Attachment B

King County Metro

Service Guidelines

November 17, 2021

King County
METRO
Moving forward together

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Introduction

Metro uses the Service Guidelines to evaluate, design, and modify transit services to meet changing needs and deliver efficient, high-quality service. The updated guidelines reflect key elements of the King County Strategic Plan, Equity and Social Justice Strategic Plan, and Strategic Climate Action Plan. These plans envision a community that gives all people equitable opportunities to thrive, that confronts climate change by cutting greenhouse gas emissions, and that engages priority populations in achieving climate justice and mobility for all. For Metro, that means building a regional, innovative, and integrated mobility network that is safe, equitable, and sustainable. This system will contribute to healthy communities, a thriving economy, and a sustainable environment.

Priority populations are people who are Black, Indigenous, or of color; have low or no income; are immigrants or refugees; have disabilities; or are linguistically diverse.

The guidelines help make sure that decision-making and recommendations to policy makers are objective, transparent, and aligned with King County's goals for public transportation. The guidelines align with Metro's mission, vision, and goals, as outlined in its Strategic Plan, and help Metro grow toward the networks in Metro Connects, its long-range plan.[1] Many terms used in this document are defined in Technical Report A: Glossary, separate from the Service Guidelines.

The Service Guidelines establish criteria and processes that Metro uses to analyze and plan changes to the transit system. The guidelines are divided into these three sections:

Evaluating Existing Services

This section describes how Metro will evaluate and report on the performance of bus and DART[2] routes. For flexible services and water taxi, see Planning Flexible Services and Planning Marine Services in the Planning and Developing Service section.

Adding, Reducing, and Restructuring Service

This section sets targets for system growth by assessing the market potential of existing and planned routes in Metro's bus network using factors of land use, equity, and geographic value.

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[1] See details in Metro's Strategic Plan for Public Transportation 2021-2031.

[2] DART, or Dial-a-Ride Transit, routes provide fixed-route service and have the ability to deviate from their fixed routing in lower-density areas.

This section also establishes the priority order in which service will be added or reduced depending on available resources, and it includes guidelines for when and how Metro restructures service.

Planning and Developing Service

This section provides qualitative and quantitative guidelines for designing transit services and the overall Metro system.

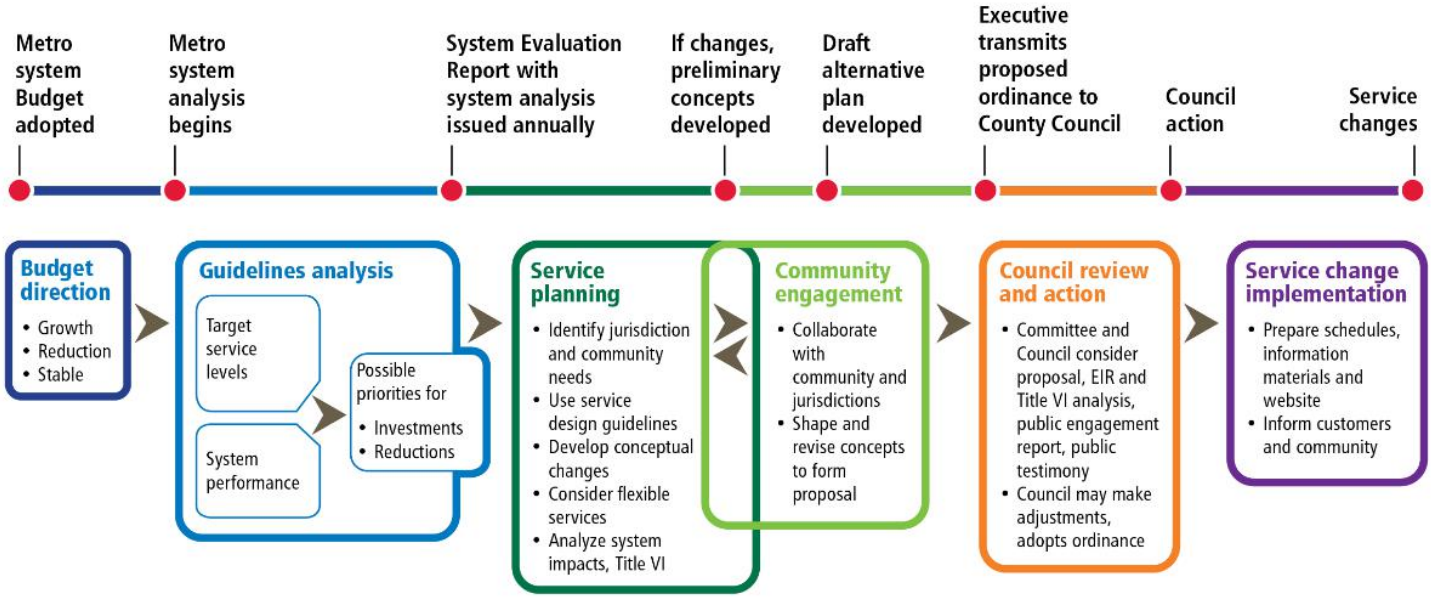
This section also describes how Metro works with the community and stakeholders to plan and to develop partnerships that improve and expand service.

HOW THE GUIDELINES ARE USED

Metro uses the Service Guidelines continuously to review and develop changes to the transit system. Performance information and investment priorities are published in an annual System Evaluation Report that is transmitted to the King County Council and made available to the public.

Metro uses the results of this evaluation, as well as guidelines concerning service design and flexible services, to develop service change proposals. This is one step in a planning process that starts with the adoption of Metro's budget and results in changes to transit service, as shown in Figure 1.

Figure 1 The Service Planning Process



HOW THE GUIDELINES WERE CREATED AND HOW THEY HAVE CHANGED

The King County Council first adopted the Service Guidelines in 2011,[3] following the work of the 2010 Regional Transit Task Force. In 2015, the County formed the Service Guidelines Task Force to develop recommendations on further changes to the Guidelines. Council adopted updated Service Guidelines in 2016.[4]

Metro has produced annual performance evaluations each year since the guidelines were adopted. The annual report, now called the System Evaluation Report, has grown from an initial focus on bus service performance to include reporting on flexible and marine services.

- In 2019, the King County Council directed Metro to develop a framework for the equitable and sustainable implementation of mobility services. Metro engaged with an Equity Cabinet, a group of 23 community leaders representing priority populations, to co-create the "Mobility Framework." The Framework included 10 guiding principles and recommendations for achieving a regional mobility network that is innovative, integrated, equitable, and sustainable. Engagement with community advocates, elected officials, jurisdictions, employers, and other regional partners also informed the Mobility Framework.
- The King County Council adopted a summary of the Mobility Framework's recommendations in March 2020. The summary indicated that Metro would update its policies to align with the Mobility Framework's guiding principles and recommendations.
- The 2021 update to Metro's Service Guidelines includes substantial changes to incorporate a stronger focus on advancing equity and addressing climate change, as outlined in the Mobility Framework's recommendations and guiding principles.

FUTURE GUIDELINES

When policymakers and Metro created the Service Guidelines, they intended it to be a living document. Regular updates were required by the ordinance approving the guidelines. Updates to the guidelines will continue to be considered along with updates to the Strategic Plan for Public Transportation 2021-2031 and Metro Connects.

[3] Ordinance 17143

[4] Ordinance 18301

Evaluating Existing Fixed Route Services

Metro regularly monitors and manages the performance of the transit system to determine if service changes should be made to meet community needs. Metro evaluates all fixed-route service (bus and DART) annually, measuring ridership, productivity, passenger loads, and reliability. The results are published in an annual System Evaluation Report. (Measures used to monitor performance of flexible and marine services are outlined in the Planning and Developing Services section of this report.)

Table 1 Performance Measures for Fixed-Route Service

Type of Measure	Measures Used
Ridership	Average daily ridership
Productivity	Rides per platform hour
	Passenger miles per platform mile
Passenger loads	Average of maximum load per trip
Reliability	Trips arriving more than 5 minutes late at a time point
Equity	Equity Prioritization Score
	Opportunity Index Score

Measuring Ridership and Productivity

Metro measures ridership and productivity to identify services where performance is strong or weak, to determine if they are candidates for addition, reduction, or restructuring for each service family.

Ridership is measured by counting the average number of riders daily for each route on weekdays, Saturdays, and Sundays.

Productivity is measured by counting the average number of riders daily relative to the amount of service provided. Two measures are used:

- **Rides per platform hour** measures the number of riders who board a transit vehicle relative to the total number of hours that a vehicle operates (from leaving the base until it returns).
- **Passenger miles per platform mile** measures the total miles riders travel on a route relative to the total miles that a vehicle operates (from leaving the base until it returns).

