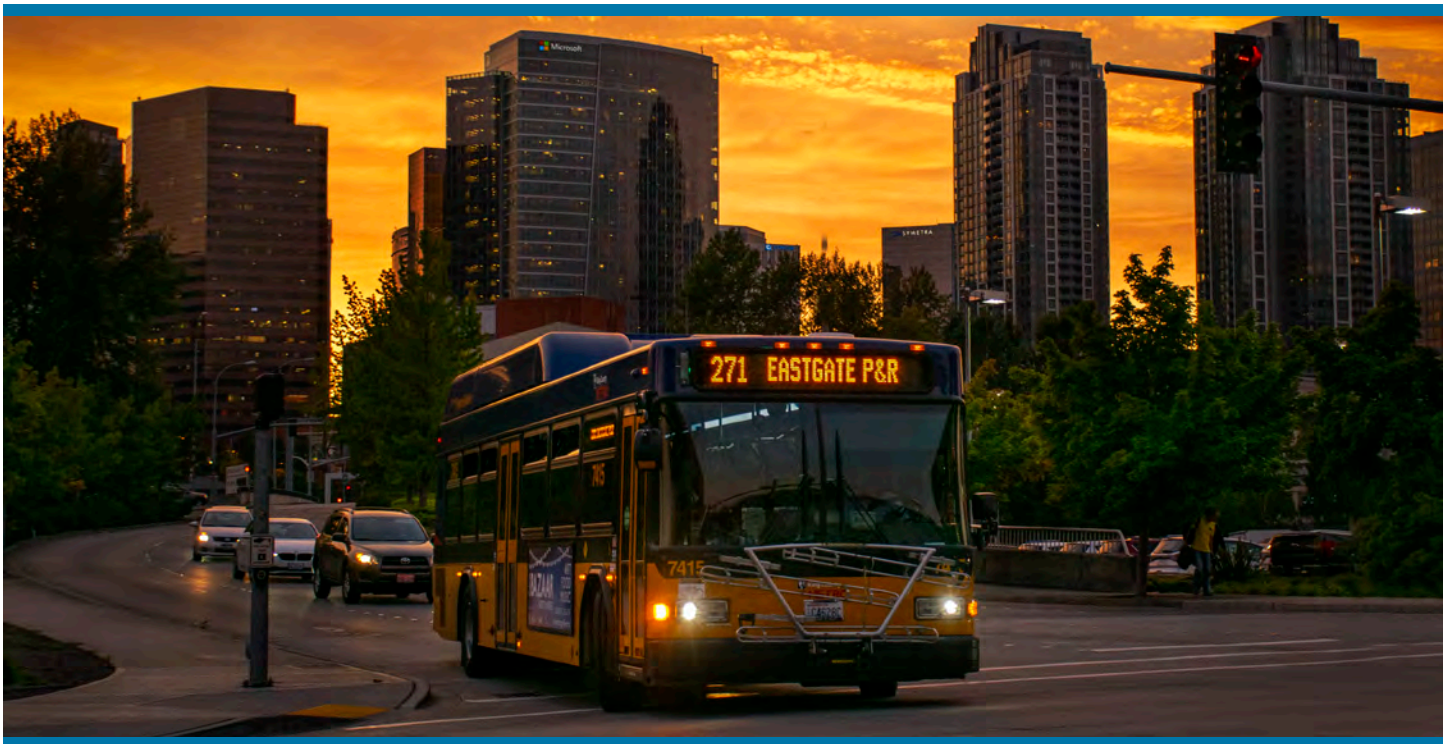

2024 System Evaluation

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Table of Contents

Appendices

Executive Summary

This report presents King County Metro Transit's annual assessment of its transit network as required by King County Ordinances 17143, 18413, 19367, and Motion 13736. This 2024 System Evaluation uses data from the fall 2023 service change, which covers September 2023 through March 2024. The report includes information about traditional fixed-route bus service, Dial-A-Ride Transit (DART), RapidRide, Water Taxi, and Metro Flex services, all part of Metro's expanding portfolio of mobility solutions.

The Service Guidelines serve as a policy framework that helps Metro evaluate different types of mobility services in a single report. In late 2021, the King County Council adopted updated Service Guidelines. These new guidelines were applied for the first time in the 2022 System Evaluation and continue to serve as the evaluation framework for the 2024 System Evaluation. This evaluation uses the Metro Connects interim network as a target for service growth.

Our Findings

Investing in our system with the methods identified in this report would improve reliability (Priority 2) and grow the service network (Priority 3). Metro does not currently need any additional investments to address chronic crowding issues (Priority 1), but will carefully monitor the data as ridership continues to grow. The 2024 System Evaluation highlights the following investment needs in Metro's fixed-route bus system:

- Zero hours of service to relieve crowding (Priority 1)
- 26,850 hours of service to improve reliability (Priority 2)
- 1,733,000 total hours of service in service growth (or an average of approximately 100,000–120,000 hours per year over the next 15 years) to restore currently suspended service hours and implement the Metro Connects interim network (Priority 3)
- 3.6 million service hours to implement the full 2050 network

Although Metro does not require any crowding investments, there are still some reliability issues on several routes across the system. These reliability needs decreased from last year's figure by about 4,200 annual hours. During this evaluation period, Metro made scheduling adjustments and completed various infrastructure projects that improved transit speed and reliability. Metro also launched new Advanced Service Management pilots which addressed reliability issues by proactively coordinating with operators in the field. The service growth (Priority 3) methodology also highlights significant investment needs of over 1.7 million hours over the next 14 to 15 years. The total service growth needs increased by about 43,000 hours from 2023's System Evaluation. This increase in hours is largely due to service reductions made during this year's evaluation period. Investing in these priorities will help Metro sustain recent increases in ridership, support regional growth in population and employment, and reduce congestion on King County roadways. To achieve the full Metro Connects 2050 long-range vision and meet the demands of the Puget Sound Regional Council's Transportation 2050 plan, Metro will ultimately need to provide around 3.6 million more annual hours of service which is nearly double the current service levels.

The 2024 System Evaluation highlights many positive trends across Metro's transit system. Both ridership and productivity show double-digit growth over the last year. In other words, people in King County are using Metro services more often to travel further around the region. In the last year, ridership has increased by nearly 14 percent. Productivity is also up across the board, increasing by nearly 19 percent during peak and off-peak periods and by around 13 percent at night. Metro will build off this success as the region and transit system continue to grow.

Metro's Prior Investment Activities

Since 2020, Metro faced several challenges in delivering investments to the transit system. Sustained improvements in transit service quality will require additional service hours and infrastructure investments to mitigate the impacts of major construction and rising traffic congestion across the region. In fall 2023, Metro had to reduce service due to operator shortages. These service suspensions were made to reduce unplanned trip cancellations and ensure that customers could rely on Metro service. In 2024 and the near future, Metro growth will depend upon the ability to recruit, train, and retain sufficient workforce. Despite the many challenges ahead, Metro's previous investments continue to deliver results—for example, ridership on the RapidRide H line is up by over 23 percent and productivity has increased by nearly 40 percent.

Seattle Investments

Metro and the City of Seattle work together to plan and implement service funded by the Seattle Transit Measure which was approved by voters in 2014 and renewed in 2020. The measure is set to expire in April 2027. As of Metro's fall service change in 2023, the Seattle Department of Transportation funds 141,000 annual hours of service. Metro is working closely with the City of Seattle to deliver upon the measure's goals with various mobility strategies, including bus service and Metro Flex pilots.

RapidRide

Metro currently operates eight RapidRide lines throughout King County, seven of which were operating during the evaluation period in this report. With the launch of the H Line in 2023, the G Line in 2024, and four other RapidRide lines under development, the RapidRide network continues to grow. The seven RapidRide lines that were operating during the evaluation period are covered in the Bus Service Evaluation section of the report and additional data is included in the appendices. The future RapidRide lines are highlighted in the RapidRide Progress Report on page 20.

County Council accepted Metro's RapidRide Prioritization Plan in 2024. This new prioritization framework, which is built upon equity and sustainability measures, helped Metro organize RapidRide candidate routes into tiers based on their implementation priority.

Marine Services

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 service is included in the Marine Services section of this report, and details on the evaluation methodology are included in Appendix A.

Metro Flex

This report includes performance data for Metro Flex services that were operating between September 2023 and March 2024. In 2023, Metro's on-demand services were rebranded as Metro Flex. Through this program, Metro staff 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 traditional bus service. Metro continues to monitor existing pilots and consider new service areas across the county.

Information about these on-demand services is included in the Metro Flex section of this report. Additional details on the evaluation methodology for existing and potential flexible services are included in Appendix A.

Our Future

Metro is in the midst of several major mobility projects, redesigning services across King County as Link light rail, RapidRide, and other significant investments are completed. Metro will include future service investments in King County's biennial budget process. Workforce shortages—which are not limited to King County—continue to constrain Metro's ability to invest and deliver additional service hours in the transit system. Metro remains committed to addressing these constraints, supporting service growth, delivering on the Long Game, and achieving the targets and vision outlined in Metro Connects. Finally, by coordinating with external agencies and jurisdictions, Metro aims to identify additional opportunities for the delivery of even more efficient and effective service.

By the end of 2024, Metro will deliver multiple new mobility projects relating to the North Link expansion to Lynnwood and the completion of the G Line. These projects will result in better community connections to Link light rail, a larger RapidRide network, and an additional 150,000 hours of Metro bus service in the transit system.

Introduction

What is the System Evaluation?

This report provides a snapshot of the performance of Metro's transit system for fixed-route buses, Dial-A-Ride Transit (DART), Water Taxi, and Metro Flex 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 that inform changes to the transit system. The guidelines were updated and adopted by the King County Council in 2021 (Ordinances 18301,18413, 19367, and Motion 13736). The 2024 report contains the following sections:

- Major System Changes and Impacts
- Bus Service Evaluation
- Integration with Sound Transit
- RapidRide Progress Report
- Metro Flex
- Marine Service (Water Taxi)
- Appendices (Methodology and Data)

Reducing crowding and improving reliability—Metro's primary service quality indicators—are the top two investment priorities, as they directly affect the quality of transit service. Improvements in these areas help Metro maintain service quality for current riders and attract new ones. Metro's third investment priority, service growth, emphasizes expanding the bus system and serving new communities and neighborhoods. Service growth enhances Metro's ability to provide better mobility options to riders, meet existing demand for transit service across King County, reach climate action goals, and support the region's growing economy without expanding roadways.

How does Metro use the System Evaluation report?

Metro analyzes data to learn how different services are performing, where problems exist in our system, and to prioritize transit investments across King County. Staff combine this information with feedback from customers, operators, and partners to develop proposals to change service. Before enacting significant changes, Metro presents these proposals to the public, incorporates feedback, and submits final plans for approval by the King County Council. After the approved service changes are implemented, the cycle begins again.

How Can Transit Customers Use the System Evaluation Report?

Riders can find their route(s) on the maps and appendices in this report and compare them to other routes within the Metro bus system. They can easily identify problems on a route (such as reliability) and learn more about how many additional service hours Metro needs to invest in order to fix those problems. This report provides a yearly snapshot of the transit system—Metro uses this data to inform future service change proposals.

Major System Changes and Impacts

Prior to the Fall 2023 Service Change, Metro continually experienced a high rate of trip cancellations due to workforce capacity challenges. During this service change, Metro reduced service levels to better-align bus schedules with existing operational capacity. This realignment helped significantly reduce unplanned trip cancellations and improve the rider experience. Although they are not directly factored into this report, Metro acknowledges that unplanned trip cancellations have a significant impact on transit riders. Metro continues to monitor trip cancellations across the system.

On-Time Performance

Metro evaluates bus reliability in terms of on-time performance, which measures how consistently a transit service adheres to its scheduled arrival times. Over the last several years, Metro's average on-time performance has been relatively stable, typically ranging from 78 to 81 percent across the system. As of March 2024, Metro's bus service still fits within that range, with 78 percent on-time performance over a 12-month rolling average. In comparison, on-time performance around the same time last year was about 79 percent.

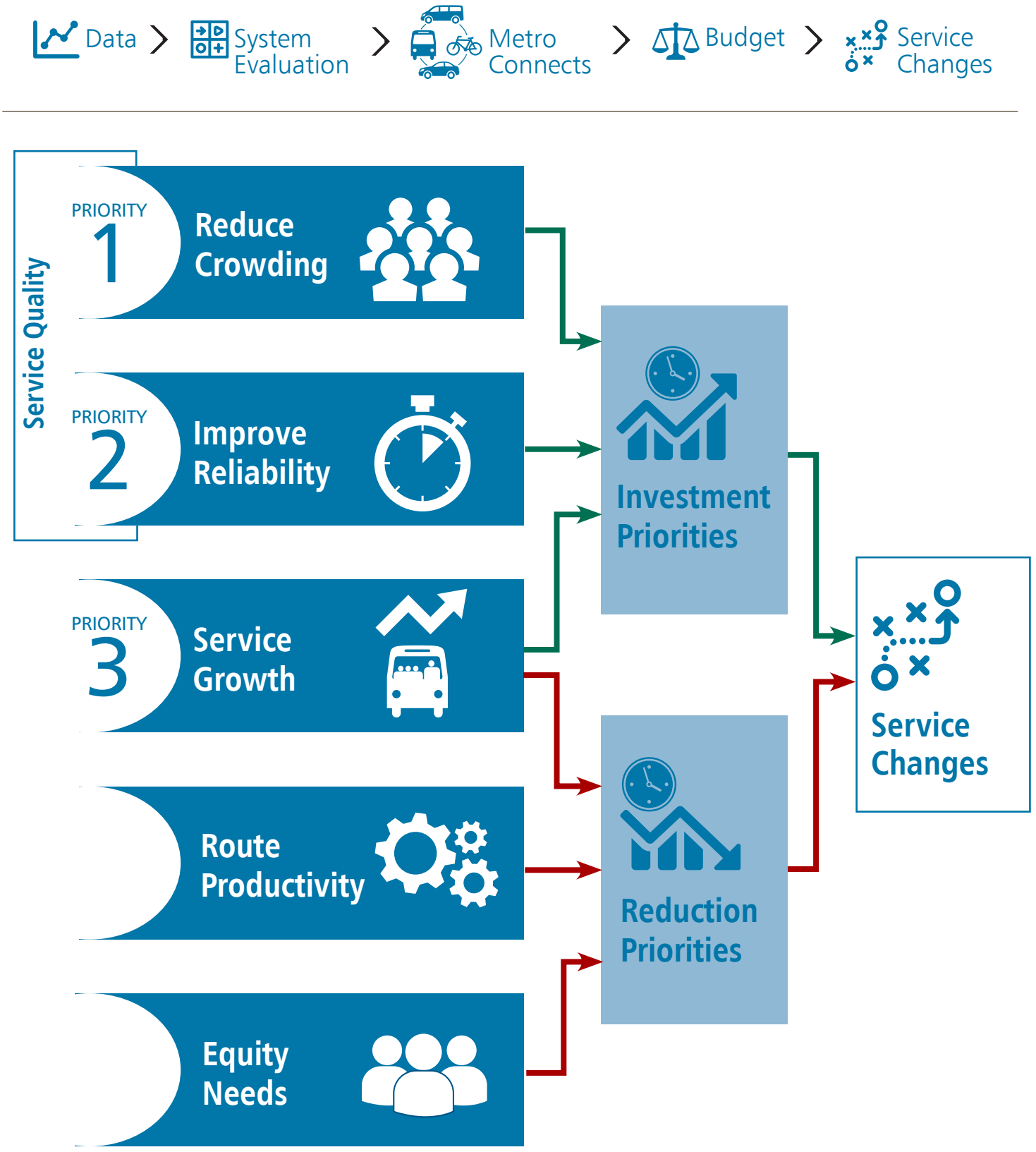
Ridership

King County Metro continues to see significant year-over-year ridership growth across the bus system.

- **2022–2023:** Between March 2022 and March 2023, average weekday bus ridership increased by almost 24 percent, a net increase of over 43,000 daily boardings.
- **2023–2024:** Between March 2023 and March 2024, average weekday bus ridership increased by nearly 14 percent, a net increase of over 30,000 daily boardings.

Ridership data provides valuable insights into where transit demand is growing in King County and who is using Metro services. For example, school and university students continue to bolster Metro's ridership. Additionally, ridership continues to rise as more employers have adopted hybrid schedules with employees working in the office a few days each week. Metro frequently adjusts schedules on routes because of these changing travel patterns and continues to investigate other ways to improve King County's transit system.

How the annual system evaluation informs service changes



Bus Service Evaluation

Crowding (Priority 1)

What is Crowding?

Metro defines crowding needs in the System Evaluation 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.
- Based on this methodology, trips must be consistently crowded for several months to be identified for investment.

Findings

The 2024 System Evaluation found that zero bus hours are needed to reduce crowding. Although ridership is on the rise, no routes had chronically crowded trips during the evaluation period.

What's Been Done

No additional investments were needed to reduce crowding as defined in the Service Guidelines in the last several years.

What's Next?

As ridership continues to increase across the system, Metro will monitor ridership trends and evaluate crowding at the route level. This data helps Metro understand when and where to expect ridership growth and potential crowding.

Reliability (Priority 2)

What is Reliability?

