.6	11.0	6.0	6.2	3.2	8.3	4.7	6.9	3.8	1	Urban
257	7.2	4.7	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
268	4.8	2.5	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
271	11.5	5.5	11.0	6.0	8.2	4.0	14.1	6.9	12.1	5.8	2	Urban
302	15.3	8.4	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
303	15.7	7.7	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
311	7.8	5.0	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
320	8.1	4.0	5.6	2.3	NA	NA	NA	NA	NA	NA	4	Urban
322	9.2	4.5	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
372	22.8	6.1	28.9	6.6	13.7	2.8	19.8	4.3	15.7	3.3	5	Urban

Route Productivity continued

Route	Peak		Off Peak		Night		Saturday		Sunday		Opportunity Index Score	Route Type
	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile		
C Line	18.8	7.8	17.6	8.5	14.9	6.4	17.6	8.1	15.8	7.3	1	Urban
D Line	30.6	8.8	30.7	9.7	24.0	7.3	32.6	10.1	28.9	8.9	2	Urban
E Line	27.8	10.4	29.2	11.6	29.9	11.2	33.7	12.6	29.4	11.2	4	Urban
22	9.9	2.4	5.9	1.5	3.7	1.0	NA	NA	NA	NA	1	Suburban
50	17.3	4.9	13.1	4.5	7.7	2.7	12.7	4.4	11.7	3.7	3	Suburban
105	12.9	3.4	17.2	5.1	10.0	2.5	12.3	3.8	10.2	3.6	5	Suburban
107	15.1	3.9	17.9	5.2	7.8	2.4	10.4	3.2	8.8	2.8	5	Suburban
128	15.3	4.4	14.5	4.7	10.0	3.4	14.9	4.9	12.7	4.1	5	Suburban
148	9.0	3.7	10.0	4.3	6.7	3.3	12.2	4.6	9.3	3.7	4	Suburban
153	13.5	4.7	10.7	4.4	NA	NA	NA	NA	NA	NA	3	Suburban
156	9.5	2.8	11.3	4.0	5.8	2.2	8.3	3.1	8.1	3.0	5	Suburban
160	19.2	6.6	20.0	7.4	17.7	6.0	22.0	8.1	18.8	6.6	5	Suburban
161	15.4	5.6	15.7	6.3	9.6	3.9	13.7	5.1	12.2	4.7	5	Suburban
165	14.6	4.5	18.4	6.2	10.5	2.8	11.8	3.7	12.5	4.7	5	Suburban
168	17.9	6.1	15.9	6.4	10.5	2.9	11.5	4.3	10.4	3.8	5	Suburban
181	12.3	3.5	16.4	6.2	10.0	2.8	13.4	4.7	12.2	4.3	5	Suburban
182	10.5	3.0	14.4	5.5	NA	NA	9.7	3.4	8.0	2.5	5	Suburban
183	16.3	5.1	16.0	6.4	8.5	3.1	8.9	3.0	NA	NA	5	Suburban
184	13.7	3.1	16.0	5.2	9.2	1.7	11.4	2.7	10.5	2.3	5	Suburban
187	15.3	4.0	20.7	6.1	8.5	2.0	11.6	2.8	12.0	2.8	4	Suburban
221	9.4	2.8	10.5	3.2	5.0	1.3	7.5	1.9	7.4	1.9	3	Suburban
225	6.7	2.3	6.8	2.4	3.6	0.9	4.7	1.8	4.0	1.5	4	Suburban
226	12.6	4.0	13.4	4.2	6.3	2.1	10.4	2.8	8.7	2.5	4	Suburban
230	5.4	1.9	5.2	1.8	2.8	0.8	4.1	1.1	4.5	1.5	3	Suburban
231	4.6	1.4	4.3	1.8	3.6	0.9	5.6	1.8	4.6	1.6	3	Suburban