The two productivity measures reflect the different values that services provide in the transit system. Routes with a higher number of riders getting on and off relative to the time the bus is in operation perform well on the rides-per-platform-hour measure. Routes with full and even loading along the route perform well on the passenger-miles-per-platform-mile measure.

Metro has classified routes into three service families based on the primary market served as well as other characteristics of service described below. These service families enable Metro to compare the performance of routes with similar services to reflect the different land uses and purposes of service throughout the county.

- **Urban** routes serve the regionally designated Regional Growth Centers of Seattle Downtown, First Hill/Capitol Hill, South Lake Union, the University District, and Uptown. These areas have the highest densities in the county, the highest historical transit use, and the highest market potential for transit.
- **Suburban** routes serve cities throughout King County or serve Seattle but do not connect to the centers listed above.
- **Rural and DART** routes serve lower-density areas. Rural routes serve as connectors between rural communities and between rural communities and larger cities. They are defined as having at least 35 percent of their route outside the urban growth boundary. DART routes provide fixed-route service and have the ability to deviate from their fixed routing in lower-density areas.

Performance thresholds have been established for peak, off-peak, and nighttime periods and for urban, suburban, and rural/DART service families for each of the two performance measures. Low performance is defined as route productivity that ranks in the bottom 25 percent of all routes within a service family and time period. High performance is defined as route productivity in the top 25 percent.

Fixed-route services in the bottom 25 percent on both route productivity measures are the first candidates for potential reduction if service must be reduced. However, reduction of these routes is not automatic; other factors are considered as well. More detailed information about reduction planning is available on page 15.

Fixed-route transit services that have very low productivity likely have an adverse impact on climate change. Metro found that fixed-route transit services with very low productivity, less than 10 rides per hour, likely emit more greenhouse gasses than if all of those passengers drove vehicles for their trips. These routes would be candidates for potential changes in service type. For example, fixed route bus service may transition to a DART route. Routes with this level of very low productivity are identified in the annual System Evaluation report as candidates for potential changes in service type.

Measuring Passenger Loads

Metro uses two separate measures of passenger loads: number of passengers compared to space on the bus; and the amount of time the bus has a standing load (standing load time).

A passenger load threshold for overcrowding is calculated for each trip, based on the characteristics of the bus type scheduled for the trip. This threshold is determined by:

- The number of seats on the bus, plus
- The number of standing people that can fit on the bus, when each standing person is given no less than four square feet of floor space.

A trip's standing load time is determined by measuring the amount of time that the number of passengers on the bus exceeds the number of seats.

Poor performance is defined as when the average maximum load of a trip exceeds its passenger load threshold, or when a trip has a standing load for more than 20 minutes. Passenger loads are averaged on a per trip basis using counts from an entire service change period, usually a period of about six months. Trips will be identified as overcrowded if they have average maximum passenger loads higher than the passenger load threshold for the entire service change period. Routes with overcrowded trips are candidates for investment.

Measuring Schedule Reliability

Service will adhere to published schedules, within reasonable variance. Metro defines "on time" as arrival at a designated point along a route that is no more than five minutes later or one minute earlier than the scheduled arrival time. A route is defined as unreliable if it operates late more than 20 percent of the time.

For some RapidRide and very frequent services, Metro measures reliability of service based on the consistency of headways—the time between buses—rather than the schedule. This way of measuring reliability better reflects how customers use these services and assess reliability. When headways are seven minutes or less, a bus is considered on time when it comes within two minutes of the intended headway. When headways are between eight to 15 minutes, a bus is considered on time when it comes within three minutes of the intended headway. These routes are defined as unreliable if they are fall outside the headway range more than 20 percent of the time. These performance measures, thresholds, and management techniques may be revised as part of ongoing projects.

Routes identified as unreliable are candidates for investments.

Measuring Equity

Equity factors show how well a route serves equity priority areas, which are areas where historically underserved populations are concentrated, as identified in the Mobility Framework and Metro's 2021-2031 Strategic Plan. This ensures that transit service growth needs consider equity. Equity priority areas are identified using equity priority area scores (EPAS), which use demographic information for the census block groups in which each bus stop is located. These EPAS scores are described in more detail in the "Setting Target Service Levels" section of the Service Guidelines. EPAS scores will be made available to community members or jurisdiction staff or officials upon request.

Each bus route receives two route-level equity scores to measure how well the route serves equity priority areas: the equity prioritization score (EPS) is calculated based on the average of the route's equity prioritization area scores; and the opportunity index score (OIS) is calculated based on the percentage of stops along a route that have the highest equity priority area score. These route-level equity scores are used to help prioritize service investments and reductions and will be included in the annual System Evaluation report.

Adding, Reducing, and Restructuring Service

DEFINING SERVICE CHANGES

Regular Service Changes

Metro revises fixed-route service twice a year, in spring and fall. In rare cases of emergency or time-critical construction projects, Metro may make changes at other times.

Proposed route changes are subject to approval by the King County Council except as follows (per King County code 28.94.020):

- Any single change or cumulative changes in a service schedule which affect the established weekly service hours for a route by 25 percent or less.
- Any change in route location which does not move the location of any route stop by more than 1/2 mile.
- Any changes in route numbers.

The annual System Evaluation Report includes a comprehensive list of the prior years' service changes. It identifies and discusses service changes that addressed performance-related issues.

Flexible and marine services are not guided by the same sections of code, and some changes on these modes may be implemented at times outside of Metro's twice-yearly changes. More information about flexible and marine service changes is available in the Planning and Designing Service section.

Emergency Service Changes

In the rare instance of a countywide emergency, Metro will develop situation-specific policies and adjustments to transit services. Different emergencies require different responses, so flexibility is needed to immediately change service in response to emergencies. This is consistent with King County code 28.94.020 2.a. which reads:

> *…if, in the opinion of the director, an emergency exists that requires any change to established routes, schedules or classes of service, the director may implement such a change for such a period as may be necessary in the director's judgment or until such a time as the council shall establish by ordinance otherwise. Such changes that the director*

intends to be permanent shall be reported in writing to the chair of the council.

ADDING SERVICE

Metro invests in fixed-route service in the following order using the Service Guidelines:

1. Crowding
2. Reliability
3. Service growth

Priority 1: Crowding

Metro's first investment priority is to address consistent crowding identified using the passenger load measures described in the Evaluating Existing Fixed-Route Services section. Routes that are consistently overcrowded have a negative impact on riders and discourage them from using transit. Overcrowded buses may pass up riders waiting at stops, and often run late because it takes longer for riders to board and get off at stops.

Routes with overcrowded trips or standing loads for more than 20 minutes are candidates for investment. They are analyzed in detail to determine appropriate actions to alleviate overcrowding. Actions can include assigning a larger vehicle to the trip, adjusting the spacing of trips, and adding trips.

If funding is not available to address all crowding needs, investments that address where crowding is most severe and advance equity will be given priority.

Priority 2: Reliability

Metro's second investment priority is to address services that are consistently unreliable, as described in the Evaluating Existing Fixed-Route Services section. Consistently late routes might cause passengers to stop using transit.

Routes that operate late more than 20 percent of the time are candidates for investment. Reliability improvements can take several forms, including adding time to schedules to match slower operating conditions, changing route design, or seeking physical or traffic operation improvements. Speed and reliability improvements can include investments such as business access and transit lanes, queue jumps, transit signal priority, and other transit priority treatments. These improvements are often preferable to adding time to schedules. They improve travel time for customers rather than matching schedules to slower travel times, and they increase the efficiency of service hours.

If funding is not available to address all reliability needs, investments that impact the most riders, address where lateness is most severe, and advance equity will be given priority.

Priority 3: Service Growth

Metro's third investment priority is to grow transit countywide. Metro Connects envisions service growth throughout King County that is captured in a more near-term interim network and a 2050 network. The Service Guidelines identify candidate routes for investment in the interim network as well as the existing transit network. Metro will update the guidelines for investing in the 2050 network as it gets closer to that time or more fully implements the interim network.

Service that exists today does not always have an equivalent in the Metro Connects networks. Metro will evaluate the existing service until a service restructure triggers consideration of network adjustments to fully integrate the Metro Connects interim network. Where Metro Connects envisions service where none exists today, the routes from Metro Connects will be evaluated as a service growth need. Areas where Metro Connects shows all-day service where there is peak-only service today will also be evaluated as a service growth need. See page 16 for more information about restructuring service. For information in growing flexible services and water taxi, see Planning Flexible Services and Planning Marine Services.

