

INTRODUCTION

King County Ordinance 17848, adopted on July 21, 2014 reduces 151,000 annual hours of King County Metro (Metro) transit service in September 2014, and approves a reduction of up to an additional 188,000 annual hours in February 2015. Section 4 of this ordinance requests the King County Executive to transmit a report by September 4, 2014 that specifically analyzes the impacts of reductions on Dial-a-Ride-Transit (DART) services in King County, to include the following elements:

- Identify by route and number of trips, the current ridership of people with disabilities who use mobility aides and use DART service, and the estimated cost and the operational impacts of these riders who will transition to either Access or regular bus service as a result of the DART service reductions in 2014 and anticipated in 2015.
- Analyze how transit service that is or could be provided by others under contract with the transit division, including, but not limited to DART, could be used to reduce or avoid transit service reductions in 2015 and make the transit system more efficient and productive, consistent with strategies 6.2.3 and 6.2.4 of the Strategic Plan for Public Transportation 2011-2021, relating to alternative public transportation services and delivery. Also include options for maintaining the current level of alternative service in the system, including DART.
- Include recommendations for preserving the existing DART infrastructure to enable effective and efficient redeployment of existing service hours consistent with the Strategic Plan for Public Transportation 2011-2012 and King County Metro’s Service Guidelines.

Metro has prepared this report in response to this request. Following a brief overview of DART services and a discussion of DART service reductions, each of these three elements will be discussed in turn.

OVERVIEW OF DART SERVICES

Metro offers a variety of public transportation products and services appropriate to different markets and mobility needs, including Dial-a-Ride Transit (DART). As defined on page 8 of Appendix A in Metro’s Alternative Service Delivery Plan¹, DART is open to the general public with no eligibility requirements, and the fares are the same as a one-zone bus fare with peak and off-peak pricing. The service is designed to operate on a fixed schedule with variable routing, and DART vehicles can go off regular routes to pick up and drop off passengers within the defined service area. A limited number of these off-route deviations can be made on any given trip; however, door-to-door service is not provided. In addition, reservations can be made for up to 30 days at a time and up to 30 days in advance, but must be made at least two hours in advance.

¹ Adopted Motion 13736 “King County Metro Transit Five-year implementation plan for alternatives to traditional transit service delivery.”

Metro has provided DART service since the mid 1980's. It has been operated by several different service providers; currently service is provided by Hopelink, a non-profit social service agency. Metro currently provides 17 DART routes, primarily in east and south King County, as shown on the map below (DART Routes Summer 2014). Three of these DART routes (907, 915, and 931) were created in February 2012 as a way to appropriately scale services to the mobility needs of the community. This was done in accordance with Council Ordinance 17169 that required Metro to "right-size services" and consider providing dial-a-ride service to address local mobility needs at a reduced operating cost. An additional DART route (906) was created in September 2013 as part of the integration of Renton transit service with the new RapidRide F line. As of August 2014, DART service operates about 80,000 annual service hours and comprises about 2.3% of Metro's overall annual service hours. This percentage is less than the 3% maximum, or an average of 100,000 annual service hours, permitted under the current ATU Local 587 Union contract.



The key feature that differentiates DART from regular fixed route service is the ability to deviate from the fixed route to serve customers within a defined service area as well as the ability for riders to make advanced reservations for trips. Defined service areas are traditionally located in neighborhoods at the end of a fixed route, enabling the DART vehicle to respond to requests for trips within the service area then returning back to resume service along the fixed routing.

The variable routing into a defined service area usually requires additional time, which is added to the schedule. For this reason DART service may take longer to operate along a routing than a traditional fixed route service. To ensure reliability, some DART routes have limited flexibility in their schedules and do not deviate from the fixed routing during weekday peak periods when there is higher commuter demand.

