Title VI Service Equity Analysis: FY2022 Annual Service Plan
Department of Transit Equity, Inclusion, and Community Affairs
November 16, 2020
Executive Summary

TriMet is proposing to implement several service improvements in summer 2020, fall 2021 and spring 2022. In accordance with Title VI of the Civil Rights Act of 1964 and FTA Circular 4702.1B, TriMet conducts an Equity Analysis any time Major Service Changes are proposed to ensure that changes do not unfairly impact people of color and low-income populations. The service proposal includes Major Service Changes to eight bus lines. Thus, an analysis is required prior to the TriMet Board of Directors taking action.

Methodology

TriMet’s Title VI Program outlines the agency’s Major Service Change, Disparate Impact, and Disproportionate Burden policies, as well as the way in which TriMet conducts Equity Analyses. Major Service Changes are analyzed for both potential adverse effects and distribution of benefits. This is done at both the individual line-level and system-level, and the analysis seeks to identify any potential disparities based on race/ethnicity or income.

Major Service Changes

The proposed changes to seven existing lines meet TriMet’s established thresholds for Major Service Changes:

- New Line – NW Thurman Street
- Line 11 – Rivergate/Marine Dr
- Line 15 – Belmont/NW 23rd
- Line 19 – Woodstock/Glisan
- Line 32 – Oatfield
- Line 63 – Washington Park/Arlington Hts
- Line 93 – Tigard/Sherwood
- Line 94 – Pacific Hwy/Sherwood

Findings

1. The 4 major service increases resulted in a system level disparate impact.
2. No system level disproportionate burden for the 4 major service increases.
3. All improvements are on lines in service areas with below average minority populations. As a result, the region’s minority populations will not stand to benefit compared to non-minority populations.
4. All improvements are on lines in areas with average-or-above low-income populations. As a result, a greater share of the region’s low-income populations stand to benefit as compared to higher income populations.
5. No system level disparate impact or disproportionate burden for the 4 major service decreases.
6. Adverse effects from the major service reduction (Line 11). The minority population in this service area is above the disparate impact threshold and the level of alternative service is limited. Although the service decrease does not raise a high level of concern with respect to Title VI given the extremely low ridership, mitigations for the potential impacts to both areas will be assessed. Low-income populations in this service area is below the disproportionate burden threshold. Therefore, adverse effect does not apply.
Table of Contents

I. Background .................................................................................................................................................. 2

II. TriMet Title VI Compliance .......................................................................................................................... 2
   A. Major Service Change Policy ................................................................................................................... 2
   B. Disparate Impact Policy .......................................................................................................................... 4
   C. Disproportionate Burden Policy ............................................................................................................... 5

III. Proposed Service Changes .......................................................................................................................... 5
   A. Description of Changes ............................................................................................................................ 5
   B. Major Service Change Test ..................................................................................................................... 6
   C. Line-level Analyses .................................................................................................................................. 7
   D. System-level Analysis .............................................................................................................................. 16

IV. Community Engagement ............................................................................................................................ 19

V. Summary of Findings ..................................................................................................................................... 20

Attachment A: Analysis of impact on access to employment, education, health care, food, and parks/public recreation for minority and low-income populations [Will be completed after the first round of public comment on the service proposals.]
I. Background

Due to the Covid-19 pandemic of 2020, TriMet’s Annual Service Plan for FY2022\(^1\) proposes Major Service Changes to eight bus lines that focused on cost neutral/cost saving route and service changes. Other changes will involve changes to improve reliability, travel time, and improvements to on-time performance for lines. Though these changes will represent improvements or reductions for riders on those lines, they are not large enough to be reviewed as Major Service Changes. The Major Service Changes presented here represent the majority of TriMet’s proposed changes for FY22.

This report documents the equity analysis conducted for these changes.

II. TriMet Title VI Compliance

As a recipient of Federal Transit Administration (“FTA”) financial assistance, TriMet must ensure that service changes – both increases and reductions – comply with Title VI of the Civil Rights Act of 1964, which states:

“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

The FTA has provided specific implementing guidelines and regulations for complying with Title VI in Circular 4702.1B (“Circular”). The Circular instructs transit agencies to consider impacts of Major Service Changes on low-income populations as well as minority populations by conducting a service equity analysis. Figure 1 shows the general sequence of steps and considerations in the equity analysis process.