Identifying Service Growth Needs

Metro projects future service needs and sets target service levels in the annual System Evaluation Report. The target service levels are the highest levels suggested by either 1) the service guidelines growth methodology, which uses the factors of land use, equity and geographic value as described below or 2) the service levels envisioned in the Metro Connects interim network.

In rare instances, existing service levels may be higher than the target service levels determined using the service growth methodology or envisioned in Metro Connects. This could occur if extra trips were added to overcrowded routes or if a partner has funded more service on a route. In these instances, Metro sets the target service level at existing service levels. Metro will evaluate the impact of partner-funded service on investments for service growth to ensure that Metro investments are consistent with Service Guidelines policies.

Setting Target Service Levels

Land use, equity, and geographic value are described below as part of the service growth methodology, which is used to develop target service levels in cases where this analysis envisions higher levels of the service than the Metro Connects interim network.

Table 2 Factors Used to Determine Growth Needs

Factor	Weighting	Purpose	Measures
Land use	50% (20 points)	Support areas of higher employment and household density Support areas with high student enrollment Support function of park-and-rides in the transit network	(1) Households within ¼ mile (2) Park-and-ride stalls within ¼ mile
			(1) Jobs within ¼ mile (2) Low income jobs within ¼ mile (3) Enrolled students at high schools and colleges within ¼ mile
Equity	25% (10 points)	Serve communities where needs are greatest	Equity prioritization score
Geographic value	25% (10 points)	Provide appropriate service levels throughout King County for connections between all centers	(1) Connection between regional growth centers (2) Connection between activity centers (3) Connection between manufacturing/industrial centers

- **Land use factors** demonstrate the potential demand for transit along a route using several measures. Metro uses these factors because areas where many people live, work, or go to school have high potential transit demand. This can help advance equity by moving more people, including priority populations. The addition of a low-income jobs metric to the land-use score increases the emphasis on routes that provide access to low-income employment centers. Points assigned range from four and 20. Households and park-and-rides receive between two and 10 points. Jobs, low-income jobs, and students receive between two and 10 points. Overall, land use makes up 50 percent of the total score in setting target service levels.
- **Equity factors** show how well a route serves areas where historically underserved populations are concentrated, as identified in the Mobility Framework and Metro's 2021-2031 Strategic Plan. This ensures that transit service growth needs consider equity. Each route is given an equity prioritization score, which measures how well a route serves equity priority areas.[5] Each stop is given the equity priority area score, from one through five, of the block group in which it is located. Equity priority areas are based on a composite of demographic criteria and variable weighting, shown in Table 3. The weighting is consistent with King County's equity strategy and assigns a higher variable weight to race and income.[6] The equity prioritization score is the average equity priority area score for all stops along a route. This score is used to assign points, which range from zero to 10, and account for 25 percent of the total score in setting target service levels. Routes that have

[5] Equity priority areas are the basis for multiple equity factors in adding, reducing, and restructuring service. The equity prioritization score uses the equity priority area score for all block groups served by a route, while the Opportunity Index Score is based on the percentage of a route's stops in block groups with an equity priority area score of five, the highest score. For more information, see the Reducing Service section.

[6] This methodology was produced in partnership with the King County Office of Equity and Social Justice.

higher equity prioritization scores receive more points than routes with lower equity prioritization scores.

"Equity priority area" is defined as an area with a high proportion of priority populations as defined in the Mobility Framework, which includes measures of communities of color, low or no income population, disabled population, foreign born population, and population with limited English proficiency.

Table 3 Composite of Demographic Criteria and Weighting[7]

Priority Population Metric	Variable Weight
Population that is non-white or Hispanic	40%
Population living 200% below the federal poverty line	30%
Population that is foreign-born	10%
Limited-English speaking households	10%
Population living with a disability	10%

- **Geographic value factors** establish how well a route supports connections and service to transit activity centers, regional growth centers, and manufacturing/industrial centers throughout King County. All connections between centers are important and are given value in this process. King County centers are described in Technical Report A: Centers of King County. Points assigned range from two and 10 points and account for 25 percent of the total score in setting target service levels. Routes that have more service, lower travel times, and are the primary connection between centers will receive more points than routes with less service and longer travel times.

Service Types

Metro's services are categorized by the level of service they provide. Different levels of service are targeted to different routes. Service levels are primarily defined by the frequency and span of service they provide. Table 4 shows the typical characteristics of each service level. Some services may fall outside the typical frequencies, depending on specific conditions in the route served.

The creation of transit-supportive land uses is critical for the long-term success of transit and for advancing equity and addressing climate change. To help jurisdictions plan for transit service, more information about land uses that support each service level is provided in Table 5.

[7] Equity priority area scores use a weighted method based on the population data provided in US Census Block Groups. A Census Block Group is a geographical unit used by the United States Census Bureau. It is the smallest geographical unit for which the bureau publishes sample data.

Table 4 Summary of Typical Service Types

Service Growth Score	Service Level	Service Level: Frequency (minutes between trips) and Time Period				Days of Service	Daily Hours of Service
		Peak	Off-peak	Night	Weekend		
31-40	Very frequent/ RapidRide	<= 10 minutes	<= 15 minutes	<= 15 minutes	<= 15 minutes	7 days	16-24 hours
21-30	Peak frequent	<= 15 minutes	<= 30 minutes	<= 30 minutes	<= 30 minutes	7 days	16-24 hours
11-20	Local	<= 30 minutes	<= 30 minutes	<= 60 minutes	<= 60 minutes	5-7 days	12-18 hours
<11	Hourly	<= 60 minutes	<= 60 minutes	--	--	5 days	8-12 hours
--	Peak-only	8 trips/day minimum	--	--	--	5 days	Peak
--	Flexible services	Determined by demand and collaborative community process					

The Service Level and Land Use Connection

Demand for transit service is linked to the land uses near transit service. More homes, jobs, schools, and other activities (origins and destinations) with access to transit increase the number of potential riders. As a result, the number of transit trips increases. Aligning transit service levels with land use has many benefits for local communities and helps King County realize its economic, environmental, and equity goals. Four characteristics that support transit demand include:

- **Density:** More people and activities in an area increase the number of potential riders.
- **Mix of uses:** More types of uses in an area increase the number of potential origins and destinations, such as home, work, school, shopping, medical, and transit connections, at all times of day.
- **Connections:** More compact development with good multimodal connections for walking and biking increases access to nearby transit service.
- **Transit supportive policies and programs:** These might include zoning changes, affordable housing incentives, and removal of parking requirements. Policies and programs in a corridor or subarea can support the development of equitable transit-oriented communities, improve access for all people—particularly historically disadvantaged communities and people of color—and increase the number of potential riders. These would be consistent with Metro's Equitable Transit-oriented Communities policy.

Aligning service levels with land use helps ensure transit service is productive and supports the demand for service. Local jurisdictions can improve transit service levels and increase demand by using the four land-use characteristics above. Examples of actions they can take include:

- Rezoning land within walking distance of transit routes to allow for higher densities
- Rezoning land within walking distance of transit routes to allow more types of uses
- Establishing policies and programs to increase the amount of affordable housing and reduce the displacement of existing residents near transit service (e.g. affordable housing incentives)
- Removing or lowering parking minimums for new development near transit service
- Improving street and sidewalk connections around bus stops and corridors.

Table 5 outlines how Metro's service types relate to the surrounding land use characteristics. While each route will have its own characteristics, areas served by these types of bus service should strive to meet the guidelines in Table 5.

Table 5 Service Types Related to Land Use Characteristics

Service Type	Density	Mix of Uses	Connections	Policies and Programs
RapidRide and very frequent	>20 Pop + Jobs/Acre	Many land use types and destinations, including regional centers	High degree of multimodal connections, including major transportation connections	Transit supportive policies and programs in place
Peak frequent	>15 Pop + Jobs/Acre	Moderate mix of land use types and destinations, including countywide centers	Good multimodal infrastructure and connections	Transit supportive policies and programs in place
Local	<15 & >5 Pop + Jobs/Acre	Primarily one type of use, such as residential	Adequate multimodal infrastructure and connections	Some or no transit supportive policies or programs in place
Hourly	<10 Pop + Jobs/Acre	Primarily one type of use, such as residential	Adequate or limited multi-modal infrastructure and connections	Some or no transit supportive policies or programs in place
Peak-only	Peak-only service provides limited stop connections to regional centers, typically during peak periods.			
Flexible services	Flexible services provide local and feeder-to-fixed-route service in areas with low to moderate land use density or limited connectivity.			