DART vehicles are smaller and more maneuverable than standard transit buses. These smaller vehicles have less interior space, no rear door, and limited room for standing riders, making them inappropriate for use on routes with higher ridership. Two types of vehicles are currently used to provide Metro’s DART service:

- 19-passenger vans (approximately 30)
- 31-passenger vehicles (six) that are reserved for routes with greater rider demand.

Example DART Route 906



Route 906

In September 2013 Route 155 was transitioned to DART Route 906 as part of the RapidRide F Line integration. It operates on a fixed route and schedule between Fairwood Center and Southcenter. DART Route 906’s flexible service area is in the residential neighborhood east of Fairwood Center, as shown in the map.

While ridership is fairly stable, trips during peak periods are busy, with several requiring the larger 31 passenger vehicles. Due to tighter schedules and greater rider demand, service does not deviate from the fixed routing during peak periods.

DART SERVICE REDUCTIONS

Guided by Council direction, Metro is currently in the process of reducing the transit system to address the current financial shortfall. The first of these reductions will be implemented in September 2014 and will include reductions to two DART routes (903 and 931) and deletion of four DART routes (909, 919, 927, and 935). Additional DART reductions are anticipated for February 2015 – revisions to Route 901 in Federal Way and the deletion of Route 930 in Redmond. Under Metro’s current proposal, nine DART routes would be unchanged. Table 1 on the next page summarizes for all DART routes the productivity, the current and anticipated (or newly adopted) annual hours, and reduction action.

Metro’s process for determining how to reduce the system is described below.

1. Evaluate routes by market served. The Service Guidelines evaluate routes by two separate markets:
 - Seattle core: Routes with service in or out of downtown Seattle and the University District; and
 - Non-Seattle core: All other routes not serving those areas.

No DART route serves downtown Seattle or the University District so they are all evaluated in the non-Seattle Core market, which has lower performance thresholds than the Seattle core market. As such, the thresholds for performance are already lower for DART considering that these services only exist in lower density areas.

2. Evaluate corridors as part of Metro’s All-Day and Peak Network. Since the adoption of Metro’s Strategic Plan in 2011, DART services have been evaluated as part of Metro’s All-Day and Peak Network and are assigned target service levels identified through the corridor analysis. As part of Metro’s required annual evaluation process, the 2013 Service Guidelines Report assesses the performance of the seventeen DART routes using two productivity thresholds—rides per platform hour and passenger miles per platform mile—that are calibrated to compare routes in the same market.

As provided in Metro’s Service Guidelines, the route performance analysis and the corridor analysis are used to identify priorities for reducing service (p. SG-17). The route performance analysis assesses route productivity and the corridor analysis sets target service levels for the All-Day and Peak Network using a process that balances productivity, social equity and geographic value.

The Service Guidelines reduction priorities (“priority one” are those that should be reduced first, “priority four” are those that should be reduced last) were used to develop the service reductions proposal for September 2014 and February 2015. Of the 17 DART routes in Metro’s system, the 2013 Service Guidelines Report, p. 24 identifies the following:

- Priority one: Nine DART routes
- Priority two: Reductions that restructure the system for efficiencies; no DART routes are automatically in this category
- Priority three: Four DART routes
- Priority four: Three DART routes

Consistent with Metro’s Service Guidelines, the approved changes for September 2014 reduce DART services that fall within the first reduction priority as it does for the fixed-route system. The anticipated reductions for

2015 would restructure service for system efficiency. Service in the fourth reduction priority, such as DART routes 908 and 917, would remain unchanged.

