

Title VI Service Equity Analysis

Final Network Now Concept Plan

February 2025



Metropolitan Council

The Metropolitan Council is the regional policy-making body, metropolitan planning organization (MPO), and provider of essential services for the Twin Cities metropolitan region. The Council's mission is to foster efficient and economic growth for a prosperous region.

The 17-member Metropolitan Council is a policy board, which has guided and coordinated the strategic growth of the metro area and achieved regional goals for more than 50 years. Elected officials and residents share their expertise with the Council by serving on key advisory committees.

The Council also provides essential services and infrastructure – Metro Transit's bus and rail system, Metro Mobility, Transit Link, Metro micro, Metro Move, wastewater treatment services, regional parks, planning, affordable housing, and more – that support communities and businesses and ensure a high quality of life for residents.

Metro Transit

Metro Transit is the transportation resource for the Twin Cities, offering an integrated network of buses, light rail, and commuter trains, as well as resources for those who carpool, vanpool, walk, or bike. Metro Transit is developing a network of enhanced transitways throughout the region.

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Chapter 1: Introduction

In 2023, Metro Transit began its Network Now planning process and engaged customers, community members, cities and counties from across the Twin Cities region on their values and priorities for transit. While collecting this feedback, Metro Transit also reviewed regional policy guidance and assessed recent network performance to understand how existing services have been meeting customers' needs. This stakeholder input informed the development of a decision-making framework, including the five Network Now principles that guide the remainder of the project.

From late 2023 to early 2024, Metro Transit conducted an agency-wide process to develop, evaluate, and prioritize transit service improvements based on the Network Now principles. These efforts culminated in the draft concept plan. The system-wide changes in this plan are the subject of this evaluation.

Network Now includes service changes for implementation through 2027, including the opening of new regional transitways, addition of new and improved bus routes, and restoration or discontinuation of routes that are currently suspended. All of these changes have the potential to impact the availability and quality of transit service throughout the region. The Metropolitan Council pledges that the public will have access to all its programs, services, and benefits without regard to race, color, or national origin, in accordance with Title VI of the Civil Rights Act of 1964. This pledge applies to Metro Transit, an operating division of the Metropolitan Council.

Report Purpose

The purpose of this report is to review planned service changes associated with the implementation of the Network Now plan changes to ensure the impacts of those changes would be made in a nondiscriminatory manner on the basis of race, color, national origin, and low-income status.

In this and all Metro Transit Title VI service equity analyses, the impact of the service change is measured by the change in service availability - or access to transit. Put another way, we quantify how much transit service is within a reasonable walk or roll from one's home, and how that would change under the proposed scenario. This is measured by the number of weekly scheduled transit trips (count of trips from public route schedules) available to each census block and the people that live within it.

Specifically, this analysis reviewed the extent to which the percent change and absolute change in weekly scheduled transit trips differs between Black, Indigenous, and people of color (BIPOC) residents and white non-Hispanic (white) residents, and between low-income residents and non-low-income residents. The results will help determine whether there may be disparate impact on the basis of race, color, or national origin, or disproportionate burden on low-income populations.

Federal Requirements

The Federal Transit Administration (FTA) requires recipients of federal funding, including Metro Transit, to ensure communities of color and people with lower incomes do not experience discrimination in the level and quality of public transportation service. This FTA requirement stems from Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance; and President Clinton's *Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994)¹, which directed federal agencies to consider impacts to low-income populations as well.

As part of this effort, FTA requires transit providers such as Metro Transit to conduct a Title VI service equity analysis, prior to implementation, for any proposed service change that meets the agency's "major service change" threshold (defined in CHAPTER 3: TITLE VI PRINCIPLES AND DEFINITIONS). This analysis fulfills this requirement as it relates to proposed service changes as part of implementing Network Now.

¹ U.S. President, Proclamation, Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, Feb. 11, 1994, <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>. Accessed February 12, 2025. This executive order was revoked in President Donald Trump's January 21, 2025 Executive Order 14173: Ending Illegal Discrimination and Restoring Merit-Based Opportunity. However, FTA guidance has not changed; nor has the Civil Rights Act of 1964.

Chapter 2: Proposed Service Changes

Network Now

[Network Now](#) establishes Metro Transit's service planning priorities through 2027. This plan documents the changes to the region's transit network that have occurred since 2019, builds on the success of rail and bus rapid transit investments, and guides how Metro Transit will invest in transit service to expand service and improve mobility. Through Network Now, Metro Transit will:

- Expand transit service by more than 40% to help attract more riders.
- Improve access by providing new bus routes and Microtransit (Metro micro) service.
- Modify commuter and express service to meet today's travel patterns
- Reduce greenhouse gas emissions by encouraging transit use.

Metro Transit will implement Network Now in phases as it continues hiring more operators, mechanics, and other support staff through 2027. Metro Transit will prioritize service improvements based on community feedback, resource availability, and operational needs.

Network Now is a collection of changes to the Metro Transit service network within the Metropolitan Council service area, also referred to as the Twin Cities region. The plan includes routes operated directly by Metro Transit, as well as routes operated by private providers under contract with the Metropolitan Council. The plan does not include the service operated by the region's other suburban transit agencies: Minnesota Valley Transit Authority (MVTA), Maple Grove Transit, Plymouth Metrolink, or SouthWest Transit.

Figure 1 and Figure 2 show the proposed system highlighting the local and high frequency networks and commuter-oriented service (including transitways and express buses). Both maps also show planned Metro micro zone locations demonstrating the role they will play connecting communities to fixed route service, especially transitways.