TriMet’s Title VI Program\(^2\) outlines the agency’s policies, definitions and procedures for complying with Title VI and performing equity analyses. As required by the Circular, this includes the agency’s Major Service Change, Disparate Impact, and Disproportionate Burden policies, as set forth below.

A. Major Service Change Policy

All changes in service meeting the definition of Major Service Change are subject to a Title VI Equity Analysis prior to Board approval of the service change. A Title VI Equity Analysis will be completed for all Major Service Changes and will be presented to the Board for its consideration and included in the subsequent TriMet Title VI Program with a record of action taken by the Board.

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\(^1\) Fiscal year 2022 runs from July 1, 2021 to June 30, 2022.

\(^2\) TriMet’s Title VI Program was updated and submitted to FTA in fall 2019
A **Major Service Change** is defined as:

1. A change to **15% or more of a line's route miles**. This includes routing changes where route miles are neither increased nor reduced (i.e. re-routes), or;

2. A change of **15% or more to a line's span** (hours) of service on a daily basis for the day of the week for which a change is made, or;

3. A change of **15% or more to a line's frequency** of service on a daily basis for the day of the week for which a change is made, or;

4. A single transit line is **split** into two or more transit lines,

5. A transit line is retired or eliminated from service, or;

6. A **new transit line** is established.

A Major Service Change occurs whether the above thresholds are met:
   a) Within a single service proposal, or;
   b) Due to a cumulative effect of routing, span, or frequency changes over the three years prior to the analysis
B. Disparate Impact Policy

Testing for Disparate Impact evaluates effects on minority riders or populations as compared to non-minority riders or populations. “Minority” is defined as all persons who identify as being part of racial/ethnic groups besides white, non-Hispanic.

In the course of performing a Title VI Equity Analysis for possible disparate impact, TriMet will analyze how the proposed major service change or fare change action could impact minority populations, as compared to non-minority populations.

In the event the proposed action has an adverse impact that affects protected populations more than other populations at a level that exceeds the benchmarks established in the adopted Disparate Impact Policy, or that restricts the benefits of the service change to protected populations, the finding would be considered as a potential Disparate Impact. Given a potential Disparate Impact, TriMet will evaluate whether there is an alternative that would serve the same objectives and with a more equitable impact. Otherwise, TriMet will take measures to minimize or mitigate the adverse impact of the proposed action.

The Disparate Impact Policy defines measures for determination of potential Disparate Impact on minority populations resulting from Major Service Changes or any change in fares. The policy is applied to both adverse effects and benefits of Major Service Changes. Adverse effects of service changes are defined as:

1. A decrease in the level of transit service (span in days and/or hours, and/or frequency); and/or
2. Decreased access to comparable transit service, which is defined as an increase of the access distance to beyond one-quarter mile of bus stops or one-half mile of rail stations.

The determination of disparate impact associated with service changes is defined separately for impacts of changes on an individual line, and for system-level impacts of changes on more than one line, as well as for both service reductions and service improvements.

1. In the event of potential adverse effects resulting from service reductions:

   a) A Major Service Change to a single line will be considered to have a potential Disparate Impact if the percentage of impacted minority population in the service area of the line exceeds the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 33 percent compared to 30 percent).

   b) To determine the system-wide impacts of Major Service Change reductions on more than one line, the percentage of the TriMet district’s minority population that is impacted is compared to the percentage of the TriMet district’s non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent greater than the percentage of the non-minority population impacted (e.g., 12 percent compared to 10 percent), the overall impact of changes will be considered disparate.
2. In the event of service improvements:

   a) A major service change to a single line will be considered to have a potential Disparate Impact if:

      i. The improvement is linked to other service changes that have disproportionate and adverse effects on minority populations, or;

      ii. The percentage of impacted minority population in the service area of the line is less than the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 27 percent compared to 30 percent).

   b) To determine the system-wide impacts of major service change improvements on more than one line, the percentage of the TriMet district’s minority population that is impacted is compared to the percentage of the TriMet district’s non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent less than the percentage of the non-minority population impacted (e.g., 8 percent compared to 10 percent), the overall impact of changes will be considered disparate.