Table 1: Adopted and anticipated DART service reductions

Route	Area	Peak		Off Peak		Night		Current Annual Hrs	Proposed Annual Hrs	% hrs reduced	Reduction Action
		Rides/PlatHr	PassMi/PlatMi	Rides/PlatHr	PassMi/PlatMi	Rides/PlatHr	PassMi/PlatMi				
September 2014 DART Reductions											
903DART	S Federal Way	20.3	4.1	17.6	2.5	12.5	2.2	9,002	6,146	-32%	Reduced
909DART	Renton, Kenndale	10.0	1.8	9.5	2.1	-	-	4,208	0	-100%	Deleted
919DART	SE Auburn, Auburn	-	-	14.4	2.5	-	-	2,600	0	-100%	Deleted
927DART	Issaquah, Sammamish	7.0	1.7	6.4	2.6	-	-	6,154	0	-100%	Deleted
931DART	Woodinville, Redmond	7.3	2.1	7.4	3.3	-	-	10,873	4,044	-63%	Reduced
935DART	Kenmore, Totem Lake	5.7	0.7	-	-	-	-	4,669	0	-100%	Deleted
Anticipated 2015 DART Reductions											
901DART	Federal Way	20.8	4.6	20.6	3.6	16.3	4.6	5,993	5,148	-14%	Revised
930DART	Kingsgate, Redmond	8.1	1.1	-	-	-	-	3,324	0	-100%	Deleted
Unchanged											
906DART	Fairwood, Southcenter	18.4	5.6	19.3	6.1	-	-	6,559	6,559	0%	Unchanged
907DART	Renton, Enumclaw	3.6	1.3	5.4	2.7	-	-	4,691	4,691	0%	Unchanged
908DART	Renton, Maplewood	9.4	1.8	7.0	1.8	-	-	2,931	2,931	0%	Unchanged
910DART	Auburn, N Auburn	8.5	1.0	9.2	1.8	-	-	2,724	2,724	0%	Unchanged
913DART	Kent	13.8	2.2	-	-	-	-	3,236	3,236	0%	Unchanged
914DART	Kent, Kent East Hill	-	-	21.3	4.1	-	-	3,075	3,075	0%	Unchanged
915DART	Auburn, Enumclaw	-	-	16.0	4.5	-	-	2,297	2,297	0%	Unchanged
916DART	Kent, Kent East Hill	-	-	18.5	4.6	-	-	3,452	3,452	0%	Unchanged
917DART	Auburn, Pacific	11.6	2.2	11.1	2.7	-	-	3,979	3,979	0%	Unchanged
TOTAL								79,767	48,282		

Performance table key

Spring 2013 Thresholds for Routes that DO NOT serve the Seattle Core

	Peak		Off Peak		Night	
Bottom 25%	12.1	2.4	12.0	2.7	10.9	2.6
25-50%	18.6	5.3	18.0	4.9	15.2	4.5
Top 25%	24.1	7.4	24.5	7.9	18.8	6.3

Metro's Service Guidelines provide an exception to the four reduction priorities for services that provide the last connection to rural communities in King County, as excerpted here from p. SG-19:

"Metro serves some urbanized areas of east and south King County adjacent to or surrounded by rural land. Elimination of all service in these areas would result in significant reduction in the coverage that Metro provides. To ensure that Metro continues to address mobility needs, ensure social equity and provide geographic value to people throughout King County, connections to these areas would be preserved when making service reductions, regardless of productivity."

This exception was applied in the service reductions proposal to preserve service to communities in the Snoqualmie Valley, Southeast King County and on Vashon Island provided by routes 118, 119, 208, 224, 907DART, 915DART and 931DART. Based on their performance characteristics, these routes would otherwise be candidates for reduction.

DART RIDERS WITH MOBILITY IMPAIRMENTS AND POTENTIAL IMPACTS ON ACCESS SERVICE

Table 2 provides 2013 data for annual lift use on each DART route and an estimate of the corresponding costs if these trips were to shift to Access. Two different assumptions are shown: 1) all DART "lift-use" trips on eliminated routes would shift to Access paratransit service; and 2) only 50% of the lift-use trips would shift to Access. This table also quantifies the savings for Metro if these routes were reduced or eliminated as approved for September 2014 and anticipated in 2015. The lift-use counts include boardings and alightings by:

- Riders with disabilities who use wheelchairs, walkers or other mobility devices;
- Riders who are ambulatory but have difficulty negotiating the steps on/off the vehicle; and
- Riders who may board with a shopping cart or other object and need the lift.