For transit, reliability refers to the extent to which buses arrive on time or maintain their designated headway (time between buses) throughout the day. Routes are considered to be candidates for investment when their buses do not arrive on time or fail to meet their scheduled headways more than 20 percent of the time. When a route is flagged with reliability issues, Metro considers adjusting schedules to better reflect existing conditions or adding more service to a route. Additionally, Metro frequently partners with cities within King County to deliver infrastructure improvements that reduce travel times and improve bus reliability for riders.

Findings

The 2024 System Evaluation found that 26,850 additional bus hours are needed to improve reliability. The investment need decreased from last year's findings by approximately 4,200 annual hours. This report identifies reliability investment needs on 59 out of 109 routes; sixteen of them are new to the list.

Forty-three routes featured in 2023's list still need service or capital investments. Ten of the routes that were flagged for reliability investments in the 2023 System Evaluation are now operating within standards due to a combination of infrastructure improvements and scheduling adjustments implemented by Metro over the last year. Three other routes identified for reliability investments in last year's report were suspended during the 2023 Fall Service Change.

See Appendix C for more details on route-level reliability metrics.

- **South county routes:** Seventeen routes were identified as needing reliability investments. Routes 107 and 161 are new to the list. The other fifteen (106, 111, 124, 125, 128, 131, 132, 153, 162, 168, 177, 182, 183, 193, and the H Line) still have outstanding needs.
- **East county routes:** Fourteen routes were identified as needing reliability investments. Routes 218, 221, 225, 230, 249, 250, 255, 257, and 269 are new to the list. The other five (208, 212, 226, 240, 271) still have outstanding needs.
- **North county routes:** Four routes were identified as needing reliability investments. Routes 311 and 372 are new to the list. The other two (302 and 348) still have outstanding needs, but the investments needs are relatively small.
- **Seattle routes:** Twenty-four routes were identified as needing reliability investments. Routes 12, 17 and the C Line are new to the list. The other twenty-one (1, 5, 7, 8, 9, 11, 21, 24, 27, 28, 31, 32, 33, 40, 43, 49, 60, 62, 65, 67, and the E Line) still have outstanding needs.

What's Been Done

Although the 2023 System Evaluation highlighted a modest investment need of 31,050 additional service hours, the service change that came immediately after the evaluation period prioritized aligning service with existing workforce capacity. Due to these operational challenges, Metro often needed to implement unplanned trip cancellations—at one point roughly 8 percent of all trips were canceled. As a result, Metro reduced service in fall 2023 to address the high number of unplanned trip cancellations and provide more accurate schedule information to riders. The service reduction helped Metro reduce unplanned trip cancellations and get back to delivering 98 to 99 percent of all trips. Now that service levels are more sustainable, Metro can resume targeting specific investment needs at the route level.

Metro is also implementing Advanced Service Management pilots for RapidRide routes. These pilots take a headway-based approach that helps maintain bus frequency by evenly spacing out buses along a route—this approach reduces "bus bunching" and prevents long wait times at stops.

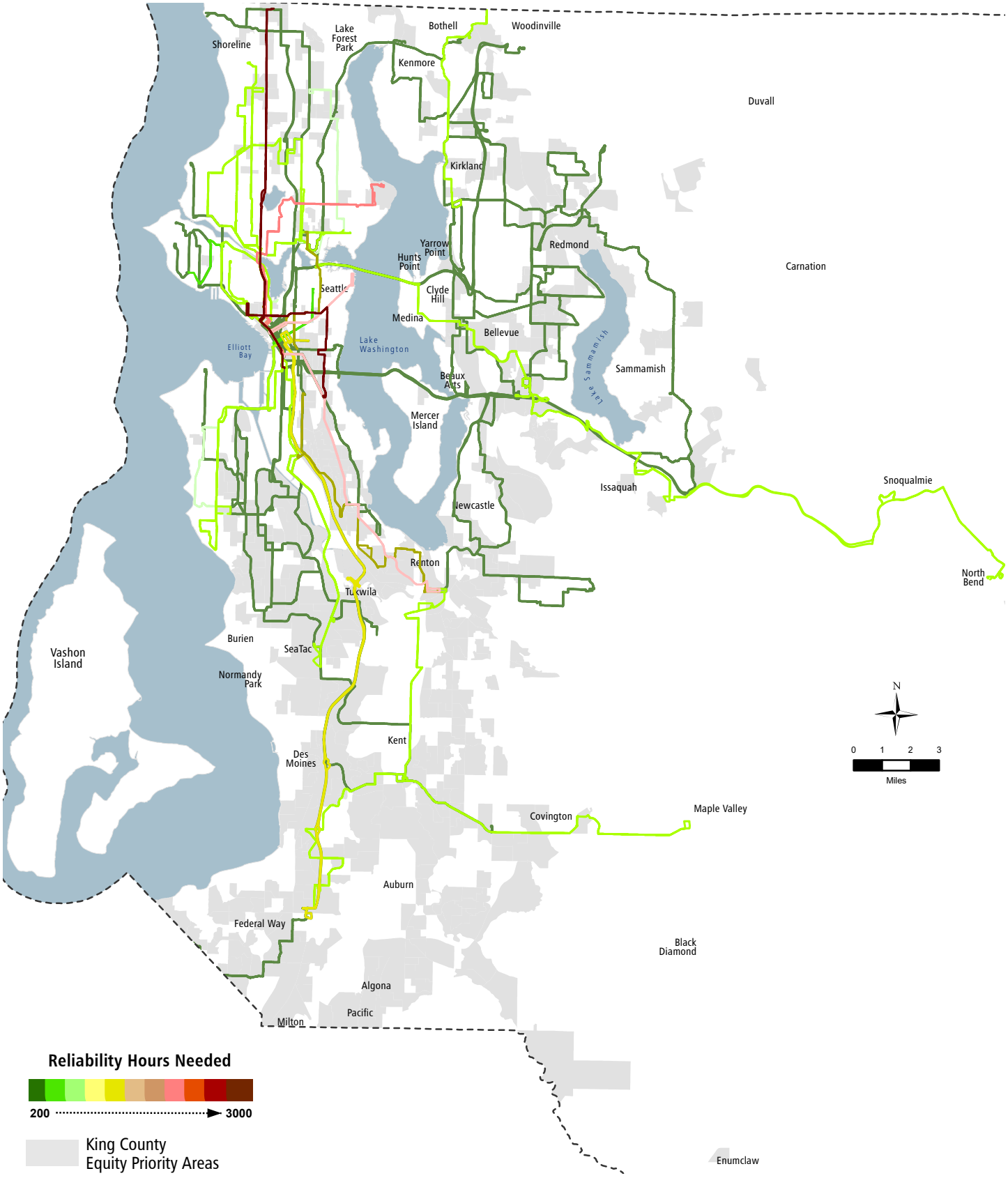
In late 2023, Metro launched an Advanced Service Management pilot for the A and F Lines, and is now proactively coordinating with operators in the field to address reliability issues. This coordination allows the buses to speed up or slow down to better maintain headways and prevent bunching. The initial results of the pilot have shown improvements to headway adherence on both routes compared to earlier in the evaluation period. 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 strategies to improve reliability across the system. For example, Metro's speed and reliability infrastructure investments help facilitate large improvements in the rider experience and reduce the need to invest additional service hours. To ensure that each route can maintain its scheduled headways, Metro is investing in technology that will support active headway management, which will help monitor and prevent "bus bunching" across the transit system. These investments will help buses adhere to their frequent schedules throughout the day. However, traffic congestion is increasing as the region and economy continue to grow, which could negatively impact bus reliability if transit is not prioritized in right-of-ways.

Metro will monitor routes and adjust schedules to reflect evolving conditions. Additionally, Metro continues to partner with jurisdictions and agencies to provide transit–supportive infrastructure that will deliver fast and reliable bus service.

Figure 1. Metro bus routes needing investment to improve reliability



Service Growth (Priority 3)

What is Service Growth?

Service growth is based on routes' target service levels (how often buses should arrive throughout the day in Metro's existing system) and the span of service envisioned for each route. The Service Guidelines include criteria for determining target service levels. Each route's target service level is based on the higher of either the proposed Metro Connects interim network value or the service growth methodology. The gap between how much service Metro currently provides and how much service is envisioned constitutes the investment needed to meet target service levels. Investment needs recommended in this section include service hour gaps from 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 am **PM Peak** 3–7 pm	**Off-Peak** 9 am–3 pm, 7–10 pm	**Night** 10 pm–5 am	**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
Metro Flex	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 116 routes by approximately 1,733,000 service hours (an average of approximately 100,000–120,000 hours per year over the next 15 years).

- **Current network:** 103 existing routes need around 1,433,100 additional service hours.
- **Proposed Metro Connects routes (no current service):** 13 new routes need around 299,900 service hours.

The 2024 estimated service growth needs increased by about 43,100 total hours compared to the 2023 System Evaluation. This increase in investment needs is likely related to staffing shortages which resulted in service reductions during the evaluation period—these issues continue to constrain Metro's ability to expand service across the system. The maps on the following pages show service growth needs by route and time of day.

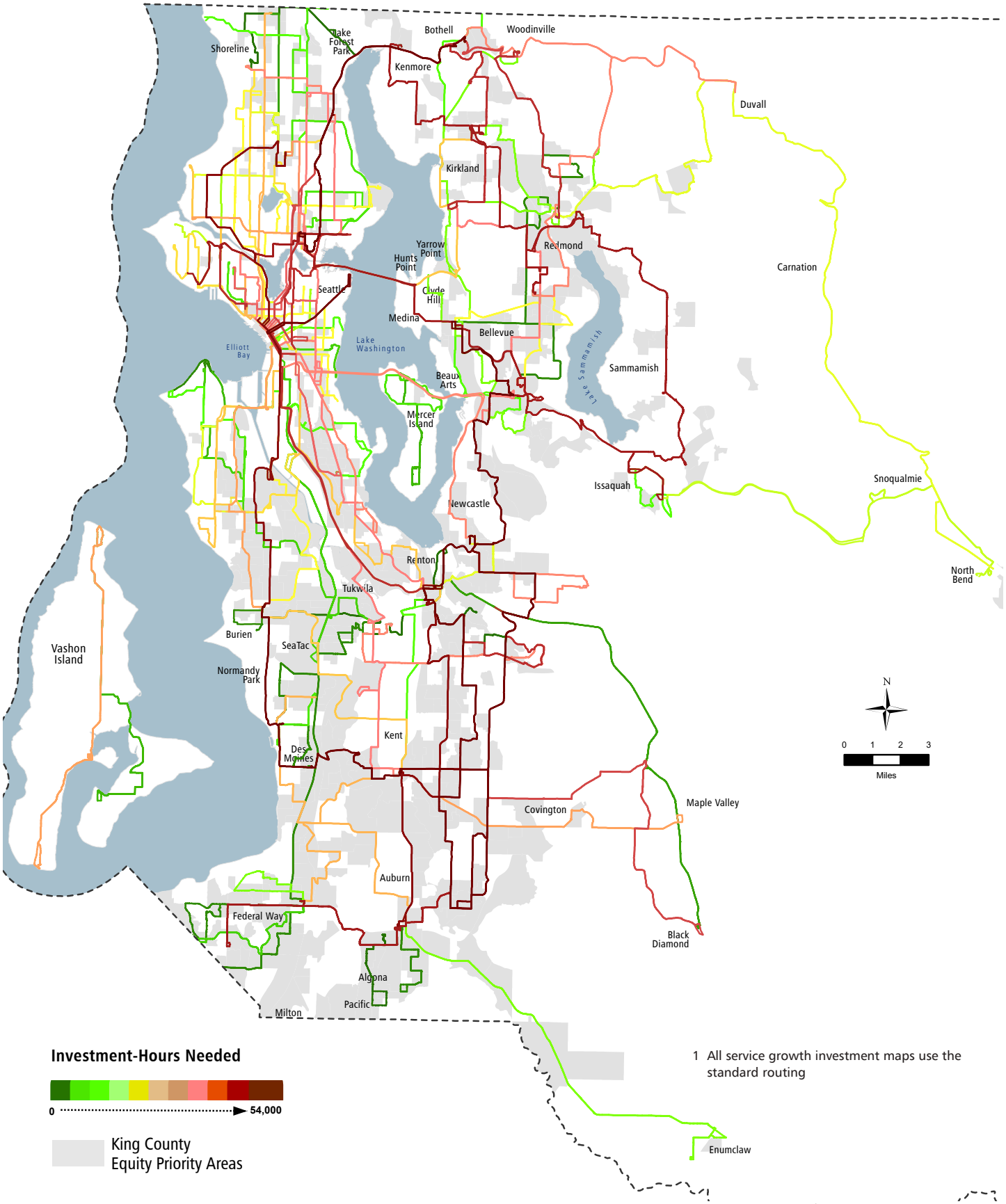
What's Been Done

Due to operational constraints, Metro's system faced many unplanned trip cancellations and disruptions to passengers leading up to the Fall 2023 Service Change. By reducing service in the Fall 2023 Service Change, Metro stabilized service and reduced most unplanned trip cancellations. However, this reduction also set Metro back in terms of implementing the service levels depicted in the Metro Connects interim network. Metro considers these investment needs when planning mobility projects and service restoration.

What's Next?

Metro will continue to seek opportunities to improve operational capacity and expand mobility options while centering on the needs of priority populations. As Metro considers future projects and investments, staff will use the Priority 3 analysis and prioritization to inform service proposals. As Link light rail and RapidRide continue to expand mobility options in the region, Metro will continue to refer to this service growth data to help inform future restructures and service changes.

Figure 2. Metro routes needing investment in service growth (Priority 3): total investment needed[1]



1 All service growth investment maps use the standard routing

Figure 3. Metro routes needing investment in service growth (Priority 3): AM Peak