Figure 1. Network Now - Local route and high frequency service

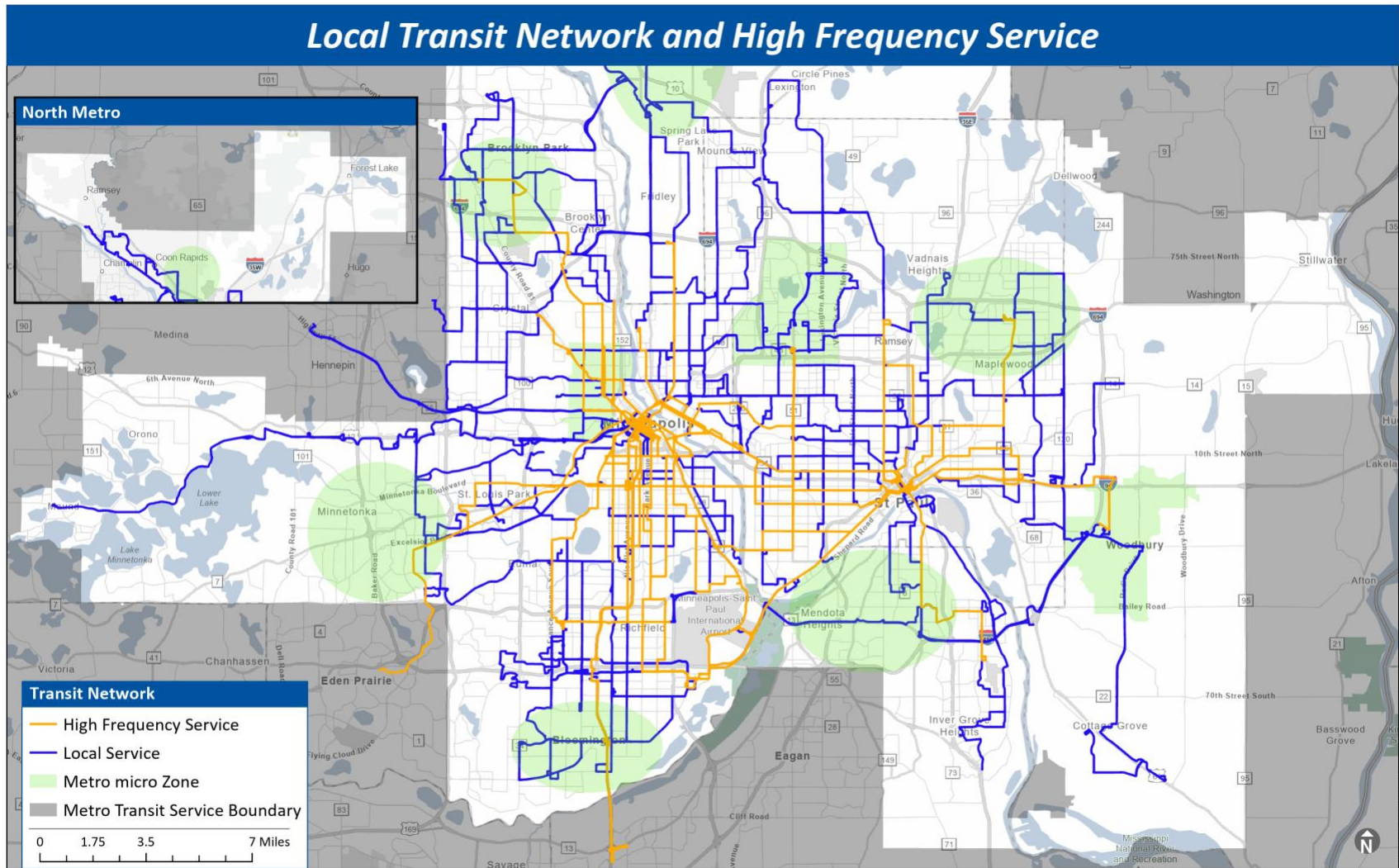
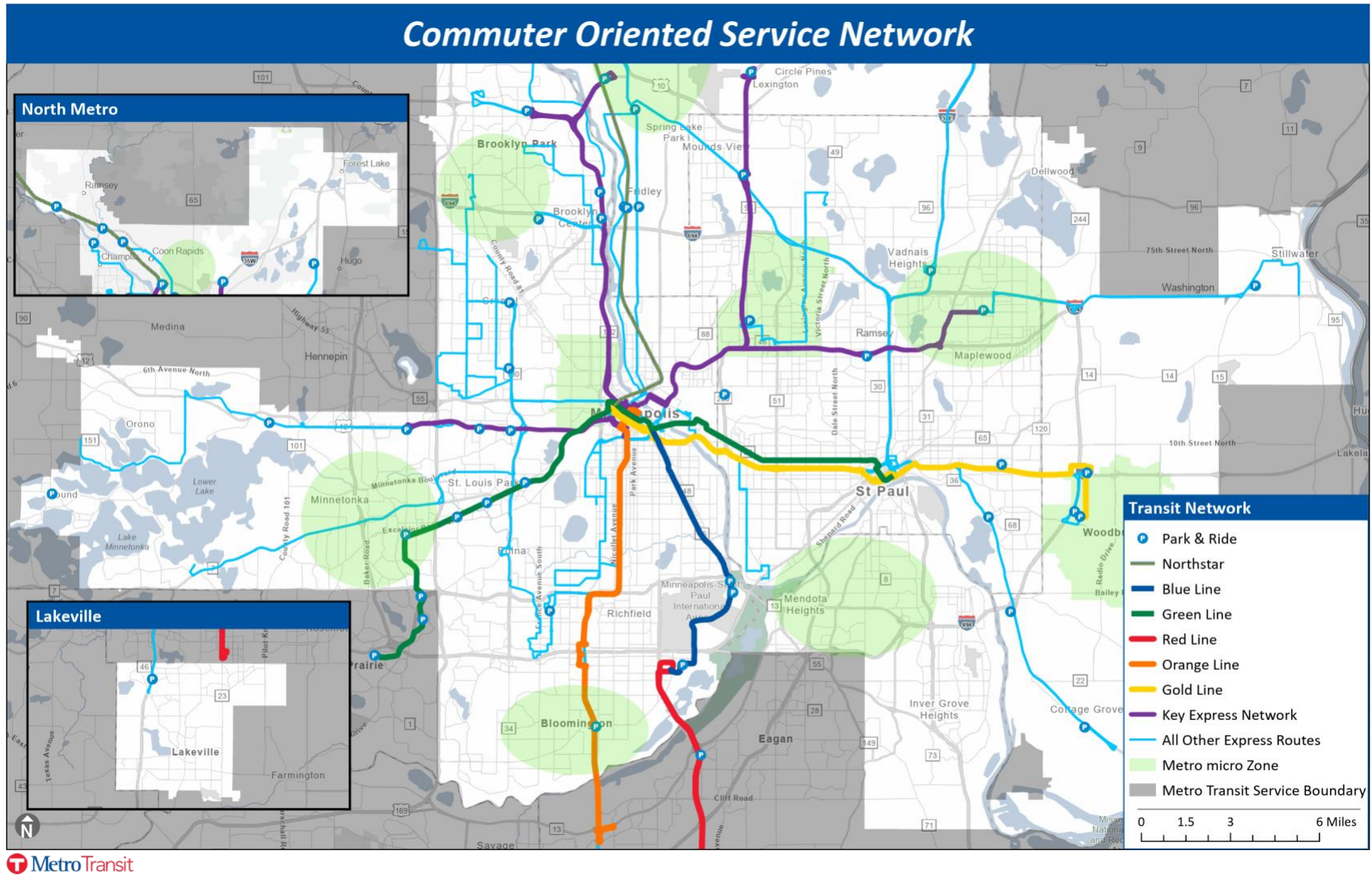


Figure 2. Commuter oriented service network



Service Plan

The following section provides a brief summary of the planning process that went into the development of the Network Now plan and route by route service changes.