Prioritizing Investments

The identified needs for service growth will far exceed Metro's ability to grow service in any given year or budget period. For this reason, Metro will set priorities among the future service needs using three factors in the following order:

1. Equity
2. Land use
3. Geographic value

Each route's score for the three factors is used to set the priority order for future investments. The scores for routes will be updated each year to reflect changes in demographics, land use, and connections. Metro may not fully invest in a route before moving on to the next prioritized route, but will plan to invest in the future as resources become available in each biennium. Metro developed this prioritization as the best way to advance its values of advancing equity and addressing climate change. The priorities respond to the Mobility Framework and feedback from the Equity Cabinet, regional elected officials, community stakeholders, and others.

REDUCING SERVICE

When Metro must reduce service, the guidelines help identify the services to be reduced. However, the guidelines are only a starting point. Metro also considers other factors including community input, opportunities to achieve system efficiencies and to simplify the network through restructures, and the potential for offering flexible services. (Guidelines for reducing flexible and marine services are discussed separately in the Planning and Developing Service section.)

Some factors that Metro considers when reducing service include:

- **The relative impacts to all areas of the county to minimize or mitigate significant impacts in any one area.** Metro seeks to balance reductions throughout the county so that no one area experiences significant negative impacts beyond what other areas experience.
- **Ways to minimize impacts through restructuring service.** Metro considers restructuring service to make it more efficient and equitable. By consolidating service to eliminate duplication, and by closely matching service with demand, Metro may be able to provide needed trips at reduced cost and minimize impacts on riders. Metro also considers potential adjustments to fixed-route service in order to reduce the impact of service reductions on riders. If adjustments to fixed-route service will not likely result in productive service, Metro may consider flexible service as an alternative to low-productivity fixed-route service if it is likely to result in significant cost savings and be successful based on evaluation criteria and considerations outlined in the "Planning Flexible Services" section.
- **The identified investment need on routes.** While no route or area is exempt from change during a large-scale system reduction, Metro will try to avoid reducing service on routes that are high priorities for investment and included in the Metro Connects interim network.

- **Preservation of last connections.** Metro serves some urbanized areas of east and south King County that are surrounded by rural land. Elimination of all service in these areas would significantly reduce the coverage Metro provides. Preservation of last connections will ensure that Metro continues to address mobility needs throughout King County.
- **Route productivity.** Metro uses two measures to determine the productivity of each route: rides per platform hours measures the number of riders who board a transit vehicle relative to the total number of hours that a vehicle operates; and passenger miles per platform mile measures the total miles riders travel on a route relative to the total miles that a vehicle operates. Routes' productivity measures are organized into three service families (urban, suburban, and rural/DART) and three time periods (peak, off-peak, and nighttime). Low performance is defined as route productivity that ranks in the bottom 25 percent of all routes within a service family and time period.
- **Equity needs.** Metro will consider route-level Opportunity Index Scores as it sets priorities for potential service reduction. Opportunity Index Scores are a quintile ranking based on the percentage of stops along a route that serve block groups with an equity priority area[8] score of five. This will help ensure that Metro continues serving areas where needs are greatest. Routes that have the highest percentage of stops within the highest priority areas are given a score of five. Routes that have the lowest percentage of stops within the highest priority areas are given a score of one. Metro will also use information about physical community assets[9] to help ensure it provides service to important places throughout the county. More information on how Opportunity Index Scores are used is below.

Reduction Priorities

Priorities for reduction are listed in Table 6. Productivity and equity measures are used to prioritize candidates for service reduction. Routes with low performance on the productivity measures, and specifically those that also have low equity scores, are generally the first to the prioritized for reduction. Within all priorities, Metro ensures that equity is a primary consideration in any reduction proposal, complying with all state and federal regulations.

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

[8] For more information on how equity priority area scores are determined, see the Adding Service section.

[9] Community assets include places such as schools, grocery stores, and cultural centers.

Table 6 Factors and Prioritization Used to Identify Service Reductions Candidates

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

RESTRUCTURING SERVICE

Service restructures or service redesigns are projects that make coordinated changes to multiple routes and services within a large area, consistent with the service design criteria in this document. A variety of circumstances may prompt restructures. In general, they are done to improve the efficiency and effectiveness of the transit system and to better integrate with the regional transit network, including light rail and bus rapid transit expansions. Restructures may result in the modification, addition, and deletion of services. Any changes that exceed Metro's administrative authority must be approved by the King County Council as part of a service change ordinance per King County Code Section 28.94.020.

Reasons Metro may restructure service include:

Major Transportation Network Changes

- Partner agencies initiate extension or enhancement of services such as Link light rail, Stride bus rapid transit (BRT), Sounder commuter rail, and Regional Express bus services.
- Metro's RapidRide BRT network is expanded, partner or grant resources are available for investment, or Metro introduces a significant new service.
- Multiple transit services overlap or provide similar connections.
- Major projects such as highway construction or the opening of new transit centers, park-and-rides, or transit priority pathways affect Metro's service.

Mismatch Between Service and Ridership

- There may be places where the transit network does not reflect current travel patterns.

- A route may serve multiple areas with significantly different demand characteristics.
- There are opportunities to consolidate or reorganize service so that higher rider demand can be met with improved service frequency and fewer route patterns.
- There are opportunities to serve new areas where development or land use has changed significantly.

Major Development or Land Use Changes

- Construction of a large-scale development, new institutions such as colleges or medical centers, or significant changes in the overall development of an area may occur.

All project areas are different. Metro will develop area-specific goals and strategies for each restructure with affected jurisdictions, partner agencies, and community stakeholders. Common goals for all restructures include:

- Improve mobility for historically disadvantaged populations
- Inform, engage, and empower current and potential customers in decision-making
- Move toward Metro's long-range vision, Metro Connects
- Deliver integrated service that responds to changes community needs and the transit network, such as connections to high-capacity transit services
- When under stable or growing resource scenarios, provide service connections, frequencies, travel times, and span at least similar to existing Metro service unless community-defined priorities in the project area suggest different service characteristics that will better meet their needs
- Increase transit ridership and productivity to reduce greenhouse gas emissions in the county, and potentially reduce services where transit is not providing a net reduction of emissions over car travel
- Focus frequent service on the service segments with the highest ridership
- Improve transit access to opportunities and address unmet needs of priority populations
- Create convenient opportunities for customers to transfer between services

Metro may refine a restructure project area based on feedback from community stakeholders, affected jurisdictions, and partner agencies. Equity priority areas will be identified within each restructure project area.

Data Considered for Service Restructures

When considering restructures, Metro evaluates data including but not limited to:

- Current and expected future travel patterns
- Service in equity priority areas, compared to the rest of the restructure area
- Existing housing, jobs, and other generators of ridership and the location and density of permitted future development
- Passenger capacity of routes relative to projected ridership
- The cost of added service to meet projected ridership demand relative to cost savings from reductions of other services.

As part of the process of developing a proposed service restructure, Metro will provide a description of all transit services in the project area, both before and after the proposed restructure. This will give jurisdictions, community members, riders, and other stakeholders a clear indication of the transit services that are currently available and that are proposed to be available after the restructure, whether those services are provided by Metro, Sound Transit, or another transit partner. In some instances, Sound Transit or another agency's service may fully or partially replace an existing Metro service and thereby potentially free up Metro service hours to be deployed elsewhere. For example, a Link light rail extension or a new Sound Transit or another agency's service that will offer an option that can replace all or a portion of a Metro route, meeting the standard of duplicative service as defined in the "Route Spacing and Duplication" subsection of the "Planning and Designing Service" section of this document, may make Metro service hours available for redeployment.

If Metro can meet the goals outlined above and have service hours left over, it may redeploy service hours from services replaced by other agencies. By doing so, Metro could meet countywide needs according to the service investment priorities outlined in this document. This approach aligns with guidance in Metro's Strategic Plan and will help the County advance equity, address climate change, and build toward the Metro Connects system.

Metro will describe how the restructure goals have been met and the progress toward achieving the long-range vision of Metro Connects. After a service restructure, Metro will regularly evaluate the resulting transit services as part of the ongoing management of Metro's transit system.

EVALUATING EQUITY IMPACTS

When Metro is making major service changes, it conducts a Title VI analysis in compliance with federal regulations. Title VI of the Civil Rights Act of 1964 requires all transit agencies to evaluate major service change impacts on minority and low-income populations. This analysis determines whether changes have adverse effects, disparate impacts, or disproportionate burden, as defined below. Metro also conducts an Equity Impact Review, described further below.

