

WTA Long Range 2040 Transit Plan

WHATCOM TRANSPORTATION AUTHORITY

Adopted February 2022



WTA 2040 is WTA's long range transit plan. This plan will serve as a guide for prioritizing new service over the next 20 years. It creates a framework for keeping pace with changing demographic conditions, through increased frequency and new service types, such as Bus Rapid Transit and On-Demand service. Created with input from community members and stakeholders, the WTA 2040 process resulted in three Key Priorities, six Goals and a 2040 Service Network (see map on reverse).

The Key Priorities: Equity, Efficiency, and the Environment

When it comes to service planning and capital investments, the plan emphasizes **Leading with Equity**.

Examples include:

- Designing service using equity metrics, such that low-income riders, people of color, people with disabilities and seniors have equitable access to opportunities.
- Prioritizing bus stop improvements and other service enhancements in areas with higher concentrations of low-income riders, people of color, people with disabilities and seniors.

WTA 2040 also emphasizes **Operating an Efficient System**. This includes matching the level and types of service to particular areas, for example Bus Rapid Transit where density and other land use conditions support it, and On-Demand service, in places that are inefficient to serve with fixed routes and paratransit. This would also include capital investments, such as speed and reliability improvements on high-traffic corridors.

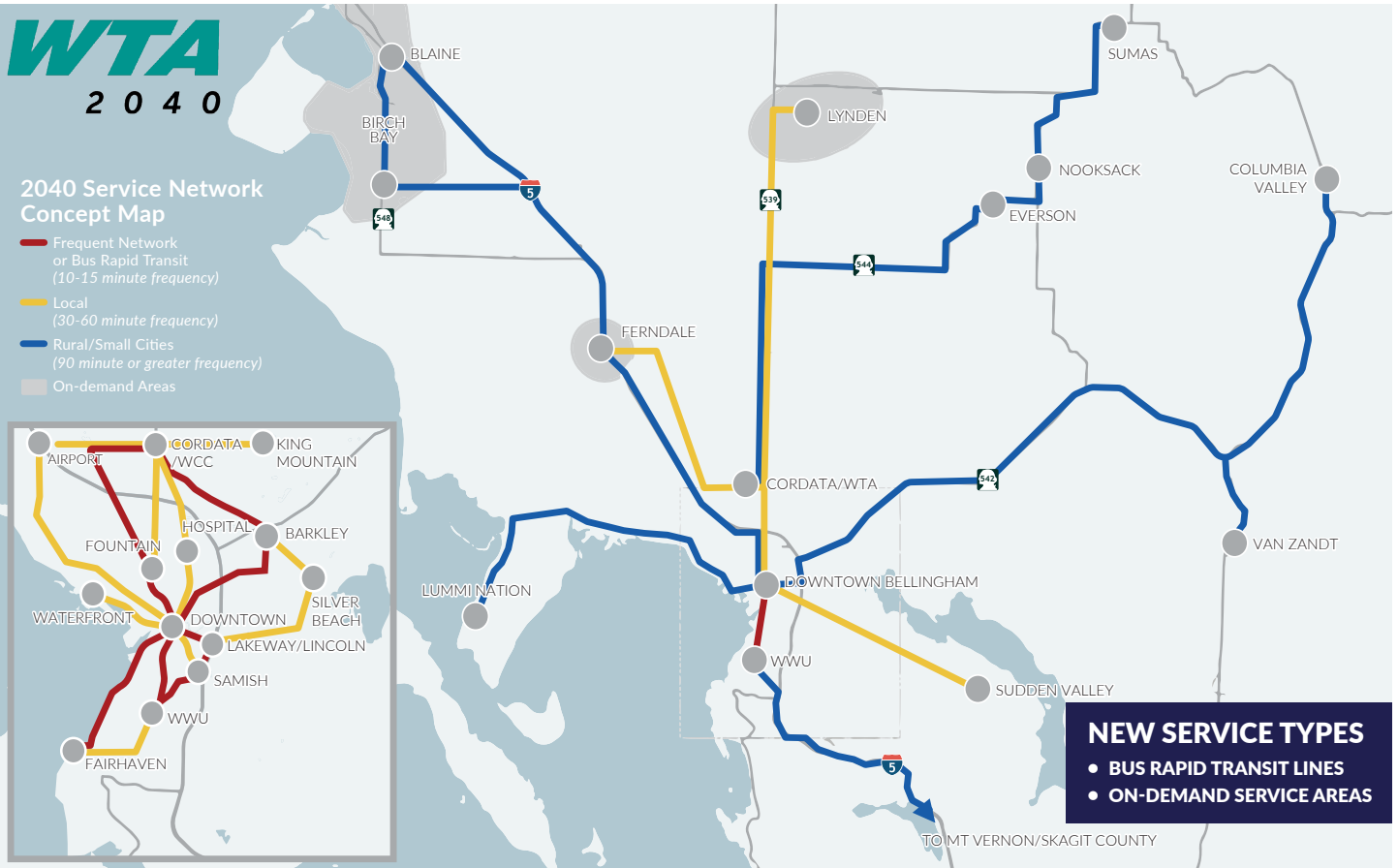
Finally, WTA 2040 emphasizes **Advancing Environmental Progress**. This includes partnering with other jurisdictions on initiatives to increase transit mode share, such as Transit Supportive Land Use and incentivizing people to convert some of their car trips to walking, rolling, biking, and transit. It also includes preparing for zero-emission buses and solar power at our facilities, such as Bellingham Station.

Goals

The following six goals were created with input from community members and stakeholders.

- 1 BE FLEXIBLE, NIMBLE, AND INNOVATIVE
- 2 LEAD TRANSPORTATION SOLUTIONS AND SERVICES AND COLLABORATE WITH OTHER TRANSPORTATION PARTNERS
- 3 IMPROVE ACCESSIBILITY AND MOBILITY FOR PRIORITY POPULATIONS
- 4 SERVE AS STEWARDS OF THE ENVIRONMENT
- 5 PROVIDE A RANGE OF SERVICES TAILORED TO THE COMMUNITIES WE SERVE
- 6 PROVIDE ATTRACTIVE, EFFICIENT, AND FINANCIALLY SUSTAINABLE SERVICES





We anticipate the following effects from the 2040 Service Network:



**INCREASE
IN SERVICE**



**MORE JOBS
REACHABLE
VIA TRANSIT**



**OF PRIORITY
POPULATIONS ARE
WITHIN WALKING
DISTANCE OF
FREQUENT SERVICE**



**MORE RIDERS
SERVED PER
SERVICE HOUR**



**ANNUAL METRIC TONS
OF GREENHOUSE GAS
EMISSIONS (CO²e)
SAVED
BY PASSENGERS RIDING
TRANSIT RATHER THAN
USING PERSONAL VEHICLES**

Funding and Capital

Funding to implement WTA 2040 will come from a variety of sources. Sales tax and grants would continue to make up the largest share of WTA's revenue.

WTA 2040 recommends a greater portion of resources be directed to capital investments. Capital investments are a cost-effective way to improve service and enable growth of the WTA service network. Examples of capital investments include speed and reliability improvements on key corridors, amenities to increase accessibility (such as sidewalks, benches and shelters), and the expansion of Bellingham Station. Expanding Bellingham Station would likely include electric bus chargers, a covered storage area for bikes, solar power generation, and increased capacity to support new routes and increased frequency.



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01

Introduction

Why a Long Range Transit Plan?

A long range transit plan provides the guidance and framework for WTA to adapt and grow service over the next twenty years to fulfill its mission to the community. The WTA 2040 long range transit plan was developed through feedback and engagement with residents and travelers in Whatcom County to establish the priorities for the role that WTA should have in the community, today and into the future.

Elements of the Long Range Transit Plan

Key Priorities and Goals for WTA 2040

Establishes the key priorities of Equity, Efficiency, and the Environment for WTA 2040 to fulfill the agency's mission over the next twenty years and summarizes the key goals and outcomes of the long range transit plan

Planning Context

Assesses current and future trends and conditions that guide how to plan for 2040 and provides a summary of the local plans that inform the priorities of WTA

Public Outreach

Describes the outreach process, the feedback and received and how engagement informed and guided the development of WTA 2040

Service

Highlights an allocation framework guiding how service will be increased or changed over the next twenty years

Capital

Identifies the critical capital infrastructure and elements necessary to support the service levels envisioned in WTA 2040

Funding and Implementation

Details the financial and strategic actions WTA should take to realize the service vision and outcomes of WTA 2040 over the next twenty years

02

A Vision for WTA Service in 2040

This chapter details the high-level mission, priorities, and goals for WTA 2040 while highlighting the key service concepts and outcomes that are part of the overall service vision for WTA.

WTA 2040 serves as a framework for service and capital investment decisions over the next 20 years. This will position WTA to take advantage of near- and long-term financial opportunities, such as federal and state grant funding, while remaining adaptable to an uncertain future. The plan also enables WTA and its partners to work towards a shared vision and to follow key priorities defined through community engagement.

Mission

WTA's mission is to enhance our community by:



Delivering safe, reliable,
efficient and friendly service



Offering environmentally
sound transportation choices



Providing leadership
in creating innovative
transportation solutions



Partnering with our
community to improve
transportation systems

Key Priorities

The WTA 2040 planning public engagement, plan review, and scenario analysis identified the following "Three E's" as key priorities: Equity, Efficiency, and the Environment. While all three priorities require a balanced approach, WTA 2040 focuses our efforts to advance equity within our community through a transit system that is efficient and supports environmental goals.



Lead with Equity

Focus on providing access to opportunities and service to those who need it the most in the community



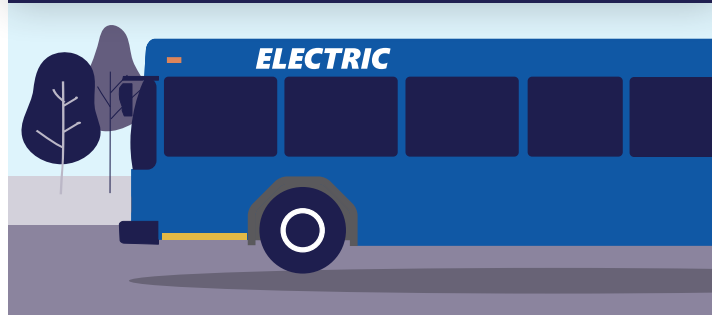
Operate an Efficient System

Match the levels and types of service to demand



Advance Environmental Progress

Be a leader in advancing environmental initiatives to reduce greenhouse gas emissions (GHG)

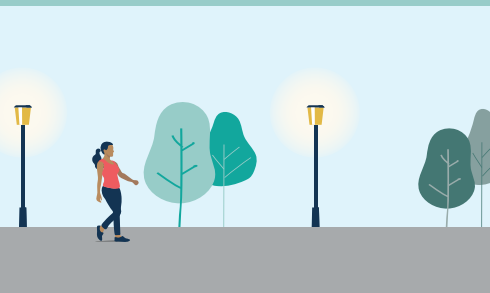


Two Stories on Transit in 2040

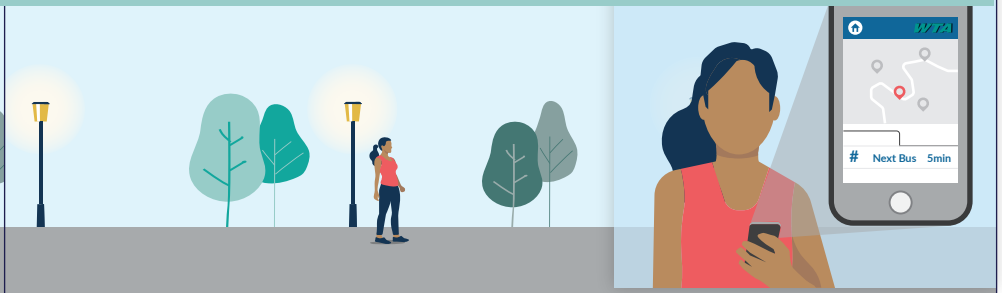
For each individual in Whatcom County, WTA 2040 will provide different benefits to mobility and access across the county. Here are two stories that show how a person's trip could look in the future with the implementation of the Long Range Transit Plan.