3. Additional considerations to complement the quantitative Disparate Impact analysis above may include evaluating impacts to accessing employment, education, food, or health care for minority populations.

Upon determination of Disparate Impact, TriMet will either:

   a) Alter the service proposal to avoid, minimize, or mitigate potential Disparate Impacts, or;

   b) Provide a substantial legitimate justification for keeping the proposal as-is, and show that there are no alternatives that would have a less Disparate Impact on minority riders but would still accomplish the project or program goals.

C. Disproportionate Burden Policy

Testing for Disproportionate Burden evaluates potential effects on low-income riders or populations, defined as at or below 150% of the federal poverty level. The line and system level evaluations are identical to those used to determine potential Disparate Impacts, but compare low-income and higher income populations rather than minority and non-minority populations.

III. Proposed Service Changes

A. Description of Changes

Table 1 lists the proposed service changes by the quarter in which they would take effect. A majority of the changes proposed for the next year are service increases. However, one of the proposed changes
Table 1: Proposed Service Changes in FY 2022 Annual Service Plan

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Line</th>
<th>Service Change Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2021</td>
<td>New Line – NW Thurman St</td>
<td>▶ New Transit Line</td>
</tr>
<tr>
<td></td>
<td>Line 11 – Rivergate/Marine Dr</td>
<td>▶ Remove service from Rivergate</td>
</tr>
</tbody>
</table>
|         | Line 15 – Belmont/NW 23rd (Thurman St) | ▶ Reduce frequency  
▶ Reduce weekday span  
▶ Eliminate weekend service |
|         | Line 19 – Woodstock/Glisan (Rex Loop) | ▶ Reduce frequency on weekday  
▶ Remove all service on weekends |
|         | Line 32 - Oatfield | ▶ Extend service to Beaver creek Rd and Meyers Rd |
|         | Line 63 - Washington Park/Arlington Hts | ▶ Discontinue service to the Oregon Zoo  
▶ Extend service into Downtown Portland |
|         | Line 93 - Tigard/Sherwood | ▶ Retire Line |
|         | Line 94 - Pacific Hwy/Sherwood | ▶ Add weekend service |

Spring 2022 | Line 11 – Rivergate/Marine Dr | ▶ Remove service from Delta Park |

Note: The FY22 Annual Service Plan also includes minor changes to line 15, 39, 51, 66, 75, and 77. These changes are not included in this analysis because they are too small to reach the Major Service Change threshold.

B. Major Service Change Test
To determine whether individual service changes meet the definition of Major Service Change, current and proposed service are compared in terms of route length, frequency, and span (hours) of service. Changes of 15% or more qualify as Major Service Changes, including changes meeting this threshold cumulatively over the course of three years.

Results of the comparison are shown in Table 2. To summarize, these changes meet TriMet’s adopted Title VI Major Service Change definition:

- **New Line – NW Thurman St:** New Transit Line
- **Line 11 – Rivergate/Marine Dr:** Route length decrease over 15%
- **Line 15 – Belmont/NW 23rd:** Frequency decrease over 15%, span decrease over 15% on weekdays, and span decrease over 15% on weekends
- **Line 19 – Woodstock/Glisan:** Frequency decrease of over 15% on weekdays and span decrease over 15% on weekends
- **Line 32 – Oatfield:** Route length increase over 15%
- **Line 63 – Washington Park/Arlington Hts:** Span increase of over 15% on weekdays
- **Line 93 – Tigard/Sherwood:** Retire Line
- **Line 94 – Pacific Hwy/Sherwood:** Add weekend service
### Table 2: Results of Major Service Change Test By Line