Route Productivity continued

■ bottom 25% in terms of productivity

Route	Peak Rides per Platform Hour	Peak Passenger Miles per Platform Mile	Off Peak Rides per Platform Hour	Off Peak Passenger Miles per Platform Mile	Night Rides per Platform Hour	Night Passenger Miles per Platform Mile	Saturday Rides per Platform Hour	Saturday Passenger Miles per Platform Mile	Sunday Rides per Platform Hour	Sunday Passenger Miles per Platform Mile	Opportunity Index Score	Route Type
237	1.8	0.9	NA	NA	NA	NA	NA	NA	NA	NA	1	Suburban
239	8.6	2.3	7.2	2.2	4.1	1.2	5.1	1.8	4.2	1.7	3	Suburban
240	11.4	4.9	13.7	5.6	8.2	3.8	10.8	4.9	9.3	4.4	5	Suburban
241	7.4	2.3	6.7	2.2	4.5	1.7	5.4	2.2	4.2	1.8	5	Suburban
245	12.2	3.7	12.9	4.1	9.8	2.8	12.5	3.8	12.1	3.7	4	Suburban
246	5.4	1.8	3.8	1.4	NA	NA	NA	NA	NA	NA	4	Suburban
249	6.2	1.7	6.9	1.9	NA	NA	5.6	1.5	5.2	1.4	2	Suburban
250	11.5	4.0	11.0	4.2	7.3	2.5	13.1	4.6	10.9	3.8	2	Suburban
269	7.0	3.1	6.3	3.3	NA	NA	NA	NA	NA	NA	2	Suburban
301	6.7	2.8	NA	NA	NA	NA	NA	NA	NA	NA	5	Suburban
304	3.7	1.1	NA	NA	NA	NA	NA	NA	NA	NA	2	Suburban
330	8.4	2.3	10.6	3.4	NA	NA	NA	NA	NA	NA	1	Suburban
331	6.1	2.2	8.3	3.1	NA	NA	5.2	2.3	4.8	2.1	3	Suburban
342	5.5	2.6	NA	NA	NA	NA	NA	NA	NA	NA	4	Suburban
345	12.4	4.1	13.6	5.4	5.5	2.2	9.1	4.0	6.6	3.5	1	Suburban
346	15.6	5.5	18.2	6.9	7.6	3.7	10.9	5.0	8.6	4.0	2	Suburban
347	15.3	4.6	15.0	4.9	9.3	3.3	13.9	5.1	11.3	4.2	3	Suburban
348	13.0	3.5	16.4	4.3	10.9	2.9	13.5	4.2	11.0	3.5	3	Suburban
A Line	36.8	11.2	33.1	10.3	29.5	9.1	28.4	9.2	26.3	8.7	5	Suburban
B Line	19.5	6.3	21.4	7.1	18.2	5.1	20.2	6.6	17.7	5.5	4	Suburban
F Line	20.7	6.6	24.4	9.2	17.6	5.9	24.5	7.9	21.2	7.0	5	Suburban
118	6.1	2.6	8.9	2.6	2.0	0.7	5.8	2.8	3.3	1.3	1	Rural and DART
119	7.5	2.8	6.4	2.2	NA	NA	NA	NA	NA	NA	1	Rural and DART

Route Productivity continued

Route	Peak		Off Peak		Night		Saturday		Sunday		Opportunity Index Score	Route Type
	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile		
204*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
208	4.1	2.0	6.8	3.8	2.1	1.1	4.3	2.9	NA	NA	1	Rural and DART
224*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	Rural and DART
232	3.4	1.2	NA	NA	NA	NA	NA	NA	NA	NA	2	Rural and DART
629*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
630*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	Rural and DART
631*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
635*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
773*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
775*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
901*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	Rural and DART
903*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	Rural and DART
906*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	Rural and DART
907*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	Rural and DART

■ bottom 25% in terms of productivity

Route	Peak		Off Peak		Night		Saturday		Sunday		Opportunity Index Score	Route Type
	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile	Rides per Platform Hour	Passenger Miles per Platform Mile		
914*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	Rural and DART
915*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	Rural and DART
917*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	Rural and DART
930*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	Rural and DART

*DART route data is not broken out by day period or available for passenger miles per platform mile. DART productivity data is included in a separate table below.

Route Name	Rides per Platform Hour (Weekdays)	Rides per Platform Hour (Saturdays)	Rides per Platform Hour (Sundays)	Opportunity Index Score	Route Type
204	3.1	2.1	-	1	DART
224	6.1	-	-	3	DART
629	NA	NA	NA	1	DART
630	1.8	-	-	2	DART
631	2.9	-	-	1	DART
635	NA	NA	NA	1	DART
773/775	7.3	11.4	7.4	1	DART
901/903	6.9	4.6	3.3	5	DART
906	5.8	9.0	5.4	4	DART
907	2.5	-	-	3	DART
914	4.6	4.4	-	5	DART
915	5.6	10.1	-	1	DART
917	4.1	4.9	3.0	5	DART
930	4.3	-	-	5	DART

