

June 2014 Service Change

Service Equity (Title VI) Analysis
December 3, 2013

June 2014 Service Change Overview

In June 2014, Metro is planning to reduce approximately 45,000 annual service hours to address the loss of funding from the Washington State Department of Transportation (WSDOT) to mitigate ongoing construction related impacts of replacing the Alaskan Way Viaduct (Viaduct). In 2007, recognizing the impact of traffic delays expected during Viaduct replacement, WSDOT committed to providing \$31.9 million to King County to enhance transit service, improve bus monitoring equipment and promote additional travel options during construction. A majority of this funding went directly to providing additional transit service on the Viaduct or nearby corridors, including the West Seattle Water Taxi and shuttles, to ensure schedule reliability and help reduce vehicle travel demand. Although construction-related impacts of the state's Viaduct replacement project are expected to continue until the SR-99 tunnel project is complete at the end of 2015 with subsequent City of Seattle Central Waterfront construction expected to continue through 2019, the agreement between King County and WSDOT that supports Viaduct related mitigation service expires on June 30, 2014.

A set of service reductions are proposed in areas where WSDOT currently funds added trips and reimburses Metro for the cost of adjusting bus schedules due to longer travel times. Recommended changes include the deletion of four routes and reduced service on three routes. In addition, other related service reductions will be implemented administratively pursuant to the Director's authority as provided for in KCC 28.94.020 (B). A list of changes is provided in Appendix 1. This attachment identifies the associated action for each route, provides the basis for the change, indicates whether the route is classified as low-income or minority and whether the change would result in an adverse effect. Changes included in the ordinance, along with these administrative changes, would eliminate approximately 45,000 annual service hours, the amount currently funded by WSDOT. Affected areas include Des Moines, Normandy Park, SeaTac, Burien, Tukwila, Vashon Island, White Center, West Seattle, SODO, Downtown Seattle, Northwest Seattle, and Shoreline. Impacts are depicted in the two maps included in Appendix 2.

Approximately one-third of the service hours reduction would occur on routes with trips currently funded by WSDOT, with the remaining two-thirds to occur through the reduction of service on lower performing routes within areas and service corridors that received service investments funded by WSDOT. The portion of service hour reduction in the latter category corresponds with the service hours WSDOT currently invests in schedule adjustments. Since construction-related impacts will continue until the end of 2015, "undoing" the schedule adjustments is not a viable option for reducing service hours. Therefore, the proposal maintains most of the investments in schedule adjustments, and reductions to lower performing services are proposed to achieve the necessary service hour reduction. The proposed actions include the deletion of four routes and reduced service on 17 others, primarily in West Seattle and Southwest King County.

Service Guidelines Overview

The 2013 Update to King County Metro's *Strategic Plan for Public Transportation, 2011-2021* and related service guidelines outline the methodology Metro uses to evaluate service changes, consistent with official Federal Transit Administration Title VI requirements (FTA C 4702.1B). The most relevant excerpts from the service guidelines are included below.

Implementation

Metro revises service three times each year—in spring, summer, and fall. The summer service change coordinates with the summer schedule for the University of Washington, because service is adjusted each summer on routes serving the UW. In cases of emergency or time-critical construction projects, Metro may make changes at times other than the three regularly scheduled service changes. However, these situations are rare and are kept to a minimum because of the high level of disruption and difficulty they create. Metro will identify and discuss service changes that address performance-related issues in its annual route performance report.

Any proposed changes to routes are subject to approval by the Metropolitan 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 one-half mile.
- Any changes in route numbers.

Adverse Effect of a Major Service Change

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

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's threshold for determining whether adverse effects are significantly greater for minority compared with non-minority populations is ten percent. Should Metro find a disparate impact, Metro will consider modifying the proposed changes in order 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 percentage of minority population 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

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's threshold for determining whether adverse effects are significantly greater for low-income compared with non-low-income populations is ten percent. Should Metro find a disproportionate burden, Metro will consider modifying the proposed changes in order to avoid, minimize or mitigate the disproportionate burden of the proposed changes.

Metro will measure disproportionate burden by comparing changes in the number of trips serving low-income or non-low-income census tracts, or 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 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.

Service Equity Analysis

I. Threshold 1: Is this a Major Service Change? YES.

For the purposes of service equity analysis, a major service change is defined as any change for which Metropolitan King County Council approval is required. Because approval from the Metropolitan King County Council will be required to implement planned changes on seven of the 21 routes that will be directly affected by the June 2014 service change, the changes were considered a major service change. A description of the related administrative changes is also included in this report.

II. Threshold 2: Are Minority or Low-Income Routes Affected? YES.

Characteristics of Affected Routes

The June 2014 service change proposal includes major changes to seven routes, of which:

- 1 is a minority AND low-income route,
- 1 is a minority route only,
- 1 is a low-income route only, and

- 4 are neither minority OR low-income routes

III. Threshold 3: Is there a Disproportionate Impact on Minority or Low-Income Routes? NO.

The determination as to whether the proposed reductions would have a disparate impact on minority populations was made by comparing changes in the number of service hours on minority or non-minority routes. Similarly, the determination as to whether the proposed reductions would have a disproportionate burden on low-income populations was made by comparing changes in the number of service hours on low-income or non-low-income routes.