<table>
<thead>
<tr>
<th>Line</th>
<th>Change in Route Length</th>
<th>Change in Span</th>
<th>Change in Frequency</th>
<th>Line Split</th>
<th>Retired Line</th>
<th>New Line or New Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Line - NW Thurman</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Line 11 - Rivergate/Marine Dr</td>
<td></td>
<td>-19%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 15 – Belmont/NW 23rd</td>
<td>-15%</td>
<td>-15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 19 - Woodstock/Glisan</td>
<td>-15%</td>
<td>-15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 32 - Oatfield</td>
<td>+19%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 63 - Washington Park/Arlington Hts</td>
<td>-59%</td>
<td>+109%*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line 93 - Tigard/Sherwood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Line 94 - Pacific Hwy/Sherwood (Weekend)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

### C. Line-level Analyses

Having identified the service changes which meet the definition of Major Service Change, the next step in the analysis is to look at each line individually to determine potential Disparate Impacts (minority populations) and/or Disproportionate Burdens (low-income populations). Both service reductions and service increases are analyzed. For service increases, the analysis examines the extent to which the benefits of the improvements are inclusive of minority and low-income populations. The line-level analysis compares minority and low-income populations for the service area of each line proposed for a Major Service Change to the minority and low-income populations of the TriMet District as a whole. The analysis is separated by type of service change being proposed:

1. **Major Service Reduction**
2. **Major Service Increases**
3. **Other Major Service Changes**

#### 1. Major Service Reduction

For service reductions, the analysis examines whether adverse effects (defined on pg. 3) are disproportionately borne by minority or low-income populations. If adverse effects are identified and a line’s minority and/or low-income populations are at least 3 percentage points greater than the minority
or low-income populations for the TriMet District as a whole, the proposed change is flagged as a potential Disparate Impact or Disproportionate Burden.

The proposal includes four Major Service Reductions in this service plan.

➢ **Line 11 (Route realignment, including stop removals)**

The Line 11 includes several route changes. The first is to end the eastbound route at Delta Park MAX station via Expo Road removing service to NE Middlefield Road. The second is to remove a portion of the westbound line along N Rivergate Blvd and N Ramsey Blvd in order to bring faster and more efficient service to N Lombard and N Marine Dr. Doing so would remove Line 11 service from a total of 15 stops, including both directions of service. As shown in Figures 2 and 3, the population in the surrounding areas are above the Disparate Impact threshold (33%) for Major Service Reductions. Thus, this change is flagged for potential line-level Disparate Impact. As shown in Table 3, seven out of the 10 stops will not have comparable service within ¼ mile; therefore, adverse effect does apply. It should also be noted that these stops see very little activity, with a total of 2 ons/off per weekday as of spring 2020.

As shown in Table 4, the five stops will not have comparable service within ¼ mile; therefore, adverse effect does apply. There is not a Disproportionate Burden because the population in these areas are below the threshold (22%); therefore, adverse effect does not apply. It should also be noted that these stops see no activity, with a total of zero ons/offs per weekday as of spring 2020 and there are no residences along N. Rivergate Blvd. Therefore, adverse effect does not apply.

| Table 3: Stops and populations impacted by routing changes to Line 11 (Delta Park) |
|---------------------------------|---------------------------------|---------------------------------|------------------|
| Less than ¼ mile | 10 | 46 | 34% | 21.8% |
| Over ¼ mile* | 3 | 44 | 34% | N/A |
| Over ¼ mile* | 7 | 2 | 34% | N/A |

*Adverse effect applies

| Table 4: Stops and populations impacted by routing changes to Line 11 (Rivergate) |
|---------------------------------|---------------------------------|---------------------------------|------------------|
| Less than ¼ mile | 5 | 0 | 44% | 21% |
| Over ¼ mile* | 0 | 0 | 0% | 0% |
| Over ¼ mile* | 5 | 0 | N/A | N/A |
*Adverse effect applies

**Figure 2: Minority Population Comparison**
Proposed Line 11 Major Service Reduction

*Flagged for potential line-level Disparate Impact*

Source: 2014-2018 American Community Survey, block group level

**Figure 3: Low-income Population Comparison**
Proposed Line 11 Major Service Reduction

*No potential line-level Disproportionate Burden*

Source: 2014-2018 American Community Survey, block group level. Low-income defined as at or below 150% federal poverty level
Figure 4 displays the minority population along each line proposed for a major decrease as compared to the 33% Disparate Impact threshold. Figure 5 displays the low-income population along each line as compared to the 22% Disproportionate Burden threshold. Because these are proposed service decreases, protected populations falling above these thresholds are flagged for potential concerns. The narrative analysis of each individual line follows. [Further considerations of access for minority and low-income populations will be completed after the first round of public comment on the service proposals.]