Appendix I: Service Changes

Route(s)	Summary of Change	Type of Change
	Fall 2021 - "A" package	
2, 13	Delete nine weekday trips and 10 Saturday trips due to decreased STBD funding	Removed Trips
3, 4	Delete three weekday trips due to decreased STBD funding	Removed Trips
5, 21	Delete 13 trips on Route 5 and nine trips on Route 21 on Saturdays due to decreased STBD funding	Removed Trips
9	Restore six AM inbound and five PM outbound trips	Added Trips
10	Delete 21 weekday trips due to decreased STBD funding	Removed Trips
11	Delete 14 Saturday trips due to decreased STBD funding	Removed Trips
12	Delete 18 weekday trips due to decreased STBD funding	Removed Trips
15X	Restore six AM inbound and six PM outbound trips	Added Trips
17, 18	Restore 10 trips on Route 17 and eight on Route 18.	Added Trips
22	Fully restore weekday service	Added Trips
24	Delete five weekday trips and five weekend trips due to decreased STBD funding	Removed Trips
28X	Delete six weekday trips due to decreased STBD funding	Removed Trips
29	Restore six AM inbound and six PM outbound trips	Added Trips
33	Delete eight weekday trips due to decreased STBD funding	Removed Trips
56, 57	Delete one weekday trip on Route 56 and one weekday trip on Route 57 due to decreased STBD funding	Removed Trips
60	Add 15 weekday trips due to STBD funding investment	Added Trips
106	Delete six Saturday and six Sunday trips due to decreased STBD funding	Removed Trips
107	Delete four weekday trips and one Saturday trip due to decreased STBD funding	Removed Trips
113	Restore four AM inbound and four PM outbound trips	Added Trips
114	Restore four AM inbound and four PM outbound trips	Added Trips
120	Add 14 weekday trips due to STBD funding investment	Added Trips
121	Restore five AM inbound and five PM outbound trips	Added Trips
125	Delete two weekday trips due to decreased STBD funding	Removed Trips
167	Restore four AM inbound and four PM outbound trips	Added Trips
177	Restore five AM inbound and five PM outbound trips; route revision to serve the Federal Way Transit Center	Added Trips
190	Restore four AM inbound and four PM outbound trips	Added Trips

Route(s)	Summary of Change	Type of Change
204	Restore 13 trips on Saturday to fully restore route	Added Trips
208	Restore three weekday and one Saturday trip; Add two additional weekday trips	Added Trips
214	Restore seven AM inbound and six PM outbound trips; relocate downtown Seattle layover	Added Trips
216	Restore three AM inbound and four PM outbound trips	Added Trips
217	Fully restore weekday service	Added Trips
221	Restore three weekday, three Saturday and five Sunday trips	Added Trips
225	Restore eight weekday trips	Added Trips
226	Restore 12 Saturday trips	Added Trips
232	Restore four AM inbound and four PM outbound trips	Added Trips
237	Restore five weekday trips	Added Trips
241	Restore 12 Saturday trips	Added Trips
246	Fully restore weekday service	Added Trips
249	Fully restore route; utilize the S. Bellevue parking garage for its southern terminus eliminating the live loop	Added Trips
250	Fully restore weekday service	Added Trips
268	Restore four AM inbound and four PM outbound trips	Added Trips
271	Partial restoration of service on weekdays and weekends	Added Trips
342	Restore four AM inbound and four PM outbound trips	Added Trips
630	Restore four AM inbound and four PM outbound trips	Added Trips
C Line	Delete 12 weekend trips due to decreased STBD funding; add 10 weekday trips due to STBD funding investment	Removed Trips
D Line	Delete nine weekday trips and eight weekend trips due to decreased STBD funding	Removed Trips
E Line	Delete 12 weekday trips and two weekend trips due to decreased STBD funding; Select late night trips will extend from Stadium station into the CBD	Removed Trips
Fall 2021 - "B" package		
20	Add new route	Add Route
26	Delete route	Route Removal
40	Revise routing to serve the Northgate station; adjust service levels	Route Revision
41	Delete route	Route Removal
48	Routing revision to extend north to University Heights; adjust service levels	Route Revision

Service Changes continued

Route(s)	Summary of Change	Type of Change
50	Create new short turn variant to establish 15 minute headways between Alki and SODO station	Route Revision
62	Adjust schedule during peak to improve trip spacing; have all southbound trips begin at Sand Point	Route Revision
63	Delete route	Route Removal
64	Revise route to operate between Lake City, Wedgwood, Ravenna, Roosevelt station and South Lake Union; adjust service levels	Route Revision
70	Revise route to serve the University District station; adjust service levels	Route Revision
71	Delete route	Route Removal
73	Revise route to serve Roosevelt station; adjust service levels	Route Revision
74	Delete route	Route Removal
76	Delete route	Route Removal
77	Delete route	Route Removal
78	Delete route	Route Removal
79	Add new route	Add Route
107	Update to item published in Package A	Removed Trips
167	Update to item published in Package A	Added Trips
255	Restore 17 weekday trips; route revision associated with the North Link Connections Mobility Project	Added Trips
301	Revise route to operate two-way service between Aurora Village, Shoreline and Northgate station; consolidate local and express designations; adjust service levels	Route Revision
302	Add new route	Add Route
303	Revise route to operate between Aurora Village, Northgate and First Hill; adjust service levels	Route Revision
304	Revise route to operate between Shoreline and Northgate station; adjust service levels	Route Revision
308	Delete route	Route Removal
309	Delete route	Route Removal
312	Delete route	Route Removal
316	Delete route	Route Removal
320	Add new route	Add Route
322	Add new route	Add Route
342	Update to item published in Package A	Added Trips
346	Revise routing to serve the Northgate station; adjust service levels	Route Revision
347	Revise routing to serve the Northgate station; adjust service levels	Route Revision
348	Revise routing to serve the Northgate station; adjust service levels	Route Revision
355	Delete route	Route Removal
372	Extend route to serve the University District station; adjust service levels	Route Revision