Planning Process

Metro Transit's Network Now decision-making framework is summarized in the [Establishing the Foundation](#) report released in Fall 2023. The decision-making framework is informed by regional policy guidance, recent transit system performance, and customer feedback, and includes three supporting chapters as follows:

- **Policy guidance:** Metro Transit's services are governed by regional policy documents adopted by the Metropolitan Council, as well as more detailed supporting standards and guidelines. These are summarized in detail in [Chapter 1: Regional Policy Guidance](#).
- **Network performance and opportunities:** Metro Transit has documented service changes from 2020 to 2023 and has analyzed changes in ridership and travel patterns since the pre-pandemic era. Network Now's evaluation of recent transit service performance is summarized in the [Chapter 2: Network Performance and Opportunities](#).
- **Engagement and customer feedback:** Metro Transit conducted extensive public outreach activities as part of the development of the Network Now decision-making framework. Engagement efforts reached more than 6,000 people, including customers from across Metro Transit's service area and from low-income groups and communities of color. Metro Transit also conducted internal engagement to incorporate feedback from front line staff in developing service options. Results of these engagement efforts are summarized in detail in [Chapter 3: Engagement and Customer Feedback](#).

More information on the decision-making framework, including an Executive Summary, can be found at metrotransit.org/network-now.

Proposed Service Changes

The Network Now concept plan calls for frequency and/or span improvements on most local routes, while express bus routes will be consolidated to offer more frequent service in major travel corridors. The METRO network will see significant service expansion as new light rail and bus rapid transit projects are implemented. Coverage will be supplemented by expansion of Metro micro, the agency's multi-zone microtransit service, to eight new zones within the Metro Transit service area.

Figure 3 and Figure 4 summarize the service and frequency changes that will be implemented as part of the Network Now concept plan. More detail on each of these changes can be found online at metrotransit.org/network-now.

Figure 3. Network Now summary of service changes



Source: https://www.metrotransit.org/Data/Sites/1/media/network-now/network_now_final_report_rsv.pdf

Figure 4. Network Now - summary of weekday midday frequency levels



Source: https://www.metrotransit.org/Data/Sites/1/media/network-now/network_now_final_report_rsv.pdf

Regional Transitway Service Changes

The METRO network which includes highway BRT, guideway BRT, and light rail transitways, represents a significant portion of Metro Transit's planned investment in regional transit service. Arterial BRT lines are also part of the METRO network but are not reflected in Figure 2. The Network Now concept plan includes frequency and span improvements on existing transitways, as well as the implementation of four new BRT transitways and extension of one light rail corridor by 2027.

The changes listed below will all occur within the timeframe of Network Now. Other transitways are planned beyond 2027, including the implementation of the F Line, Phase 2 of the G Line, H Line, Purple Line, and Blue Line Extension. Specific supporting service decisions have yet to be finalized for these lines, but decisions made as part of Network Now for local and regional service will affect their planning and development.

CHAPTER 3: TITLE VI PRINCIPLES AND DEFINITIONS

Title VI and Environmental Justice

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance. Title VI 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.

Moreover, FTA guidance recognizes the inherent overlap between Title VI and environmental justice principles, which extend protections to low-income populations. In 1994, President Clinton issued Executive Order 12898² - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which states that each federal agency:

shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Title VI was identified as one of several Federal laws that should be applied “to prevent minority communities and low-income communities from being subject to disproportionately high and adverse environmental effects.”

To provide direction to recipients of federal funding, FTA issued Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients in 2012. FTA Circular 4702.1B outlines Title VI evaluation procedures for recipients of FTA-administered transit program funds and includes guidance for a variety of equity evaluations, including service equity analyses.

Title VI Program

Metro Transit and the Metropolitan Council’s commitment to Title VI of the Civil Rights Act of 1964 is documented in the agency’s Title VI Program, which includes policies and procedures that:

- Ensure that the level and quality of public transportation service is provided in a nondiscriminatory manner;
- Promote full and fair participation in public transportation decision-making without regard to race, color, or national origin; and

² U.S. President, Proclamation, Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, Feb. 11, 1994, <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>. Accessed February 12, 2025. This executive order was revoked in President Donald Trump’s January 21, 2025 Executive Order 14173: Ending Illegal Discrimination and Restoring Merit-Based Opportunity. However, FTA guidance has not changed; nor has the Civil Rights Act of 1964.

- Ensure meaningful access to transit-related programs and activities by persons with limited English proficiency.

The Title VI Program also applies to Metro Transit, is updated by the Metropolitan Council every three years, and is available online and upon request. This report references several elements from the current Title VI Program, approved by the Metropolitan Council in 2022.

Requirement to Conduct Service Equity Analyses

Transit providers that operate 50 or more fixed route vehicles in peak service and are located in an urbanized area of 200,000 or more in population, including Metro Transit, are required to prepare and submit a service equity analysis, prior to implementation, for any proposed major service change (defined below). This analysis fulfills the requirement.

In accordance with FTA Circular 4702.1B, completion of a service equity analysis requires the incorporation of several Title VI policies, which are set by the transit provider. These include the “disparate impact” and “disproportionate burden” policies, used to assess whether the effects of proposed service changes rise to the level of disparate impact on racial/ethnic minority populations and disproportionate burden on low-income populations, respectively.

Major Service Change Policy

Metro Transit’s Major Service Change Policy is defined the 2023-2025 Metropolitan Council Title VI Program. Four criteria are included in the policy:

- 1. For existing routes, one or more service changes resulting in at least a 25% change in the weekly in-service hours within a 12-month period (minimum of 3,500 annual in-service hours)**
- 2. A new route in a new coverage area (minimum net increase of more than 3,500 annual in-service hours)**
- 3. Restructuring of transit service throughout a sector or sub-area of the region as defined by Metro Transit**
- 4. Elimination of a transit route without alternate fixed route**

A service change meeting any of these four thresholds qualifies as a major service change and requires an equity analysis.

Discrimination, Disparate Impact, and Disproportionate Burden

In FTA Circular 4702.1B, discrimination is defined as referring to:

any action or inaction, whether intentional or unintentional, in any program or activity of a federal aid recipient, subrecipient, or contractor that results in disparate treatment, disparate impact, or perpetuating the effects of prior discrimination based on race, color, or national origin.

Disparate impact, a key concept for understanding Title VI regulations, is defined in the Circular as:

a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin.

Similarly, FTA defines disproportionate burden as:

a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.

Per FTA guidance, Metro Transit uses its disparate impact and disproportionate burden policy thresholds as evidence of impacts severe enough to meet the definition of disparate impact or disproportionate burden.

Metro Transit has defined its disparate impact and disproportionate burden policies and thresholds using a 90 percent threshold, which states that there may be evidence of disparate impact if:

- *Benefits* are being provided to BIPOC populations at a rate less than 90 percent of the benefits being provided to white populations, or
- *Adverse* effects are being borne by white populations at a rate less than 90 percent of the adverse effects being borne by BIPOC populations.

Metro Transit uses the same framework when evaluating whether low-income populations would experience disproportionate burden relative to the impacts on non-low-income populations.

The 90 percent threshold suggests that a selection rate for any racial, ethnic, or gender group that is less than 90 percent of the rate for the group with the highest selection rate will be regarded as evidence of adverse impact. Although it is a general principle and not a legal definition, it is a practical way for identifying adverse impacts that require mitigation or avoidance. Many transit agencies, including some of the largest in the country, use a similar framework when defining their disparate impact and disproportionate burden policies.