Federal Title VI Analysis

Adverse Effect of a Major Service Change

For the Title VI analysis, an adverse effect of a major service change is defined as a reduction of 25 percent or more of the transit trips serving a census tract or 25 percent or more of the service hours on a route.

Disparate Impact Threshold

For the Title VI analysis, a disparate impact occurs when a major service change results in adverse effects that are significantly greater for minority populations than for non-minority populations. Metro has set this threshold for determining a disparate impact: when the percentage of routes or tracts adversely affected by a major service change and classified as minority is 10 or more percentage points higher than the percentage of routes or tracts classified as minority in the system as a whole. If Metro finds a disparate impact, it will consider modifying the proposed changes to avoid, minimize, or mitigate the disparate impacts of the proposed changes.

Metro will measure disparate impacts by comparing changes in the number of trips serving minority or non-minority census tracts, or by comparing changes in the number of service hours on minority or non-minority routes. Metro defines a minority census tract as one in which the minority population percentage is greater than that of the county as a whole. For regular fixed-route service, Metro defines a minority route as one for which the percentage of inbound weekday boardings in minority census tracts is greater than the average percentage of inbound weekday boardings in minority census tracts for all Metro routes.

Disproportionate Burden Threshold

For the Title VI analysis, a disproportionate burden occurs when a major service change results in adverse effects that are significantly greater for low-income populations than for non-low-income populations. Metro has set this threshold for determining a disproportionate burden: when the percentage of routes or tracts adversely affected by a major service change and classified as low-income is 10 or more percentage points higher than the percentage of routes or tracts classified as low-income in the system as a whole. If Metro finds a disproportionate burden, it will consider modifying the proposed changes to avoid, minimize or mitigate the disproportionate burden of the proposed changes.

Metro will measure disproportionate burden in two ways. One is by comparing changes in the number of trips serving low-income or non-low-income census tracts. The other is by comparing changes in the number of service hours on low-income or non-low-income routes. Metro defines a low-income census tract as one in which the percentage of a low-income population is greater than that of the county as a whole. For regular fixed-route service, Metro defines a low-income route as one for which the percentage of inbound weekday boardings in low-income census tracts is greater than the average percentage of inbound weekday boardings in low-income census tracts for all Metro routes.

King County Equity Impact Review

When Metro makes major service changes, it will conduct an in-depth, project-specific equity analysis using the most current data analysis tools and information. The Equity Impact Review (EIR) process merges empirical (quantitative) data and community engagement findings (qualitative) to inform planning, decision-making, and actions that affect equity. Each project will establish equity-focused goals to guide service planning, scenario development, and engagement—a process derived from the County's Equity and Social Justice Strategic Plan. The goals should target specific outcomes for the project, trade-offs, and accountability to equity and social justice in the planning and decision-making processes. The project team will analyze quantitative and qualitative data to measure the project's success in meeting the established goals. The Equity Impact Review is designed to be an iterative and evolving process; as new methods and data become available, the EIR process will find ways to consider new information.

Planning and Designing Service

DEVELOPING SERVICE

Metro uses the following service design guidelines to develop transit routes and services. Based on industry best practices for designing service, these guidelines help Metro enhance transit operations and improve the rider experience. The guidelines include both qualitative considerations and quantitative standards for comparing and measuring specific factors.

1. Network Connections

Services should be designed in the context of the entire transit system, which includes local and regional bus routes, Link light rail lines, commuter rail lines, and other modes. Metro strives to make transfers easy. Network design should consider locations where transfer opportunities could be provided to improve mobility and efficiency. Where many transfers are expected between services of different frequencies, timed transfers should be maintained to reduce wait times.

2. Multiple Purposes and Destinations

Routes are more efficient and successful when designed to serve multiple purposes and destinations rather than specialized travel demands. Specialized service should be considered when there is sizeable and demonstrated demand that cannot be adequately met by more generalized service.

3. Easy to Understand

A simple transit network is easier for riders to understand and use than a complex network. Routes should have predictable and direct routings and should provide frequency and span appropriate to the market served. Routes should serve connection points where riders can connect with frequent services, opening the widest possible range of travel options.

4. Route Spacing and Duplication

Routes should be designed to avoid competing for the same riders. In general, routes should be no closer than 1/2 mile. Studies show that riders are often willing to walk up to 1/4 mile, or further for frequent service. Services may overlap or be more

closely spaced where urban and physical geography makes it necessary, where services in a common segment serve different destinations, or where routes converge to serve regional growth centers. Where services do overlap, they should be scheduled together, if possible, to provide shorter waits along the common routing.

Routes are defined as duplicative in the following circumstances:

- Two or more parallel routes operate less than 1/2 mile apart for at least one mile, excluding operations within a regional growth center or approaching a transit center where pathways are limited, or
- A rider can choose between multiple modes or routes connecting the same origin and destination at the same time of day.

Metro should consider transit access in defining a route or route segment as duplicative. Access should be based on the frequency of service. For frequent service, locations within ½ mile of a stop or station should be considered as having access. For all other services, locations within ¼ mile of a stop or station should be considered as having access. These measures are important because they indicate what percent of King County residents could potentially reach transit service within a 5- to 10-minute walk.

5. Route Directness

A route that operates directly between two locations is faster and more attractive to riders than one that takes a circuitous path. Circulators or looping routes do not have competitive travel times compared to walking or other modes of travel, so they tend to have low ridership and poor performance. Some small loops may be necessary to turn the bus around at the end of routes and to provide supplemental coverage, but such extensions should not diminish the overall cost-effectiveness of the route. Directness should be considered in relation to the market for the service. Where a route deviates away from its major path to serve a specific destination, the delay to riders on board the bus should be considered in relation to the ridership gained on a deviation. Deviations may be used when the delay is less than 10 passenger minutes per person boarding or exiting the bus along the deviation.

$$\frac{Rider\ Traveling\ Through\ \times Minutes\ of\ Deviation}{Boardings\ and\ Alightings\ Along\ Deviation} \leq 10\ Minutes$$

6. Bus Stop Spacing

Bus stops should be spaced to balance the goals of facilitating transit access, enabling fast and reliable service, and concentrating Metro maintenance and capital resources. Siting stops closer together reduces the distance customers travel to reach transit service. Siting stops further apart increases the speed of service and improves the consistency of arrival times. Greater stop spacing also concentrates ridership at fewer stops, decreases the cost of improving stop amenities for more riders, and minimizes maintenance costs. Metro's desired stop spacing, shown in Table 7, balances these competing needs.

Table 7 Bus Stop Spacing by Service Type

Type of Service	Desired Spacing
RapidRide	1/3–1 mile, depending on context
All other services	1/4 mile

Portions of routes that operate in areas where riders cannot access service, such as along freeways or limited-access roads, are excluded when calculating average stop spacing. Additional considerations for bus stop spacing include transfer points, traffic signals, pedestrian facilities, topography, passenger amenities, and major destinations.

7. Route Length and Neighborhood Route Segments

A bus route should be long enough to provide useful connections for riders and to be more attractive than other travel modes. A route that is too short will not attract many riders, since the bus travel and wait time might not compete with the time it takes to walk. Longer routes offer the opportunity to make more trips without a transfer, resulting in increased ridership and efficiency. However, longer routes may also have poor reliability because travel time can vary significantly from day to day over a long distance.

In some places, routes extend beyond regional growth centers and transit activity centers to serve less dense residential neighborhoods. Where routes operate beyond centers, ridership should be weighed against the time spent serving neighborhood segments, to ensure that the service level is appropriate to the level of demand.

$$\frac{Percent\ of\ Time\ Spent\ Serving\ Neighborhood\ Segment}{Percent\ of\ Riders\ Boarding\ or\ Alighting\ on\ Neighborhood\ Segment} \leq 1.2$$

8. Operating Paths and Appropriate Vehicles

Buses are large, heavy vehicles and cannot operate safely on all streets. Buses should be routed primarily on arterial streets and freeways, except where routing on local or collector streets is necessary to reach layover areas or turn buses around. Bus routes should also be designed to avoid places where traffic congestion and delays regularly occur, if they can be avoided while still meeting riders' needs. Services should use vehicles that are an appropriate size to operate safely and accommodate demand.

9. Route Terminals

Metro carefully selects the locations where bus routes end and buses wait before starting the next trip (layover). Maintaining existing layover spaces at route terminals is a critical priority to support continued and future service, and expanding layover may be required to support service expansion. People who live or work next to a route end may regard parked buses as undesirable, so new route terminals should be placed where parked buses have the least impact on adjoining properties, if possible. Terminals should be located in areas where restroom facilities are available for operators, taking into account the times of day when the facilities would

be needed. Charging infrastructure may also be needed at terminals for routes served by battery electric buses. Off-street transit centers should be designed to incorporate adequate layover space, operator restrooms, and operations infrastructure, such as zero-emission bus infrastructure.