**Figure 4: Minority Population Comparison**
Lines with proposed Major Service Decreases & Disparate Impact Threshold

No potential line-level Disparate Impact

Source: 2014-2018 American Community Survey, block group level
Line 15 (Reduce weekday frequency and span and eliminate weekend service on NW Thurman St)
The proposed changes for this line would potentially burden a service area population that is 18% minority and 8% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is no Disparate Impact and no Disproportionate Burden at the line-level.

Line 19 (Reduce weekday frequency and weekend service on the Rex Loop)
The proposed changes for this line would potentially burden a service area population that is 18% minority and 12% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is no Disparate Impact and no Disproportionate Burden at the line-level.

Line 63 (Remove service to Oregon Zoo)
The removed service for this line would potentially burden a service area population that is 13% minority and 7% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is no Disparate Impact and no Disproportionate Burden at the line-level.

Line 93 (Route elimination)
The retirement of this line would potentially burden a service area population that is 21% minority and 14% low-income, which are both well below the Disparate Impact (33%) and Disproportionate Burden (22%) thresholds for Major Service Decreases. Thus, there is no Disparate Impact and no Disproportionate Burden.
Burden at the line-level. It should be noted that the service to these stops will continue to be served by the Line 94.

2. **Major Service Increases**
   For service increases, the analysis examines the extent to which the *benefits* of the improvements are inclusive of minority and low-income populations.

   Figure 6 displays the minority population along each line proposed for a major increase as compared to the 27% Disparate Impact threshold. Figure 7 displays the low-income population along each line as compared to the 16% Disproportionate Burden threshold. Because these are proposed service increases, protected populations *falling below* these thresholds are flagged for potential concerns. The narrative analysis of each individual line follows. [Further considerations of access to jobs, education, health care, food and parks/public recreation for minority and low-income populations will be completed after the first round of public comment on the service proposals.]
Figure 6: Minority Population Comparison
Lines with proposed Major Service Increases & Disparate Impact Threshold

Flagged for potential line-level Disparate Impact

Source: 2014-2018 American Community Survey, block group level

Figure 7: Low-income Population Comparison
Lines with proposed Major Service Increases & Disproportionate Burden Threshold

No potential line-level Disproportionate Burden

Source: 2014-2018 American Community Survey, block group level. Low-income defined as at or below 150% federal poverty level.
The new bus line will resume service on NW Thurman St from NW 23rd and to NW Gordon from the Line 15, providing new service on 18th and 19th and ending near Providence Park. As shown in Figure 9, the current service area population is 18% minority. The proposed routing for this new line would potentially benefit a service area population that is 22% minority. Although the new line is below the Disparate Impact threshold (27%) for Major Service Increases, the new line will expand the service area for minority populations by 4 percentage points. Thus, this would not indicate a potential Disparate Impact after further examination. The service area population is 17% low-income, which is above the Disproportionate Burden threshold (16%) for Major Service Increases. Thus, there is no Disproportionate Burden at the line-level.

The proposed route change would extend service for Line 32 riders. This service increase to the Beavercreek Rd portion would potentially benefit a service area population that is 17% minority, which is below the Disparate Impact threshold (27%) for Major Service Increases. This indicates a potential Disparate Impact, calling for further examination, in particular the considerations below as well as the system-level analysis provided in the next section. The service area population is 17% low-income, which is above the Disproportionate Burden threshold (16%) for Major Service Increases. Thus, there is no Disproportionate Burden at the line-level.
As shown in Figure 10, the current service area population is 22% minority. The proposed route change would extend service and potentially benefit a service area population that is 26% minority. Although the service area population is below the Disparate Impact threshold (27%) for Major Service Increases, the downtown extension increases the service area for minority populations by 4 percentage points. Thus, this would not indicate a potential Disparate Impact after further examination. The service area population is 35% low-income, which is well above the Disproportionate Burden threshold (16%) for Major Service Increases. Thus, there is no Disproportionate Burden at the line-level.