Metro Transit's decision to use the 90 percent threshold for its disparate impact and disproportionate burden thresholds was subject to a formal public outreach process before being adopted by the Metropolitan Council in 2022. Prior to the 2022 policy update, 80 percent was the threshold. Additional information about the policies and their applications can be found in the Council's current Title VI Program.

Policies Applied to this Proposed Service Change

The proposed package of service changes evaluated in this report restructure transit service throughout the region representing an expansion in service of more than 35 percent. These changes meet at least two of Metro Transit’s criteria for a major service change:

1. **For existing routes, one or more service changes resulting in at least a 25% change in the weekly in-service hours within a 12-month period (minimum of 3,500 annual in-service hours)**
3. **Restructuring of transit service throughout a sector or sub-area of the region as defined by Metro Transit**

The proposed service change will increase the number of weekly scheduled transit trips available to the average resident. As such, in this analysis, if the quantitative results indicate that the benefits for BIPOC residents are less than 90 percent of the benefits for white residents, this could be evidence of a disparate impact. In this case, additional analysis will be conducted, and potential mitigation measures will be identified, if necessary.

A major service change that results in a disparate impact may only be implemented if:

- There is a substantial legitimate justification for the proposed major service change, and
- There are no alternatives that would have a less disparate impact while still accomplishing the transit provider’s legitimate program goals.

This same framework applies for determination of disproportionate burden on low-income residents relative to non-low-income residents.

Title VI Definitions of Minority and Low-Income Populations

Racial and Ethnic Minorities

FTA defines a “minority” person as one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander. However, as part of efforts to use respectful and inclusive language, Metro Transit and the Metropolitan Council prefer to use the term Black, Indigenous, and People of Color (BIPOC), or communities of color, rather than “minority” when referring to people who identify as one or more of the above racial or ethnic groups. As such, references to BIPOC or communities of color in this report should be interpreted to mean the same thing as “minority” matching the terminology used by the FTA.

Title VI Circular and other federal guidance

For the purposes of this evaluation, “non-minority” or “non-BIPOC” persons are defined as those who self-identify as non-Hispanic white (“white”). All other persons, including those identifying as two or more races and/or ethnicities, are defined as BIPOC (equivalent to “minority”).

FTA requires transit providers to evaluate service using this dichotomy between “minority” and “non-minority” populations. However, focusing on the global “minority” or BIPOC category (versus using disaggregated race and ethnicity data) obscures the racial and ethnic diversity of the many identities within it, treating BIPOC residents as interchangeable. To remedy this, Metro Transit and the Metropolitan Council are now using and providing more detail on race and ethnicity in their evaluations and data products. For example, as part of regular monitoring of route and system-wide performance (outside of the realm of Title VI), Metro Transit disaggregates transit performance by race and ethnicity for more power and knowledge by community.

Low-Income Population

While low-income populations are not an explicitly protected class under Title VI, FTA recognizes the inherent overlap between the principles of Title VI and environmental justice. Consequently, FTA encourages required transit providers to conduct service equity analyses with regard to low-income populations in addition to minority populations, and to identify any disproportionate burden placed on low-income populations.

FTA defines a low-income person as one whose household income is at or below the poverty guidelines set by the Department of Health and Human Services (HHS). HHS poverty guidelines are based on family/household size. However, FTA Circular 4702.1B also allows for low-income populations to be defined using other established measures that are at least as inclusive as those developed by HHS.

Correspondingly, this Title VI service monitoring analysis uses 185 percent of the 2019-2023 5-Year ACS U.S. poverty thresholds to determine low-income status. U.S. Census Bureau poverty thresholds use a more sophisticated measure of poverty that considers not only family/household size, but also the number of related children present, and, for one- and two-person family units, whether one is elderly or not. The U.S. Census Bureau’s poverty thresholds are used for statistical purposes, while HHS’s poverty guidelines are used for administrative purposes.

The Metropolitan Council uses 185 percent of poverty thresholds to define poverty in its place-based equity research, regional policies, and other initiatives, and this Title VI analysis mirrors that approach.

CHAPTER 4: ANALYSIS METHODOLOGY

A geographic information systems (GIS)-based approach was used in this analysis to measure the location and magnitude of service changes and compare the distribution of impacts (positive or negative) to BIPOC, white (non-BIPOC), low-income, and non-low-income populations based on where they live. The analysis consists of five steps:

1. Model existing/baseline and proposed service levels (scheduled weekly transit trips).
2. Allocate current and proposed transit service levels to population groups based on the spatial relationship between census blocks and transit service “walksheds” (e.g., quarter mile/5-minute walk or roll from a bus stop or half mile/10-minute walk or roll from a transitway station) based on the street network.
3. Calculate the percent change (and absolute change) in service between the existing/baseline and proposed service levels for each census block served in either time period.
4. Calculate the population-weighted average percent change (and absolute change) in service for all population groups within the area served by transit in either time period.
5. Determine whether the proposed service will result in a potential disparate impact or disproportionate burden by applying Metro Transit’s disparate impact and disproportionate burden policies.

This analysis used the number of weekly scheduled trips available to each census block as a measure of overall transit service levels. Common improvements to transit service, such as increased frequency and increased span of service, will result in an increase in the number of scheduled trips available. The addition of service to a new area will also result in an increase in the number of trips available to the surrounding areas. Total weekly scheduled trips were used in this analysis, accounting for Saturday and Sunday service levels, in addition to those on weekdays.

Modeling Current and Proposed Service Levels

Two networks were modeled to represent service levels from which to calculate changes - an existing/baseline network and a proposed network. The existing network is the December 2023 published schedule while the proposed network is all service changes recommended by Metro Transit in Network Now. Network Now will be implemented over several years ending in 2027. This analysis considered the impacts to service levels for census blocks throughout the whole of Metro Transit’s fixed-route service area. It does **not** consider existing nor proposed Metro micro service levels, nor does it include impacts of expanding Metro micro service

Assigning Transit Trips to Census Blocks

The number of weekly scheduled transit trips at each stop or station was assigned to census blocks as a means of quantifying the amount of transit service available in a given area. A bus stop was assumed to serve a census block (and its population) if the geographic center of the census block was within a

5-minute walk (about a quarter mile) of the stop. Alternatively, transitway (light rail, commuter rail, and bus rapid transit) stations were assumed to serve a census block (and its population) if the geographic center of the census block was within a 10-minute walk (about a half mile) of the stop. These time-based “walksheds” were created using the existing street network to better reflect where people can actually walk or roll (i.e., reflecting real-world barriers such as water features, interstates, etc.). Due to the large size of some census blocks, if a stop or station is located within a block it is also included in the analysis, even if the geographic center is not within the walk distance threshold.

Measuring transit service at the stop/station level assigns service only to areas near where a transit vehicle may pick up and drop off passengers, disregarding non-stop route segments.