Story #1: Cordata Parkway to Mount Vernon

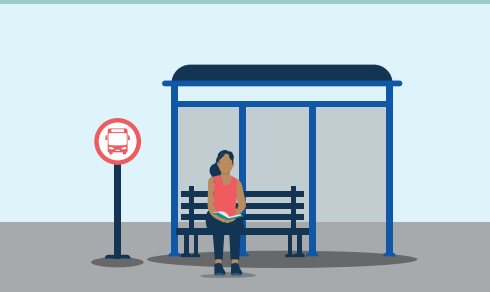
1 Walk to the bus stop on a well-lit sidewalk with street trees.



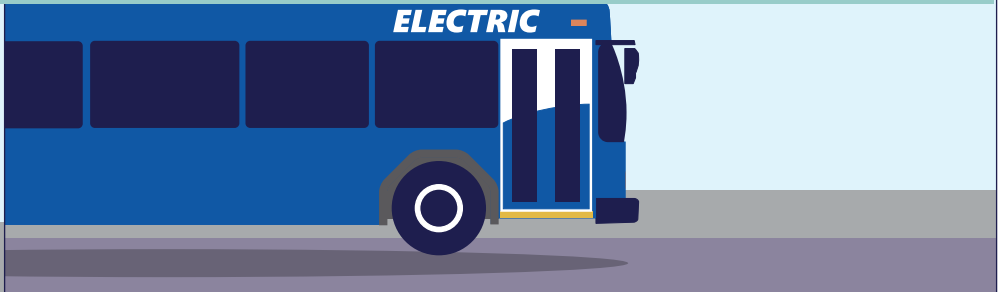
2 The bus comes every 15 minutes and is nearly always on time. You check the WTA BusTracker App on your phone and see that the next bus arrives in 5 minutes.



3 Sit on a covered bench and read a book during your short wait.



4 You have a one-seat ride on an electric bus to Bellingham Station where you transfer to the Bus Rapid Transit line to the Lincoln Creek Park and Ride.



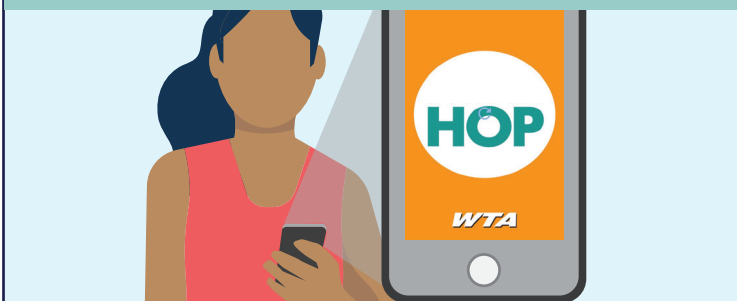
5 Once there, you can transfer to Route 80X to Mount Vernon or beyond.



Story #2: Ferndale to Western Washington University

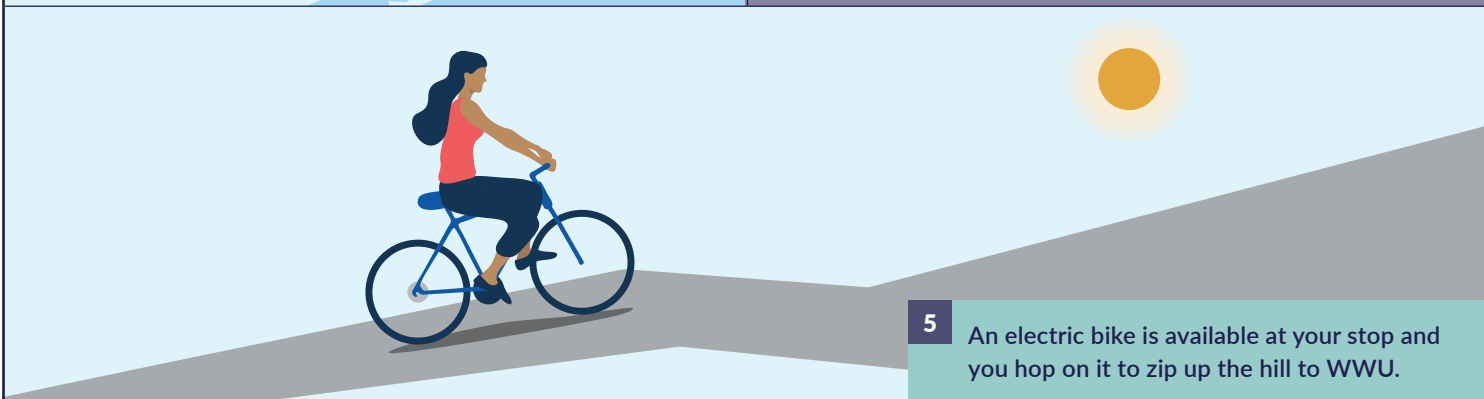
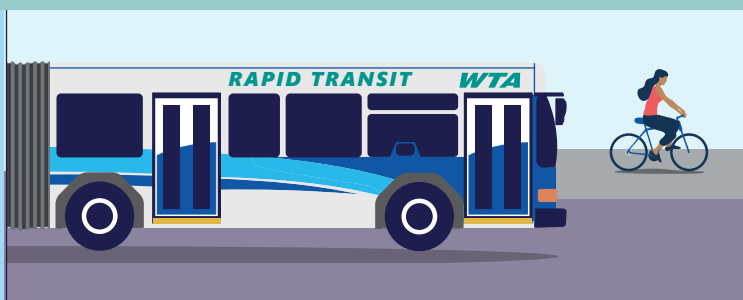
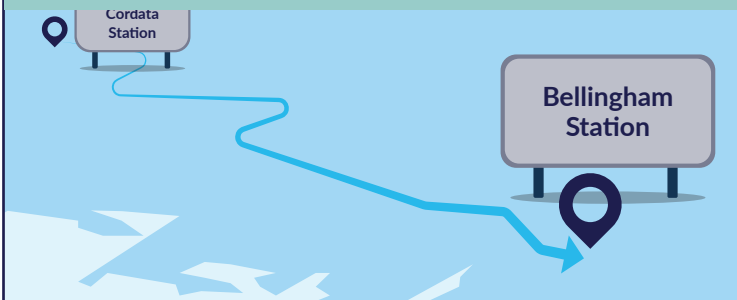
1 You live too far from a bus stop to walk, so you hail an on-demand van using WTA's mobile app.

2 It picks you up in 10 minutes and takes you to Ferndale Station.



3 Once there, you transfer to a fixed-route express bus which stops at Cordata Station, then Bellingham Station.

4 Once there, you can choose a Bus Rapid Transit line or an electric bike from the handy bike share system.



5 An electric bike is available at your stop and you hop on it to zip up the hill to WWU.

Goals for WTA 2040

Identifying clear goals is critical to the success of the WTA 2040 plan and its implementation. The goals support the WTA 2040 service vision which is based on the "Three Es": Equity, Efficiency, and the Environment. Each goal notes which of the three priorities it addresses.



Equity



Environment



Efficiency

Goal #1: Be flexible, nimble, and innovative



Cultivate an organizational atmosphere of responsiveness, adaptability and creativity.
Explore innovative solutions to challenges related to transportation trends, technology and other factors.

Goal #2: Serve as a leader and a key partner in improving the equity and efficiency of local transportation



Work with other jurisdictions and organizations to expand and improve transportation choices in our region.

Goal #3: Improve accessibility and mobility for priority populations



Provide safe access to transit and expand residents' ability to reach key destinations such as job centers, schools, medical centers, housing services, and grocery stores.

Goal #4: Serve as stewards of the environment



Decrease carbon emissions from our transit operations, partner with others in local and regional carbon-reduction efforts, and work to improve the viability and attractiveness of walking, rolling, biking, and transit.

Goal #5: Provide a range of services tailored to the communities we serve



Offer a broad range of public transportation options, based on the characteristics and needs of specific communities.

Goal #6: Provide attractive, efficient, and financially sustainable services



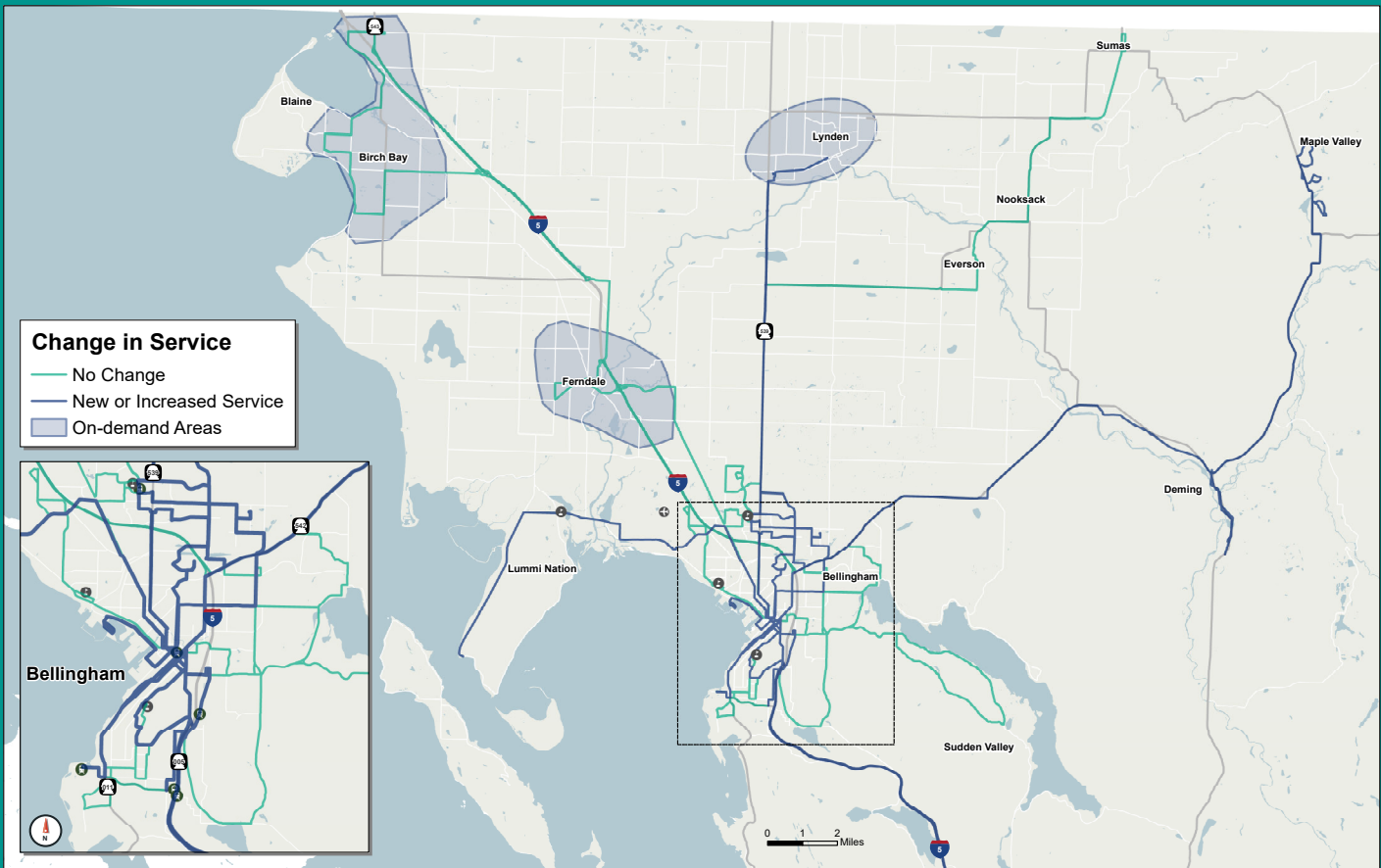
Partner with our community on a wide range of transportation improvements, to make transit more convenient, reliable, and cost-effective.