The data provided by Hopelink does not include any other information about the type of individual lift use or the specific location on a route where the lift was deployed.

According to Metro's analysis, Metro anticipates the following impacts from reductions to DART services:

- Savings from DART route reductions would exceed any additional costs to providing Access service. This holds true even if Access were to provide replacement service for **all** lift trips on current DART routes.
- Minimal operational impacts on Metro's regular fixed route service would result from reductions to DART service.
 - The average daily lift use on Metro's regular fixed route system is about 3,000, which equates to more than 750,000 lift deployments annually.
 - The annual lift deployment on **all** DART services makes up about 3% of Metro's annual lift deployments system-wide.
 - The subset of DART services that would be affected by reductions represents about 10,000 lift deployments, which comprises less than 2% of Metro's annual lift deployments system-wide.

Table 2: DART Lift Use Statistics for 2013 and Potential Shift of Cost to Access Paratransit
 (Assumes average marginal cost per Access ride of \$40.00)

Route	Reduction Action	Lift Use	Estimated Cost		Estimated DART Savings		Estimated Net Savings	
		Annual Count	If all Lift Use Trips move to Access	If 50% Lift Use Trips move to Access	Hours	Dollars	All Lift Use Trips move to Access	50% Lift Use Trips move to Access
901	Revised Feb. 2015	See 903 line			-5,993	(\$497,779)	(\$497,779)	(\$497,779)
903	Reduced Sept. 2014	2,946	\$117,840	\$58,920	-2,856	(\$237,219)	(\$119,379)	(\$178,299)
906	Unchanged	400						
907	Unchanged	1,010						
908	Unchanged	1,034						
909	Deleted Sept. 2014	1,374	\$54,960	\$27,480	-4,208	(\$349,516)	(\$294,556)	(\$322,036)
910	Unchanged	1,433						
913	Unchanged	918						
914	Unchanged	6,966						
916	Unchanged	See 914 line						
915	Unchanged	1,304						
917	Unchanged	1,776						
919	Deleted Sept. 2014	1,602	\$64,080	\$32,040	-2,600	(\$215,956)	(\$151,876)	(\$183,916)
927	Deleted Sept. 2014	1,218	\$48,720	\$24,360	-6,154	(\$511,151)	(\$462,431)	(\$486,791)
930	Deleted Feb. 2015	970	\$38,800	\$19,400	-3,324	(\$276,091)	(\$237,291)	(\$256,691)
931	Reduced Sept. 2014	1,280	\$51,200	\$25,600	-6,829	(\$567,217)	(\$516,017)	(\$541,617)
935	Deleted Sept. 2014	980	\$39,200	\$19,600	-4,669	(\$387,807)	(\$348,607)	(\$368,207)
Total		25,211	\$414,800	\$207,400	-36,633	(\$3,042,736)	(\$2,627,936)	(\$2,835,336)

NOTES:

1. The quantification of lift-use trips moved to Access does not account for the extent of proposed changes to the DART routes or proposed changes on other Metro routes to cover areas or connections that would no longer be served by DART.
2. Dollars savings for DART are based on the contracted hourly rate plus fuel costs; costs for increased Access use are based on the marginal hourly rate.

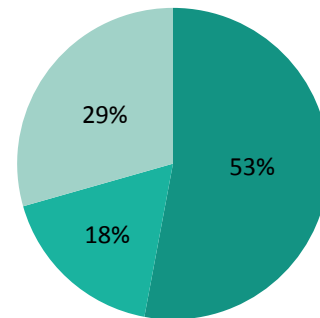
RECOMMENDATIONS FOR PRESERVING DART INFRASTRUCTURE

Twelve DART routes would remain in place following the implementation of reductions approved for September 2014 and those anticipated for 2015. This represents 71% of the DART routes, about 60% of the annual DART service hours and about 70% of the annual DART rides.