Demographic Data

To understand the Title VI implications of a major service change, level of transit service is reviewed in context of the demographics of the areas served. As discussed above, level of transit service in this analysis is measured by the number of weekly scheduled trips available to people living in census blocks. Census blocks are the smallest geographic unit used by the U.S. Census Bureau and are bounded by roadways or water features in urban areas. Block-level data are often preferred over that reported at larger geographies (i.e., block group or tract) because their smaller size increases the potential level of precision of analysis.

In this analysis, BIPOC, white, low-income, and non-low-income populations were estimated at the census block level by applying aerial interpolation techniques to the 2019-2023 American Community Survey (ACS) 5-year Estimates.

Calculating Change in Service Level by Census Block

Two methods have been applied in this analysis for calculating change in service level by block: absolute change and percent change. The absolute change in service was calculated for each served census block by subtracting the existing/baseline number of weekly scheduled trips available from the proposed number of weekly scheduled trips available. Next, for each census block, the percent change in service was calculated by dividing the absolute change in weekly scheduled trips by the existing/baseline number of weekly scheduled trips. To minimize artificial skewing, all changes greater than 100 percent, including those that are incalculable due to no existing service, were adjusted to a maximum absolute value of 100 percent.

As described in the Metropolitan Council and Metro Transit’s Title VI Program, major service changes are assessed cumulatively, or as a package of changes. The average absolute and percent changes in service for each target population (i.e., BIPOC, white, low-income, and non-low-income) were calculated by weighting the absolute and percent changes in service