The 2040 Service Network

The result of the WTA 2040 planning process is the 2040 Service Network. This network of services can be accomplished within expected funding capacity, and would likely include limited bus rapid transit (BRT) and a new on-demand service area. Additional detail on potential areas for increase service, BRT, and on-demand is included in Chapter 5. The plan also generated an Enhanced Service Network to show what would be possible if demand significantly increased and additional funding became available; for example through an increase in local sales tax. Besides increased fixed-route service, an enhanced investment could provide for additional bus rapid transit (BRT) lines and additional on-demand service areas.

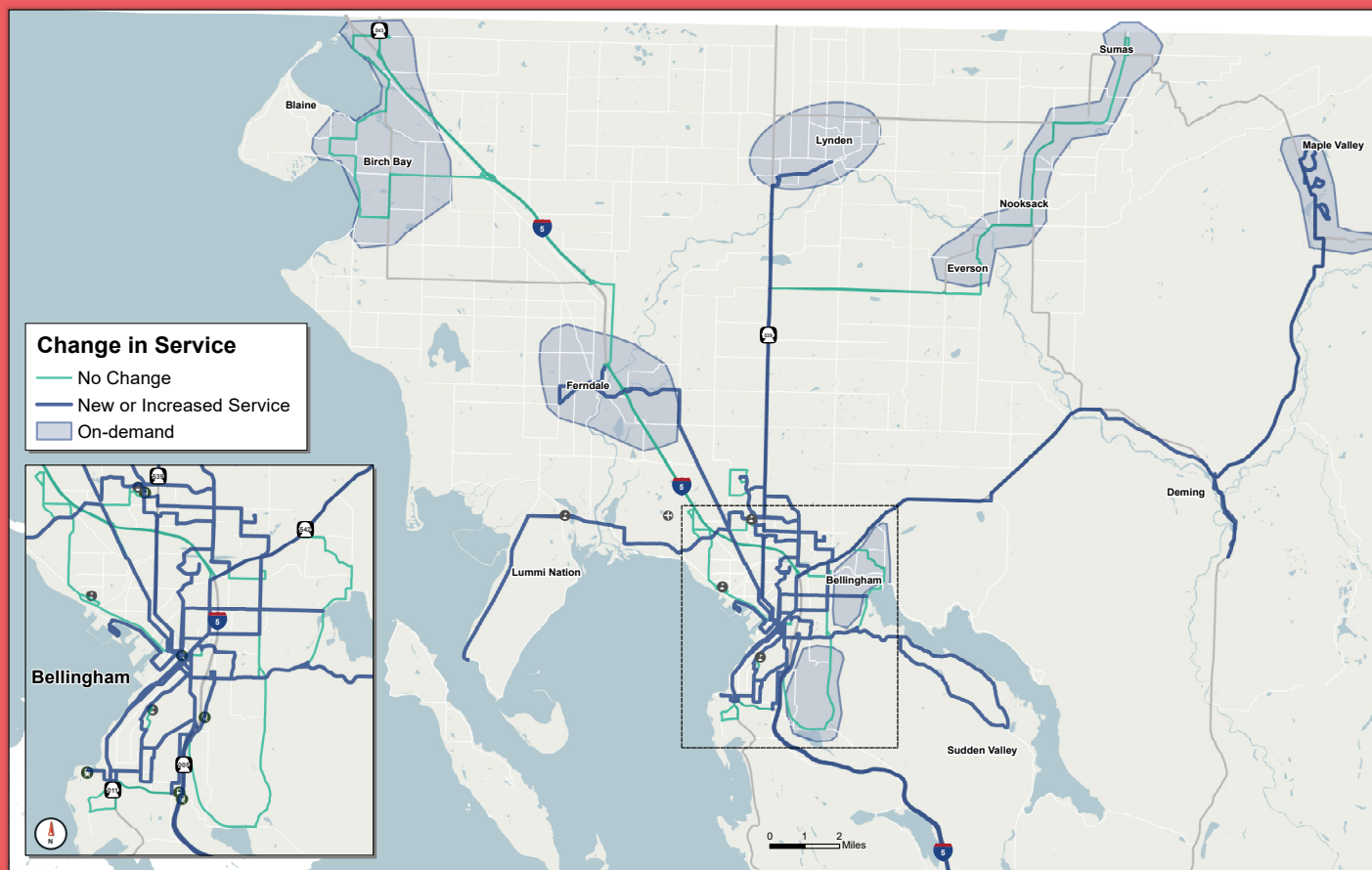
Change in Service for the 2040 Service Network

The WTA 2040 Service Network would grow as population grows, and would likely include limited bus rapid transit (BRT) and new on-demand service areas.



Change in Service for the Enhanced Service Network

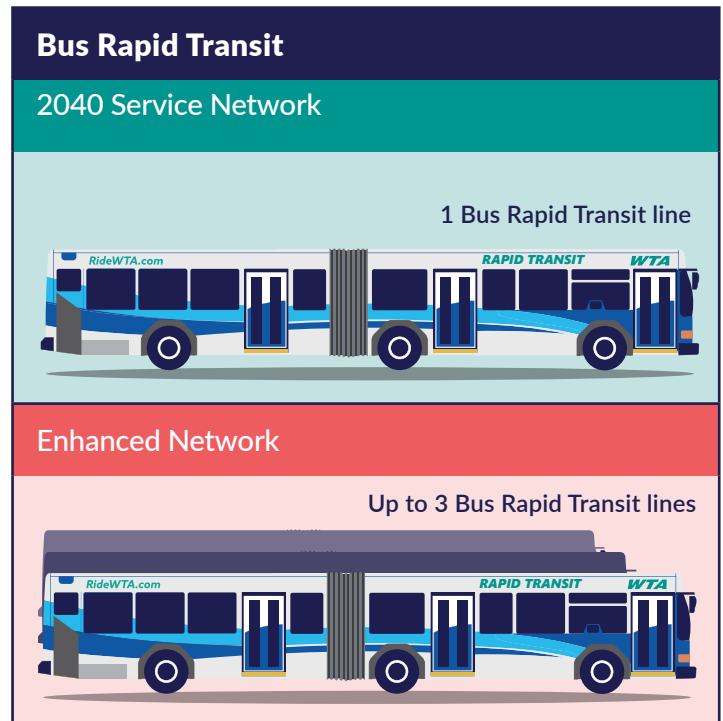
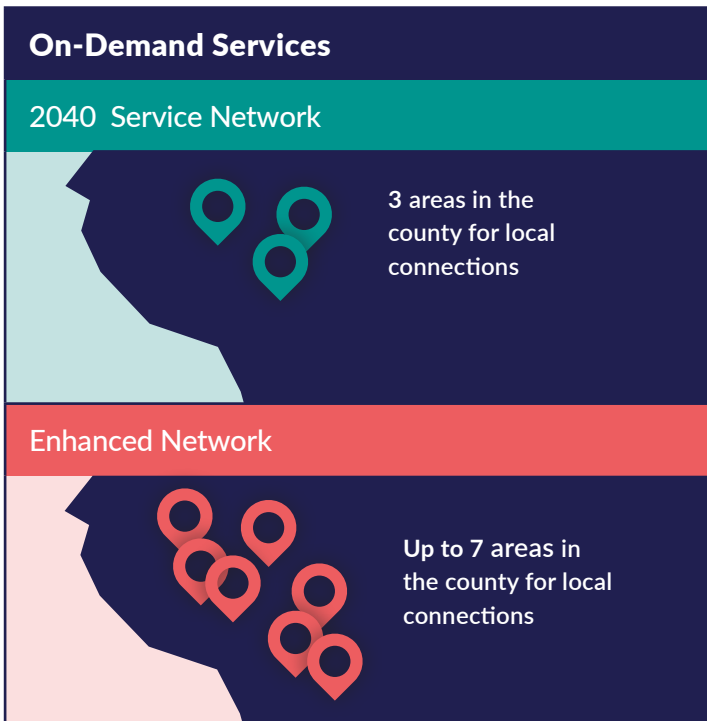
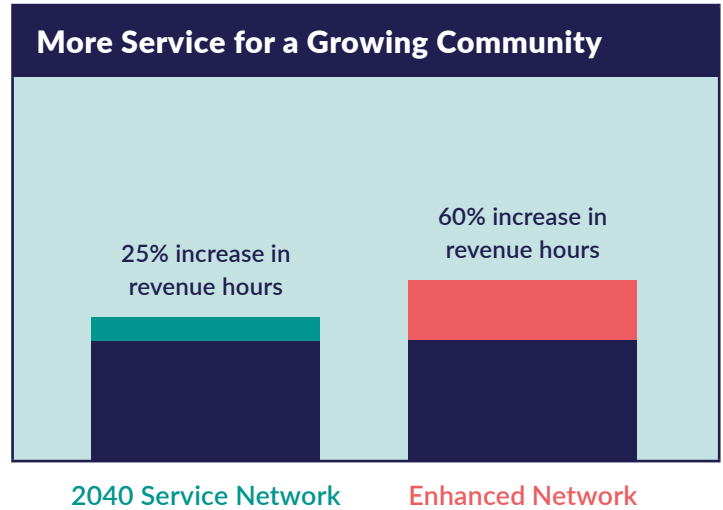
During the planning process, WTA also explored how the network could be expanded. This is an option WTA could pursue if demand significantly increased and additional funding became available, for example through a local sales tax. An enhanced investment could provide for additional bus rapid transit (BRT) lines and additional on-demand service areas.



Comparing the 2040 Service Network and Enhanced Service Network

The charts and figures on the following pages detail the types of service growth and the outcomes of the two investment networks. The outcomes are aligned with the "Three Es" key priorities of WTA 2040.

- » **Equity:** Access to transit and to opportunities across the county increases with each service network, with a larger increase observed with the Enhanced Service Network. Additionally, increased service is focused to improve access for priority populations*.
- » **Efficiency:** Ridership and productivity increase from today with each investment network. The Enhanced Network productivity is slightly below the 2040 Service Network because of service expansion to reach a broader area of the community that will result in service that is slightly less efficient but achieves broader equity and environmental outcomes.
- » **Environment:** Reduction in greenhouse gas emissions due to WTA service increases may be relatively limited given the smaller proportion of trips within the county that are served by WTA. Additional reductions may be achieved through comprehensive land use planning to increase ridership and through zero emissions efforts by WTA.

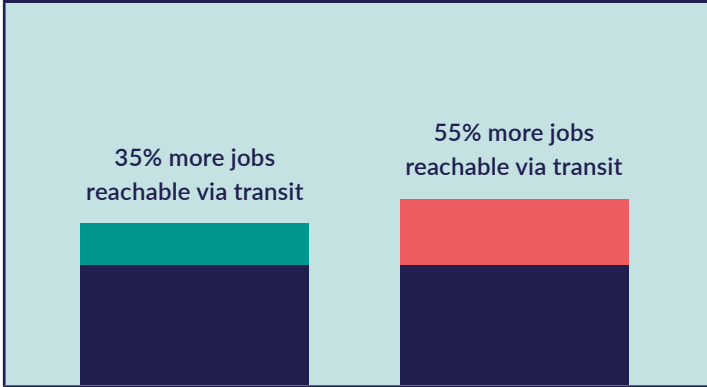


*Priority populations are defined as low-income households, Black, Indigenous, and people of color in the community, disabled populations, persons over 65 years, and zero-car households.