The management of Hopelink and Metro met to review and discuss the impacts associated with the original proposed service reductions to Hopelink operations. Hopelink provided additional information regarding some of the goals to be considered, should the original package of reductions go forward, along with some examples of the impacts associated with specific route reductions. Many of Hopelink's concerns with the original proposal about maintaining a high passenger per hour count and cost effective service delivery have been addressed with the revised proposal for February 2015.

DART Reductions

■ Unchanged ■ Revised/Reduced ■ Deleted



RECOMMENDATIONS FOR USE OF OTHER ALTERNATIVE SERVICES TO MITIGATE SERVICE REDUCTIONS

Strategic Plan strategies 6.2.3 (develop and implement alternative public transportation service and delivery strategies) and 6.2.4 (provide alternative or "right-sized" service in the context of overall system financial health and the need to reduce, maintain or expand the system) are generally intended to foster service delivery in areas of King County that may lack the land use, infrastructure and density to support traditional fixed route service. In these areas, alternative types of transportation services may be more appropriate and cost effective and are to be considered.

Metro currently provides a suite of alternative services beyond DART service such as VanPool, VanShare and Community Access Transportation (CAT), as detailed below:

VanPool

There is a fleet of 1,380 Metro vanpools that generate more than three million shared trips per year and serves more than 12,000 passenger trips every weekday. A vanpool is a group of 5 to 15 people who share their ride to work in a van, and who each pay a monthly fare that covers fuel, maintenance, licensing, guaranteed ride home and insurance costs. A majority of customers have employers who pay a portion of their van fares. Every vanpool group needs a voluntary primary driver, backup driver, and bookkeeper. King County Metro's commuter van fleet include vans that seat 12 and 15 passengers and mini-vans that seat seven or eight passengers. Participant fares pay 100% of capital and operations costs and about 25% of administrative program costs.

VanShare

Metro's fleet of 120 VanShare vehicles provides more than 265,000 shared trips per year and serves more than 1,600 passenger trips every workday. Vanshares are almost the same as VanPools (see above) with the only difference being that they help commuters make that first mile/last mile connection to transit hubs, park-and-ride facilities, jobs, home or school. Often the best alternative for

commuters facing a route change is to form VanShares with other commuters who need to get from a transit hub to work.

Community Access Transportation (CAT) Shuttles – for people with disabilities or seniors

The CAT program is a community partnership that provides social service agencies, organizations or jurisdictions with mobility options for people with disabilities and seniors. Metro provides operating, capital and/or technical support to assist agencies in setting up their own transportation service customized to meet their program needs. In exchange, the service provides trips to individuals eligible for Access paratransit service. CAT partnerships established under current authority help offset rider demand from more expensive Access service.

Metro will be further developing alternative service options under the guidance of Metro’s Strategic Plan and Service Guidelines (Ordinance 17641) and the Alternative Service Delivery Five-Year Implementation Report (Motion 13736) to help mitigate for the impact of service reductions. Alternative service options should be right-sized to best meet the travel needs of the service being eliminated, and may include, but not be limited to, a combination of the following:

- 1) Shared-use van programs, including community vans, flexible carpool, TripPool and modified Community Access Transportation, which requires amending King County Code Section 28.94.045;
- 2) Dynamic ridesharing via mobile applications; and
- 3) Community transportation hubs.

Further implementation of the alternative service areas identified in the Five Year Implementation Plan for Alternatives to Traditional Transit Delivery will occur in 2015. Priority areas for this project are still being finalized, but may include Vashon Island, Mercer Island, and south King County.

Metro will also be identifying potential locations to implement pilot programs for other new types of alternative services such as flexible carpool, TripPool and community transportation hubs. Metro has secured a Community Trip Reduction Initiative grant, which will enable these pilot demonstrations, with implementation potentially occurring as early as summer/fall 2015.