for each census block by the target population served in that census block. For example, the average absolute and percent changes in service for BIPOC populations were calculated by multiplying each census block’s BIPOC population by the absolute and percents change in service for that block, summing the results for all

blocks, and dividing that sum by the total BIPOC population for all blocks served in either the current or proposed scenario. The formulas used for these analyses are shown in Figure 5.

Figure 5. Formulas for determining average percent and absolute changes in service

$$\text{Avg abs change in service} = \frac{\sum(\text{Population}_i \times \text{Absolute Change}_i)}{\sum \text{Population}_i}$$
$$\text{Avg \% change in service} = \frac{\sum(\text{Population}_i \times \text{Percent Change}_i)}{\sum \text{Population}_i}$$

Where:

Population_i = Target population of census block *i*.
Absolute Change_i = Absolute change in service levels for census block *i*
Percent Change_i = Percent change in service levels for census block *i*

In this manner, the weighted absolute and percent changes were calculated individually for the total population, BIPOC population, white population, low-income population, and non-low-income population. Using this method, the impacts of the service changes for each census block are proportionate to both the demographics of the census blocks and the degree of service level change.

CHAPTER 5: EVALUATION OF IMPACTS

Affected Population

The proposed service changes in Network Now impact the entirety of Metro Transit’s service area. Figure 6 and Figure 7, respectively, show the distribution of BIPOC and white residents and low-income and non-low-income residents, by census block, within the service area. The service equity analysis measures the impact to these residents. Areas with zero population are excluded from the analysis.

Figure 6. Distribution of BIPOC and white populations

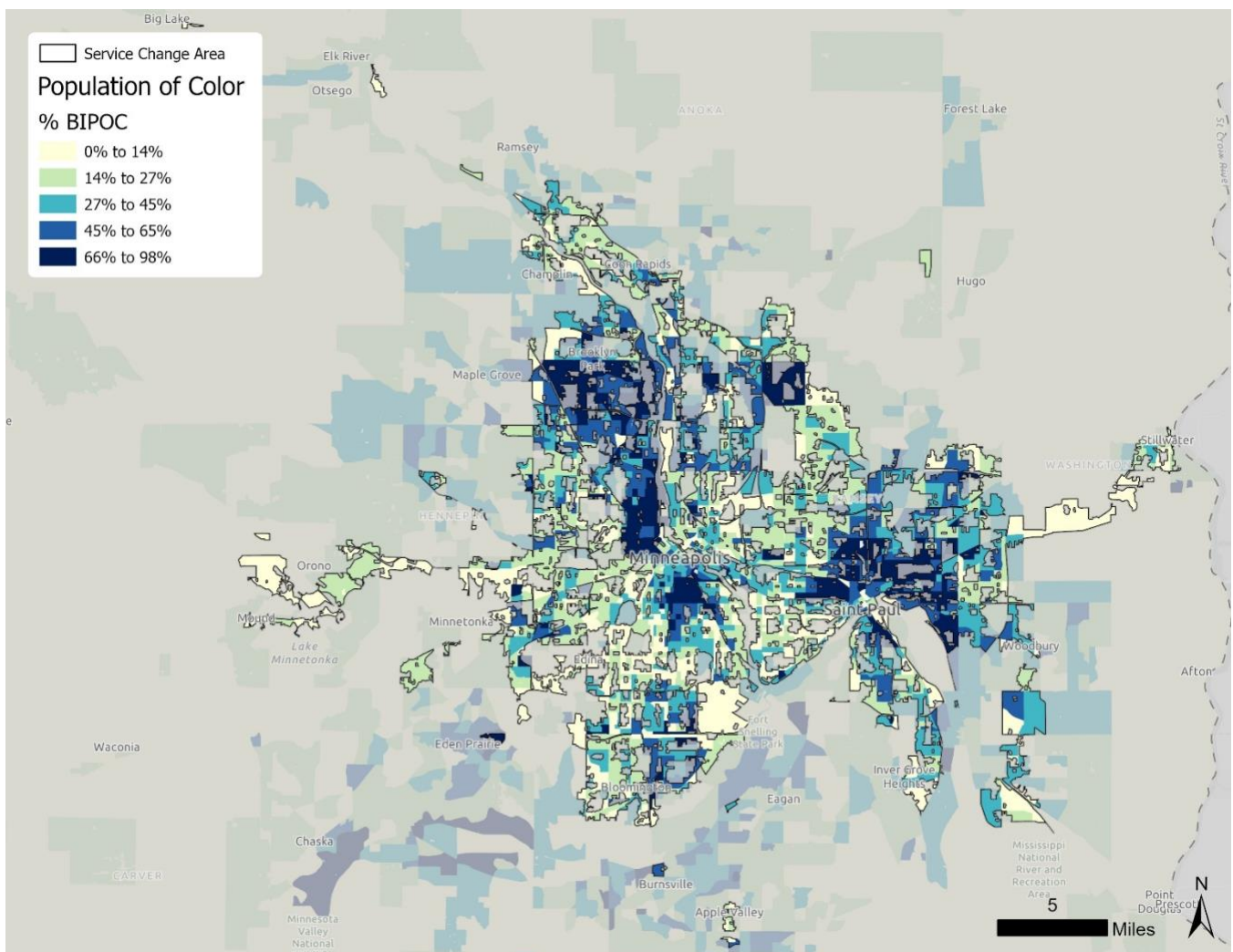
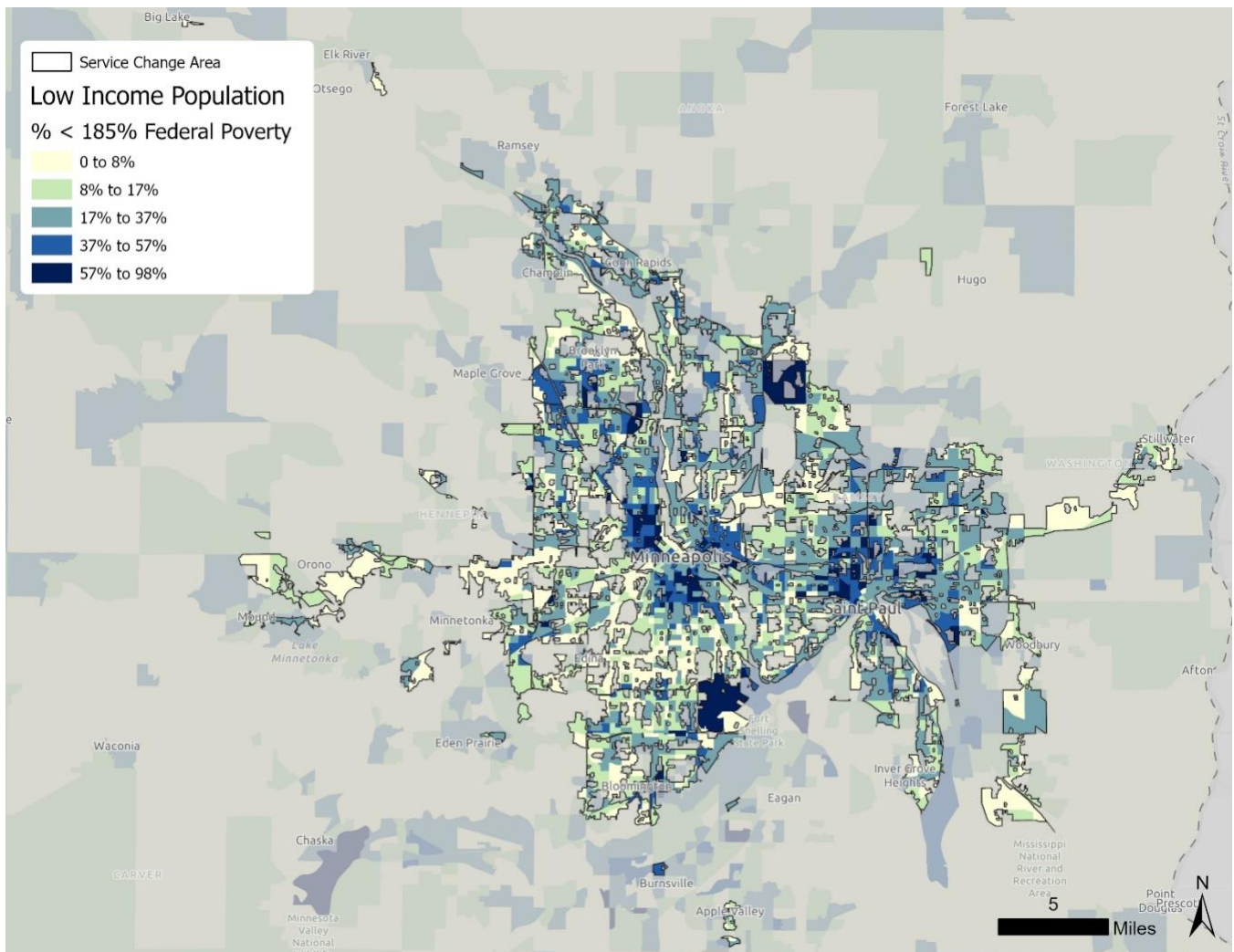