2040 Service Network

Enhanced Network

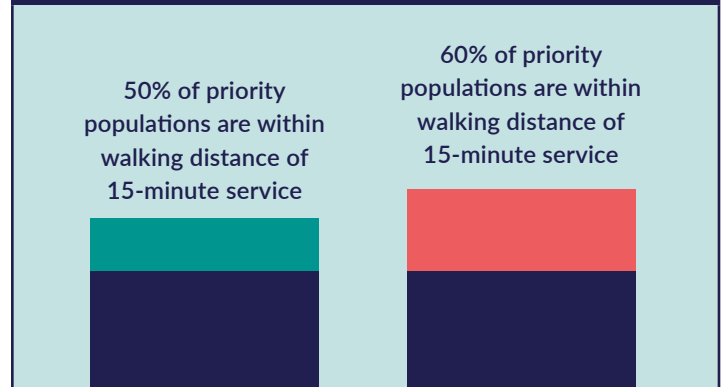
Equity: Expanded Access to Jobs



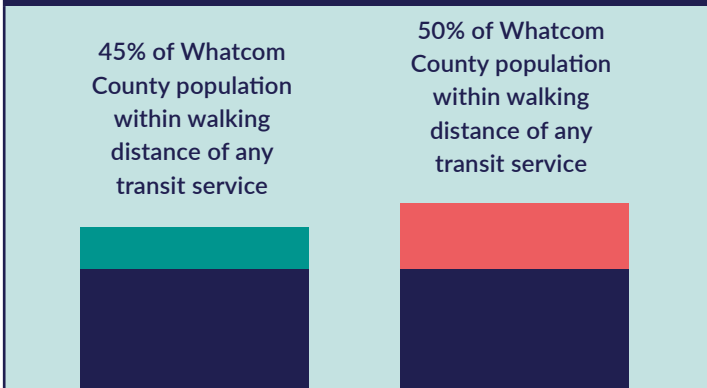
2040 Service Network

Enhanced Network

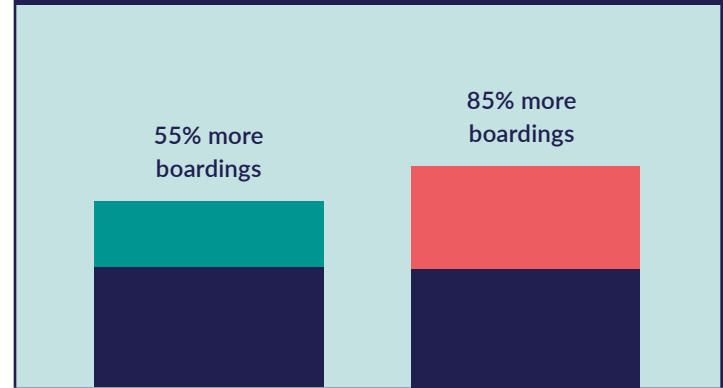
Equity: Access for Priority Populations



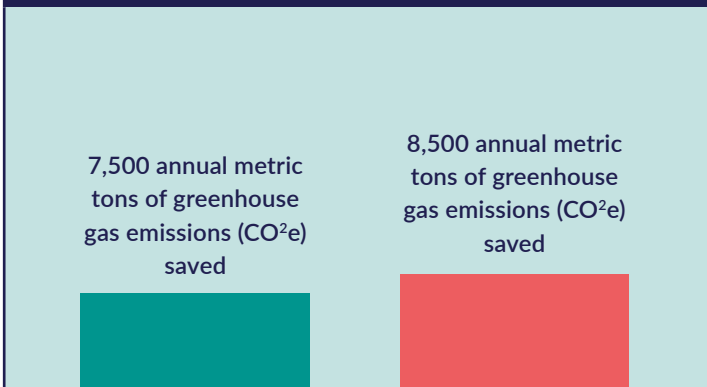
Equity: Population Served by Transit



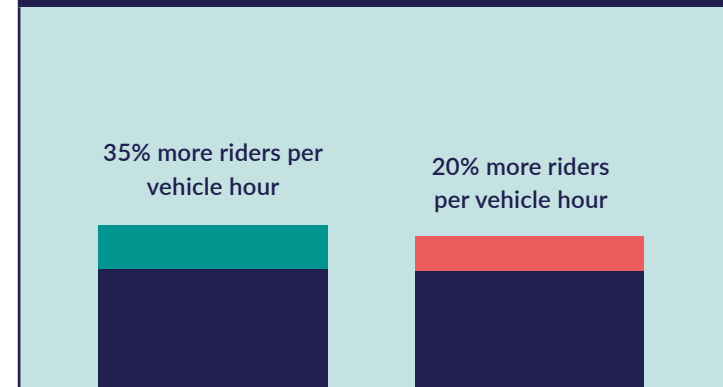
Efficiency and Environment: Projected Ridership



Environment: Greenhouse Gas Emissions



Efficiency: Productivity



"An ideal transit system makes it possible to not own a car or to reduce the number of cars in each family"

-Transit Advisory Group Member



03

Planning Context

The development of WTA 2040 builds on and incorporates much of the work from WTA's 2017 Strategic Plan. This chapter provides an overview of key findings and a refresh of data that has changed since 2017. Acknowledging the substantial impact on travel demand and operations due to the COVID-19 pandemic, operations and ridership trends use 2019 data as a representation of "current conditions".

The Planning Context provides a review of how WTA has functioned historically and how changes to land use, technology, and travel trends may impact planning for the future.

Relevant Plans

The plans identify future land use patterns that support varying levels of transit service and include transit as an important component of a healthy, multimodal transportation system.

Whatcom Council of Governments Transportation Plan – Whatcom Mobility 2040 (2017)

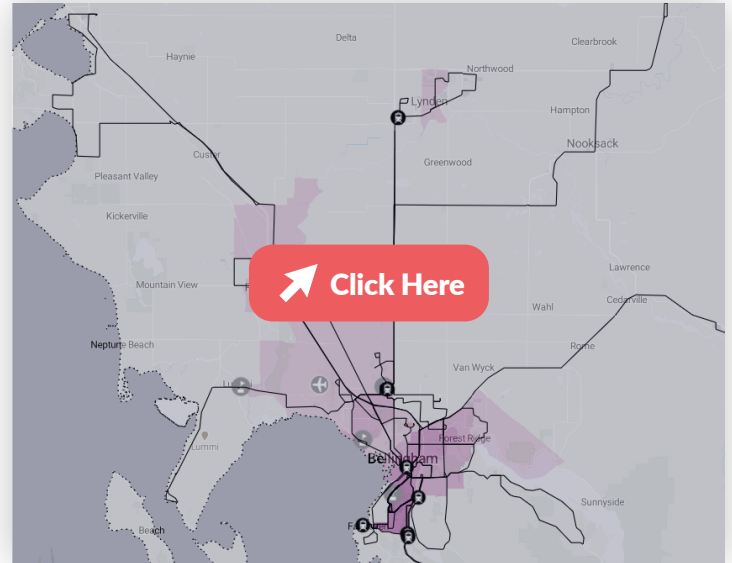
Forecasts population and employment growth, congestion levels, and regional goals. It identified 35% ridership growth from 2016 to 2040 that tracks with population and employment growth while assuming similar levels of service as today.

The City of Bellingham Comprehensive Plan (2016)

Includes a strong emphasis on transit. It calls for transit-supportive land use policy, for example higher density mixed-use development in urban villages and transit corridors, to correspond with WTA's high frequency network (the GO Lines). These efforts are designed to increase transit's mode share.

Other Local Comprehensive Plans

Although other incorporated cities mention the need for more transit service in their comprehensive plans, only Bellingham specifies a mode share goal for transit. Most of the area shown on local land use framework maps support only the most basic transit service. More regular transit service may be possible in centers of activity, if part of a larger regional network.



WTA State of the Service: This online story map visualizes current and future demographic conditions in Whatcom County.

Transit Commute to Work Goal: 9%

Bellingham has a transit commute to work mode share goal of 9%, which would be nearly double the city's existing transit commute mode share of 5%.

The WTA System

WTA operates 28 fixed routes, including three route-deviated "flex" routes. WTA offers a high frequency transit network, called the GO Lines. A GO Line is a route along which a bus comes every 15 minutes on weekdays. In addition, WTA operates shuttles to Western Washington University during the school year to accommodate heavy loads.

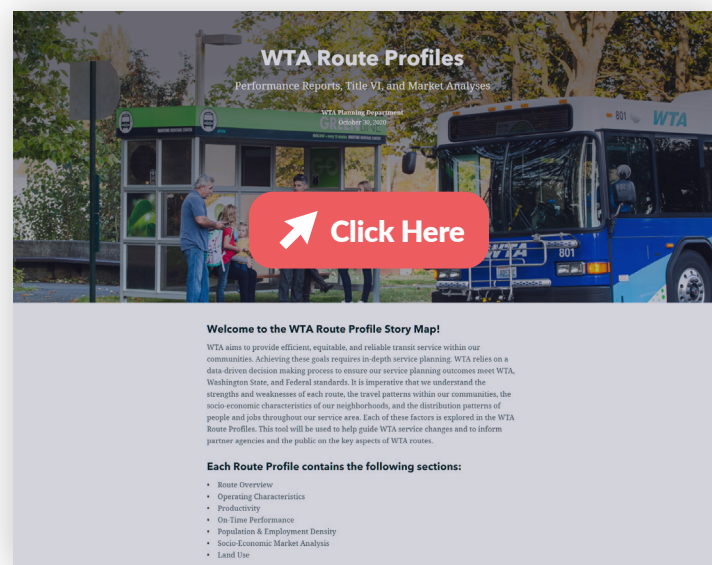
WTA also operates paratransit service that provides curb-to-curb connections for people with disabilities who are unable to ride a fixed-route bus.

Zone service is provided to rural areas of Whatcom County on designated days of the week.

The WTA vanpool program provides a leased WTA van for use by a group of commuters, with fares covering fuel, insurance, and maintenance costs.

In general, WTA weekday service begins between 6 a.m. and 7 a.m. and ends between 5 p.m. and 11 p.m. Most routes operate on Saturday from approximately 8 a.m. or 9 a.m. to between 5 p.m. and 11 p.m. Sixteen routes operate on Sunday from approximately 9 a.m. to 8 p.m.

The table below shows the operating metrics of the four services offered by WTA:



WTA Staff prepared a route profile online story map. This tool will be used to help guide WTA service changes and to inform partner agencies and the public on the key aspects of WTA routes. The map can be accessed at www.ridewta.com/business/reports/plans.