10. Fixed and Variable Routing

Metro operates fixed routes to provide predictable and reliable service for a wide range of potential riders. However, in low-density areas where demand is widely dispersed, demand-responsive service may provide more effective service than a fixed route could provide. Metro may consider demand-responsive service or flexible service where it is likely to be more successful than fixed-route service or can meet unique conditions more effectively and sustainably.

11. Bus Stop Amenities and Bus Shelters

The minimum ridership threshold for providing a standard shelter and bench at all stops in the county is 25 average daily boardings. Metro prioritizes the installation of eligible standard shelters on the basis of equity, King County policy and planning initiatives, proximity to community assets, service characteristics, and installation feasibility.

Additional stop amenities may include seating, waste receptacles, lighting, information signs, accessibility improvements, maps, and schedules. Metro prioritizes amenities using the same criteria it uses for shelters but does not subject them to the same ridership threshold of 25 daily boardings.

Table 8 Ridership Guidelines for Bus Stop Amenities

RapidRide Routes

Level of Amenity	Weekday Boardings
Large raised station	350+
Large station	105-349
Medium station	50-149
Small station	Less than 50

All Other Metro Routes

Level of Amenity	Weekday Boardings
Standard shelter and bench	25

PLANNING FLEXIBLE SERVICES

Travel demands vary throughout King County. While high-capacity fixed-route bus and light rail service are the backbone of regional mobility, some parts of King County do not have the infrastructure, population density, or land use to support those types of service. Metro provides a range of flexible services that can meet diverse demand more effectively. It seeks to expand on these services, taking

advantage of technological advances and new mobility models to meet diverse customer needs.

Flexible services serve a crucial role in connecting King County residents to where they need to go. The services can provide mobility from and within communities that have low-to-moderate density including rural communities, seed emerging markets, and provide time-of-day service or geographic coverage where there are gaps in the fixed-route system. Metro will work to enhance mobility options for residents while optimizing finite transit resources. Flexible services' priorities are to connect residents to high-capacity, fixed-route transit and to increase access to jobs and community assets.

Adding Flexible Services

Metro will prioritize the expansion of flexible services in equity priority areas. These areas will be identified at the census block group level through an annual analysis using a variety of data sources.[10] Factors used in prioritization indicate where flexible services may be most successful and will be targeted for future flexible services. Prioritization scores will be based on:

- Equity priority area score: the proportion of priority population groups within each block group
- Transit access to jobs
- Transit access to community assets
- Population density, specifically low-to-moderately dense areas
- Available resources and partnerships.

This analysis will be updated and included annually in the System Evaluation Report. The results could be used as part of a comprehensive service restructure planning and engagement effort or as an independent project and process.

More details on community engagement practices can be found in the "Planning and Community Engagement" section on page 32.

Evaluating Flexible Services

Metro will monitor the performance of flexible services on an ongoing basis. It will use the information gathered to make adjustments needed to meet the needs of communities as they change. Flexible services will be measured against similar types of services, as noted below. Metro's evaluations will measure productivity, efficiency, and equity and will consider data from other sources such as the ORCA system or community engagement activities.

[10] Equity priority areas are defined as areas with a high proportion of priority populations as defined in the Mobility Framework, which includes measures of communities of color, poverty, disabled population, foreign born population, and population with limited English proficiency.

Flexible On-Demand

Flexible on-demand services operate without a fixed route; trips are scheduled in response to customer requests. Types of services include feeder-to-fixed route services such as Via to Transit that provide trips to transit hubs. Others are services such as Community Ride that connect riders between two points in a designated service area during service operating hours. These services are driven by a paid driver, either contracted or employed through Metro.

Table 9 Flexible On-Demand Evaluation Criteria

Type of Measure	Measures Used	Description
Productivity	Rides per vehicle hour	Number of total riders who board a vehicle relative to the total number of hours that a vehicle operates
Efficiency	Cost per boarding	Cost per boarding relative to the cost of operating the service
Equity	Percent of riders that are either picked up or dropped off in a designated equity priority area	Total number of boardings or alightings which are in an equity priority area relative to the total number of boardings or alightings

Other Mobility Services

Emerging technologies and service partnerships create new opportunities to provide innovative mobility services to communities. These innovations enable Metro to test new services, establish evaluation metrics, and understand more about community mobility needs. As new services are developed and become available, they will be evaluated based on their performance in the categories listed in Table 10.

Table 10 Other Mobility Service Evaluation Criteria

Type of Measure	Measures Used
Productivity	Service utilization will be measured in a way that allows for total service usage and growth in service usage to be compared to similar Metro services.
Efficiency	Service cost will be measured in a manner consistent with similar existing services and will allow for cross-service comparison.
Equity	When choosing locations for new mobility services, Metro will prioritize service for priority populations. Metro will prioritize external partnerships with organizations and enterprises that share Metro's values in advancing equity and serving priority populations.

In most cases, Metro will also measure integration with the rest of the system. Metrics for these measures will be similar to those for existing services that have a similar purpose. It is possible that these newer services may be folded into an existing or new type of service in the future. Additional measures will be developed prior to the launch of a project, reevaluated once the project is implemented, and continually measured throughout operation.

Pilot Trial Periods

Flexible services will begin with a pilot that enables Metro to learn about how the service operates and how a community uses it. Pilots provide opportunities for continuous improvement of these new, innovative services.

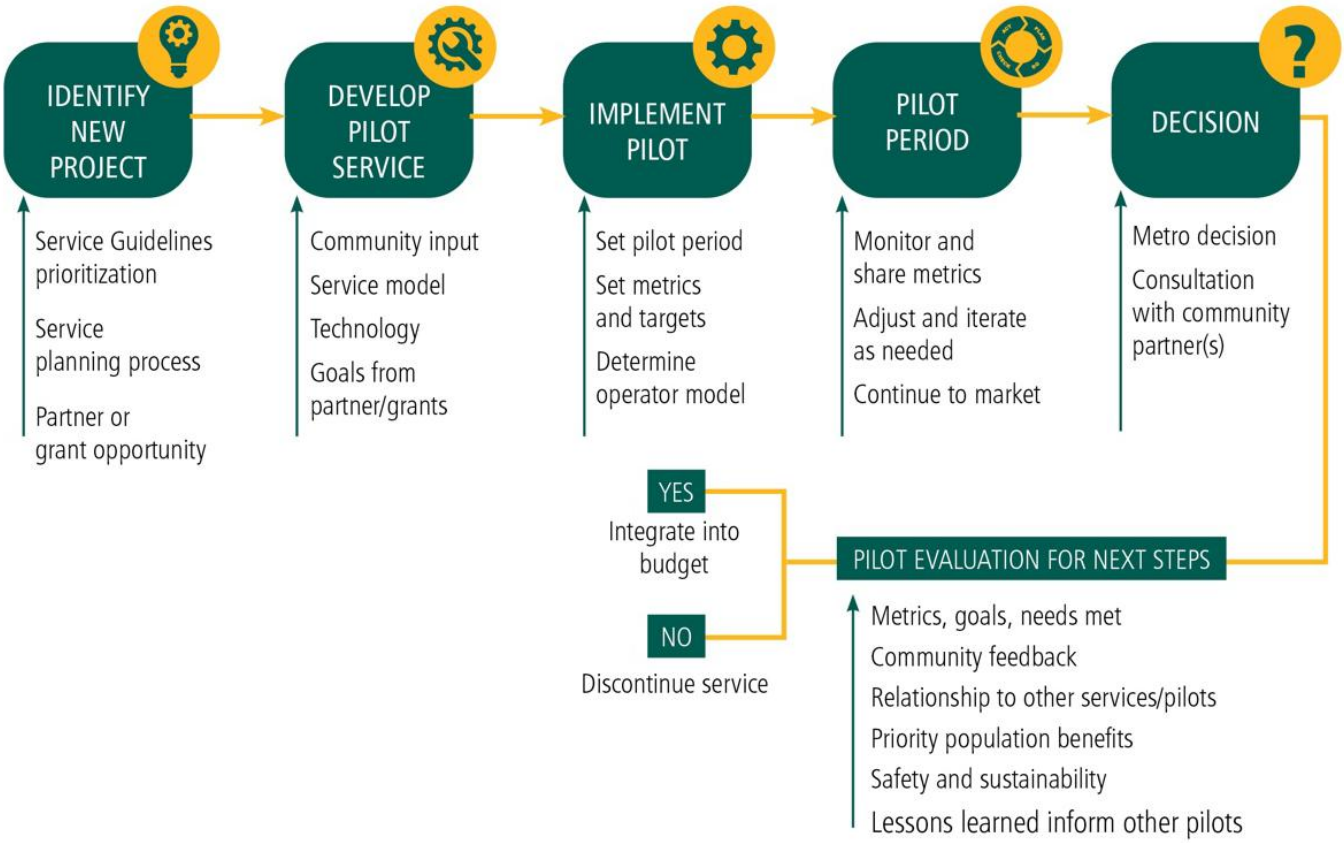
Metro will establish a trial period for each pilot. The trial period will include frequent monitoring, evaluation, and community engagement as well as an annual evaluation. This will allow Metro to adjust the service to better meet the community's mobility needs before a decision is made to discontinue or transition it to a permanent service. Evaluations will measure productivity, efficiency, and equity and may use additional data as well as information gathered from the community.