Figure 7. Distribution of low-income and non-low-income populations



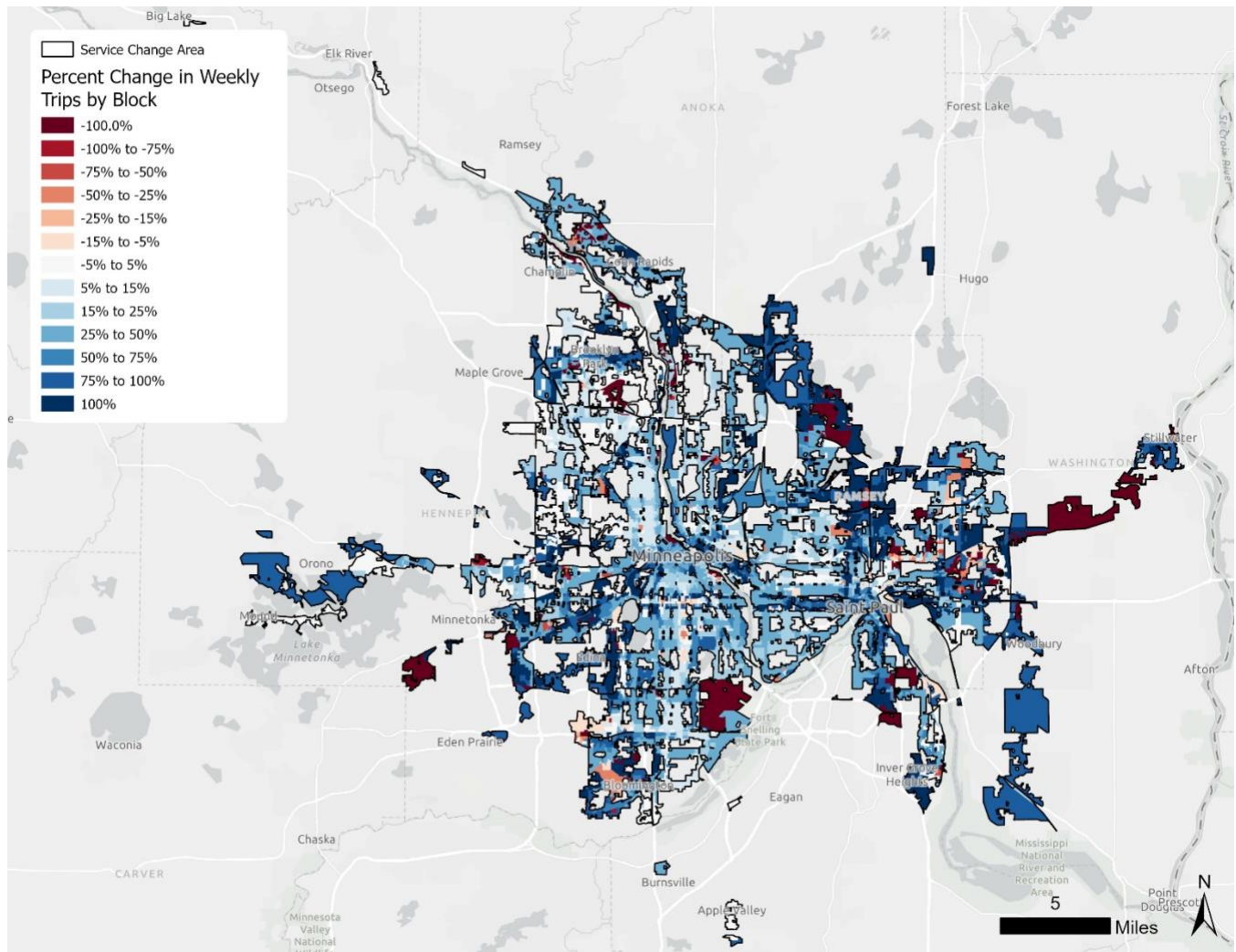
Change in Service by Census Block

This section highlights proposed service changes spatially. The percent change in transit service level, as measured by weekly scheduled transit trips by census block, is shown in Figure 8 and the absolute change in weekly scheduled trips by census block, is shown in Planned transitways including METRO B, E, and Gold Lines and METRO Green Line Extension stand out in select areas as major service increases. Similar to the percent change map, areas in northern and eastern Saint Paul show variation in service increases and decreases due to planned restructuring. The absolute change results differ from the percent change results in their deemphasis of changes to low-frequency suburban routes such as Route 294. Similarly, the absolute change map highlights service increases in core urban areas which may be small on a relative basis and yet are major investments in transit service hours.

Figure 9.

The percent change map emphasizes areas where service is being returned and discontinued (changes of 100 and -100 percent). Many of these areas occur on the outer edges of the service area where routes offering limited service have been restructured or discontinued. For example, Route 294 which runs one trip per day from downtown Saint Paul to Stillwater with service to Oakdale and Lake Elmo is being discontinued. Service to Stillwater will be replaced by new express service, Route 291. As a result, areas in Lake Elmo appear dark red in the percent change map. Areas in northern and eastern Saint Paul also stand out in the percent change map due to significant route restructuring in these areas. Routes in this area are planned for adjustment to streamline and simplify service in accordance with boarding and alighting patterns.

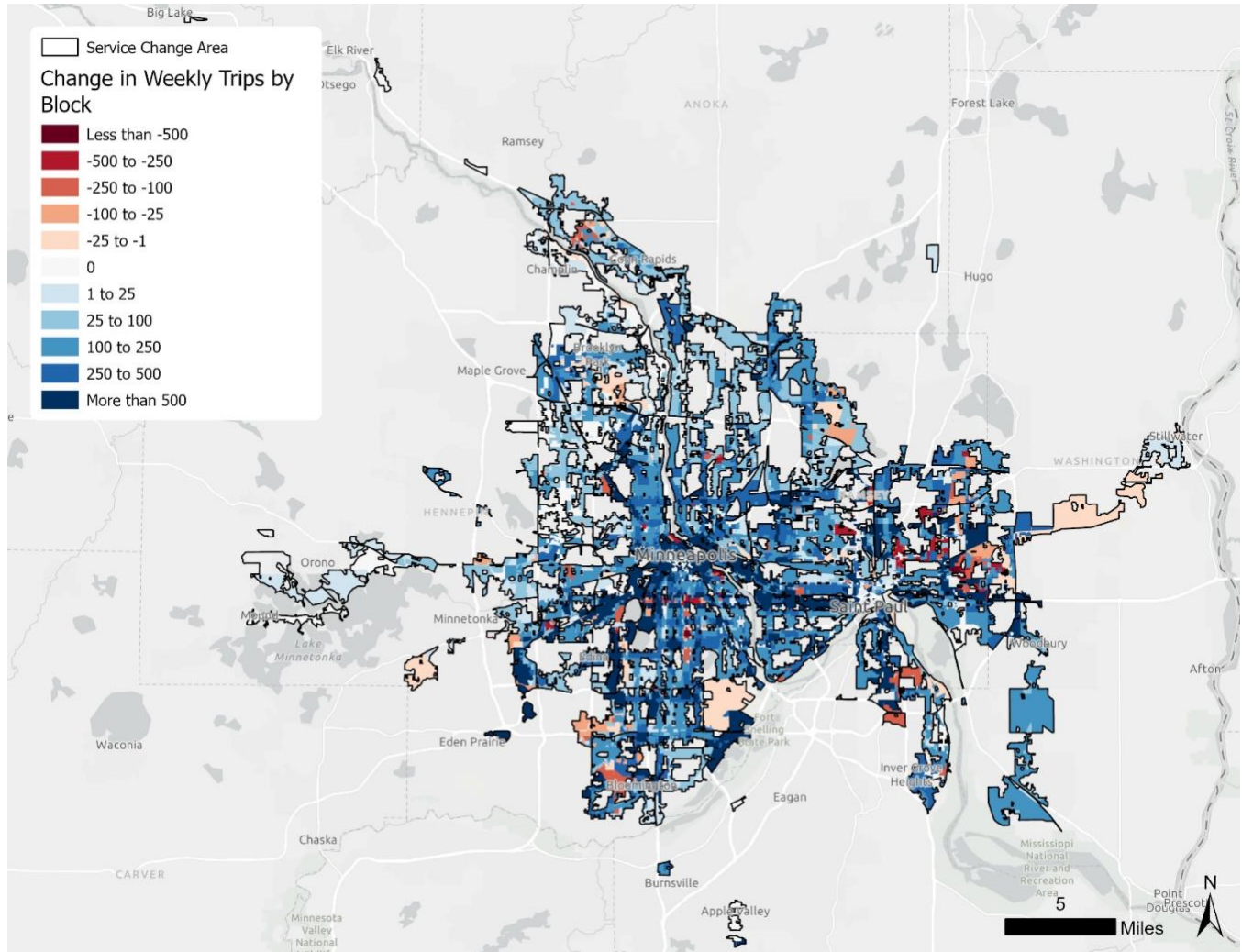
Figure 8. Percent change in weekly service by census block



The absolute change in weekly trips map (Figure 9) shows where incrementally more (or fewer) resources are planned for investment. Planned transitways including METRO B, E, and Gold Lines and METRO Green Line Extension stand out in select areas as major service increases. Similar to the

percent change map, areas in northern and eastern Saint Paul show variation in service increases and decreases due to planned restructuring. The absolute change results differ from the percent change results in their deemphasis of changes to low-frequency suburban routes such as Route 294. Similarly, the absolute change map highlights service increases in core urban areas which may be small on a relative basis and yet are major investments in transit service hours.

Figure 9. Absolute change in weekly trips by census block



Average Change in Service by Population Group

Two of the guiding principles for Network Now focus on building on success to grow ridership: adding service where people use transit the most and advancing equity and reducing regional disparities. The changes in Network Now improve frequency or span of service for all population groups included in this analysis. Title VI analysis has been completed using both percent and absolute change in weekly trips. The following sections include results and conclusions of both analyses.

Percent Change in Weekly Trips

Table 1 summarizes the average percent change in service level for each target population group. On average, the proposed service changes associated with introduction of the Network Now result in a notable increase in transit service availability for residents within the service change area, 37 percent. When disaggregated by population group, the percent changes in service range from 34 percent (BIPOC residents) to 39 percent (white residents).