2019	Fixed Route	Paratransit	Zone	Vanpool
Boardings	4,451,508	216,928	2,010	33,361
Revenue Hours	152,623	75,645	1,033	4,322
Revenue Miles	2,123,146	960,097	25,604	238,833
Passenger Miles	13,312,852	1,136,130	31,285	1,254,044
Boardings per Hour	29.2	2.9	1.9	7.7
Passenger Miles per Hour	87.2	15.0	30.3	290.1
Passenger Miles per Boarding	3.0	5.2	15.6	37.6

Fixed Route System

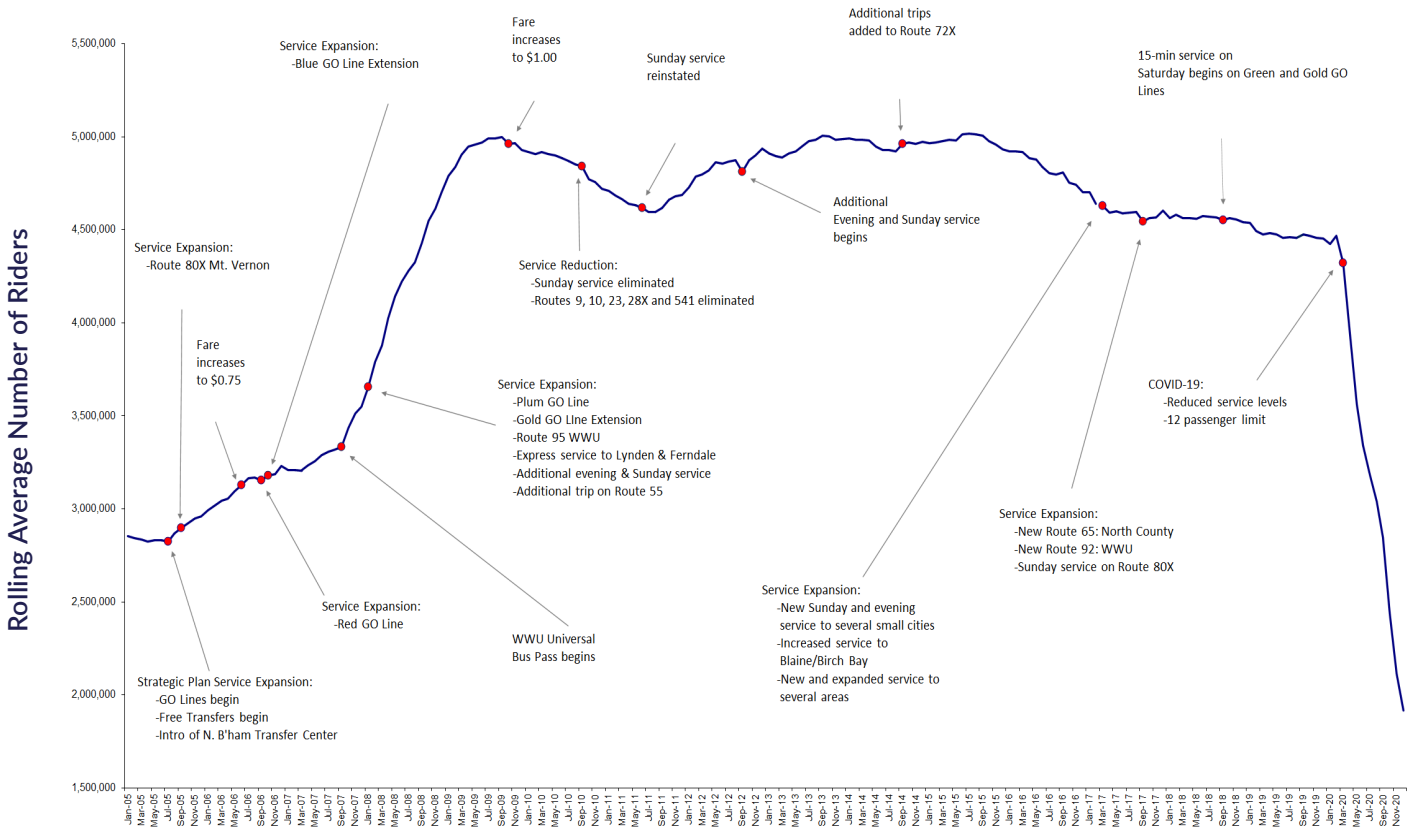
Prior to 2015, WTA's fixed-route ridership was growing at a rapid pace due to factors such as a service increase in 2005, the introduction of the GO Lines, and the introduction of the WWU Universal Bus pass in 2007. However, since 2015, ridership has been declining, mirroring a national trend. Several key local factors are contributing to the decline, including higher auto ownership rates, changes in travel behavior, and growth of households in lower density areas throughout the region.

The corridors that generate the most boardings per revenue hour are: Northwest Avenue, Cornwall Avenue to Alabama Street and Sunset Drive, and corridors leading to and from WWU. Together, routes serving these corridors generate an average of nearly 11,000 daily boardings. This is 70% of all weekday boardings in the service area.

Routes serving Mount Vernon, Kendall and Blaine/Birch Bay generate the most passenger miles per revenue hour while the Gold GO Line (route 331) and routes serving WWU have the highest riders per revenue hour. Routes with high passenger miles per hour generally are longer haul routes while routes with high riders per hour serve areas with greater density and are shorter routes.

Routes serving Everson, Nooksack, Kendall and Bakerview Spur generate the fewest number of boardings per revenue hour. Combined, these routes are responsible for less than 2% of weekday boardings.

Prior to the pandemic, one key issue was heavy loads through the Western Washington University campus. Many students use WTA routes to travel between campus destinations. At peak times, buses are not able to accommodate all waiting passengers. Addressing this issue will require a broad mobility and communications strategy that goes beyond adding buses.



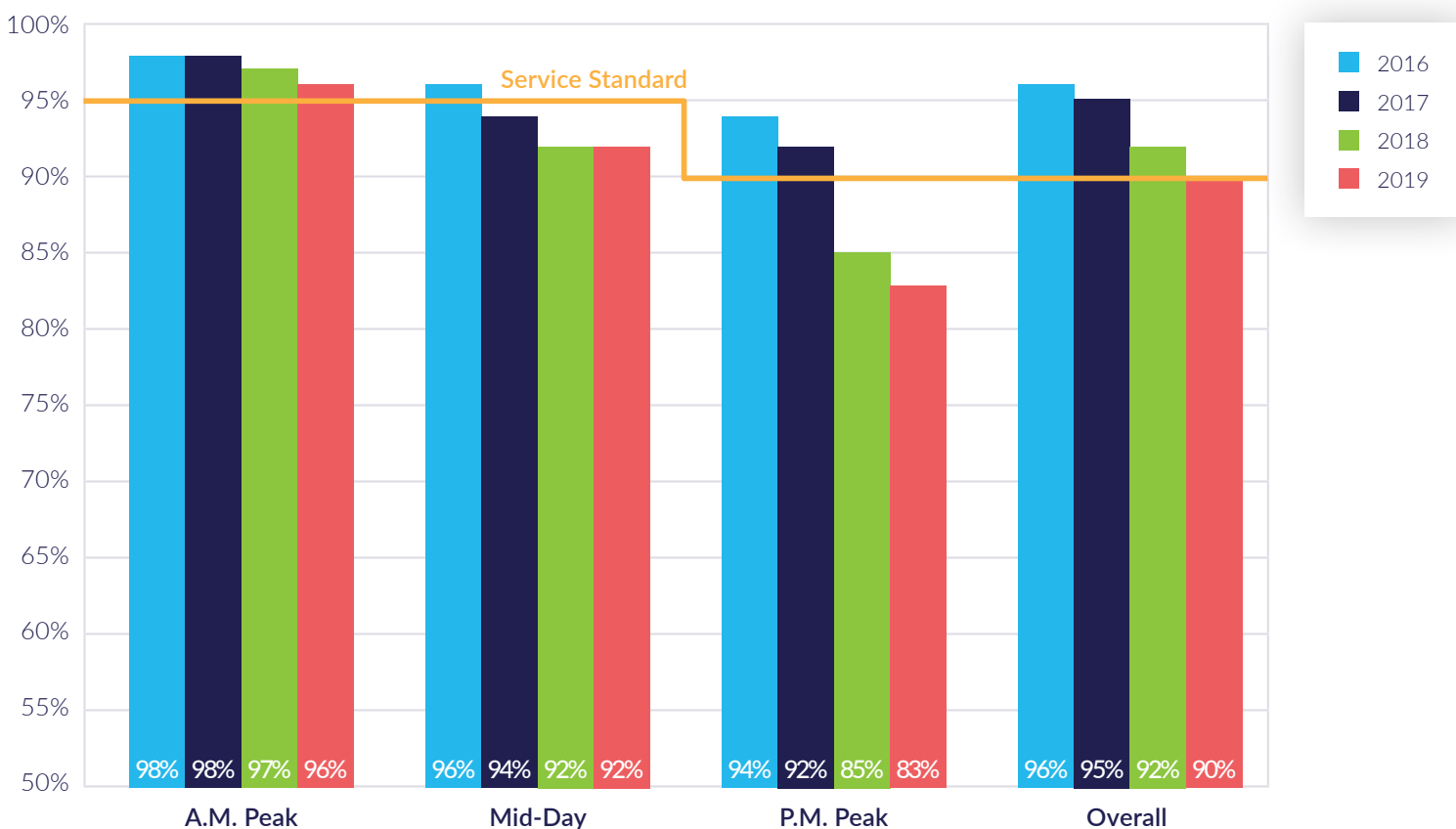
On-time Performance

From 2016 to 2019, on-time performance during the 3-6 p.m. peak period dropped from 94% to 83%. This highlights the potential impact of increased congestion on transit operations and the need to identify potential transit priority treatments to improve speed and reliability.

The following chart highlights the change in on-time performance for trips that serve the Cordata and Bellingham Stations. The service standard for WTA is 95% on-time arrivals in the AM and midday period and 90% on-time arrivals in the PM period and overall.



On-Time Performance (2016-2019)



Paratransit

WTA's paratransit productivity exceeds most other paratransit systems in Washington State. It follows industry best practices and uses state of the art software. The service level conforms with, but does not exceed, ADA requirements. In 2019, paratransit provided 216,928 boardings and averaged 2.9 boardings per vehicle hour.

Key trends in paratransit service include:

- » Paratransit service has increased gradually since 2010, except for 2018. The decline in 2018 boardings is due to several factors such as the Lynden Adult Day Health center closing in August 2018, WTA staff activating and enforcing conditional eligibility, and moving some riders to fixed routes.
- » The growth in revenue hours in 2017 is due to paratransit service being made available outside the City of Bellingham on March 17, 2017. In addition, Lynden, Ferndale, Gooseberry Pt and Sudden Valley now have paratransit service seven days a week.
- » Increased demand for connections to regional destinations.
- » A higher proportion of "will calls" has caused scheduling difficulties and less efficient operations.
- » Increased Flex service ridership has impacted paratransit operations.

1% Increase in boardings from 2018

3,403 Additional revenue hours in 2019

2.9 Boardings per hour in 2019

What is Flex Service?

Key Elements

- » Provided on routes 71X, 72X, and 75
- » Allows the bus to deviate from the route to provide service closer to a rider's origin or destination
- » Advanced reservations are required

Demand for Flex service has declined since 2014, with a decline in ridership for each Flex route. This is likely a result of overall ridership declines as well as additional runs and stops along the Flex routes, making it easier to ride without needing to book a Flex trip.

Flex requests can impact schedules, particularly if the Flex zones cover large areas. In particular, the Blaine and Birch Bay (Route 75) is a difficult area to serve as there are great distances between housing areas. Birch Bay Village is one such housing area that requires a lengthy deviation from the normal route alignment, resulting in on-time performance issues.

What is Zone Service?

Key Elements

- » Provides service to rural areas outside of the fixed-route transit network
- » Service is only available one or two days per week
- » Advanced reservations are required

Zone boardings, while very small in comparison to overall system ridership, have remained steady at around 2,000 boardings per year between 2013 and 2020. The primary issue with Zone is the limited availability of service, which is not convenient for many potential riders who do not live near fixed route service. However, because the cost per trip is high, increasing the number of days of service would incur significant costs.

Demographic and Land Use Data

Land use policies, patterns and design substantially affect mode choice. Historically, the region's land uses have favored single occupant vehicle (SOV) travel over other transportation choices. Today, some communities in Whatcom County are seeking to expand, and possibly prioritize, non-SOV travel through their land use and transportation policies and strategies. Bellingham leads the region in concentrating densities to support a range of transportation choices and higher levels of transit service. Lynden and Ferndale are also attempting to increase the intensity of land uses near downtown. WTA service currently connects to all significant concentrations of population in Whatcom County.