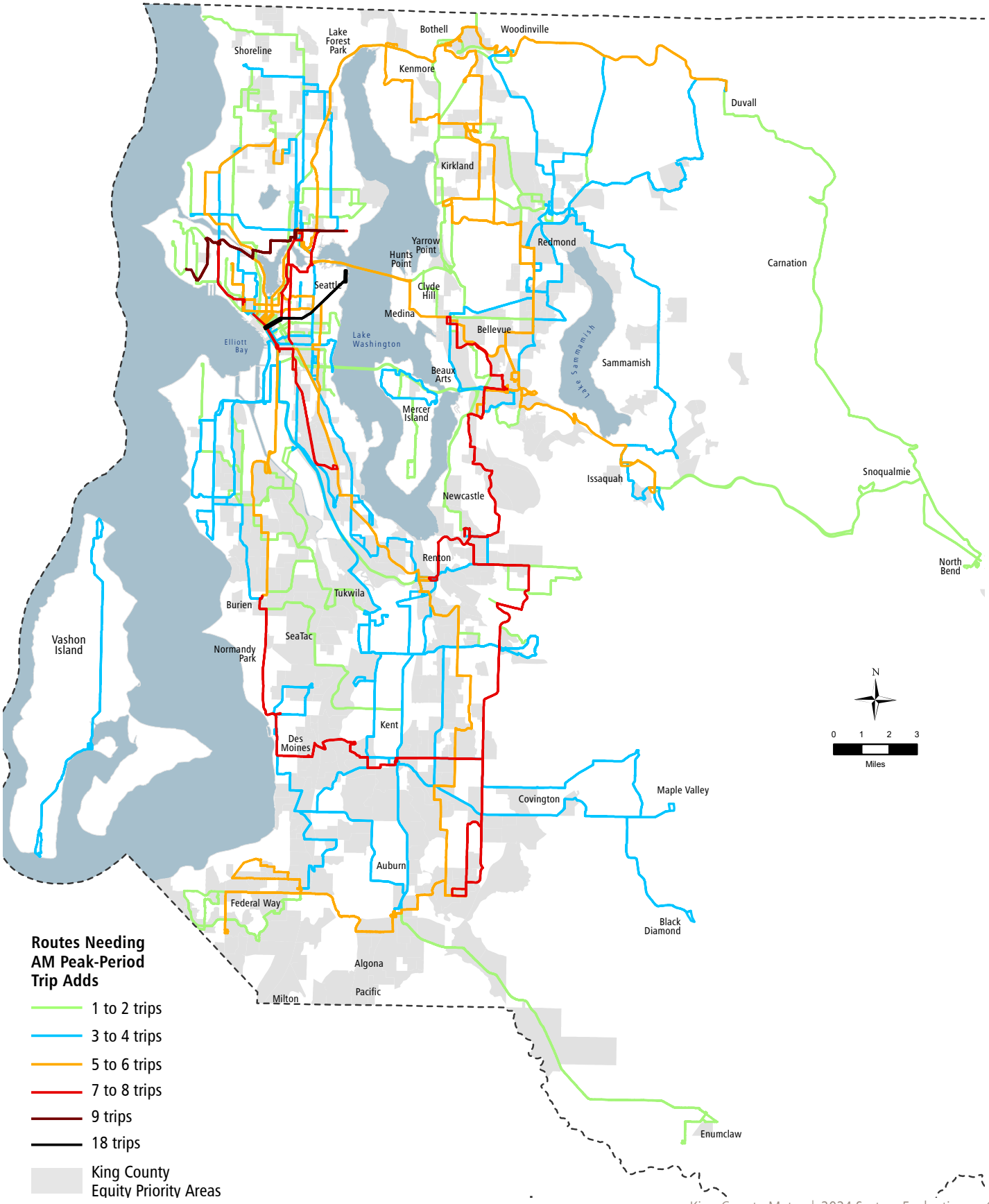


Figure 4. Metro routes needing investment in service growth (Priority 3): Midday

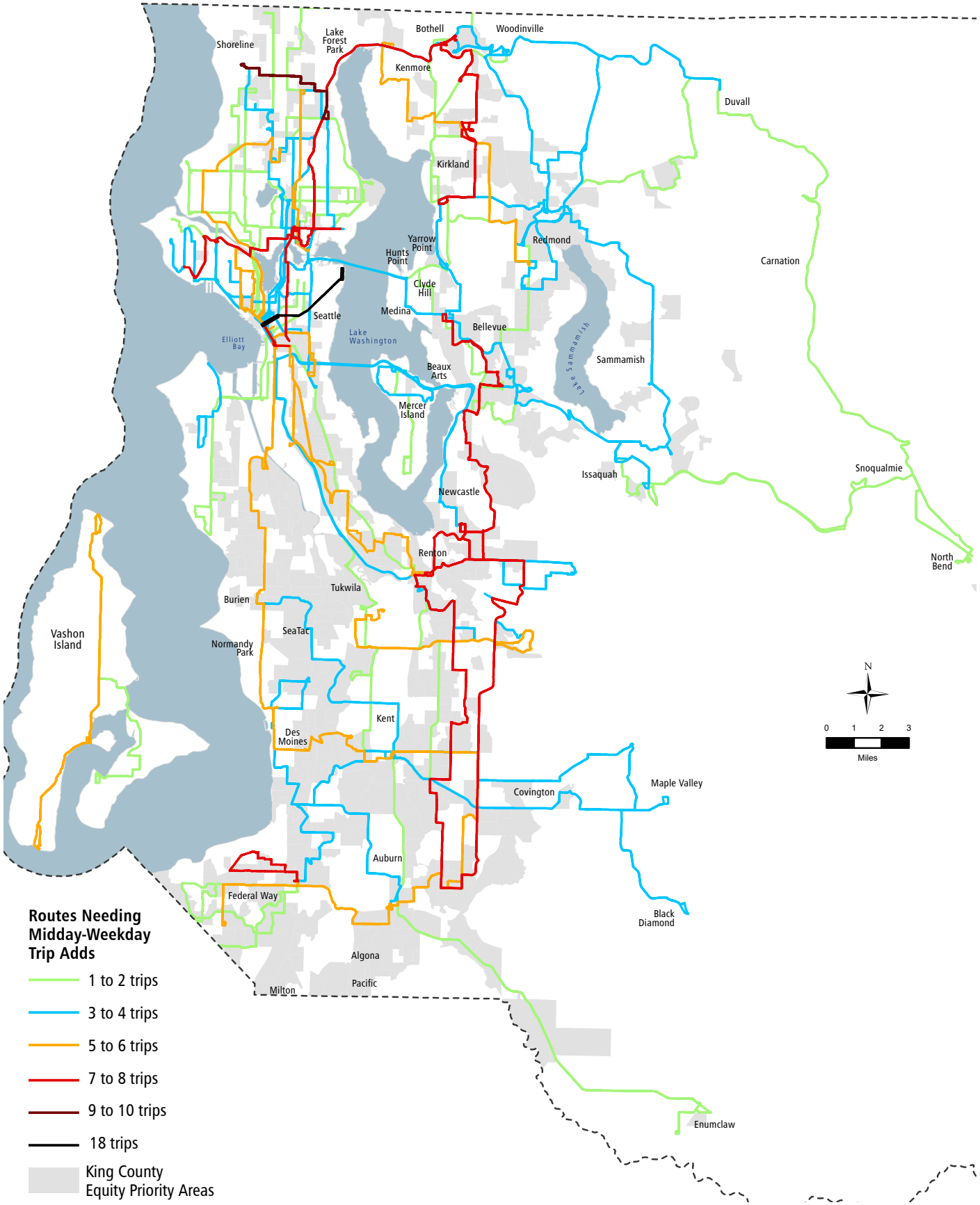


Figure 5. Metro routes needing investment in service growth (Priority 3): PM Peak

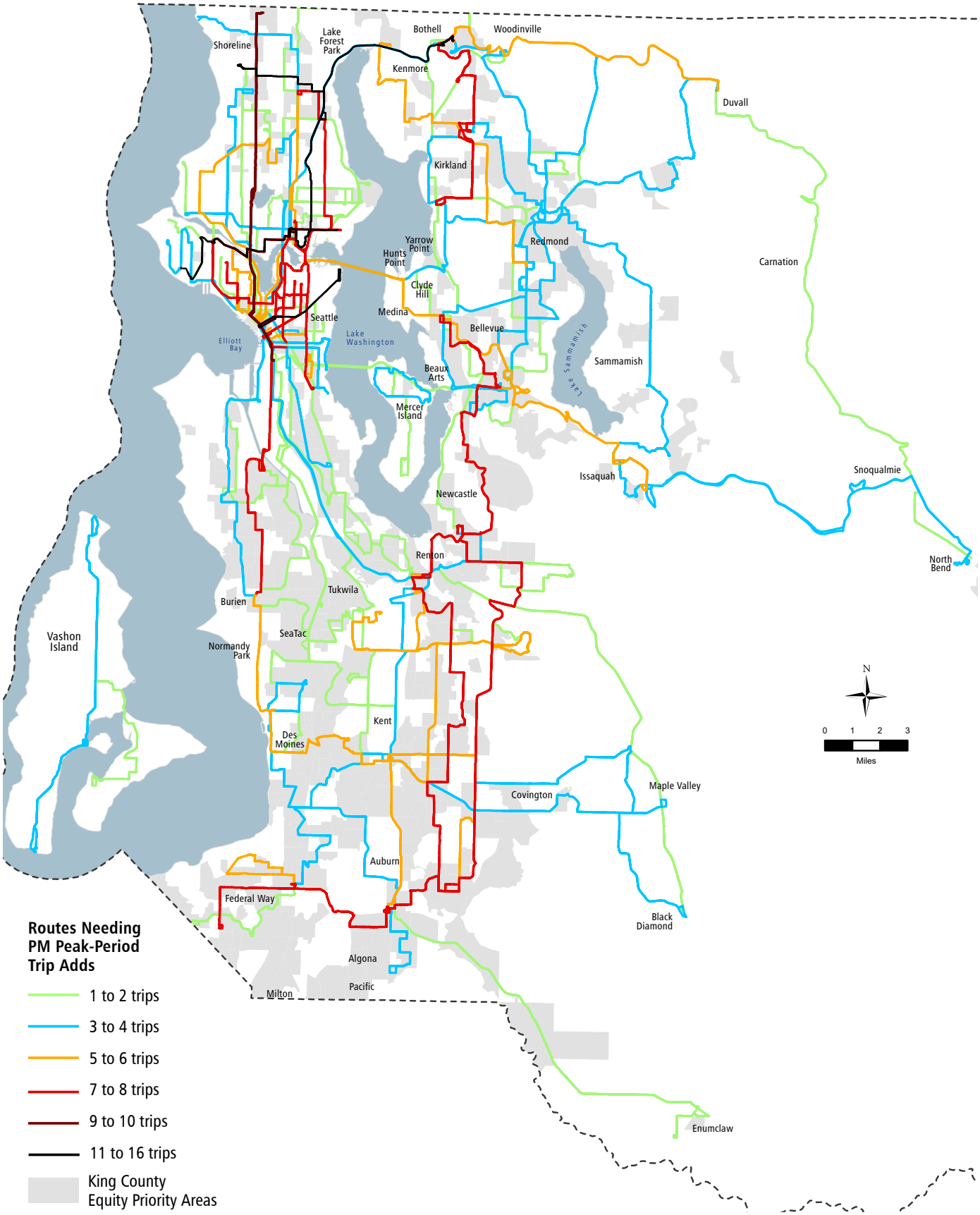


Figure 6. Metro routes needing investment in service growth (Priority 3): Evening

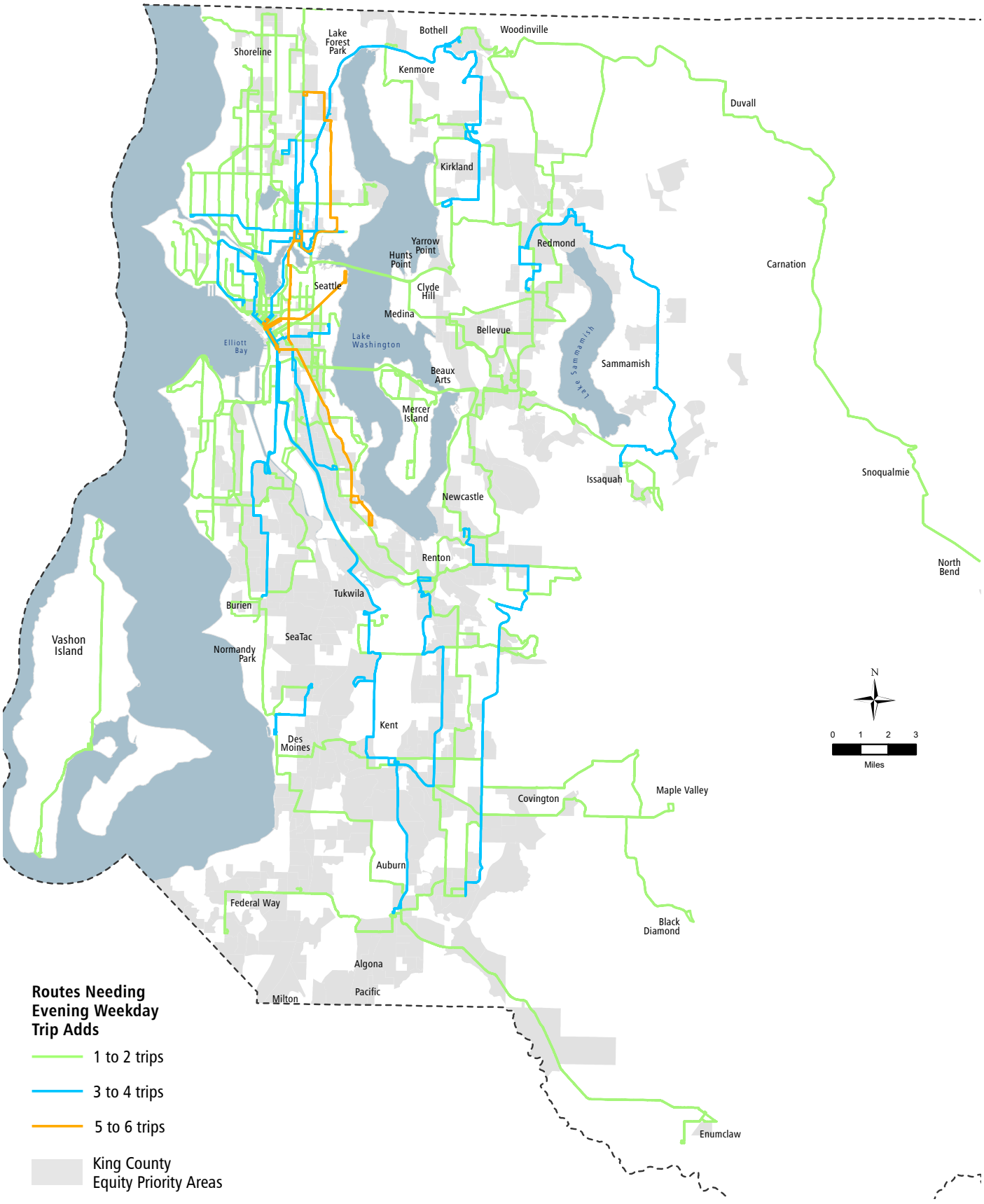


Figure 7. Metro routes needing investment in service growth (Priority 3): Saturday

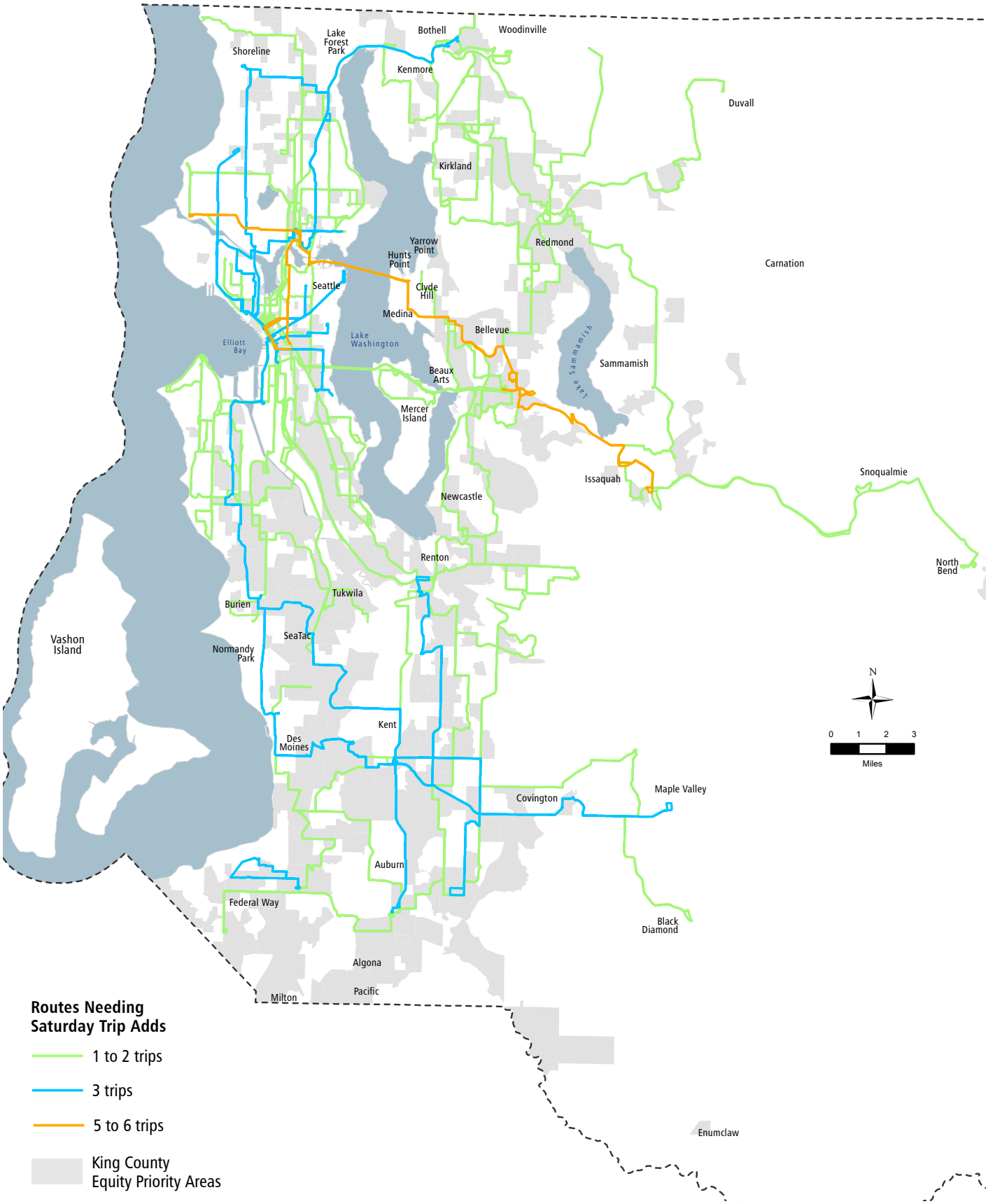
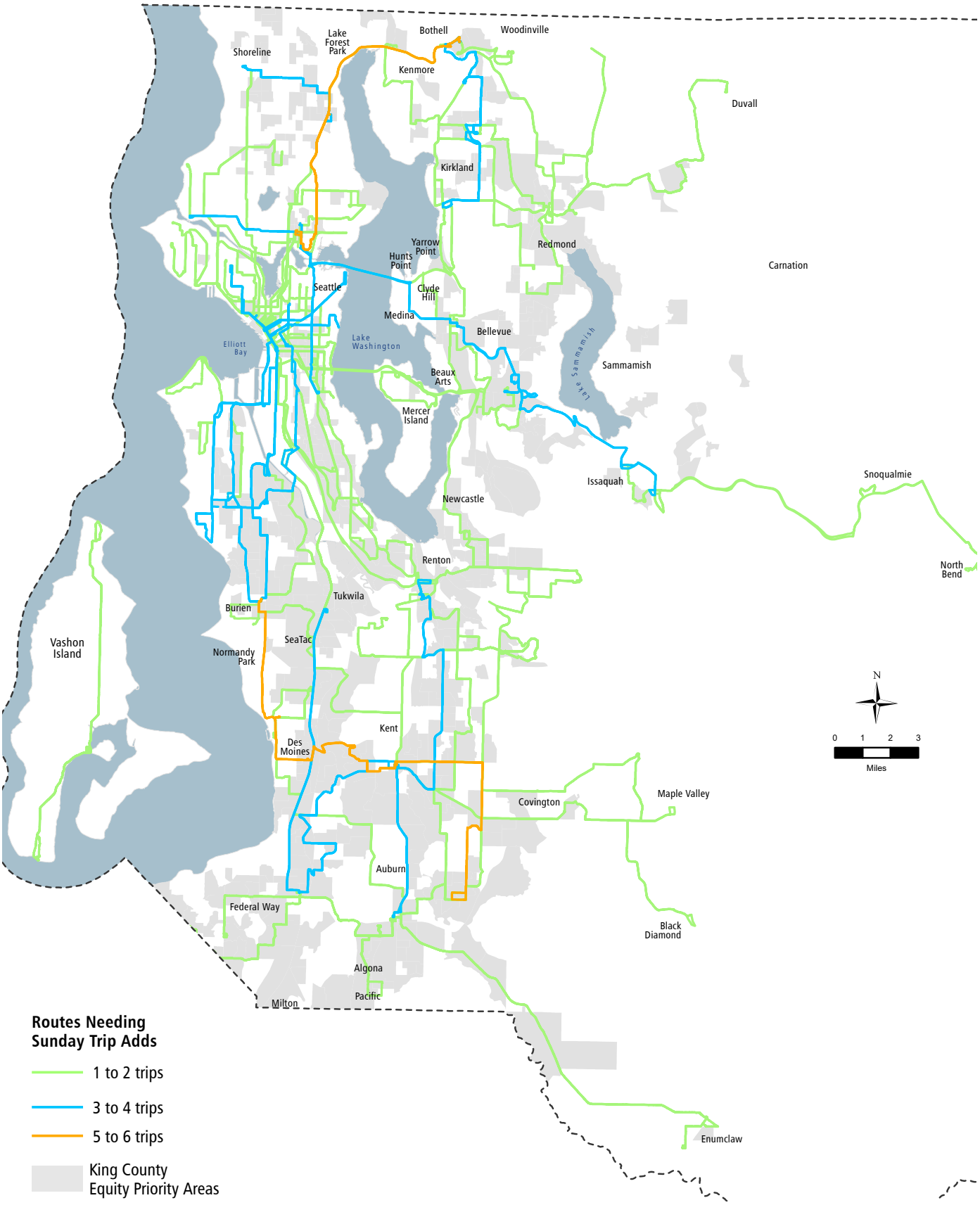