Table 1. Average percent change in service

Population Group	Average Percent Change in Service	Affected Population
Black, Indigenous, and People of Color	34%	477,868
White non-Hispanic	39%	702,457
Disparate Impact Comparison Index ¹	0.87	-
Low-Income	36%	304,626
Non-Low-Income	37%	849,197
Disproportionate Burden Comparison Index ²	0.97	-
Total Population	37%	1,180,325

¹34% / 39% = 0.87

²36% / 37% = 0.97

Absolute Change in Weekly Trips

In addition to looking at the percent change in service levels in census blocks for specific populations, this analysis also determined the average absolute change in weekly trips. On average, residents in the service change area will see an increase of 396 weekly trips (Table 2).

The average absolute change in weekly trips provides extra context to the percent change results by population group. As shown below in Table 2, BIPOC and white residents would each experience and increase of 392 and 399 weekly trips, respectively. Low-income residents would experience the highest absolute increase of 443 weekly trips while non-low-income residents would have the most modest increase of 370 weekly trips.

Table 2. Average absolute change in service

Population Group	Absolute Change in Weekly Trips	Affected Population
Black, Indigenous, and People of Color	+392	477,868
White non-Hispanic	+399	702,457
Disparate Impact Comparison Index ¹	0.98	-
Low-Income	+443	304,626
Non-Low-Income	+370	849,197
Disproportionate Burden Comparison Index ²	1.20	-

Total Population	+396	1,180,325
¹ 392 / 399 = 0.98		
² 443 / 370 = 1.20		

Results Summary

The outcomes of this Title VI analysis are summarized in Table 3 for percent change and absolute change. In order to avoid the potential for disparate impacts or disproportionate burden, the comparison ratios must exceed 0.90. The two analysis methods result in different outcomes for comparing service change benefits for BIPOC and white residents (measure of disparate impact). However, in comparing service change benefits for low-income and non-low-income residents, the two analysis approaches yield the same results (measure of disproportionate burden).

Table 3. Summary of Title VI impacts

Method	Disparate Impact Ratio	Disparate Impact Result	Disproportionate Burden Ratio	Disproportionate Burden Result
Percent Change in Weekly Trips	0.87	Potential Disparate Impact	0.97	No Disproportionate Burden
Absolute Change in Weekly Trips	0.98	No Disparate Impact	1.20	No Disproportionate Burden

The average BIPOC resident would experience a 34 percent increase in service following the proposed changes, which is just slightly less than the average for white resident, who would experience a 39 percent increase. The ratio of these percent changes is 0.87. Therefore, per Metro Transit’s Title VI policies, this analysis identifies **a potential for disparate impact on BIPOC residents** resulting from the proposed service changes of implementing Network Now. However, in reviewing the comparison in terms of absolute change in weekly trips, the increase of 392 weekly trips for BIPOC residents relative to the increase of 399 weekly trips for white residents is 0.98. Further investigation into the potential impact and/or mitigation measures are recommended.

The average low-income resident in the service change area would experience a 36 percent increase in transit service after the proposed changes. This service increase is just less than that for the average for non-low-income individual, who would receive a 37 percent increase, a ratio of 0.97. Therefore, per Metro Transit’s Title VI policies, this analysis identifies **no disproportionate burden on low-income residents** resulting from the proposed service changes associated with Network Now’s implementation. Similarly, in comparing the absolute change in weekly trips, low-income residents would experience an increase of 443 weekly trips compared to 370 for non-low-income residents, a ratio of 1.20.

Mitigating Potential Disparate Impacts

The service changes in Network Now show the potential for disparate impacts when comparing changes in service for BIPOC residents to changes in service to white residents. However, this potential is only shown when comparing relative increases in service as percent change and not when

comparing absolute change in service availability. Both population groups will gain access to a similar number of additional weekly trips following Network Now implementation.

A key reason for the discrepancy in results between methodologies is the baseline level of service available to the average BIPOC resident as compared to the average white resident in Metro Transit's service area. In the baseline scenario (December 2023), the average BIPOC resident was served by 995 trips per week relative to the 850 weekly trips available to the average white resident. The absolute change in weekly trips available to both population groups with the recommended Network Now service changes is nearly equal (392 versus 399) meaning that more service will continue to be available to the average BIPOC resident than the average white resident after implementation. However, because the baseline for BIPOC residents is higher than for white residents, the relative increase for BIPOC residents is less significant.

In addition to the difference in baseline level of service, select service changes impact the relative service change for BIPOC residents. Relatively high concentrations of BIPOC residents live in the area just north and northeast of downtown Saint Paul. In Figure 8, the area shows a mix of relative service increases and decreases directly adjacent to each other. This area has a broad level of service restructuring planned which will consolidate service by reducing route branching. Multiple routes including Routes 64 and 74 will have low productivity branches discontinued. The outcome of these changes is more frequent service with more regular spacing which may require riders to walk slightly further from their home locations (exceeding the 5-minute walk time threshold used here). These changes were designed to mitigate impacts to riders as much as possible therefore additional mitigation measures are not recommended.

CHAPTER 6: CONCLUSIONS

Recipients of federal funding including Metro Transit are required to conduct a Title VI service equity analysis prior to the implementation of any service change that meets the transit agency's major service change threshold. Metro Transit and the Metropolitan Council are preparing to introduce a series of service changes as part of the Network Now Plan by 2027. Two of the guiding principles for Network Now focus on building on success to grow ridership: adding service where people use transit and the most and advancing equity and reducing regional disparities. Service changes are planned throughout Metro Transit's service area. Note that Network Now does include expansions to Metro micro, but these are not included in this report.

This analysis reviewed the percent and absolute change in weekly scheduled regular route transit trips resulting from the proposed changes. Comparison indices are calculated for BIPOC versus white residents (disparate impact) and low-income versus non-low-income residents (disproportionate burden). Per Metro Transit's Title VI policy, these indices must exceed 0.90, an indication that BIPOC residents will experience at least 90 percent of the benefits realized by white residents, and low-income residents will experience at least 90 percent of the benefits realized by non-low-income residents.

The Network Now plan includes a swath of major and minor route changes and a focus on transitways that will improve service in terms of relative and absolute weekly trips across all populations. BIPOC and white residents will see service increases of 34 percent (392 trips) and 39 percent (399 trips), respectively. Low-income residents will experience the highest absolute increase of 443 weekly trips on average (36 percent). Non-low-income residents will on average experience a more modest increase of 370 weekly trips (37 percent).

Upon applying Metro Transit's Title VI policies in accordance with Metro Transit and the Metropolitan Council's Title VI Program, this analysis finds that the proposed service changes would result in **no disproportionate burden on low-income populations** when comparing relative service levels before and after implementation. Though the initial screening found the potential for disparate impact on BIPOC populations based on percent change in service, **the potential disparate impact is removed when considering the absolute change in service available to average BIPOC residents** compared to white residents. The average BIPOC resident in Metro Transit's service area currently has access to a higher level of service than the average white resident. Thus, while the absolute change in service available to both groups is almost identical, the relative change for BIPOC residents is less significant than the relative change for white residents.