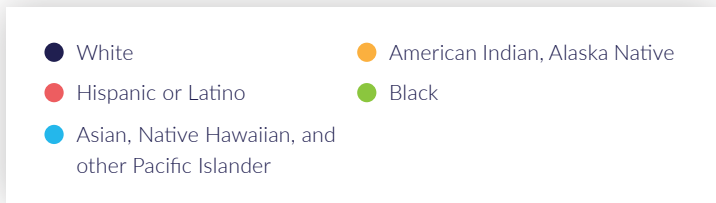
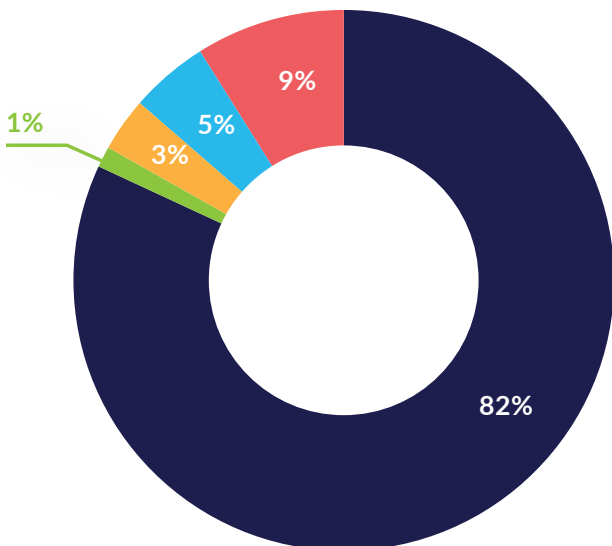
Transportation equity is an important consideration in the development of WTA 2040. In developing long-range transit system scenarios, it is important to understand potential implications of service changes, including potential disparate impacts on People of Color. The population of Black, Indigenous, and People of Color

(BIPOC) is generally lower in Whatcom County when compared to other counties in the state of Washington. The largest BIPOC population live in Bellingham, followed by Ferndale.

The Census Bureau uses a set of income thresholds that vary by family size and composition to determine who classifies as impoverished. Bellingham has the highest density of people living in poverty in the county. Areas within and in the proximity of the city limits of Ferndale and Lynden also have higher proportions of households living in poverty. Communities that rank highest when reviewing poverty data at the Census block group level, rather than community level, include several Bellingham neighborhoods, areas outside Birch Bay, communities on the Lummi Reservation, and Peaceful Valley.

Analyzing populations that currently do not own a vehicle is one way to estimate potential transit ridership capture. WTA's service area contains a very low number of zero-vehicle households. The areas that exhibit slightly higher zero-vehicle and lower-income households are downtown and Western Washington University, which are areas already well served by transit. In general, WTA provides at least basic coverage to nearly all concentrations of demographic groups that depend on public transportation for daily transportation needs (such as Title VI populations).

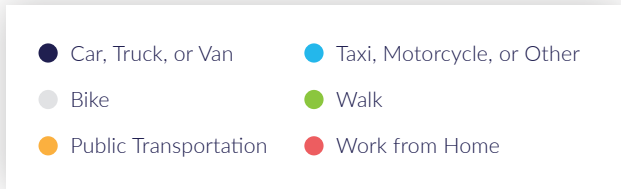
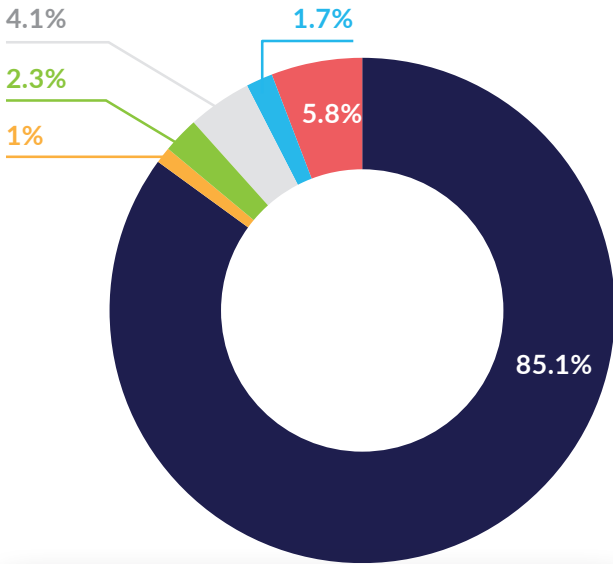
Race/Ethnicity in Whatcom County (2018)



In Whatcom County, 7% of households do not own a vehicle.

People with disabilities are more likely to use transit than the general population. Today, there is a concentration of people with disabilities located in the Roosevelt, Sehome, Cordata, and Happy Valley neighborhoods in Bellingham. In general, the density of people with a disability aligns with overall population density.

Mode Share for Commuters in Whatcom County (2018)



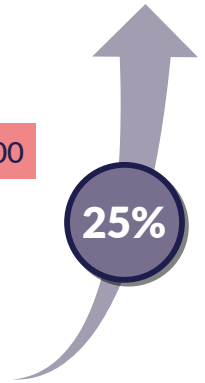
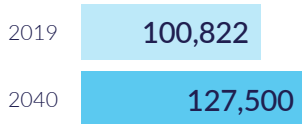
Land Use Growth

The Whatcom Council of Governments (WCOG) long range regional transportation plan provides 2036 and 2040 horizon year land use forecasts for the region. The county is forecast to add approximately 25 percent more people and jobs by 2040 compared to May 2019 estimates provided by the Census.

County Population Forecast



County Employment Forecast



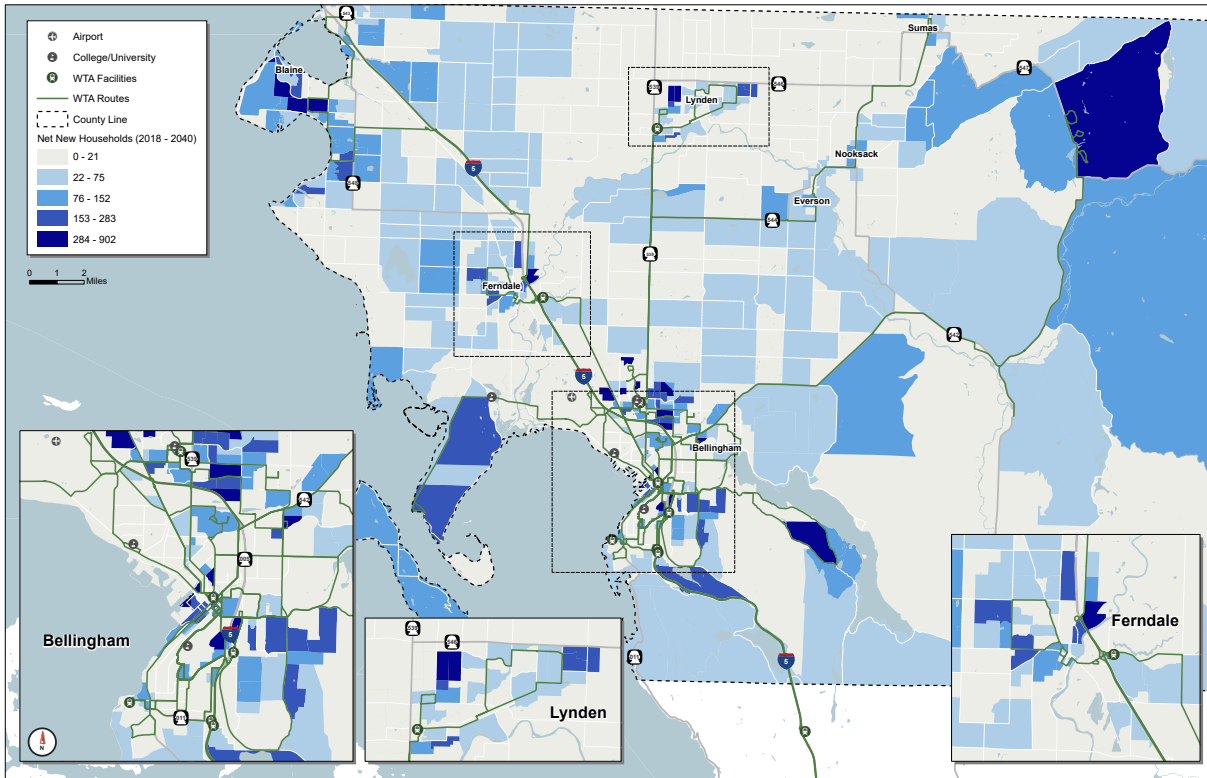
The areas with the highest projected household growth are in Bellingham on the waterfront and downtown. Outside of Bellingham, there is significant growth planned for areas in Lynden, Ferndale, Sudden Valley, Blaine, Peaceful Valley, and the Lummi reservation.

Most of the employment in Whatcom County today is concentrated in Bellingham, followed by Lynden and Ferndale. The greatest growth in employment is expected to occur in Bellingham, especially outside of downtown.

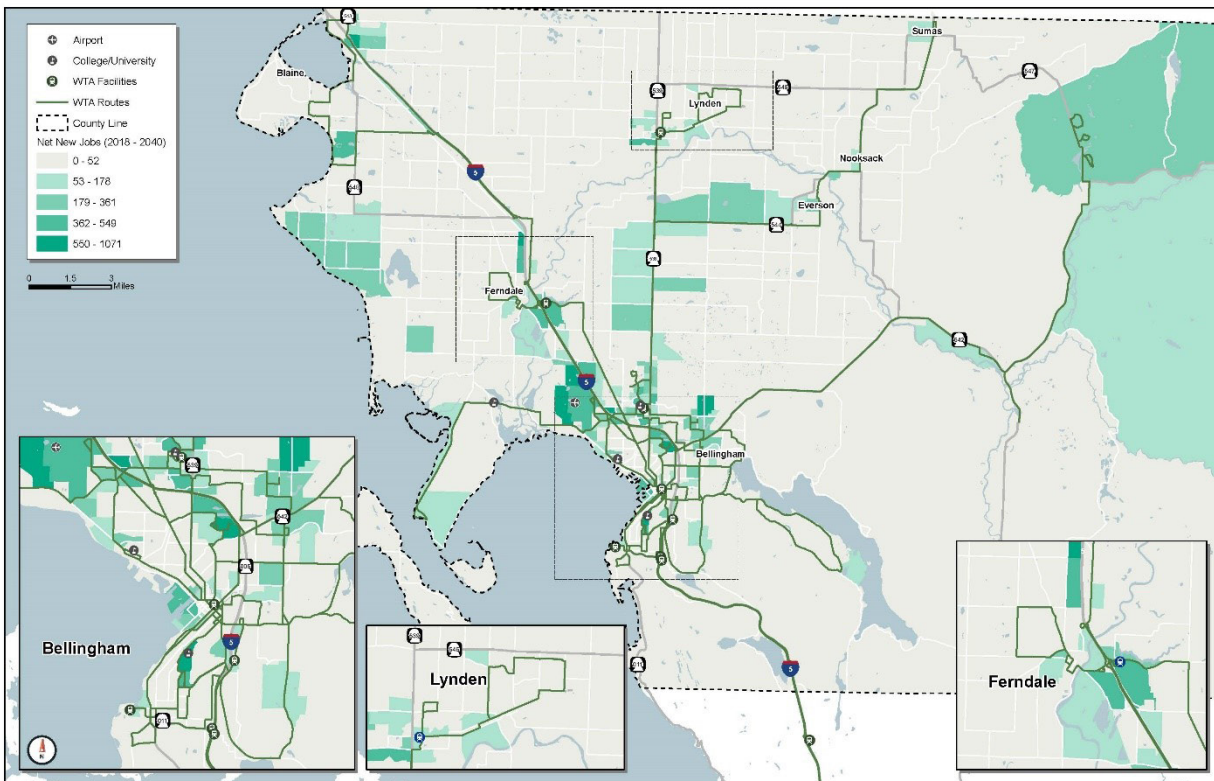
Growing Communities

Several areas in Bellingham designated for growth will likely need additional transit service, including: the waterfront, Samish Way, and King Mountain/ Deemer/ Kellogg areas.

Projected Growth in Households 2018 - 2040 (WCOG Model)



Projected Growth in Employment 2018 - 2040 (WCOG Model)



Financial Landscape

As part of the development of WTA 2040, the project team revisited the financial landscape of Whatcom County. Many trends are complicated because COVID-19 is a major and ongoing disruptor with unpredictable effects.