Results of the analysis are summarized below. This analysis indicates that the proposed reductions would not have a disparate impact on minority populations or a disproportionate burden on low-income populations.

Category	Hours from adversely affected routes ²	% of hours from adversely affected routes	% of hours on routes system-wide	Difference	Disproportionate Burden ³ ?
Low-Income¹	-9,518	42%	53%	-11%	NO
Non-Low-Income	-13,192	58%	47%		
Total	-22,710	100%	100%		

Category	Hours from adversely affected routes ²	% of hours from adversely affected routes	% of hours on routes system-wide	Difference	Disparate Impact ⁴ ?
Minority¹	-8,345	37%	49%	-12%	NO
Non-Minority	-14,365	63%	51%		
Total	-22,710	100%	100%		

Notes:

1. Routes are classified as low-income or minority by comparing the percentage of inbound boardings in low-income or minority census tracts for the route to the percentage of inbound boardings in low-income or minority census tracts for the system as a whole.
2. An adverse effect is defined as a reduction of 25% or more in platform hours.
3. A disproportionate burden occurs when, of all hours removed from adversely affected routes, the percent removed from low-income routes is more than 10 percentage points greater than the percent of hours serving low-income routes system-wide.

4. A disparate impact occurs when, of all hours removed from adversely affected routes, the percent removed from minority routes is more than 10 percentage points greater than the percent of hours serving minority routes system-wide.

Appendix A: Proposed Changes by Route

Changes in Service Change Ordinance

Route	Low - Income Route	Minority Route	Adverse Effect	Action	Basis for Change	Change in Annual Hours (est.)
22	no	yes	yes	Discontinue route	Lower performing	-5,410
37	no	no	yes	Discontinue route	Lower performing	-2,700
55	no	no	yes	Revise the service levels on Route 55 to operate six morning trips and five afternoon trips during the weekday peak hours	Lower performing; fails both peak criteria; WSDOT-funded trips	-1,400
57	no	no	yes	Discontinue route	Lower performing; fails one peak criterion	-2,500
113	yes	yes	yes	Discontinue route	Lower performing; fails one peak criterion	-2,940
118EX	no	no	yes	Revise the service levels on Route 118 Express to operate one morning trip and one afternoon trip	Lower performing	-1,190
121	yes	no	yes	Revise the service levels on Route 121 to operate six morning trips and seven afternoon trips during the weekday peak hours	Lower performing; fails both peak criteria; WSDOT-funded trips	-6,580

Subtotal

-22,720

Administrative Changes

Route	Low - Income Route	Minority Route	Adverse Effect	Action	Basis for Change	Change in Annual Hours (est.)
17EX	no	No	no	Discontinue one PM trip	WSDOT-funded trips (18EX)	-270
18EX	no	no	no	Discontinue one PM trip	WSDOT-funded trips; fails one peak criterion	-290
21EX	no	no	no	Discontinue one AM trip and one PM trip	WSDOT-funded trips	-690
21	yes	yes	no	Discontinue service after approximately 10:00 PM	Lower performing	-1,740
56EX	no	no	no	Discontinue two AM trips and two PM trips	WSDOT-funded trips; fails one peak criterion	-1,030
116EX	no	no	no	Discontinue one AM trip and two PM trips	Lower performing; fails one peak criterion	-800
120	yes	yes	no	Discontinue two AM trips and two PM weekday peak period trips	WSDOT-funded trips	-4,310
122	yes	no	no	Discontinue two AM trips and two PM trips	Lower performing	-1,340
123	yes	no	no	Discontinue one AM trip and two PM trips	Lower performing; fails both peak criteria	-620
125	no	yes	no	Discontinue Saturday service and discontinue evening service after approximately 9:00 PM	Lower performing	-2,410

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Route	Low - Income Route	Minority Route	Adverse Effect	Action	Basis for Change	Change in Annual Hours (est.)
128	no	yes	no	Discontinue evening service after approximately 10:30 PM	Lower performing after 10:30 PM	-2,220
131	yes	yes	no	Revise evening service frequency to operate hourly after 7:00 PM and discontinue service after approximately 11:00 PM	Lower performing	-1,010
132	yes	yes	no	Revise evening service frequency to operate hourly after 7:00 PM and discontinue service after approximately 11:30 PM	Lower performing	-2,150
358EX / E Line	no	no	no	Discontinue four AM trips and five PM peak period trips, and revise Sunday service frequency to operate approximately every 20 minutes.	WSDOT-funded trips (peak periods)	-3,630
Subtotal						-22,510
TOTAL						-45,230

Appendix B: Maps