Figure 8. Metro routes needing investment in service growth (Priority 3): Sunday



The Complete Network: Integration with Sound Transit

Metro and Sound Transit (ST) continue to plan together and with jurisdictions to create an integrated network that gives customers the best possible transit experience. As Sound Transit's Link light rail and Stride bus rapid transit (BRT) services expand, this coordination will maximize the total regional investment in transit while aiming to provide seamless services for transit riders. This coordinated effort will create frequent and reliable connections to jobs, education, and other opportunities that advance social equity.

Metro continues to plan for Link light rail and Stride BRT expansion by way of mobility projects (major service changes with new and modified routes and stops), customer experience capital projects (new bus stops at Link stations and new transit centers), and capital projects that support bus operations in partnership with Sound Transit (new off-street layover facilities at Link stations and transit centers, and projects that prioritize transit).

Active Service Change and Mobility Projects

- Link 1 Line - Lynnwood Link Extension and Lynnwood Link Connections Mobility Project (Metro, Sound Transit, Community Transit): This extension opened in August 2024. Metro capital work will conclude in 2025.
- Link 2 Line - East Link Extension/Downtown Redmond Link Extension & East Link Connections Mobility Project (Metro, Sound Transit): This extension is projected to open in 2025. Metro capital work will also conclude in 2025.
- Link 1 Line - Federal Way Link Extension & South Link Connections Mobility Project (Metro, Sound Transit, Pierce Transit): This extension is projected to open in 2026. Metro is coordinating with partners to open the Federal Way Transit Center, including an 11-bay transit loop and an off-street layover facility, by 2025. Metro capital work will conclude in 2026.

Future System Expansion Partnerships

- Stride S1/S2 lines (I-405 BRT): Major capital partnerships include Bellevue Transit Center, South Renton Transit Center, Tukwila International Boulevard Station, and Burien Transit Center. Service is expected to begin in 2028 (S1) and 2029 (S2).
- Stride S3 Line (SR 522/523 BRT): Sound Transit will build Stride stops along SR 522 and NE 145th Street where Metro also operates bus service. S3 is expected to begin service in 2028.
- West Seattle (ST 3 Line) and Ballard (ST 1 Line) Link Extensions: West Seattle Link is estimated to open in 2032. Metro is participating in planning and design for transit integration including customer amenities and bus layover at stations. Design will occur from 2024-2027 and construction is anticipated to start in 2027. Metro is also participating in planning and design for transit integration, bus stop amenities, and bus layover at the Ballard Link Extension, which is estimated to open in 2039.
- Kent Sounder Station Off-Street Layover Facility: Metro is partnering with Sound Transit, who will deliver this project together with a new garage for Sounder customers. The project includes a 12-bay off-street layover facility with charging infrastructure for battery-electric buses. This project is currently in design, with construction beginning in 2025. The project will be completed in 2026.
- ST 1 Line-Tacoma Dome Link Extension: The Tacoma Dome Link extension is estimated to open in 2035. Metro will serve one station along this extension, South Federal Way, and is in early coordination with Sound Transit and Pierce Transit on transit center design.
- ST 1 Line-Infill stations (130th, Graham Street, Boeing Access Road): 130th Street Station is currently under construction and is expected to open in 2026. Metro completed the design work on the bus stop pair serving the station, with construction to be carried out by Sound Transit. Graham Street and Boeing Access Road Stations are projected to open in 2031. Metro is participating in planning and design for transit integration at these stations.

Table 2 lists key corridors in King County where Sound Transit is the primary provider of two-way, all-day transit service. Sound Transit will become the high-capacity transit provider in more corridors with Link light rail extensions and Stride BRT.

Table 2: Corridors served primarily by Sound Transit

Between	And	Via	Major Route
Woodinville Park-and-Ride	Roosevelt Station	Bothell, Kenmore, Lake Forest Park, Lake City	522
Lynnwood Transit Center	Bellevue Transit Center/ Downtown Bellevue Station	Totem Lake, UW Bothell	535
Bear Creek Park-and-Ride	Downtown Seattle	Downtown Redmond, Redmond Technology Station, Evergreen Point Park-and-Ride	545
Downtown Bellevue	Downtown Seattle	Mercer Island, South Bellevue Station, Bellevue Transit Center/Downtown Bellevue Station	550
Issaquah Highlands Park-and-Ride	Downtown Seattle	Issaquah Transit Center, Eastgate Park-and-Ride, Mercer Island	554
West Seattle/ Westwood Village	Bellevue Transit Center/ Downtown Bellevue Station	Burien, SeaTac, Renton, Bellevue Transit Center/ Downtown Bellevue Station	560
Auburn Sounder Station	Redmond Technology Station	Kent, Renton, Bellevue, Bellevue Transit Center/ Downtown Bellevue Station	566
SeaTac Airport	Lakewood TC	Tacoma Dome, Federal Way Transit Center. SeaTac	574
Federal Way Transit Center	Downtown Seattle	I-5	577
Puyallup	Downtown Seattle	Auburn, Federal Way Transit Center	578
Angle Lake Station	Northgate Station	SeaTac Airport, Rainier Valley, downtown Seattle, Capitol Hill, U District	Link (1 Line)
South Bellevue Station[2]	Redmond Technology Station	Downtown Bellevue, Spring District, Overlake Village	Link (2 Line)

2 The Link extension between South Bellevue and Redmond Technology stations opened in April 2024 and is not reflected in the data and appendix tables for the 2024 System Evaluation.

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 for customers.

- **Frequent and reliable service:** RapidRide buses are more frequent and stay on time more often.
- **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 eight RapidRide lines throughout King County. The H line opened in March 2023 and shows over 20 percent ridership growth since its launch. The G line opened in September 2024 and was still under construction during the evaluation period for this year's report—this route will be covered in the 2025 System Evaluation. The I Line and the J Line are both nearing the end of the planning and design stage, and both are currently expected to open in 2027. Planning for the K Line and the R Line started in 2019, but Metro paused both projects in 2020 due to funding concerns. Metro recently resumed planning work for both lines. Additionally, Metro is beginning to plan for reinvestment in the A, E, and F lines.

Table 3: RapidRide expansion status update (as of October 2024)

Route name	To> From> Via	Comparable Route(s)	One-Way Miles	Project Status	Expected Opening	Federal Funding (FTA)
G Line*	Madison Valley> Seattle CBD> E Madison St	11, 12	2.4	Complete	2024	Small Starts grant, American Rescue Plan funding, & Congestion Mitigation and Air Quality Improvement funding
I Line	Renton> Auburn> Kent	160	17.9	Design: 90-100% Auburn: 100% Kent: 90% Renton: 100%	2027	Pending Small Starts Grant
J Line*	U. District> Seattle CBD> Eastlake	70	5.2	Construction	2027	Pending Small Starts Grant, Congestion Mitigation and Air Quality funding, & Surface Transportation Program funding
K Line	Totem Lake> Eastgate> Kirkland	250, 271	14.6	Planning	2030	TBD
R Line	Rainier Beach> Seattle CBD> Mt Baker	7	9.4	Planning	2031	TBD

* City of Seattle is leading the design and construction of the G and J Lines

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 which candidate corridors will be prioritized as part of the interim network.

The RapidRide Prioritization Plan was accepted by County Council in September 2024 through Motion 16659. In creating a new prioritization framework, this evaluation of candidate routes led with equity and sustainability. The prioritization framework organized RapidRide candidate lines into tiers by their implementation priority. The top tier RapidRide candidates will be Metro's highest priority for the interim network, while the second tier are lines to be developed if additional funding and delivery capacity becomes available. The third tier will include candidate routes not prioritized for development as part of the interim network but that remain as candidates within the 2050 network.

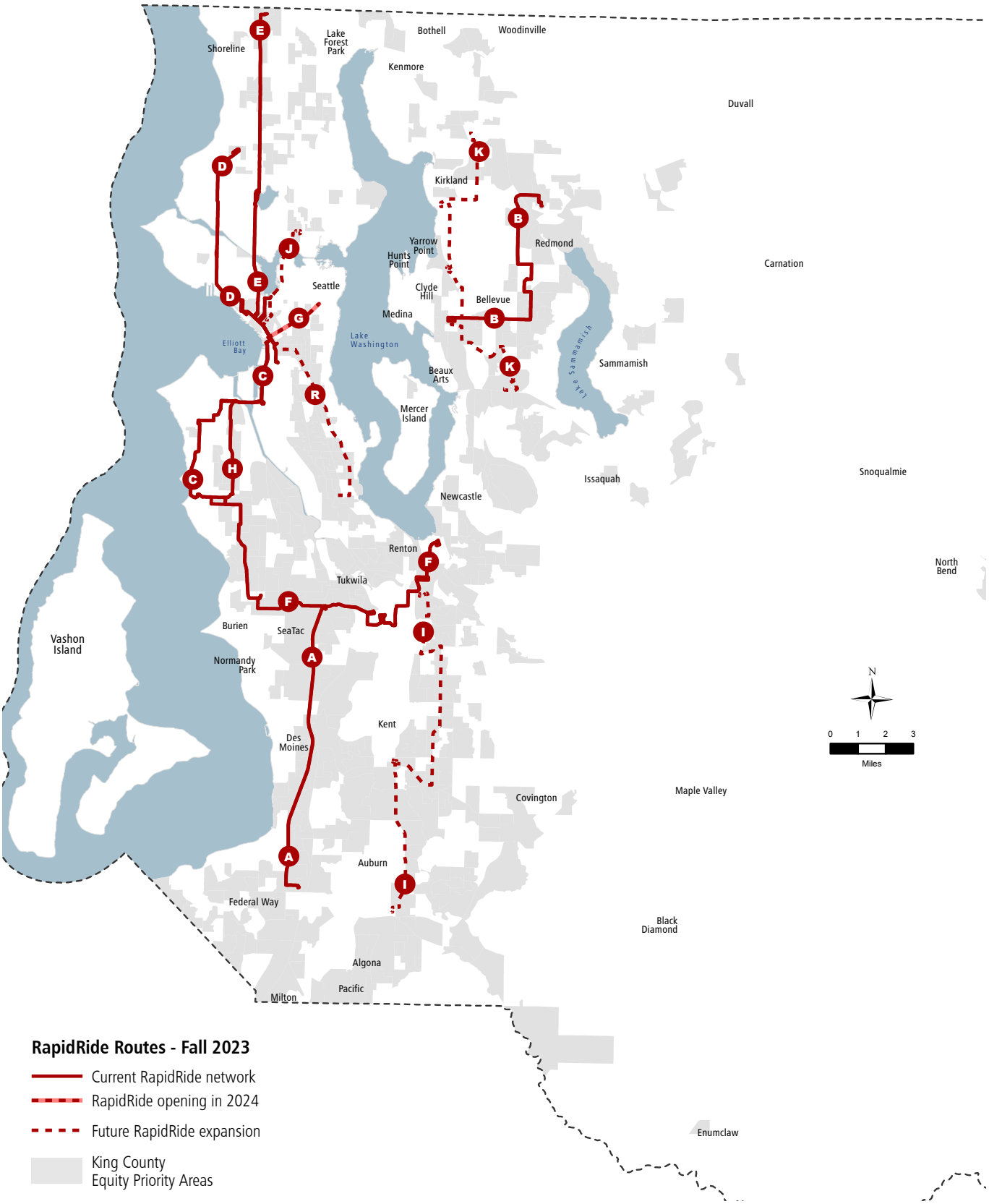
Below, Table 4 summarizes the performance of the closest equivalent routes for each candidate corridor with respect to Metro's Service Guidelines. Candidate corridors include both new corridors and updates to existing RapidRide lines. The service growth factors in the System Evaluation are not measures of performance but are included in Table 4 because they have similarities to certain evaluation factors included in the prioritization plan.

Table 4: RapidRide Prioritization Plan candidate lines and tiers[3]

RapidRide Candidate Corridor ID (Metro Connects)	Current Route Equivalent	Service Demand	Service Quality factors		Service Growth Prioritization	Prioritization Plan Tier
		Ridership (weekday)	Crowding (weekday)	Reliability (weekday)	Rankings based on Equity, Land Use, and Geographic Value	
1049	150	4,101	-	87%	42	Tier 1
1064	36	6,583	-	85%	4	Tier 1
1012	44	5,799	-	85%	81	Tier 2
1993	40	7,910	-	79%	68	Tier 2
3101 & 1028	B Line	4,564	-	84%	18	Tier 2
	271	2,891	-	83%	46	
1052	181	1,901	-	84%	26	Tier 3
1056	165	3,144	-	82%	29	Tier 3
1999	B Line	4,564	-	84%	18	Tier 3
	226	1,172	-	82%	17	

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

Figure 9. RapidRide network (current and planned routes)



Metro Flex

Metro Flex is Metro's on-demand transit service. Metro Flex complements the bus system by providing service in areas where the land use and demand are not well-suited to larger buses. With Metro Flex, customers can book trips on-demand using a smartphone to take trips anywhere within the service area. Riders may be required to walk to a nearby corner to meet their vehicle unless they have unique mobility needs. Additionally, riders with a good bus route alternative are directed to that option via the app.

The System Evaluation now provides three types of assessments for Metro Flex: 1) an annual performance evaluation of all active service areas, 2) an evaluation of pilot services to determine the future of the pilot, and 3) prioritized, prospective locations for new pilots.

Metro Flex Performance

A defining feature of Metro Flex is the ability to launch, test, and refine innovative service solutions as pilots 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 Metro Flex, Metro continues to develop new pilot products and ongoing services through ideas that emerge from community partnerships and emerging national and international best practices for mobility services.

Out of two Metro Flex pilots and seven ongoing service areas during this evaluation period (from September 2023 to March 2024), Metro observed the strongest productivity in the Othello, Rainier Beach, Skyway, and Tukwila service areas. These areas also had the largest proportion of trips in equity priority areas and a relatively lower cost per ride compared to others. Additional details are available in Table 5.

What's Been Done

Metro evaluates Metro Flex pilots to determine one of three options: a continuation of the pilot, the conversion into an ongoing service area, or a complete cancellation of service.

In 2024, Metro had two Metro flex pilots in operation during the evaluation period: Juanita and Issaquah. The Juanita service area was renewed as a pilot in 2023 and will be evaluated again at the end of the year. The Issaquah pilot is still in its first year and will be evaluated at the end of the pilot phase.

Metro converted the other seven service areas from pilots into ongoing services because they met minimum performance standards in equity, accessibility, efficiency, and productivity. Additional details of the pilot evaluation are included in Appendix A, Table 12. All active service areas and their current status are noted in Table 5.

What's Next

In July 2024, Metro launched a new Metro Flex pilot in Delridge/South Park in partnership with the City of Seattle. Metro is also launching a new Northshore pilot in 2024 to complement the new Link light rail expansion to Lynnwood. The Delridge/South Park and Northshore pilots will be included in the 2025 System Evaluation. Metro is also planning to launch three new Metro Flex service areas in Overlake, Auburn, and Federal Way in coordination with the opening of the Federal Way Link Extension of the 1 Line—these projects are funded by grants and will be monitored in future evaluations.