The border influence, small town/rural service area, and university presence are unique aspects that influence local transit operations. Cross-border trips are an important source of sales tax receipts and were estimated at 11.7% of retail sales in 2018. This has been impacted by the COVID-19 pandemic and remains uncertain when it will rebound. The 2007-2009 recession showed that cross-border trips took about three years to recover to pre-recession levels.

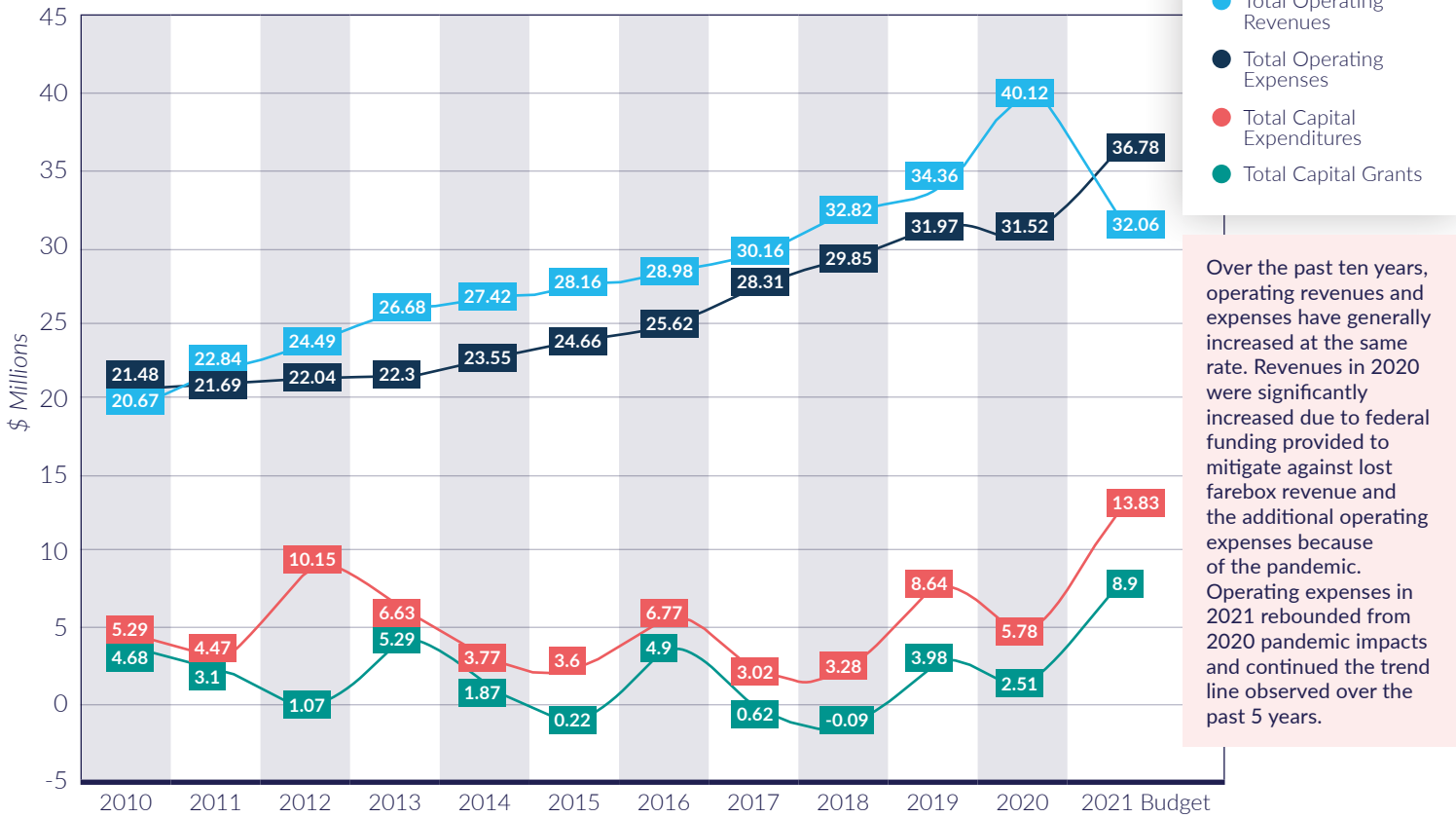
Many factors influencing ridership, revenue, and funding are outside of WTA control and common to many agencies. For example, ridership and associated farebox revenue declines follow national trends that result from a decrease in gas prices (relative to inflation) and an increase in the use of private ride-hailing services

There was overwhelming support for the renewal of the Bellingham Transportation Fund in the November 2020 election, which may contribute funding for some transit capital projects in the city of Bellingham.

(Uber and Lyft). Federal funding plays a large role in capital funding for transit but is variable and subject to change.

Like many other factors, ridership has been heavily impacted by the COVID-19 pandemic, eliminating all fare box/pass revenue and decreasing sales tax revenue. However, like all transit agencies, WTA benefited greatly from the CARES Act which made up for the lost revenue. Due to conservative budgeting, WTA reserves have been healthy and will enable it to weather short-term disruptions to revenues, and subsequently keep in place the current level of service.

Annual Operating and Capital Revenues and Expenses



- Total Operating Revenues
- Total Operating Expenses
- Total Capital Expenditures
- Total Capital Grants

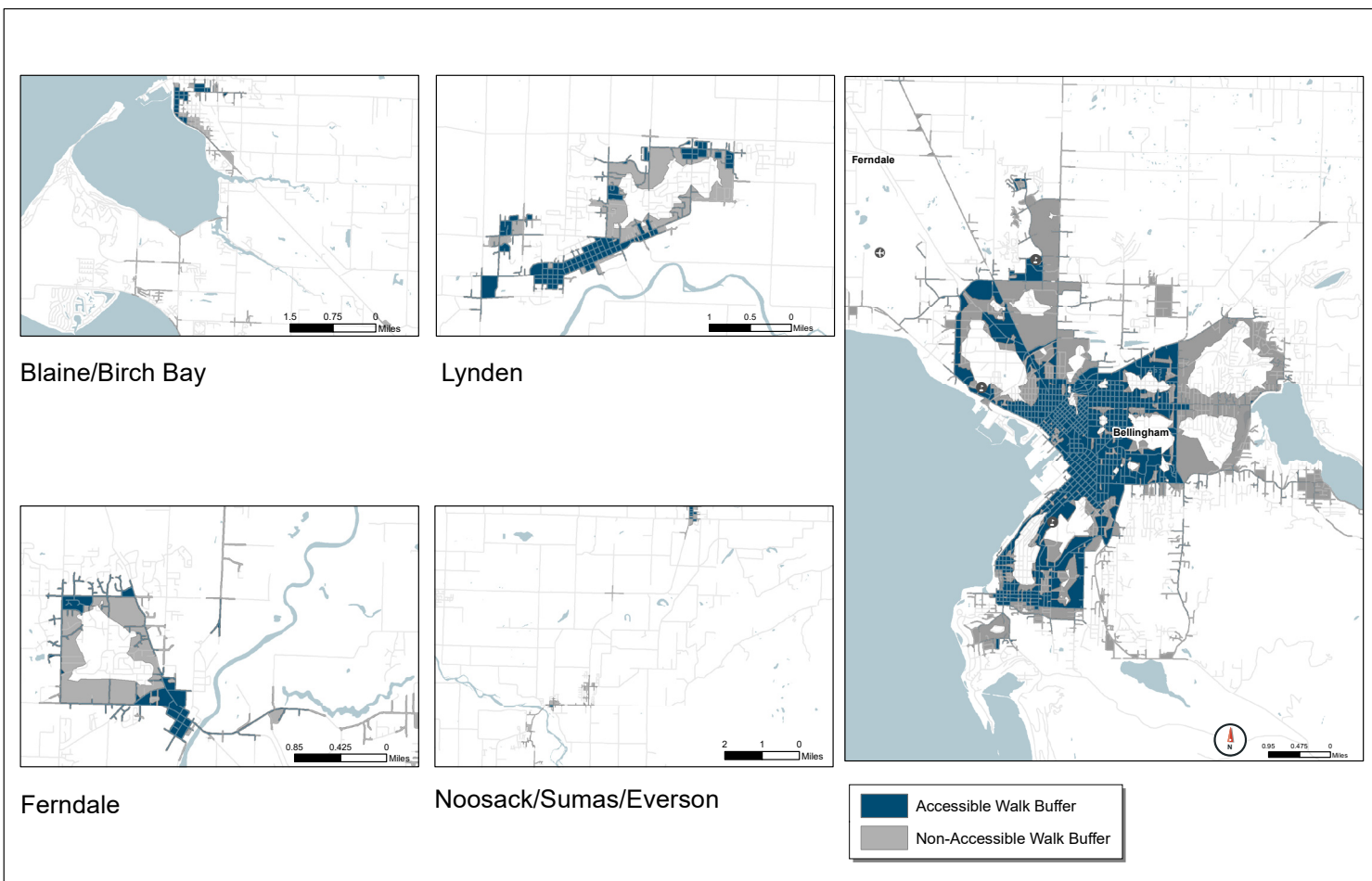
Over the past ten years, operating revenues and expenses have generally increased at the same rate. Revenues in 2020 were significantly increased due to federal funding provided to mitigate against lost farebox revenue and the additional operating expenses because of the pandemic. Operating expenses in 2021 rebounded from 2020 pandemic impacts and continued the trend line observed over the past 5 years.

Pedestrian Accessibility

With a focus on equity and safety, the project team assessed the condition of the pedestrian network within the WTA market area (1/4 mile walking distance from all WTA stops). A 2015 customer survey found that 80% of WTA transit riders walk to their stop or station. Many of these transit riders depend on the presence of sidewalks to safely access transit services and others would not feel comfortable without them. In the WTA market area, there are over 170 miles of roadway lacking sidewalk on both sides of the street and many more with sidewalk on just one side. This presents a significant equity and safety issue, one that disproportionately impacts individuals living with a disability and the youth and senior populations. Transit accessibility is significantly limited if the pedestrian network does not provide safe connections for people of all ages, abilities, races/ethnicities, and genders.

In this map, the dark gray boundary ("Non-accessible walk buffer") captures all locations within 1/4 mile walk distance of WTA stops and stations and the blue boundary ("Accessible walk buffer") demonstrates how accessibility is limited if the rider is dependent or reliant on the presence of sidewalk (analysis does not account for safe cross-street connections). The difference between the two boundaries highlights gaps in the pedestrian network and the significant impact local infrastructure has on transit accessibility.

Approximately 3,000 individuals living with a disability, 3,500 seniors, and 4,600 youth live within the WTA market area but do not have safe access to sidewalks (dark gray areas). Furthermore, there are over 12,500 jobs within the market area that are not accessible by sidewalk.



Mobility Trends

Before adopting any emerging transportation mode, WTA should analyze the impacts of factors affecting potential users and the community. These factors may include user experience, travel speeds and time costs, social equity objectives, and pollutions emissions. Transportation choices are changing rapidly, and transit riders' travel patterns and expectations are changing just as quickly.

New Mobility Services

The addition of ride-hailing services such as Uber and Lyft, flexible on-demand transit such as the Lynden Hop or King County Metro's Via to Transit and micromobility options such as bike and scooter share have given people new ways to get to the jobs and services they need. New mobility services offer flexibility and can meet many different needs and travel patterns, especially for traditionally underserved communities, but often at a much higher per trip cost than fixed-route service.

Micromobility can play a role in providing first/last mile connections to transit. Understanding how people are using these new services and where they could best complement fixed-route transit service—while further developing the mechanisms needed to ensure equitable access and service—presents opportunities for partnerships with local agencies and private providers.

While there is still some debate, ride-hailing services have generally been shown to increase per capita vehicle miles traveled and the associated GHG emissions. If these vehicle trips are replacing walking, rolling, biking, and transit trips, then there are clear implications for environmental sustainability.