Service Changes continued

Route(s)	Summary of Change	Type of Change
373	Delete route	Route Removal
973	Implement the winter, peak-only schedule for Route 973, the West Seattle Water Taxi	Removed Trips
987	Revise routing; extend southern terminal to South Park	Route Revision
988	Revise routing; change southern terminal to Madrona	Route Revision
994	Revise routing; streamline alignment to speed up route	Route Revision
131, 132	Routes will no longer be through routed with the Route 26; new terminus at 3 Av/Bell St	Route Revision
31, 32	Minor routing revision; adjustment to service levels	Route Revision
331, 345	Revise routing to serve the Northgate station; adjust service levels	Route Revision
43, 44	Revise routing to serve the University District station; adjust service levels	Route Revision
45, 75	Routing revision to provide direct service to UW campus; adjust service levels	Route Revision
56, 57	Update to item published in Package A	Removed Trips
5X	Delete route	Route Removal
65, 67	Revise route to serve the Northgate station; adjust service levels	Route Revision
7, 49	Minor routing revision; adjustment to service levels	Route Revision
773, 775	Implement the winter, peak-only schedule for the Water Taxi Shuttles, routes 773 and 775	Removed Trips
891, 892, 894	Re-instate Mercer Island School District routes	Add Route
893, 895	Re-instate Lake Washington School District routes	Add Route
980, 995	Delete routes	Route Removal
981, 982, 984, 986, 987, 988, 989, 994	Re-instate Lakeside school routes	Add Route
Spring 2022 - "A" Package		
79	Move base operations from Central to North Base	Base Change
105	Change the bay assignment at the Renton Transit Center	Base Change
269	Add southbound trip to meet morning bell time for Eastlake High School	Route Revision
342	Change the bay assignment at the Renton Transit Center	Base Change
635	Reduce weekday peak period service from 15 to 30 minutes	Removed Trips
907	Change the bay assignment at the Renton Transit Center	Base Change
15,17, 18	Move base operations from Central to Ryerson base	Base Change
16X	Move base operations from Central to North Base	Base Change
2, 13	Move base operations from Atlantic to Central base; operate route with diesel-hybrid buses	Base Change
302, 303	Adjust PM peak trip times to better meet First Hill shift times	Route Revision
7, 49	Adjust trip times on selected trips to improve headway consistency and reduce bus bunching	Route Revision

Route(s)	Summary of Change	Type of Change
Supplemental Item - March, 2022		
15, 21, 33, 55, 57, 62, 102, 106, 113, 114, 131, 161, 167, 168, 216, 232, 237, 311	Deleted one weekday trip	Removed Trips
2, 4, 13, 16, 27, 28, 29, 56, 64, 120, 121, 156, 212, 218, 221, 257, 303, 322, 372, 674	Deleted two weekday trips	Removed Trips
3, 17, 45, 75, 162, 271	Deleted three weekday trips	Removed Trips
10, 11, 12, 18, 32, 36, 111, 193, 231, 301, 320, 675	Deleted four weekday trips	Removed Trips
673	Deleted five weekday trips	Removed Trips
31	Deleted six weekday trips	Removed Trips
Supplemental Item - June, 2022		
15, 16, 21, 33, 55, 106, 161, 168, 214, 268	Deleted one weekday trip	Removed Trips
4, 8, 27, 29, 44, 60, 101, 102, 111, 120, 128, 156, 182, 187, 221, 231, 271, 322, 346, 347, 676	Deleted two weekday trips	Removed Trips
3, 17, 40, 56, 162, 193, 303, 311, 320	Deleted three weekday trips	Removed Trips
2, 12, 13, 32, 64, 218, 240, 257, 675	Deleted four weekday trips	Removed Trips
212, 674	Deleted five weekday trips	Removed Trips
31, 45, 75, 301, 372, 673	Deleted six weekday trips	Removed Trips
36	Deleted 12 weekday trips	Removed Trips
630	Partial Restoration	Partial Restoration

King County METRO

King Street Center, KSC-TR-0415
201 S. Jackson St
Seattle, WA 98104

206-553-3000 Relay: 711
www.kingcounty.gov/metro