In addition to providing annual data in the System Evaluation, Metro will continue to evaluate and monitor all Metro Flex services, adjust service levels to meet demand, and promote services to boost awareness and grow ridership. In 2025, Metro will evaluate and determine whether to continue pilot service in Juanita and continue to monitor performance of the recently-launched Issaquah pilot.

Table 5: Metro Flex performance evaluation for active service areas (productivity, efficiency, and equity)

Metro Flex Service Area	Rides per Vehicle Platform Hour	Cost Per Ride ($)	Percent Trips in Equity Priority Areas	Launch Date	Service Area Status
Issaquah[4]	2.1	$39.83	28%	October 2023	Pilot
Juanita[5]	1.7	$49.05	25%	September 2020	Continue as Pilot
Kent	1.8	$46.43	70%	September 2021	Ongoing as of 2023
Othello	3.9	$21.23	91%	April 2019	
Rainier Beach	3.4	$24.70	92%	April 2019	
Renton	2.6	$32.18	73%	August 2021	
Sammamish	2.6	$32.48	10%	June 2019	
Skyway	3.2	$25.72	75%	August 2021	
Tukwila	3.0	$28.02	89%	April 2019	

Prioritizing New Metro Flex Pilots

King County Metro works closely with jurisdiction partners to develop new Metro Flex services. Each year, Metro conducts an evaluation to prioritize locations with good conditions for successful Metro Flex pilots.

This evaluation methodology prioritizes potential areas best suited for future Metro Flex pilots based on equity, density, and how well the service would improve mobility. Appendix A provides more details on this specific methodology. Implementation of new Metro Flex services is contingent on resources, including staff time and funding.

Figure 10 shows potential locations for Metro Flex services across King County. Each potential area is centered around a Transit Connection Location and includes a 2-mile walkshed (area reachable by foot). Metro screens each location based on the equity and density criteria. In the map, each location that passes the screening criteria is shaded based on how well it meets the criteria from Table 13 in Appendix A.[6]

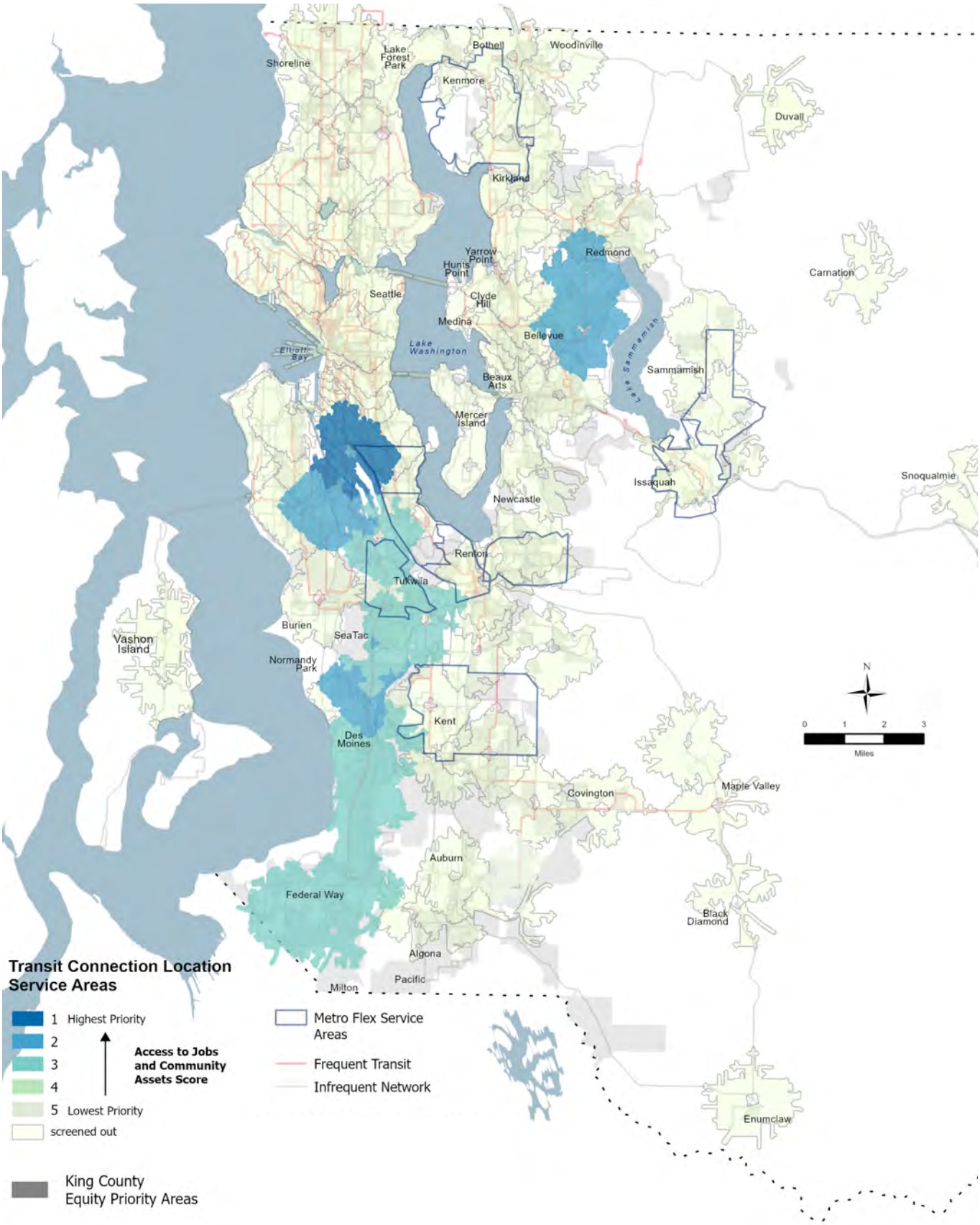
This analysis serves as one of many tools to help identify potential locations for new pilot services. Network restructures, partnerships with jurisdictions, input from the community, grant funding, and other factors create opportunities to identify potential locations and implement new Metro Flex services.

4 The Issaquah service area is currently an active pilot program.

5 The Juanita pilot will continue as a pilot for one additional year and will be reevaluated.

6 Prioritized locations for new Metro Flex services meet both density screening criteria (between 5 and 18 people per acre) and equity screening criteria (equity rank in the top 40 percent).

Figure 10. Metro Flex potential service prioritization – accessibility of service areas as of the Fall 2023 Service Change



Marine Service

Metro's Marine Division operates two Water Taxi routes in King County. 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, along with an expanded summer schedule to include all-day service, seven-days-a-week and late-night service on Fridays and Saturdays.

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 and Table 6 for a summary of service performance from September 2023 to March 2024.

What's Been Done

With the adopted 2023-24 Biennial Budget, the West Seattle route has committed to maintaining year-round midday, weekday, and weekend service along with the existing commuter weekday service. Beginning in July 2024, Metro partnered with WSDOT to provide midday service on the Vashon Island route as a one-year pilot program.

What's Next

Metro evaluates service schedules, ridership, and late trips regularly to ensure they continue to meet community needs.

Table 6: Marine service data, September 2023–March 2024

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
Vashon Island	353	-	-	59	0	0.71%
West Seattle	582	908	660	41	0	0.44%

Appendices

Appendix A: Methodologies and Process Descriptions

Bus Service Growth

Crowding (Priority 1)

Metro processes data 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, which 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 during the designated timeframe.

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"). This data is 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)

For most routes, Metro evaluates bus reliability in terms of on-time performance, which measures how consistently a transit service adheres to its scheduled arrival times. 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 percent 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 percent goal.

Service Growth (Priority 3)

Metro uses the higher of target service levels from the Metro Connects interim network[7] 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	Purpose	Measures
Equity	1	Serve communities where needs are greatest.	Route Equity Prioritization Score
Land Use	2	Support areas of higher employment and household density, areas with high student enrollment, and the function of park-and-rides in the transit network.	(a) Households within a quarter mile (b) Park-and-ride stalls within a quarter mile
			(a) Jobs within a quarter mile (b) Low-income jobs within a quarter mile (c) Enrolled students at high schools and colleges within a quarter mile
Geographic Value	3	Provide appropriate service levels throughout King County for connections between all centers.	(a) Connection between regional growth centers (b) Connection between activity centers (c) Connection between manufacturing/ industrial centers

Metro evaluates different measures in equity, land use, and geographic value to develop a set of scores for each route. These scores help Metro identify where needs are greatest and develop service level targets for each route. Metro compares these Service Guideline targets to the Metro Connects interim network targets, and uses the higher of the two values to calculate the investment gap for 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.

7 The prioritization methodology allows Metro to increase service levels gradually as it implements the Metro Connects interim network (pre-West Seattle Ballard Link Extension).

Bus 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 be 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. For service reductions, Metro uses an opportunity index score which is calculated based on the percentage of stops along a route that have the highest equity priority area score.

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.

Table 9: Priorities in bus 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.

Metro Flex

This section includes the methodology Metro uses to evaluate active Metro Flex service areas, how Metro determines which pilots become ongoing services, and how Metro prioritizes new prospective locations for flexible service pilots.

Evaluating Active Metro Flex Service Areas

Metro evaluates all pilots and ongoing Metro Flex services areas annually in the System Evaluation, using a consistent set of performance measures. This annual evaluation includes:

- **Productivity (rides per platform hour):** The number of total riders who board a vehicle relative to the total number of hours the vehicle operates.
- **Efficiency (cost per ride):** The cost per boarding relative to the cost of operating the service.
- **Equity (percent of trips that start/end in equity priority areas):** The proportion of trips that start or end in areas where needs are greatest.

Evaluating Metro Flex Pilots: Criteria and Targets

Separately, Metro evaluates Metro Flex pilots using additional criteria based on productivity, efficiency, equity, and accessibility. The targets help determine if a pilot is canceled, extended for a single one-year period, or approved as on-going, regular service. The targets only apply to pilots.[8] Table 10 includes the six criteria and the corresponding pilot service targets by category.

Table 10: Evaluating active Metro Flex pilots and service areas

Category	Criteria	Target
Equity: relative to service area	Percent of trips that start/end in 4 or 5 scoring equity priority areas (EPAs)	Percent of households living in Equity Priority Areas with a score of 4-5
Equity: relative to county	Percent of trips that start/end in 4 or 5 scoring equity priority areas (EPAs)	County average: 40 percent
Productivity	Rides per platform hour: number of total riders who board a vehicle relative to the total number of hours that a vehicle operates	Flex productivity targets are set to achieve the same cost efficiency as the bottom 25th percentile of DART service. 2024 DART bottom 25th percentile: 2.3 rides per platform hour
Efficiency	Cost per boarding: total cost of operating the service relative to the total number of individual passenger boardings	Flex efficiency targets are set to the bottom 25th percentile of DART service. 2024 DART bottom 25th percentile: $34.86 per boarding
Accessibility: households (fixed-route strength)	Percent of households without access to fixed-route transit in service area (excludes households within ¼ mile of a bus stop and ½ mile of light rail or commuter rail)	County average: 31 percent
Accessibility: community assets (fixed-route strength)	Percent of community assets without access to fixed-route transit in service area (excludes assets within ¼ mile of a bus stop and ½ mile of light rail or commuter rail)	County average: 21 percent

8 Service areas that are well served by traditional bus service are given lower scores because alternatives to flexible services are already available. Service areas that have fewer alternatives are better candidates for Metro flex.

Metro evaluates each pilot service that has been in operation for over a year based on how well it meets the specified target for each criterion. The final pilot scores are an average of the individual criteria scores for that service area. The final score determines whether a pilot is canceled, extended for a single one-year period, or approved as on-going, regular service.

Each service area receives a point for each 20 percent of a target met. For example, if a service meets 20 percent of a target, it will receive a score of one point, and if a service meets 100 percent of the target, it receives 5 points. A pilot can receive bonus points if it exceeds a target by over 20 percent. Table 11 illustrates the score approach.

Table 11: Scoring criteria for Metro Flex pilot programs

Points	0	1	2	3	4	5	6	7, etc.
Percent of target	0%	20%	40%	60%	80%	100%	120%	140%

At the end of the pilot period, a final evaluation determines the pilot's future. Service areas with an average score of 5 and above become on-going services. Metro cancels these pilots if they receive an average score below 4. Services that score between 4 and 5 continue as pilots for an additional year of evaluation–if they fail to increase their score to 5 during the extended evaluation period, Metro will cancel the pilot.

This average scoring method provides a balanced approach to incorporating equity, productivity, efficiency, and transit access.

In 2023, several pilots had been operating for at least 2 years, many for much longer. Metro conducted a final evaluation for these pilots in 2023 (prior to the 2024 System Evaluation period). The evaluation covered the Juanita, Kent, Othello, Rainier Beach, Renton, Sammamish, Skyway, and Tukwila service areas. This final evaluation determined the future stats of these pilots, using Metro Flex data from March to September in 2023 alongside the relevant equity data from Q2 2023. Metro set targets based on performance data from 2023 and the results are included in Table 12.

Table 12: Pilot Evaluation Results from March–September 2023

Service Area	Equity: service area score	Equity: county score	Households without transit score	Assets without transit score	Efficiency score	Productivity score	Average score Spring 2023
Juanita[9]	5	2.5	6.5	6.2	2.1	3.2	4.2
Kent	4.6	7.6	10	7.9	2.9	3.5	6.1
Othello	5	10	1.1	1	6.8	7.9	5.3
Rainier Beach	4.2	9.6	2.6	0	6.9	8.2	5.3
Renton	5	9.4	4.4	2.9	6.9	8	6.1
Sammamish	5	3.4	10	8.3	5.1	5.2	6.2
Skyway	5	9.6	3.9	1	6.9	8.2	5.8
Tukwila	5	10	4.2	6.4	6.5	7.3	6.6

9 The Juanita service area was renewed as a pilot based on its average score in the 4-5 range.

Prioritizing New Metro Flex Pilots

To prioritize new Metro Flex pilots, Metro evaluates over 140 Transit Connection Locations (TCLs), which include transit activity centers, park-and-rides, Link light rail stations, transit centers, and other types of transit hubs. These TCLs (and their surrounding 2-mile walkshed) are first screened out based on density and equity measures. Next, they are scored based on their relative accessibility to jobs and community assets. This approach helps identify areas that lack sufficient access to the existing transit network and would benefit the most from a flexible service. The full process used to identify, screen, and score these locations is depicted below in Table 13.

Table 13: Steps for prioritizing new Metro Flex pilots

Steps	Description
1) Identify Transit Connection Location Service Areas	Includes a 2-mile walkshed (area reachable by foot) around the primary facility.
2) Apply 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.
3) Apply Scoring Criteria (accessibility)	Accessibility 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. The greater the access to jobs and community assets, the higher the score. Service areas with the lowest access scores are prioritized for future Metro Flex service.
4) Implementation	Implementation of a new Metro Flex pilot is contingent on resources, including staff time and funding.

Marine Service

Metro monitors performance and manages Marine Services using a set of performance measures included in the Service Guidelines. 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 14: 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 Data and Scores

Metro uses a variety of equity measures to evaluate service. Equity priority area scores (EPAS), featured in Figure 11, assess the percentage of priority populations in a block group and are the basis for multiple equity factors in adding, reducing, and restructuring service. The route equity prioritization scores represent the average equity priority area score for every bus stop along a route—this score informs service increases and is featured in Table 15. The Opportunity Index Scores (OIS) represents the percentage of a route's stops in block groups with an equity priority area score of five, the highest score—this score informs service reductions and is featured in Figure 15.