Transition to Permanent Service

At established evaluation points, Metro will determine if a pilot should be continued, discontinued, or transitioned into a permanent service. In addition to using the evaluation measures described above, Metro will consider other mobility solutions in the area, available resources, and other factors. The evaluation should allow for comparisons among similar service families.

If it becomes permanent, the new flexible service will continue to be evaluated and included in the annual System Evaluation Report.

Figure 2 Life Cycle of a Pilot Project



Reducing Service

When Metro must reduce service, flexible services will follow a process similar to that of fixed-route reductions as outlined in the Adding, Reducing, and Changing Service section. These guidelines help identify the services to be reduced, but they are only a starting point. Metro will also consider other factors including community input, opportunities to achieve system efficiencies and to simplify the network through restructures, and the potential for offering flexible services. It is possible that flexible services may be added in areas where the prioritization analysis has proposed the reduction or removal of fixed-route service.

Factors that Metro considers when reducing flexible services include:

- **The relative impacts to all areas of the county to minimize or mitigate significant impacts in any one area.** Metro seeks to balance reductions throughout the county so that no one area experiences significant negative impacts beyond what other areas experience.
- **Equity needs.** Metro will use the service's applicable equity metrics as a factor for consideration and prioritization of potential service reduction to ensure that Metro continues serving areas where needs are greatest. Metro

will also use information about physical community assets to help ensure service is provided to important places throughout the county.

PLANNING MARINE SERVICES

Metro's Marine Division operates King County Water Taxi services. The division is funded by a dedicated property tax levy, passenger fares, and federal and state grants. Future marine services will be funded by these sources or other sources dedicated to marine travel. It is responsible for the operation and maintenance of the passenger ferry service and its vessels and terminals.

As of 2021, the water taxi service comprises two routes. It operates out of three terminals with two primary and one back-up vessel. The Vashon Island/downtown Seattle route provides year-round service during weekday commute periods. The West Seattle/downtown Seattle route provides similar weekday commuter ferry service year-round and service 11 to 16 hours daily between April and October.

Evaluating Marine Services

Metro monitors performance and manages marine services using a set of performance measures included in the System Evaluation Report. The Marine Division uses these measures to determine when and where to consider adding service, reallocating service, or adjusting schedules to improve performance.

Three performance measures are used to evaluate ferry service performance: service productivity, passenger loads, and schedule reliability.

Table 11 Marine Service Evaluation Criteria

Type of Measure	Measures Used
Ridership	Average daily ridership
Productivity	Rides per round trip
Passenger loads	Rides per trip
Schedule reliability	Departure within 5 minutes of published schedule

Productivity

Metro measures ridership and productivity to identify services that have strong or weak performance and are candidates for addition or reduction. Average daily ridership is measured and reported for each route for weekdays, Saturdays, and Sundays.

The measure for evaluating ferry service productivity is total passengers per round trip—the initial departure and the return trip. This measure captures average number of riders on a vessel for both trips.

Round trips with a high number of passengers in one direction (such as during peak commute hours) or round trips with passengers going in both directions will perform well on this measure relative to other round trips. Round trips with few people going in either direction will perform poorly on this measure.

Passenger Loads

Passenger loads are a measure of crowding. Vessel passenger capacity for ferry service is regulated by the U.S. Coast Guard, and passenger counts for each trip are tracked and recorded. Trips are considered to be crowded if they reach 95 percent or greater capacity more than five times per month over a 12-month period.

Crowded trips reflect high demand at specific times when customers might be left waiting at the dock for the next trip. These crowded trips will be put on a watch list for potential service adjustments to meet the high demand.

Reliability

The schedule reliability evaluation measures whether a ferry trip departure is within five minutes of the published schedule. These trips are considered to be on time. The overall goal is for 98 percent of all trips to be on time.

All departure times are tracked. If more than 25 percent of departures for a specific trip time are late over 12 months, that trip time will be placed on a watch list. A high number of late trips may mean that more time is needed for loading and unloading passengers, particularly if passenger loads are high for that trip time. Schedules for trips on the watch list may need to be adjusted to ensure trips can depart on time.

Adding, Reducing, or Changing Marine Services

Changes to ferry service levels may be necessary to address changing conditions, improve system performance, and better serve customers. Any plans for adding or changing ferry service will consider Metro's core priorities, including safety, equity, and sustainability.

Factors that drive changes in ferry service levels include overall ridership growth on a route, at-capacity trips, changing travel patterns, competing services, changes in employment centers, and total travel time. The Marine Division may need to change ferry service when it is adding service, reallocating service, or adjusting schedules.

Adding Service

Additional service may be needed to accommodate high demand. The passenger load measure will be the primary indicator for when and where to add service. The Marine Division will also conduct rider outreach via surveys and other outreach methods to inform decisions about service additions. Planning for any expansion of new marine service routes should also consider the cost-benefit comparison of water taxi service to land-based transit services, including fixed-route and flexible service options.

During weekday peak periods, ferry service between West Seattle/downtown Seattle and Vashon Island/downtown Seattle is already running as frequently as possible with one vessel on each route. Additional ferry service could be attained in two ways:

- Adding new ferry trips at the beginning or end of a current service period on an existing route, expanding the service period.
- Adding a second vessel to a route. This would primarily be done to meet demand during peak periods.

Reallocating Service

Ferry services can be reallocated by redeploying existing ferry trips to other times of the day, other times of the year, or between existing ferry routes. The productivity measure will be the primary indicator for high- and low-performing trips eligible for reallocation. High- and low-performing round trips will be based on the top 10 percent and bottom 10 percent of average rides per round trip for all round trips scheduled throughout the year. The bottom 10 percent of trips will be identified annually and put on a watch list and will be eligible for reallocation. The top 10 percent of trips will indicate high-performing routes and time periods that should be considered when reallocating services. Each ferry route has a unique schedule, operating frequency, and seasonal differences, so routes will be evaluated separately.

Adjusting Schedules

The Marine Division must adjust ferry service schedules when travel times change because of growth in ridership demand, increases in ferry terminal use, and other factors that negatively affect schedule reliability. The on-time performance measure will be the primary indicator that ferry schedules must be adjusted to maintain on-time performance. The division will consider making changes to the schedules based on the watch list of late trips that it creates annually.

Implementation

The Marine Division makes service changes twice a year for summer and winter schedules. In rare cases of emergency or time-critical construction projects, the division may make changes at other times as well.

The twice-yearly schedule changes are programmed into the division's biennial budget and approved by the King County Council.

- **Adding service:** Additions of ferry routes are subject to approval by the King County Council. Ferry trips may be added on existing routes if they are within existing budgeted resources and are temporary. Long-term additions to existing routes are subject to approval by the King County Council.
- **Reallocating service:** Ferry trips may be reallocated to existing routes if they are within existing budgeted resources. These types of adjustments would occur at one of the twice-annual service schedule changes.
- **Adjusting service:** Ferry trip schedules on existing routes may be adjusted if they are within existing budgeted resources. These types of adjustments would occur at one of the twice-annual service schedule changes.

WORKING WITH PARTNERS

Partnerships will help Metro move toward its goals and Metro Connects long-range vision.

Metro will form partnerships with a range of entities. These include transit providers, community-based groups, schools and universities, human service organizations,

property owners and managers, businesses, and local, regional, and state agencies, and jurisdictions.

By working with partners, Metro can leverage public and private resources and discover new opportunities. Metro can expand its accomplishments by collaborating with partners to design and deliver services, facilities, and access improvements, and to develop policies, programs, products, and incentives. Individual partnerships will support Metro's systemwide goals.