**Line 94 – Pacific Hwy/Sherwood (New weekend service)**

This service increase would potentially benefit a service area population that is 22% minority the Disparate Impact threshold (27%) for Major Service Increases. **This indicates a potential Disparate Impact**, calling for further examination, in particular the considerations below as well as the system-level analysis provided in the next section. The service area population is 17% low-income, which is above the Disproportionate Burden threshold (16%) for Major Service Increases. Thus, there is no Disproportionate Burden at the line-level. The new weekend service will resume service from the retired Line 93. Weekend service could be either 1-hour frequency from Sherwood to Portland or, 30-minute frequency from Sherwood to Tigard. The current Line 93 weekend service is approximately 30-minute frequency from Sherwood to Tigard.

3. **Other Major Service Changes**

There are no Other Major Service Changes
D. System-level Analysis

Because more than one line is proposed for a Major Service Change, a system-level analysis is required in addition to the line-level analysis. The system-level analysis aims to measure impacts of all Major Service Changes combined to determine how equitable the impacts would be across racial/ethnic and economic lines. Service increases and service reductions are analyzed separately in order to examine both potential system-level adverse effects and distribution of benefits.

- System-level Disparate Impact Analysis: Major Service Increases

The system-level Disparate Impact analysis of Major Service Increases is completed by determining what portion of the TriMet District’s minority population stands to benefit from the Major Service Change improvements, and comparing that to the portion of the District’s non-minority population that potentially benefits. A potential Disparate Impact would exist if minority populations benefitted substantially less than non-minority populations. The way we measure this is to test whether 20% less (or 4/5) of the District’s minority than non-minority population stood to benefit from the improvements.

Table 5 and Figure 11 compare the positively impacted minority and non-minority populations. A lower percentage of the District’s minority population stands to benefit by the proposed Major Service Increase compared to the non-minority population (8.9% vs. 11.3%, respectively). Therefore, a System-level Disparate Impact is found related to the proposed Major Service Increases.

Table 5: System-level Disparate Impact Analysis of Major Service Increases

<table>
<thead>
<tr>
<th>Pct. of TriMet District Non-Minority Pop Positively Impacted</th>
<th>Minority Pop Disparate Impact Threshold</th>
<th>Pct. of TriMet District Minority Pop Positively Impacted</th>
<th>Potential Disparate Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.3%</td>
<td>Less than 9%</td>
<td>8.9%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Figure 11: System-level Impacts of Proposed FY22 Major Service Improvements
Minority and Non-minority Populations

![Minority and Non-minority Populations Graph]

- Minorities: 8.9% impacted (positively) vs. 91.1% not impacted
- Non-Minorities: 11.3% impacted (positively) vs. 88.7% not impacted
System-level Disproportionate Burden Analysis: Major Service Increases

The System-level Disproportionate Burden analysis is completed by determining what proportion of the TriMet District’s low-income population is positively impacted by the Major Service Increases, and comparing that to the District’s higher income population that is positively impacted. “Higher income” includes all persons above the low-income threshold of 150% of the federal poverty level. A potential Disproportionate Burden would exist if low-income populations benefitted substantially less than higher income populations. The way we measure this is to test whether 20% less (or 4/5) of the District’s low-income than higher income population stands to benefit from the improvements.

Table 6 and Figure 12 compare the impacted low-income and higher income populations. A greater percentage of the District’s low-income population stands to benefit from the proposed Major Service Increases as compared to the higher income population (12.1% vs. 10.4%, respectively). Therefore, no System-level Disproportionate Burden is found related to the proposed Major Service Increases.