Figure 11. Census block groups by equity priority area score

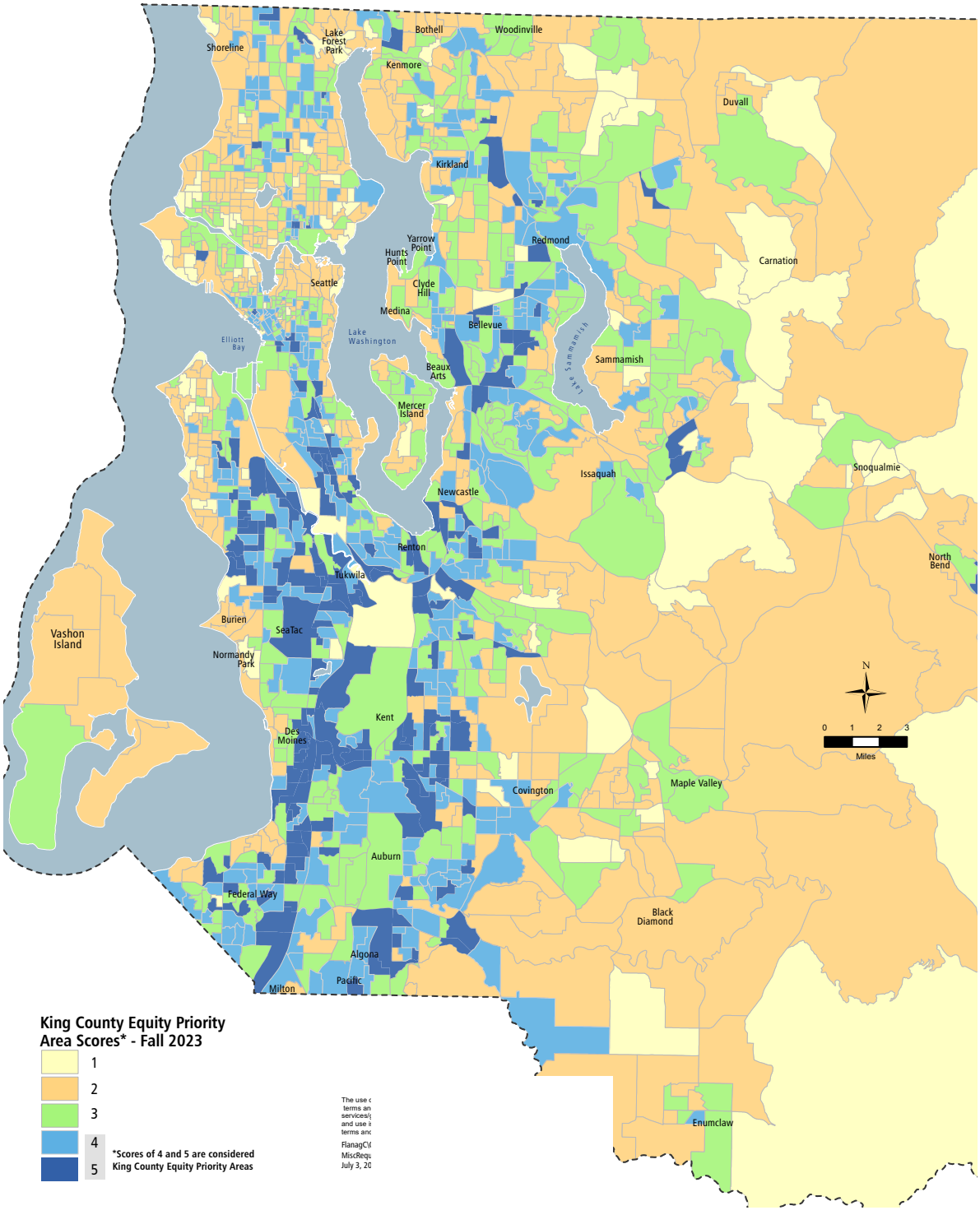
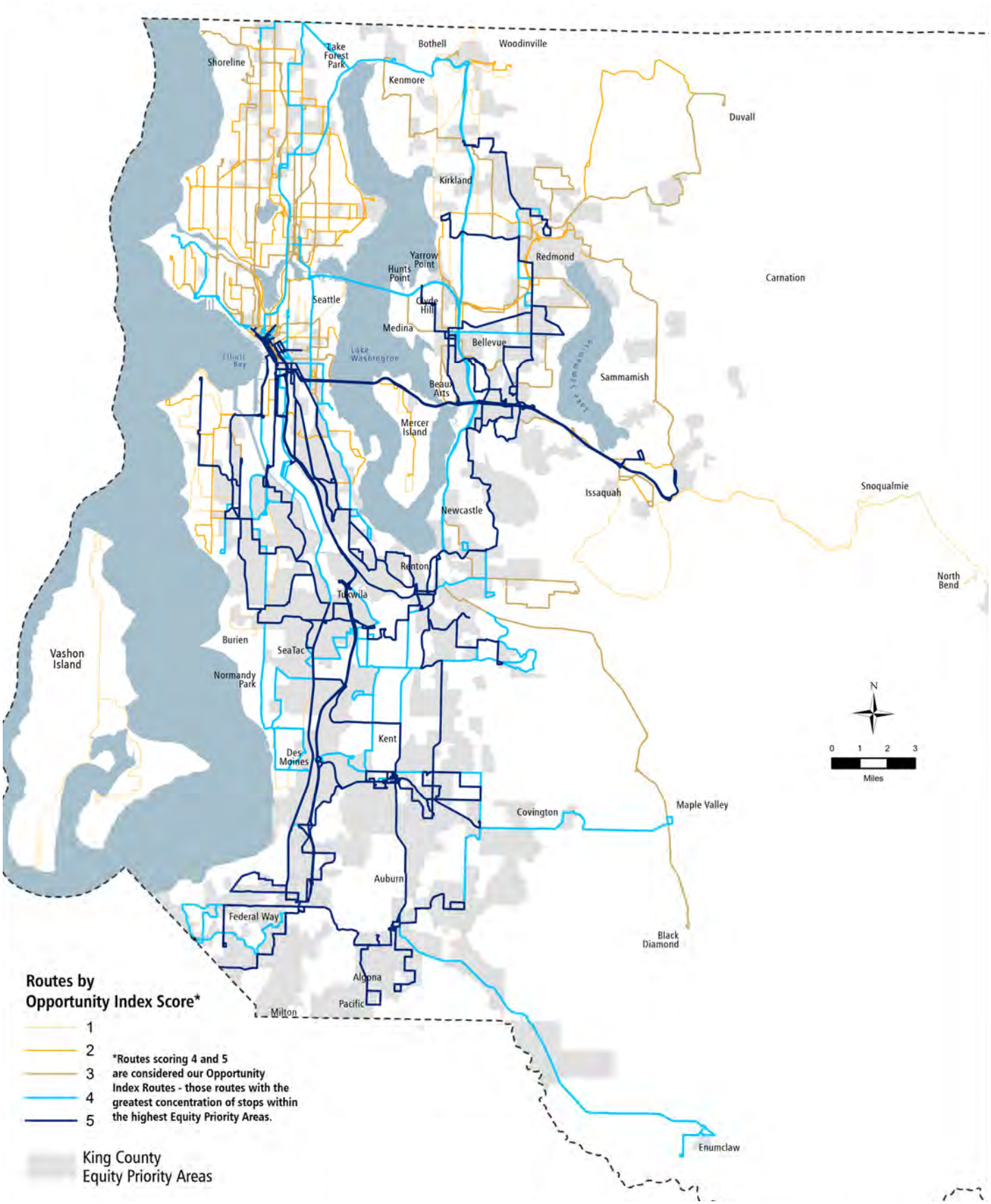


Table 15: Route Equity Prioritization Scores[10]

Route Name	Equity Prioritization Score
1	2.8
2	2.8
3	2.9
4	3.1
5	2.6
7	3.7
8	3.5
9	3.5
10	2.9
11	2.7
12	3.0
13	2.9
14	3.7
17	2.4
20	2.9
21	2.7
22	2.1
24	2.4
27	2.9
28	2.6
31	2.5
32	2.6
33	2.9
36	4.1
40	2.9
43	2.9
44	2.6
45	2.7
48	3.0
49	3.3
50	2.9
56	2.6
57	2.2
60	3.5
62	2.6
65	2.6
67	2.8
70	3.1
73	3.0
75	2.7
79	2.3
101	3.8
102	3.4
105	4.0
106	4.0
107	4.2
111	3.1
113	3.4
118	2.0
119	2.0
124	3.0
125	3.4
128	3.3
131	3.3
132	3.5
148	3.7
150	3.2
153	2.7
156	3.9
160	4.2
161	3.5
162	4.3
165	3.5
168	3.5
177	3.6
181	3.6
182	4.6
183	4.0
184	4.5
187	3.7
193	4.1
204	2.5
208	2.2
212	3.6
218	3.7
221	3.3
224	3.5
225	3.0
226	3.5
230	2.4
231	2.6
239	2.9
240	3.8
241	3.8
245	3.5
246	3.6
249	3.4
250	3.2
255	2.7
257	2.8
269	3.2
271	3.0
302	3.2
303	3.6
311	3.6
322	3.2
330	2.9
331	2.6
345	3.2
346	2.9
347	3.3
348	3.1
372	3.1
630	2.8
631	3.1
635	3.4
773	2.5
775	2.2
901	3.9
903	4.3
906	3.1
907	2.5
914	4.1
915	2.8
917	4.1
930	3.5
2204	2.8
2515	3.1
3028	2.7
3061	3.4
3062	3.0
3069	3.3
3085	3.0
3090	3.2
3091	2.9
3122	2.6
3162	3.7
3214	3.2
3220	2.1
A Line	4.6
B Line	3.5
C Line	2.8
D Line	2.9
E Line	3.3
F Line	3.5
H Line	3.8

10 Metro Connects interim network routes without an equivalent in the current network are depicted by a 4-digit number on this list. They are evaluated based on their proposed routing and service levels in the Metro Connects interim network.

Figure 12. Route Opportunity Index Scores[11]



11 Opportunity Index Scores are listed for each route in the Appendix H table.

Appendix C: Crowding (Priority 1)

There are no crowding investment needs for 2024.

Appendix D: Reliability (Priority 2)[12]

over the lateness threshold

Route	Weekday % Late	Saturday % Late	Sunday % Late
1	18%	30%	33%
2	13%	10%	19%
3	11%	16%	8%
4	14%	20%	12%
5	15%	25%	26%
7	15%	21%	19%
8	33%	23%	24%
9	29%		
10	10%	13%	9%
11	25%	38%	34%
12	23%	17%	9%
13	13%	13%	7%
14	11%	19%	19%
17	21%		
20	6%	13%	10%
21X	7%		
21	18%	26%	25%
22	10%		
24	18%	24%	19%
27	14%	21%	12%
28	20%	21%	25%
31	23%	17%	14%
32	21%	26%	16%
33	16%	19%	25%
36	15%	12%	15%
40	21%	24%	19%
43	27%	33%	33%
44	15%	16%	13%
45	17%	19%	15%
48	13%	14%	9%
49	20%	21%	20%
50	9%	11%	13%

Route	Weekday % Late	Saturday % Late	Sunday % Late
56	3%		
57	3%		
60	19%	23%	18%
62	23%	19%	22%
65	23%	15%	8%
67	24%	15%	8%
70	11%	14%	14%
73	6%	8%	4%
75	15%	17%	15%
79	11%		
101	11%	14%	11%
102	15%		
105	8%	4%	1%
106	22%	24%	21%
107	24%	13%	13%
111	25%		
113	12%		
118	13%	5%	5%
119	8%		
124	16%	21%	20%
125	20%	22%	
128	21%	19%	12%
131	22%	15%	20%
132	20%	19%	23%
148	20%	15%	15%
150	13%	12%	9%
153	29%		
156	16%	7%	3%
160	13%	15%	13%
161	16%	22%	15%
162	22%		
165	18%	10%	14%

12 RapidRide all-day weekday reliability is based on headway adherence analysis. DART data is excluded from this analysis because riders can request deviations in the route. Due to rounding, some routes at the 20% threshold may not require investments.

Reliability continued

over the lateness threshold

Route	Weekday % Late	Saturday % Late	Sunday % Late
168	21%	24%	19%
177	23%		
181	16%	16%	16%
182	21%	15%	7%
183	27%	5%	
184	14%	8%	4%
187	15%	8%	5%
193	34%		
208	23%	45%	
212	23%		
218	26%		
221	15%	11%	21%
225	23%	8%	12%
226	18%	24%	14%
230	24%	23%	7%
231	14%	15%	5%
239	18%	10%	11%
240	18%	21%	13%
241	15%	18%	11%
245	18%	18%	16%
246	20%		
249	10%	13%	27%
250	17%	28%	16%
255	10%	24%	18%
257	20%		
269	21%		
271	17%	29%	26%
302	24%		
303	19%		
311	22%		

Route	Weekday % Late	Saturday % Late	Sunday % Late
322	20%		
330	12%		
331	8%	16%	6%
345	5%	8%	5%
346	4%	5%	6%
347	15%	15%	12%
348	21%	17%	12%
372	12%	20%	10%
A Line	20%	12%	9%
B Line	16%	17%	10%
C Line	21%	12%	7%
D Line	20%	17%	14%
E Line	25%	21%	20%
F Line	17%	14%	8%
H Line	20%	14%	11%

Appendix E: Service Growth (Priority 3)

Service Growth Scoring and Prioritization

Routes	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)	Priority Ranking
	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	-	2	2	2	988	1,273	-	2,375	469	413	5,500	72
2	2	-	-	1	-	3	1,758	-	-	2,568	-	1,854	6,200	74
3	2	2	-	4	3	2	1,406	2,069	-	4,539	1,570	1,329	10,900	67
4	3	6	6	1	-	2	2,988	6,524	6,444	2,832	-	1,142	19,900	35
5	-	2	1	1	3	2	-	2,360	1,492	4,157	1,810	1,592	11,400	83
7	3	-	-	6	2	2	3,143	-	-	11,870	1,123	1,197	17,300	12
8	6	2	-	1	-	1	4,986	2,042	-	2,309	-	768	10,100	13
10	4	7	2	2	-	1	1,779	3,991	1,472	2,517	-	336	10,100	85
11	18	16	18	5	3	4	10,263	10,820	16,827	5,669	1,058	1,177	45,800	70
12	-	7	2	2	3	1	-	3,527	1,392	1,772	762	368	7,800	66
13	3	6	6	2	2	-	2,039	4,296	4,774	3,282	498	-	14,900	73
14	2	4	-	2	3	2	1,221	3,182	-	3,700	1,216	571	9,900	11
17	1	2	2	2	1	1	1,169	2,347	3,381	4,508	919	1,025	13,300	111
20	-	-	4	2	-	-	-	-	6,842	5,148	-	-	12,000	80
21	4	-	1	1	1	3	4,105	-	1,711	3,985	625	2,011	12,400	90
24	2	4	3	1	-	1	1,241	3,766	3,288	2,676	-	748	11,700	110
27	3	4	-	-	-	1	1,711	2,387	-	-	-	472	4,600	75
28	2	4	1	1	-	-	1,753	4,827	1,691	2,455	216	-	10,900	86
31	9	11	8	2	-	-	7,594	12,252	11,298	3,911	-	-	35,100	89
32	7	8	4	3	3	2	5,952	8,486	5,649	6,195	1,483	1,234	29,000	78
33	2	2	2	1	-	1	1,351	1,750	2,506	2,145	-	744	8,500	76
36	7	3	5	4	-	2	5,569	2,586	6,464	6,361	-	853	21,800	4
40	5	5	6	2	-	2	6,695	7,823	13,247	7,759	-	1,456	37,000	68
44	3	3	2	4	5	3	1,882	2,466	2,307	5,484	2,213	1,581	15,900	81
45	-	-	2	2	2	-	-	-	2,984	4,984	901	-	8,900	82
48	4	7	4	2	2	3	3,056	6,590	5,171	3,467	811	1,330	20,400	37
49	7	7	7	6	6	2	4,437	5,476	6,822	10,007	2,519	613	29,900	34
50	-	-	-	1	1	-	-	-	-	4,422	1,219	-	5,600	100
57	-	-	3	1	1	1	206	-	3,554	1,777	362	404	6,300	112
60	2	2	-	1	1	3	2,108	2,572	-	3,953	727	2,147	11,500	14

Routes	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)	Priority Ranking
	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		
62	-	2	2	1	-	-	-	3,023	4,336	3,433	-	-	10,800	84
65	4	7	4	5	2	-	2,758	5,848	4,614	6,954	936	-	21,100	93
67	3	4	4	3	2	-	2,460	3,076	4,614	6,169	683	-	17,000	79
70	5	5	4	4	2	1	4,310	4,575	5,171	6,349	973	706	22,100	33
73	3	5	5	3	1	-	2,333	4,385	6,047	5,476	430	144	18,800	38
75	-	2	2	-	2	-	-	1,883	2,625	-	872	-	5,400	92
79	1	1	2	-	1	1	966	1,202	2,506	-	327	365	5,400	113
101	2	4	-	2	1	-	2,187	4,986	-	4,804	955	-	12,900	15
102	1	1	3	2	1	1	2,735	2,079	8,354	8,354	1,704	1,900	25,100	47
105	3	4	8	1	1	1	1,387	1,803	5,092	772	360	351	9,800	24
106	6	2	2	2	2	1	6,842	2,572	3,620	5,959	1,082	679	20,800	5
107	4	2	5	-	-	1	2,990	1,750	6,895	-	-	716	12,400	10
111	1	1	3	2	1	1	1,741	1,525	6,100	6,100	1,244	1,387	18,100	45
118	4	4	5	1	-	1	2,828	3,925	6,826	1,353	-	386	15,300	119
119	-	1	1	-	-	-	-	986	1,114	963	-	-	3,100	120
124	-	2	-	-	2	1	-	2,387	-	-	1,115	431	3,900	88
125	2	2	-	1	1	2	1,118	1,379	-	1,154	624	1,013	5,300	48
128	2	-	-	-	1	-	2,725	-	-	-	1,395	-	4,100	56
131	5	8	5	3	2	3	6,028	9,123	9,176	8,102	1,282	2,087	35,800	39
132	2	2	-	1	-	1	2,392	2,970	-	3,610	-	1,291	10,300	40
148	-	-	-	-	-	-	-	-	-	-	-	-	-	27
150	4	2	2	3	-	-	5,418	2,997	4,296	7,905	-	-	20,600	42
153	3	4	-	-	1	1	2,328	3,129	-	-	573	639	6,700	96
156	-	1	-	-	-	-	-	1,255	-	-	-	-	1,300	28
160	4	6	2	4	3	3	5,781	9,945	4,694	12,021	3,040	3,149	38,600	6
161	2	2	4	-	3	2	1,803	1,989	5,649	-	1,718	1,270	12,400	22
165	8	6	6	1	3	5	13,366	11,298	15,992	5,229	3,075	5,260	54,200	29
168	4	4	4	1	3	1	3,033	3,978	5,251	1,343	1,646	298	15,500	30
181	6	8	6	1	1	2	6,705	10,502	11,337	3,349	1,002	1,842	34,700	26
182	-	-	2	-	-	1	-	-	1,591	-	-	241	1,800	2