Table 12 Example Partnerships

Partnership	Example
Direct financial partnership	Full or partial funding of: ▪ fixed-route transit service or flexible service ▪ right-of-way and signal infrastructure improvements ▪ passenger facilities and amenities, including leveraging existing capital projects that provide value to Metro ▪ outreach and education to encourage transit and walk and roll access to transit.
Other partnerships	▪ Significant support from decision-makers and communities to equitably develop and deliver transit service ▪ Community-led and resourced engagement ▪ Zoning and other land-use measures that support increased density and mixed uses within Urban Growth Areas, consistent with the Land Use section of this document ▪ Investments in facilities for walking and rolling, and implementation of street design guidelines that enhance safe and convenient access to transit service ▪ Planning and development of street right-of-way to include transit preferential treatments. Could include bus lanes, signal improvements, bus bulbs, and channelization alternatives to support transit operations and increase access and ridership. ▪ Provision of transit layover facilities and curb space management strategies that support ridership, other mobility usage, or operations.

Engagement and Prioritization

When a proposed or changed partnership agreement addresses specific routes, services, or infrastructure, the partner should incorporate community engagement that is equity-centered, supports lasting community relationships, and builds awareness of and access to services among priority populations. Metro will give special consideration to partnerships that were developed with community and priority populations when it considers which candidate projects to implement. If Metro partners or contracts with private or public entities, these partners should reflect Metro's values of safety, sustainability, and equity.

Service Partnerships

Metro seeks partners that would fully or partially fund mobility services, including fixed-route transit, marine, and flexible services. Services provided through a partnership should reflect the needs identified by the partner or the community.

Implementation may be based on partner priorities and community needs. All service partnerships are subject to Metro's capacity to develop and deliver services.

Goals for Partnerships

- Benefit both the partners and the customers
- Provide mobility services that align with Metro's equity goals, including investment in areas with unmet need
- Advance King County's climate goals to increase ridership, reduce car trips and vehicle emissions, and encourage dense affordable housing near transit
- Support implementation of Metro Connects

Fixed-Route Service

Metro encourages partners to invest in services identified as priorities in the Service Guidelines "Adding, Reducing, and Changing Service" section. However, Metro recognizes that partners may have different priorities.

What Metro Can Offer

Metro will make exceptions to the investment priorities outlined in the Service Guidelines to leverage partner funding as follows:

- Services that are fully funded by Metro's partners generally will be implemented at the next service change if the investment clearly and substantially benefits Metro's goals and if Metro has capacity to deliver added service. The goals include meeting unmet needs of priority populations, advancing King County's climate goal of reduced car trips, increasing ridership, and supporting Metro's long-range vision.
- Metro will ensure that service partnerships have acceptable contract terms, adequate operational infrastructure, and community engagement.
- Metro will prioritize the implementation of partner investments that advance Metro's goals. Metro's priorities are, in this order: services that serve equity priority areas, productive service, and reliable service. If a service partnership is partially funded, Metro will consider the level of contribution and level of support for Metro policy goals in the prioritization of implementation.

Flexible Service

Metro encourages partners to invest in flexible services that work best for priority populations, that complement and bring people to existing and future fixed-route bus service, and that advance King County's climate and equity goals. Metro seeks to partner with cities, communities and private companies to develop these services.

What Metro Can Offer

- Metro will prioritize implementation and investment in partnerships that, in this order: benefit equity priority areas and reduce single-occupant vehicle trips and increase transit ridership by improving connections to transit—especially high-capacity transit.

- Metro will ensure that service partnerships have acceptable contract terms, adequate operational infrastructure, and community engagement.

Infrastructure Partnerships

Partnerships to develop infrastructure are critically important for the Metro Connects long-range vision. In many cases, infrastructure partnerships with jurisdictions and other agencies are necessary for routing changes, service and access improvements, and emissions-reducing service improvements.

Metro seeks to actively support partners in exploring financial or in-kind infrastructure investments that accomplish the following:

- Improve transit speed and reliability
- Leverage existing partner projects to provide Metro improvements at a reduced cost compared to stand-alone projects
- Support implementation of the King County Strategic Climate Action Plan goals and priority actions
- Support implementation of the Metro Connects long-range vision
- Create safe, attractive, and accessible customer facilities
- Support safe and convenient connections to public transportation options via walking, rolling, and other modes.

Table 13 What Metro Seeks in Partnerships

Developing/Funding Projects	Prioritizing Transit	Improving Access
▪ Contributions from grants or local funds for new RapidRide lines ▪ Corridor and spot improvements to improve transit speed and reliability	▪ Preferential treatments for transit such as bus lanes and queue jumps ▪ Facilities for transit layover and curb space management strategies that support transit operations ▪ Streamlined design and construction approval processes for implementing partnership projects	▪ Investment in facilities that enhance access to a variety of mobility services, such as walking and rolling facilities ▪ Street design guidelines that prioritize and set standards for transit and active transportation ▪ Improved street network connectivity

What Metro Can Offer

- Metro will prioritize implementation of infrastructure projects in equity priority areas or benefiting services focused in equity priority areas. Metro will also prioritize projects that aim to reduce greenhouse gas emissions through the use of alternative fuels, efficient operations, and electrification.
- Jurisdictions with partnerships on major efforts to implement Metro's long-range vision may be prioritized in Metro's implementation strategy.
- Metro will prioritize partnerships for walk and roll improvements with jurisdictions that have adopted policies and design standard best practices that enable safe use and mobility for all ages, abilities, and modes.

Metro's resourcing and investment in potential partnerships will be subject to its prioritization of projects and available resources.

PLANNING AND COMMUNITY ENGAGEMENT

Metro will design and implement a planning and engagement process with the public and stakeholders, including jurisdictional partners, partner agencies, and community-based organizations. The purpose of engagement is to better understand community mobility needs, co-create proposals, and share in decision-making about service changes that could have significant impacts on communities.

Goals for Engagement

In order to conduct deliberate and transparent community engagement, engagement processes should be the following:

- **Customized.** Phases, feedback methods, and opportunities for the public to shape the project outcome will be tailored to the size and scope of the change and the affected communities.
- **Equitable.** Metro strives to inform and hear from all communities that will be affected, centering its engagement and listening to the voices of historically unserved or underserved communities.
- **Informative.** Information and ways to participate will be clear, understandable, and accessible.
- **Transparent.** Metro will describe its input, planning, and decision-making processes.
- **Responsive.** At each step, Metro will show how public feedback has informed its decisions.
- **Focused on long-term relationship building.** Metro will approach communities with a commitment to mutual capacity building. All staff members will be ambassadors for all of Metro, not just their project. Being in a community will change how Metro's staff thinks about and designs with and for the community.

Centering Equity in Planning and Engagement

The King County Equity and Social Justice Strategic Plan and Metro's Mobility Framework guide Metro to equitably engage communities to shape decisions about service in the following ways:

- **Focus on priority populations.** Metro will use demographic data and information from past engagement experiences and community partners to design engagement strategies and tactics that increase participation from priority populations.
- **Form mobility boards.** For large service restructures, Metro will recruit a mobility board made up of people who live, work, or travel in the area. The board will co-create and share in the decision-making about service changes and new mobility options. It will also advise on ways Metro can engage with

the larger community. Metro will convene a mobility board that equitably represents groups of people who have historically been left out of decision-making conversations related to transit and who are disproportionately affected by these decisions. When resources are available, Metro will compensate mobility board members for their time, input, and lived experience as community members.

- **Engage community as co-creators.** Metro will demonstrate that it values the expertise and time of community members and partners by doing the following:
  - Engaging communities as early as possible to shape initial concepts and to allow sufficient time to participate in the process
  - Working collaboratively and resourcing partners to help design and implement equitable community engagement
  - Being comprehensive and coordinated across Metro divisions, county departments, and partner agencies
  - Meeting people where they are in the community
  - Including time and resources in the engagement for long-term relationship building.

Metro will work with jurisdictions, community-based organizations, and other partners to promote and market the new service to potential riders, ensure that it is welcoming and accessible to riders in priority populations, and gather feedback to continually improve service to meet riders' needs.

Reporting on Engagement

Metro will document and report on public engagement efforts to show how public and stakeholder input shaped plans and decisions along the way. That information will be shared with the involved community stakeholders and made available to the public. For proposals that require an ordinance, a public engagement report will be submitted along with the ordinance package to the King County Council. The Equity Impact Review (described on page 19) will use the public engagement report to document both quantitative and qualitative data and to support accountability for equity and social justice in project planning and decision-making processes.