Table 6: System-level Disproportionate Burden Analysis of Major Service Increases

<table>
<thead>
<tr>
<th>Pct. of TriMet District Higher Income Pop Positively Impacted</th>
<th>Low-Income Pop Disparate Impact Threshold</th>
<th>Pct. of TriMet District Low Income Pop Positively Impacted</th>
<th>Potential Disproportionate Burden?</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.4%</td>
<td>Less than 8%</td>
<td>12.1%</td>
<td>No</td>
</tr>
</tbody>
</table>

Figure 12: System-level Impacts of Proposed FY22 Major Service Increases
Low-income and Higher Income Populations

System-level Disparate Impact Analysis: Major Service Reductions

The system-level Disparate Impact analysis of Major Service Reductions is completed by determining what proportion of the TriMet District’s minority population is potentially adversely impacted from the service reductions and comparing that to the District’s non-minority population that may be adversely impacted. A potential Disparate Impact would exist if minority populations were impacted substantially more by service reductions than non-minority populations. The way we measure this is to test whether 20% more of the District’s minority than non-minority population were impacted by the service reductions.
Table 7 and Figure 13 compare the impacted minority and non-minority populations. A greater percentage of the District’s non-minority population is potentially impacted by the proposed Major Service Reductions as compared to the minority population (6.09% vs. 4.14%, respectively). Therefore, no system-level Disparate Impact is found related to proposed Major Service Reductions.

<table>
<thead>
<tr>
<th>Pct. of TriMet District Non-Minority Pop Negatively Impacted</th>
<th>Pct. of TriMet District Minority Pop Negatively Impacted</th>
<th>Potential Disparate Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.09%</td>
<td>4.14%</td>
<td>No</td>
</tr>
</tbody>
</table>

More than 7.3%

Table 7: System-level Disparate Impact Analysis of Major Service Decreases

Figure 13: System-level impacts of proposed FY22 Major Service Reductions
Minority and Non-minority Populations

Figure 13: System-level impacts of proposed FY22 Major Service Reductions
Minority and Non-minority Populations

- Minority Pop
  - 4.14%
  - 95.9%
  - Impacted by Reductions
  - Not Impacted

- Non-Minority Pop
  - 6.09%
  - 93.9%

- System-level Disproportionate Burden Analysis: Major Service Reductions
The system-level Disproportionate Burden analysis is completed by determining what proportion of the TriMet District’s low-income population is potentially adversely impacted from the service reductions and comparing that to the District’s higher income population that may be adversely impacted. “Higher income” includes all persons above the low-income threshold of 150% of the federal poverty level. A potential Disproportionate Burden would exist if low-income populations were impacted substantially more by service reductions than higher income populations. The way we measure this is to test whether 20% more of the District’s low-income than higher income population were impacted by the service reductions.

Table 8 and Figure 14 compare the impacted low-income and higher income populations. A greater percentage of the District’s higher income population is potentially impacted by the proposed Major Service Reductions as compared to the low-income population (5.69% vs. 3.59%, respectively). Therefore, no system-level Disproportionate Burden is found related to proposed Major Service Reductions.
### Table 8: System-level Disproportionate Burden Analysis of Major Service Decreases

<table>
<thead>
<tr>
<th>Pct. of TriMet District Higher Income Pop Negatively Impacted</th>
<th>Pct. of TriMet District Low Income Pop Disparate Impact Threshold</th>
<th>Potential Disproportionate Burden?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.69%</td>
<td>More than 6.82%</td>
<td>3.59%</td>
</tr>
</tbody>
</table>

| Figure 14: System-level impacts of proposed FY22 Major Service Reductions |
|-------------------------------------------------------------|---------------------------------------------------------------|
| **Low-income and Higher Income Populations**                |                                                                |
| **Low-Income Pop**                                          |                                                                |
| 3.59%                                                      | 96.4%                                                         |
| Impacted by Reductions                                     | Not Impacted                                                  |
| **Higher Income Pop**                                       |                                                                |
| 5.69%                                                      | 94.3%                                                         |

### IV. Community Engagement

The service proposals analyzed in this report speed up the bus system by addressing low ridership deviations and extensions, remedy safety issues, and/or increase coverage. All proposals aim to cost neutrally improve the experience for customers and/or increase efficiency at a time when revenues are declining.  