Routes	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)	Priority Ranking
	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		
183	3	4	4	-	1	3	2,631	3,607	5,012	721	453	1,464	13,900	9
184	-	4	-	-	-	-	-	1,591	-	-	-	-	1,600	3
187	1	-	2	-	-	-	512	-	1,273	359	-	-	2,100	32
204	1	1	2	2	-	-	397	571	1,074	1,459	-	-	3,500	116
208	2	3	1	-	1	1	2,322	3,580	1,671	-	352	487	8,400	117
221	-	1	-	-	-	-	-	1,856	-	-	-	-	1,900	57
224	3	3	2	-	1	1	2,334	2,705	3,246	-	368	410	9,100	60
225	5	6	6	2	1	1	5,702	7,956	11,457	4,734	604	1,102	31,600	102
226	4	4	-	1	-	-	3,741	4,933	-	1,291	-	-	10,000	17
230	1	2	2	-	1	-	627	1,883	2,546	309	333	-	5,700	114
231	2	2	2	-	1	1	1,333	1,856	2,586	-	323	647	6,700	97
239	5	8	7	3	1	3	4,342	7,744	9,918	5,076	332	1,663	29,100	98
240	7	8	7	2	2	-	10,210	12,093	15,607	6,928	1,852	-	46,700	21
241	4	4	-	-	1	1	2,238	2,970	-	379	296	579	6,500	19
245	5	4	2	2	1	-	6,047	5,622	3,978	4,195	538	-	20,400	50
246	2	2	2	-	1	1	1,597	1,961	2,904	-	333	371	7,200	23
250	2	2	3	-	-	1	1,383	2,042	2,838	-	-	645	6,900	44
255	2	4	2	1	-	2	1,980	4,614	3,143	2,272	-	1,146	13,200	94
269	3	4	4	4	1	-	4,096	5,297	8,274	12,862	1,087	-	31,600	55
271	6	5	4	1	5	4	7,704	6,962	7,558	3,984	5,371	3,960	35,500	46
330	4	13	10	-	3	3	2,172	6,723	7,359	265	746	832	18,100	101
331	-	-	-	-	-	-	-	-	-	-	-	-	-	104
345	1	2	4	2	-	-	933	1,512	4,455	2,923	-	-	9,800	53
346	-	-	2	1	-	-	-	-	1,830	1,162	-	-	3,000	99
347	-	2	2	1	-	-	-	1,750	2,466	1,056	-	-	5,300	59
348	2	4	-	1	1	-	1,184	3,395	-	1,369	608	-	6,600	49
372	5	16	7	3	3	6	5,704	22,489	13,505	8,740	1,111	2,830	54,400	43
630	2	3	3	1	1	1	543	764	1,061	398	216	241	3,200	91
631	-	-	-	1	1	1	-	-	-	583	119	133	800	51
635	4	4	4	3	-	1	855	955	1,432	1,856	-	211	5,300	54

Routes	Additional Trips per Hour						Additional Annual Service Hours Needed						Total Service Growth Investment Needed (Annual Hours - rounded)	Priority Ranking
	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		
773	-	-	4	1	1	2	-	-	2,228	746	267	380	3,600	95
775	-	-	-	2	1	1	-	-	-	1,313	222	143	1,700	115
901	6	6	7	-	3	-	1,670	1,989	2,854	225	485	-	7,200	25
903	2	2	2	-	-	-	871	1,241	1,766	102	-	-	4,000	7
906	3	5	5	2	-	1	2,765	5,516	5,198	3,423	-	583	17,500	58
907	-	2	-	-	-	-	-	2,770	-	-	-	-	9,400	108
915	1	1	2	1	-	1	676	1,144	2,745	1,830	-	416	6,800	103
917	-	-	-	-	-	1	-	-	-	-	-	225	200	8
930	2	4	-	-	1	1	1,852	3,448	-	-	703	784	6,800	20
2204	5	6	3	1	-	-	4,714	6,524	4,137	2,909	-	-	18,300	105
2515	1	4	3	-	1	1	2,257	8,380	8,473	1,591	1,633	1,822	24,200	41
3028	6	8	4	1	1	1	4,933	6,789	5,967	2,586	757	844	21,900	87
3061	7	8	8	3	1	1	9,050	11,881	18,935	11,621	1,309	1,460	54,300	64
3062	4	4	4	1	1	1	5,164	6,630	9,070	2,093	565	630	24,200	109
3069	3	4	4	1	1	1	2,665	3,713	5,728	2,069	406	452	15,000	63
3085	4	4	2	1	1	2	1,492	1,591	1,193	870	361	620	6,100	62
3090	3	4	4	1	1	1	5,758	7,532	11,695	3,504	243	732	29,500	61
3091	3	4	4	1	1	1	3,122	4,243	6,524	2,545	937	841	18,200	106
3122	7	8	4	2	2	1	6,464	7,320	6,524	3,607	667	792	25,400	77
3162	6	8	8	2	1	1	8,531	11,032	19,254	6,768	1,283	1,288	48,200	31
3214	4	4	4	1	1	1	1,042	1,220	1,591	399	341	165	4,800	65
3220	1	2	2	1	-	-	1,447	2,572	3,898	1,929	-	-	9,800	118
A Line	-	-	-	-	-	3	-	-	-	-	-	1,576	1,600	1
B Line	2	-	-	-	-	-	1,561	-	-	-	-	-	1,600	18
C Line	3	-	-	2	2	-	3,265	-	-	4,620	1,167	-	9,100	71
D Line	3	-	-	1	3	-	2,745	-	-	2,784	2,001	-	7,500	69
E Line	-	9	-	1	-	-	-	11,099	-	3,551	-	-	14,600	36
F Line	-	-	-	-	-	-	-	-	-	-	-	-	-	52
H Line	3	3	-	2	3	4	3,058	3,580	-	3,758	2,217	2,847	15,500	16

Appendix F: Summary of Bus Route Investment Needs[13]

Route	Investment Need		
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
1	-	500	5,500
2	-	-	6,200
3	-	-	10,900
4	-	-	19,900
5	-	500	11,400
7	-	250	17,300
8	-	3,000	10,100
9	-	250	-
10	-	-	10,100
11	-	950	45,800
12	-	300	7,800
13	-	-	14,900
14	-	-	9,900
17	-	250	13,300
20	-	-	12,000
21	-	500	12,400
22	-	-	-
24	-	250	11,700
27	-	250	4,600
28	-	500	10,900
31	-	300	35,100
32	-	500	29,000
33	-	250	8,500
36	-	-	21,800
40	-	450	37,000
43	-	700	-
44	-	-	15,900
45	-	-	8,900
48	-	-	20,400
49	-	250	29,900
50	-	-	5,600
56	-	-	-
57	-	-	6,300
60	-	250	11,500

Route	Investment Need		
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
62	-	1,150	10,800
65	-	400	21,100
67	-	500	17,000
70	-	-	22,100
73	-	-	18,800
75	-	-	5,400
79	-	-	5,400
101			12,900
102			25,100
105	-	-	9,800
106	-	1,000	20,800
107	-	700	12,400
111	-	250	18,100
113	-	-	-
118	-	-	15,300
119	-	-	3,100
124	-	500	3,900
125	-	250	5,300
128	-	200	4,100
131	-	200	35,800
132	-	250	10,300
148	-	-	-
150	-	-	20,600
153	-	500	6,700
156	-	-	1,300
160	-	-	38,600
161	-	250	12,400
162	-	250	-
165	-	-	54,200
168	-	500	15,500
177	-	250	-
181	-	-	34,700
182	-	250	1,800
183	-	500	13,900
184	-	-	1,600
187	-	-	2,100
193	-	600	-

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

Summary of Bus Route Investment Needs continued

Route	Investment Need		
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
204	-	-	3,500
208	-	500	8,400
212	-	250	-
218	-	250	-
221	-	250	1,900
224	-	-	9,100
225	-	250	31,600
226	-	250	10,000
230	-	500	5,700
231	-	-	6,700
239	-	-	29,100
240	-	250	46,700
241	-	-	6,500
245	-	-	20,400
246	-	-	7,200
249	-	250	-
250	-	250	6,900
255		250	13,200
257	-	250	-
269	-	250	31,600
271	-	500	35,500
302	-	250	-
303	-	-	-
311	-	250	-
322	-	-	-
330	-	-	18,100
331	-	-	-
345	-	-	9,800
346	-	-	3,000
347	-	-	5,300
348	-	250	6,600
372	-	250	54,400
630	-	-	3,200
631	-	-	800
635	-	-	5,300
773	-	-	3,600
775	-	-	1,700

Route	Investment Need		
	Priority 1: Crowding	Priority 2: Reliability	Priority 3: Service Growth
901	-	-	7,200
903	-	-	4,000
906	-	-	17,500
907	-	-	9,400
914	-	-	-
915	-	-	6,800
917	-	-	200
930	-	-	6,800
2204	-	-	18,300
2515	-	-	24,200
3028	-	-	21,900
3061	-	-	54,300
3062	-	-	24,200
3069	-	-	15,000
3085	-	-	6,100
3090	-	-	29,500
3091	-	-	18,200
3122	-	-	25,400
3162	-	-	48,200
3214	-	-	4,800
3220	-	-	9,800
A Line	-	-	1,600
B Line	-	-	1,600
C Line	-	400	9,100
D Line	-	-	7,500
E Line	-	2,250	14,600
F Line	-	-	-
H Line	-	250	15,500

*The Metro Connects routes in this list, depicted with a 4-digit number, 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 (2023–2024)

King County Metro tracks ridership and platform hours across the transit system. New RapidRide lines (like the H Line) are compared to the legacy route they replaced.

Route	Year-Over-Year Changes in Average Weekday Rides and Platform Hours					
	Rides (Fall 2022)	Rides (Fall 2023)	Change in rides	Platform Hours (Fall 2022)	Platform Hours (Fall 2023)	Change in Platform Hours
1	1,653	1,848	195	78	78	0
2	3,476	4,115	639	133	133	0
3	3,733	4,311	578	168	172	4
4	2,211	2,487	276	105	112	7
5	3,319	3,999	680	142	142	0
7	9,155	9,928	773	307	282	-25
8	5,367	6,168	801	156	157	1
9	192	229	37	18	18	1
10	1,639	1,790	151	76	74	-2
11	1,821	2,115	294	81	81	0
12	1,618	1,516	-102	73	73	0
13	1,286	1,490	204	61	61	0
14	2,157	2,521	364	91	91	0
17	140	244	104	11	12	1
20	1,964	1,848	-116	161	125	-36
21	2,287	2,407	120	139	139	-1
22	123	162	39	16	16	0
24	1,024	1,162	138	65	65	0
27	612	807	195	47	48	1
28	1,139	1,207	68	75	61	-14
31	1,742	1,847	105	80	83	2
32	2,030	2,201	171	95	93	-2
33	811	965	154	46	46	1
36	6,150	6,583	433	241	227	-14
40	6,695	7,910	1,215	285	269	-17
43	306	380	74	23	25	2
44	5,297	5,799	502	171	172	1
45	4,680	5,036	356	147	147	0
48	3,598	4,186	588	143	144	1
49	2,482	2,824	342	125	126	2
50	2,219	2,297	78	153	153	1
56	175	213	38	16	15	-1
57	170	172	2	11	11	0
60	4,833	5,024	191	225	225	0
62	5,310	6,349	1,039	225	226	1
65	3,190	3,343	153	116	117	1
67	3,389	3,688	299	105	107	1

Route-Level Ridership and Hours continued

Route	Year-Over-Year Changes in Average Weekday Rides and Platform Hours					
	Rides (Fall 2022)	Rides (Fall 2023)	Change in rides	Platform Hours (Fall 2022)	Platform Hours (Fall 2023)	Change in Platform Hours
70	3,716	4,429	713	176	180	3
73	1,124	707	-417	82	48	-34
75	3,568	3,819	251	143	142	-1
79	1,232	687	-545	92	40	-52
101	2,318	2,411	93	139	139	0
102	568	568	0	29	29	0
105	735	893	158	53	53	0
106	4,230	4,652	422	176	178	2
107	1,737	1,931	194	118	119	1
111	223	277	54	36	35	-1
113	51	59	8	10	10	0
118	151	168	17	25	25	0
119	89	99	10	13	13	0
124	2,604	2,864	260	139	138	-1
125	631	696	65	62	60	-2
128	2,937	3,753	816	182	182	0
131	2,134	2,419	285	104	106	2
132	2,168	2,414	246	101	104	3
148	433	511	78	43	43	0
150	3,791	4,101	310	200	200	0
153	533	599	66	42	42	0
156	769	951	182	71	71	0
160	4,404	5,125	721	200	200	0
161	1,616	1,876	260	100	101	0
162	291	290	-1	35	36	1
165	2,580	3,144	564	142	142	0
168	1,354	1,614	260	70	70	0
177	134	152	18	18	18	0
181	1,577	1,901	324	106	106	0
182	366	439	73	29	29	0
183	963	1,122	159	52	52	0
184	737	855	118	45	45	0
187	342	409	67	20	20	0
193	314	292	-22	35	35	1
204	45	49	4	12	12	0
208	98	100	2	20	22	2
212	259	486	227	27	30	4
218	200	302	102	17	17	0

Route-Level Ridership and Hours continued

Route	Year-Over-Year Changes in Average Weekday Rides and Platform Hours					
	Rides (Fall 2022)	Rides (Fall 2023)	Change in rides	Platform Hours (Fall 2022)	Platform Hours (Fall 2023)	Change in Platform Hours
221	904	1,038	134	77	77	0
224	71	67	-4	15	15	0
225	662	526	-136	84	52	-33
226	1,015	1,172	157	70	70	0
230	287	225	-62	53	33	-20
231	250	191	-59	52	34	-18
239	508	646	138	68	68	0
240	1,617	1,873	256	120	120	0
241	372	430	58	48	48	0
245	2,386	2,911	525	148	148	0
246	196	245	49	29	29	0
249	476	611	135	50	50	0
250	1,903	2,197	294	154	154	0
255	2,465	2,789	324	188	176	-12
257	180	229	49	16	16	0
269	625	801	176	77	77	0
271	2,807	2,891	84	199	199	0
302	247	254	7	14	14	0
303	244	257	13	18	18	0
311	242	294	52	18	17	-1
322	343	409	66	31	32	1
330	192	217	25	14	14	0
331	496	672	176	58	59	1
345	860	920	60	64	59	-5
346	878	1,001	123	53	53	0
347	992	1,134	142	62	62	0
348	1,028	1,207	179	64	64	0
372	5,677	5,781	104	207	212	5
630	11	13	2	5	5	0
631	31	25	-6	8	8	0
635	16	43	27	13	13	0
773/775	132	112	-20	16	15	-1
901/903	258	177	-81	16	16	0
906	278	326	48	44	44	0
907	35	46	11	17	17	0

Route-Level Ridership and Hours continued

Route	Year-Over-Year Changes in Average Weekday Rides and Platform Hours					
	Rides (Fall 2022)	Rides (Fall 2023)	Change in rides	Platform Hours (Fall 2022)	Platform Hours (Fall 2023)	Change in Platform Hours
914	61	53	-7	16	16	0
915	124	124	0	30	30	0
917	85	108	23	29	29	0
930	112	134	22	39	39	0
A Line	7,475	8,353	878	212	212	0
B Line	3,775	4,564	789	167	166	-1
C Line	6,148	7,122	974	298	278	-20
D Line	8,160	9,192	1,032	254	242	-12
E Line	10,636	12,291	1,655	345	330	-15
F Line	4,416	4,544	128	193	193	0
H Line	6,010	7,414	1,404	298	264	-34

Appendix H: Route Productivity

Metro evaluates route productivity in two ways. Rides per platform hour helps Metro understand how many people are using a route relative to how many hours it is in operation. Passenger miles per platform mile helps Metro understand how far people are traveling on a route relative to how many miles the route serves.

Between fall 2022 and fall 2023, average productivity for both measures increased by approximately 19 to 20 percent during the peak and off-peak periods. Productivity also increased by 13 percent at night. This means that both ridership and travel distances are increasing across the system relative to the amount of service Metro provides.

This appendix table evaluates productivity for different route types and day periods.

Route Type	Time Period	Bottom 25% Threshold Rides per Platform Hour	Top 25% Threshold Rides per Platform Hour	Bottom 25% Threshold Passenger Miles per Platform Mile	Top 25% Threshold Passenger Miles per Platform Mile
Urban	Peak	17.4	29.5	6.2	9.4
	Off-Peak	19.6	32.0	6.1	10.0
	Night	10.3	16.9	3.1	5.1
	Saturday	17.5	26.4	5.1	7.4
	Sunday	15.7	23.9	4.3	7.1
Suburban	Peak	12.4	20.7	3.7	6.0
	Off-Peak	13.9	24.2	4.9	8.1
	Night	6.7	12.7	2.2	3.7
	Saturday	10.4	17.4	3.4	5.7
	Sunday	9.3	16.4	2.9	5.2
Rural and DART[14]	Peak	5.4	9.1	NA	NA
	Off-Peak	6.7	9.8	NA	NA
	Night	2.1	5.5	NA	NA
	Saturday	6.0	11.0	NA	NA
	Sunday	8.0	9.4	NA	NA

14 Although DART routes typically follow a fixed route, passengers can request deviations from the route—as a result, Metro platform miles are not standardized for these DART routes.

Route Productivity continued

top 25% in terms of productivity 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		
1	24.8	6.4	25.1	5.6	17.0	3.7	33.9	6.3	28.2	5.2	3	Urban
2	34.6	8.1	35.8	7.9	18.1	4.5	33.5	7.0	36.4	8.0	2	Urban
3	28.6	6.3	26.7	6.2	10.8	2.2	24.4	5.9	21.4	5.1	3	Urban
4	29.7	6.7	22.9	6.1	11.7	3.2	22.7	5.0	20.4	4.6	3	Urban
5	33.3	12.2	27.5	10.6	17.1	5.4	32.0	10.2	28.8	10.3	2	Urban
7	34.5	10.4	43.2	12.7	23.4	6.9	37.3	10.6	36.7	9.9	4	Urban
8	43.4	9.4	42.3	9.2	26.0	5.3	36.9	8.1	40.9	8.6	3	Urban
9	13.1	3.5	7.7	2.5	NA	NA	NA	NA	NA	NA	4	Urban
10	25.5	5.2	28.3	5.7	15.7	2.9	26.3	5.1	27.2	5.1	1	Urban
11	28.4	6.5	30.1	7.4	14.5	3.1	32.1	7.6	28.3	6.1	1	Urban
12	26.7	5.2	20.0	4.5	7.7	1.7	17.7	4.2	13.5	3.3	1	Urban
13	26.5	6.5	27.7	7.2	16.2	3.8	30.0	6.6	24.1	5.4	2	Urban
14	29.4	5.6	31.7	5.4	15.6	3.1	24.8	4.5	22.2	4.0	5	Urban
17	20.4	7.6	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
20	15.2	3.8	16.9	6.6	7.6	2.4	11.7	3.9	9.3	3.2	3	Urban
21	18.3	7.0	20.1	7.8	10.0	3.8	16.6	6.6	18.5	6.5	2	Urban
24	20.1	6.7	17.3	6.0	9.4	2.8	16.8	5.4	16.1	4.9	2	Urban
27	20.2	4.0	14.8	3.4	9.1	2.1	18.7	4.3	22.0	4.2	4	Urban
28	21.9	6.9	22.4	8.7	8.7	2.9	17.3	5.6	15.5	4.8	2	Urban
31	24.6	5.9	22.5	5.3	15.9	3.6	21.1	5.0	19.8	4.8	3	Urban
32	28.8	8.2	25.6	7.6	14.0	3.9	26.6	7.7	27.2	7.7	2	Urban
33	23.9	7.0	21.1	6.1	9.1	3.1	17.6	4.9	10.8	4.6	4	Urban
36	31.2	8.7	34.7	9.6	16.6	4.4	29.4	7.6	30.4	7.6	5	Urban
40	33.5	10.2	33.0	10.6	16.9	5.5	27.3	8.8	25.4	8.3	2	Urban
43	19.8	4.0	18.6	3.7	10.3	2.4	10.7	1.9	11.8	2.0	3	Urban
44	40.2	11.7	35.5	10.5	19.5	5.2	32.1	8.5	29.8	8.1	1	Urban

Route Productivity continued

top 25% in terms of productivity 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		
45	33.6	8.2	42.8	11.6	23.1	4.9	27.2	8.0	25.5	7.1	2	Urban
48	34.3	9.6	37.4	9.9	11.1	3.3	20.2	6.0	16.8	4.8	4	Urban
49	24.7	7.4	23.3	7.0	17.1	4.9	22.2	5.9	19.5	5.9	3	Urban
56	14.5	5.6	8.8	5.1	NA	NA	NA	NA	NA	NA	1	Urban
57	15.4	6.7	NA	NA	NA	NA	NA	NA	NA	NA	1	Urban
60	23.8	7.0	24.4	7.4	13.1	3.7	24.9	7.7	22.9	6.3	4	Urban
62	33.7	8.8	28.3	7.6	14.1	3.9	26.2	8.1	22.3	6.7	2	Urban
65	35.8	9.3	30.7	8.9	13.5	3.7	23.3	6.2	19.6	5.4	1	Urban
67	39.2	8.8	40.1	9.5	21.0	3.8	27.0	6.7	23.1	5.9	3	Urban
70	32.0	10.1	27.6	9.3	11.0	3.7	21.1	7.2	19.7	6.5	3	Urban
73	17.9	5.8	14.7	4.5	7.8	2.1	9.2	3.6	8.8	3.3	3	Urban
75	28.4	7.7	32.8	8.6	15.4	4.1	21.7	6.2	18.6	5.4	3	Urban
79	21.4	3.8	15.1	3.3	6.9	1.2	NA	NA	NA	NA	3	Urban
101	19.2	13.0	16.6	11.2	14.0	9.7	21.3	14.4	18.5	13.1	4	Urban
102	19.3	11.8	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
106	26.5	6.8	30.6	8.1	16.0	4.7	24.8	6.8	21.7	6.1	5	Urban
111	7.9	5.2	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
113	6.0	2.5	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
124	21.2	8.1	23.0	7.8	15.7	6.2	26.3	10.0	20.4	8.4	4	Urban
125	12.9	5.1	12.2	5.0	5.1	2.1	8.4	3.5	NA	NA	4	Urban
131	22.5	9.3	29.5	10.6	12.5	5.1	19.2	7.9	17.4	6.8	4	Urban
132	24.3	8.6	28.5	10.2	13.4	5.1	21.1	7.9	18.3	6.8	5	Urban
150	21.4	12.1	21.2	13.3	16.4	10.8	18.6	12.4	16.3	10.6	5	Urban
162	8.1	4.5	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban
177	8.6	6.5	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
193	8.2	6.2	NA	NA	NA	NA	NA	NA	NA	NA	5	Urban

Route Productivity continued

top 25% in terms of productivity 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		
212	16.4	8.9	12.3	6.7	NA	NA	NA	NA	NA	NA	4	Urban
218	18.0	10.8	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
255	18.0	8.1	15.5	8.1	9.2	5.1	11.9	6.3	9.0	5.2	1	Urban
257	14.8	9.1	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
271	15.5	7.3	15.0	7.5	9.1	4.4	16.4	7.7	14.1	6.4	1	Urban
302	18.4	10.2	NA	NA	NA	NA	NA	NA	NA	NA	3	Urban
303	14.4	7.5	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
311	16.9	10.7	NA	NA	NA	NA	NA	NA	NA	NA	2	Urban
322	12.9	6.5	NA	NA	NA	NA	NA	NA	NA	NA	4	Urban
372	26.9	7.1	33.2	7.6	16.0	3.5	25.7	5.8	20.3	4.6	3	Urban
C Line	28.8	10.7	25.5	10.1	16.7	6.8	22.5	10.5	20.2	9.3	1	Urban
D Line	40.2	11.7	41.7	12.5	27.0	7.8	39.5	12.0	40.6	11.6	2	Urban
E Line	38.3	15.0	39.0	14.4	31.8	11.7	42.5	15.4	37.2	12.7	3	Urban
H Line	29.9	12.6	29.6	12.0	21.6	9.3	33.8	14.4	27.8	12.2	4	Urban
22	12.1	2.8	10.4	3.4	3.8	0.9	NA	NA	NA	NA	1	Suburban
50	17.9	5.4	15.7	5.5	8.0	3.1	16.5	6.0	16.5	5.1	3	Suburban
105	16.1	3.9	22.8	6.2	10.7	2.4	17.0	5.1	13.5	4.2	5	Suburban
107	17.7	4.5	20.8	6.1	8.6	2.6	13.9	4.5	11.1	3.5	5	Suburban
128	21.7	5.9	24.4	6.9	11.4	3.6	22.9	6.8	19.0	5.5	5	Suburban
148	11.0	4.2	14.1	5.4	7.9	3.4	13.7	5.2	11.0	4.0	4	Suburban
153	14.8	5.3	13.8	5.3	NA	NA	NA	NA	NA	NA	3	Suburban
156	12.8	3.3	16.9	5.8	6.8	2.2	10.9	3.9	10.0	3.6	4	Suburban
160	24.7	8.3	28.6	10.2	21.1	6.9	31.3	11.5	25.9	9.2	5	Suburban
161	18.9	6.8	22.9	9.0	13.9	5.5	22.5	8.4	19.8	7.7	5	Suburban
165	21.1	6.2	30.1	9.9	12.7	3.5	17.4	5.3	18.9	6.6	5	Suburban
168	25.4	8.0	26.2	9.1	13.6	4.3	18.6	6.4	17.0	5.8	5	Suburban

Route Productivity continued

top 25% in terms of productivity 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		
181	16.1	4.3	24.9	9.3	12.4	3.1	19.9	7.1	17.6	6.2	5	Suburban
182	13.0	3.2	21.5	7.3	NA	NA	13.1	4.2	11.1	3.3	5	Suburban
183	22.7	6.6	24.3	8.4	10.1	3.6	11.5	3.9	NA	NA	5	Suburban
184	20.6	4.4	24.1	7.1	11.1	2.0	16.4	3.8	15.0	3.3	5	Suburban
187	20.8	5.1	30.3	8.5	11.5	2.4	19.0	5.0	15.8	4.1	4	Suburban
221	14.3	4.1	15.6	4.8	6.2	1.6	10.0	2.6	11.7	2.6	2	Suburban
225	11.6	4.9	11.7	4.7	3.6	1.4	5.8	2.7	4.8	2.2	4	Suburban
226	17.2	5.3	20.3	6.3	7.2	2.4	15.1	4.1	14.5	4.1	3	Suburban
230	8.2	2.7	7.5	2.8	3.2	0.9	5.4	1.5	5.3	1.7	2	Suburban
231	6.2	2.4	6.3	3.0	3.1	1.1	6.1	2.1	5.1	1.9	2	Suburban
239	10.9	3.1	10.1	3.4	5.5	1.7	7.8	2.6	6.4	2.3	2	Suburban
240	15.7	6.2	19.5	7.4	9.3	3.9	14.5	6.2	12.8	5.7	4	Suburban
241	10.0	3.1	8.8	2.9	5.4	1.9	7.7	2.9	6.1	2.6	4	Suburban
245	19.9	5.2	21.3	6.4	12.6	3.4	18.4	5.4	17.6	5.0	4	Suburban
246	9.4	2.2	7.2	2.0	NA	NA	NA	NA	NA	NA	4	Suburban
249	12.4	3.5	12.1	3.5	NA	NA	7.8	2.4	7.4	2.2	2	Suburban
250	15.7	5.3	14.7	5.2	9.1	2.9	17.8	5.9	15.3	5.4	2	Suburban
269	12.3	4.9	8.1	4.0	NA	NA	NA	NA	NA	NA	2	Suburban
330	13.9	4.0	18.5	5.3	NA	NA	NA	NA	NA	NA	2	Suburban
331	9.7	3.2	14.0	4.9	NA	NA	8.2	3.1	7.2	2.5	3	Suburban
345	17.0	5.4	18.1	7.0	6.3	2.7	12.8	5.0	9.0	4.0	1	Suburban
346	20.8	6.8	22.5	7.9	7.9	3.5	13.3	5.6	10.9	4.7	1	Suburban
347	20.1	5.4	18.8	5.4	11.7	3.6	18.4	5.2	15.2	4.2	4	Suburban
348	18.7	5.1	22.9	6.2	13.1	3.9	19.3	5.7	15.8	4.6	4	Suburban
A Line	42.6	13.1	42.7	13.4	30.4	9.5	34.1	11.3	31.6	10.1	5	Suburban
B Line	28.1	9.0	30.3	10.4	21.3	6.3	25.7	8.9	23.9	7.8	3	Suburban
F Line	22.7	7.1	29.4	10.7	16.9	5.5	28.0	9.2	25.4	8.5	5	Suburban

Route Productivity continued

top 25% in terms of productivity 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		
118	7.5	3.0	8.5	2.4	2.2	0.7	4.9	1.9	4.2	1.6	1	Rural
119	7.7	3.0	6.7	2.0	NA	NA	NA	NA	NA	NA	1	Rural
208	3.7	2.0	7.1	4.2	2.2	1.0	5.6	3.1	NA	NA	1	Rural
204	6.5	NA	10.8	NA	0.2	NA	5.0	NA	NA	NA	2	DART
224	11.2	NA	9.4	NA	9.6	NA	NA	NA	NA	NA	3	DART
630	4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	DART
631	4.2	NA	8.9	NA	2.7	NA	NA	NA	NA	NA	2	DART
635	7.0	NA	7.2	NA	NA	NA	6.7	NA	NA	NA	2	DART
773	5.0	NA	6.0	NA	0.5	NA	10.3	NA	9.4	NA	1	DART
775	6.5	NA	5.8	NA	0.4	NA	7.4	NA	9.5	NA	1	DART
901	9.9	NA	8.5	NA	4.7	NA	9.5	NA	7.2	NA	5	DART
903	9.0	NA	15.3	NA	5.5	NA	10.5	NA	8.9	NA	5	DART
906	11.9	NA	20.1	NA	6.6	NA	26.9	NA	22.3	NA	5	DART
907	7.4	NA	6.6	NA	NA	NA	NA	NA	NA	NA	3	DART
914	4.8	NA	7.3	NA	NA	NA	6.2	NA	NA	NA	5	DART
915	8.0	NA	9.9	NA	7.8	NA	12.6	NA	NA	NA	3	DART
917	9.2	NA	9.8	NA	2.1	NA	13.1	NA	8.7	NA	5	DART
930	9.3	NA	6.6	NA	4.3	NA	NA	NA	NA	NA	5	DART

Appendix I: Service Changes

Routes	Summary of Change	Type of Change
	Fall 2023	
3, 4	Adjust headways throughout the day to provide more consistent trip spacing	Route Revision
7	Reduce to 7- to 8-minute service for the peak and 10-minute service for the off-peak periods on weekdays	Removed Trips
7, 40	Route movement (between bases) on weekends to support scheduling	Base Change
8	Adjust headways throughout the day to provide more consistent trip spacing	Route Revision
10	Reduce frequency on weekdays and weekends due to reduced Seattle Transit Measure funding	Removed Trips
15	Suspend all service	Route Suspended
16	Suspend all service	Route Suspended
18	Suspend all service	Route Suspended
20	Reduce to half hourly service for off-peak periods and hourly night service on weekdays; reduce to hourly service for night periods on weekends	Removed Trips
22	Pathway extension and new final stop for last trip variant	Route Revision
28	Reduce to hourly service for night and off-peak periods on weekdays and weekends	Removed Trips
29	Suspend all service	Route Suspended
31, 32	Adjust headways throughout the day to provide more consistent trip spacing	Route Revision
36	Operate 7 to 8-minute service for the PM peak and approximately 10-minute service for the off-peak periods on weekdays	Removed Trips
44	Adjust and smooth headways to better match frequencies on Sunday	Route Revision
50	Delete short-turn variant between Alki and SODO station	Route Revision
55	Suspend all service	Route Suspended
64	Suspend all service	Route Suspended
73	Operate approximately half-hourly service for peak periods and hourly service for off-peak periods on weekdays; operate hourly service on weekends	Removed Trips
79	Reduce to hourly service between 5:25 AM and 9:30 PM on weekdays	Removed Trips
107	Add one southbound and one northbound trip	Added Trips
114	Suspend all service	Route Suspended
121	Suspend all service	Route Suspended
167	Suspend all service	Route Suspended
190	Suspend all service	Route Suspended
208	Add one weekday inbound trip	Added Trips
208	Stop change and new eastern layover	Route Revision
214	Suspend all service	Route Suspended

Service Changes continued

Routes	Summary of Change	Type of Change
216	Suspend all service	Route Suspended
217	Suspend all service	Route Suspended
225	Reduce to hourly service for peak and off-peak periods on weekdays; return to original pathway with the first/last stop at Redmond Technology Station Bay 4	Removed Trips
230	Reduce to hourly service for peak and off-peak periods on weekdays	Removed Trips
231	Reduce to hourly service for peak and off-peak periods on weekdays	Removed Trips
232	Suspend all service	Route Suspended
237	Suspend all service	Route Suspended
249	Adjust weekday headways to improve consistency of trip spacing	Route Revision
249	Return to original pathway with the first/last stop at Redmond Technology Station Bay 4	Route Revision
255	Reduce to half hourly service for night period on weekdays	Removed Trips
268	Suspend all service	Route Suspended
301	Suspend all service	Route Suspended
304	Suspend all service	Route Suspended
320	Suspend all service	Route Suspended
342	Suspend all service	Route Suspended
345	Delete three inbound and three outbound trips	Removed Trips
893, 895	Begin service for the Lake Washington School District routes for the 2023-2024 school year; adjust schedules to accommodate earlier bell time	Route Revision
H Line	Bay assignment change at the Burien Transit Center	Route Revision

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