An initial FY22 service plan was developed in fall 2020, at which point TriMet posted the proposed changes on trimet.org to solicit feedback, placed advertisements in newspapers across the service district, posted signs at bus stops and sent postcards with language translations (Spanish, Chinese, Vietnamese, Japanese, Tagalog, Russian, Arabic, and Ukrainian) to nearby residents of lines with proposed routing changes, presented the proposal to the Transit Equity Advisory Committee, sent emails to riders and other stakeholders, and staff held two TriMet Virtual Open Houses in English and Spanish on October 28th and October 29th, respectively.

The following is a summary of initial themes across the feedback received: [This section will be completed once the public comment period concludes on November 9th and the input is reviewed.]

For the second phase of outreach, TriMet will hold two virtual open houses in February 2021 to solicit feedback about any updates to the proposal. Many elements of the initial outreach phase will be repeated (postcards, [3 For more information, go to https://trimet.org/betterbus/servicechanges-fy22](https://trimet.org/betterbus/servicechanges-fy22)
newspaper advertisements, emails). Finally, TriMet will hold a public hearing at its March 24, 2021 board meeting to receive comments on the proposed service changes.

The following is a summary of themes across the feedback received: [This section will be completed once all public input is reviewed and the TriMet board of directors has been made aware and considered this service proposal and equity analysis.]

V. Summary of Findings

Table 9 on the next page summarizes the results of the line-level and system-level Disparate Impact and Disproportionate Burden analyses. As shown, there are several disparate impacts with the service increases portion of the proposed FY22 Annual Service Plan. All four improvements will serve areas with relatively low minority populations as compared to the TriMet district. After further consideration, improving service on these lines does not raise high concerns for inequitable distribution of benefits for minority populations. That is, two of the four lines (New Line and Line 63) will both increase their respective service area for minority populations compared to their current service areas. The Line 32 extension will increase access to the Oregon City High School and the Line 94 will add weekend service. Additionally, the proposal promises to improve service for low-income populations and does not raise concerns of an inequitable distribution of benefits for low-income populations. That is, the proposed improvements did not have any line-level Disproportionate Burdens and there were no system-level impacts.

The one proposed route change (to the Line 11) does appear to create an adverse effect given the high concentration of minority populations potentially impacted. It should be noted that the stops being removed from both areas (Delta Park and Rivergate) see very little to no activity, respectively, as of spring 2020. Moreover, there are no residences along N. Rivergate Blvd. Therefore, adverse effect does not apply. The three remaining proposed service reductions does not appear to create disproportionate and adverse effects given the low concentrations of minority and low-income populations potentially impacted. Overall, reducing service on these lines does not raise concerns of an inequitable distribution of burdens for minority and low income populations given the results of the line-level and system-level analysis.

[Given the Disparate Impacts identified in the service improvements (line and system-level analysis), TriMet will evaluate whether there is an alternative that would serve the same objectives and with a more equitable impact. TriMet will work to minimize or mitigate the adverse impact of the proposed actions. Otherwise, TriMet will provide a substantial legitimate justification for keeping the proposal as-is. Moreover, TriMet will demonstrate no alternatives will have a less Disparate Impact on minority riders that would still accomplish the proposal goals.]
Table 9: Summary of Disparate Impact and Disproportionate Burden Analysis Results

<table>
<thead>
<tr>
<th>Major Service Reduction</th>
<th>Potential Disparate Impact?</th>
<th>Potential Disproportionate Burden?</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - Rivergate/Marine Dr</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>19 - Woodstock/Glisan</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>63 - Washington Park/Arlington Hts</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>93 - Tigard/Sherwood</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Combined Reductions (System-level)</strong></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Major Service Increases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Line – Thurman</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>32 – Oatfield</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>63 – Washington Park/Arlington Hts</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>94 - Pacific Hwy/Sherwood</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Combined Improvements (System-level)</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Other Major Service Changes**

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Attachment A: Analysis of impact on access to employment, education, health care, food, and parks/public recreation for minority and low-income populations

[Further considerations of access to jobs, education, health care, food and parks/public recreation for minority and low-income populations will be completed after the first round of public comment on the service proposals.]