Mobility as a Service

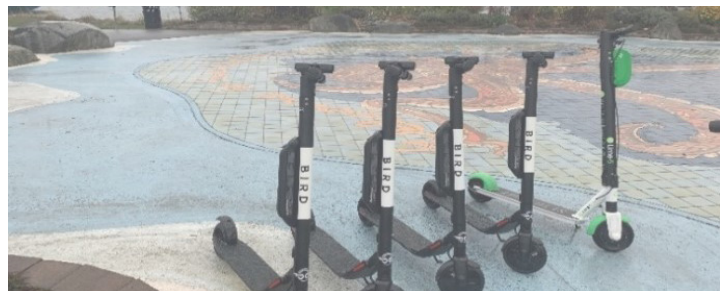
Mobility as a service (MaaS) is generally a service provided by agencies to simplify trip planning, mode selection, and ticketing to easily provide travelers their preferred combination of cost, convenience, speed and flexibility, and to make travelers aware of transit access opportunities using first mile/last mile strategies.

Transit schedules and non-motorized access information such as bike share and scooter share are integrated into a shared platform that can be accessed through smartphones and information kiosks.

The COVID-19 pandemic has greatly influenced travel behavior, and the long-term impacts remain uncertain.

We will likely see higher numbers of residents electing to work from home on a more regular basis than before, although local survey responses said that travel behavior would likely return to pre-pandemic mode choices.

While initial research suggests that up to 50 percent of jobs could be at least partially remote longer-term, the rate will vary by job type and income level.



Dockless scooters are a micromobility option currently provided by private operators in other communities in Washington.

Autonomous & Connected Vehicles

Automated and connected vehicle technologies continue to evolve. In the appropriate environment these technologies allow vehicles to operate without a human operator through the use of radars, sensors, and communication with other vehicles, infrastructure, and mobile devices. The expansion of autonomous vehicles may shift overall travel demand and patterns as it changes the cost and availability for personal mobility. The use of shared autonomous vehicles or shuttles may serve as a crucial strategy to address current challenges in first-last mile access to the core transit network. Additionally, autonomous transit technology, while still in early stages of development may allow for increased service frequency and new forms of operating models to provide an improved customer experience.

04

Public Outreach

WTA aimed to develop the Long Range Transit Plan through a community-driven process, incorporating the knowledge and vision of residents and stakeholders into the planning process. However, due to the COVID-19 pandemic, many traditional methods of public outreach were unavailable for the WTA 2040 planning process. To ensure meaningful community engagement, input was garnered primarily through online surveys and virtual meetings with stakeholders.

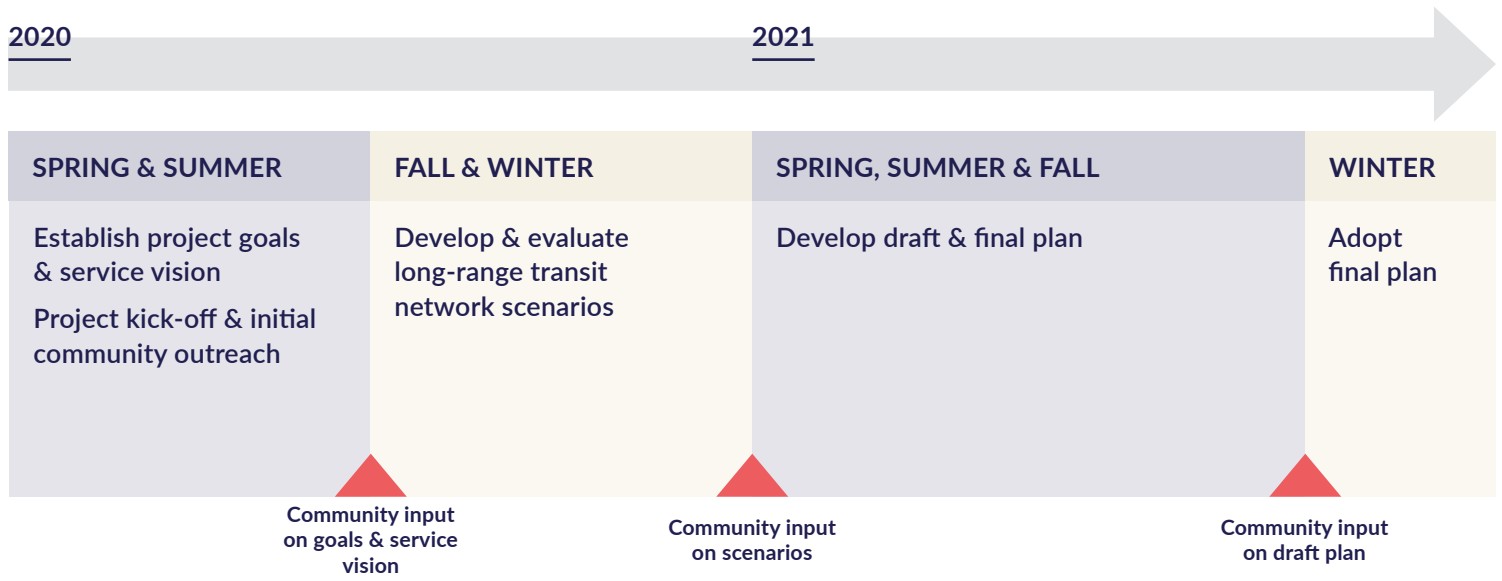
Public Outreach in Three Phases

Community input was gathered on: 1) the service vision for WTA, 2) comparing service scenarios based on different levels of investment, and 3) WTA's draft network plan and capital investments.

The figure below outlines the project process from 2020 to 2021, including the three touchpoints for community input.



Project Process



Phase One Outreach: Service Vision for WTA

During this phase, survey respondents and stakeholders were asked to share their thoughts on WTA's role in the community, on the values that should guide how service is delivered, and on what aspects of transit service are most important to them.

Phase One Online Survey

During the summer of 2020, the project team conducted an online survey, receiving 546 responses. Key findings include:

1. Transportation Method not Likely to Change

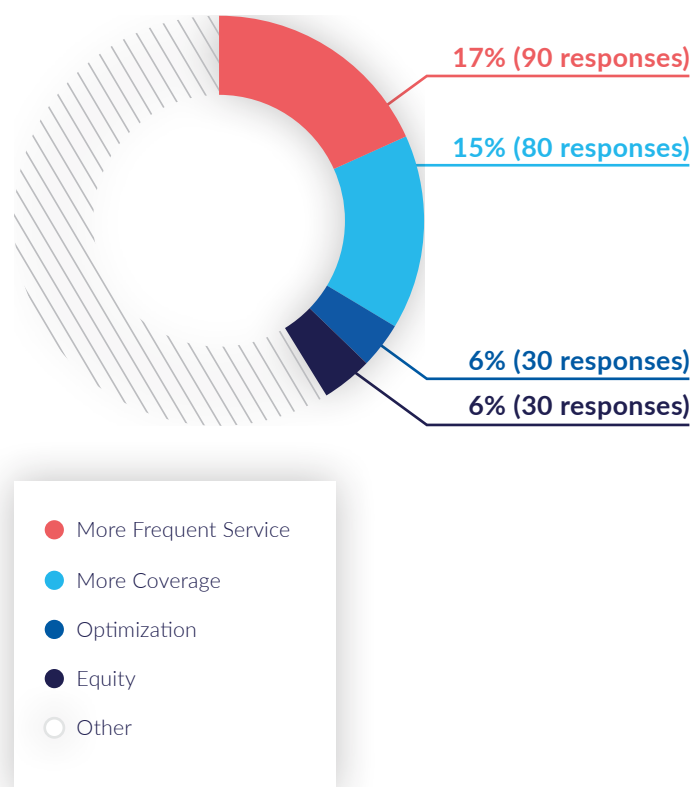
People do not generally anticipate their use of transportation to change after the COVID-19 pandemic is over.

2. An Equal Priority Between Coverage and Frequency

Respondents were asked to indicate their priority for service based on a sliding scale between coverage (when and where buses serve the county) and frequency. (how often a bus arrives at a stop). Respondents were evenly split on this question.

3. Changes to Improve Ridership?

Participants were asked to describe the number one change WTA can make to improve ridership. From the free-form responses, a few key themes emerged with similarities. Over 17% of responses included a request for more frequent service and 15% indicated a desire for more coverage. Over 6% of participants advocated for more optimization in the routes and 6% advocated for more equity in how service was allocated.



What are the top reasons for why WTA is important to you?

1. Meets the transportation needs of the community
2. Is good for the environment
3. Helps reduce congestion

Phase One Stakeholder Feedback

The project team garnered stakeholder feedback through the Transit Advisory Group (TAG) and the Community Transportation Advisory Group (CTAG). The TAG was a group of community members brought together specifically to advise the WTA 2040 process. CTAG is a long standing committee that serves as an advisory group for the Whatcom Council of Governments and WTA. The composition of both groups was intended to represent different geographic areas, ages, abilities, ethnicities, demographics, riders, non-riders, and a range of community partners.

WTA facilitated a discussion on key topics related to the priorities for service and the role of WTA in the future. Key findings include:

1. What does equitable transit service mean to you?

- » Accessibility
- » Welcoming
- » Affordability
- » Serves varying needs
- » Reliability
- » Coverage
- » Safety and comfort

2. What would your ideal transit system look like, and how would it serve you and your community?

- » Reliable
- » Convenient
- » Connectivity
- » Accessible
- » Safe
- » Frequent
- » Equitable
- » Easy to use
- » Multi-faceted



Phase Two Outreach: Comparing Service Scenarios Based on Different Levels of Investment

The primary focus of Phase Two Outreach was to provide the community with a summary of outcomes for different levels of transit investment and to solicit feedback to understand the priorities of the community based on the scenario results.

The project team hosted an online presentation, walking through each scenario in detail. There were over 150 views of the online presentation. A second survey in February 2021, asked questions about WTA's proposed transit scenarios. The survey presented detailed information about three scenarios with varying levels of investment: Limited, Moderate, and Substantial. The findings from the three scenarios were applied to create the two future networks, the 2040 Service Network and the 2040 Enhanced Network. WTA received approximately 400 completed responses. Key findings include:

Support for Substantial Transit Investment

Over 50 percent of responses supported the Substantial Scenario, 40 percent of participants supported the Moderate Scenario, and 10 percent of responses supported the Limited Scenario.

More Frequent Service

The majority of participants indicated that more frequent service was most important to them when comparing various metrics. Passenger amenities ranked lowest overall.

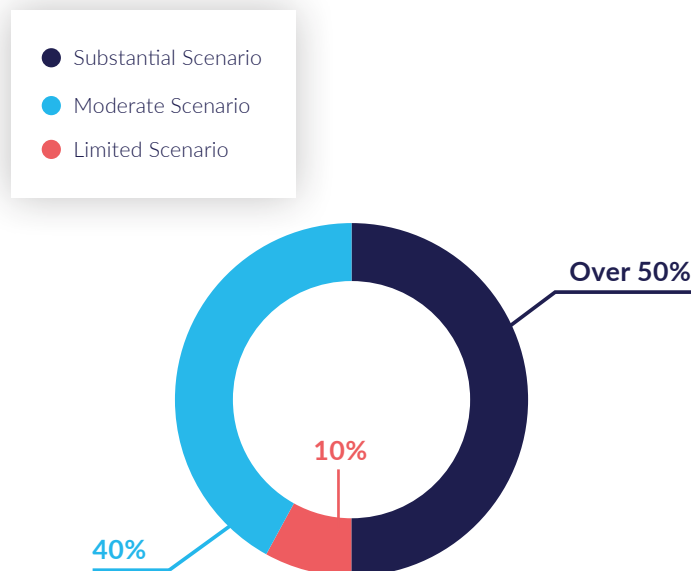
Equity Metrics are Important

The vast majority of participants indicated that the proposed equity metrics were "Important" or "Very Important."

Ranked Evaluation Metrics

The survey asked participants to rank all evaluation metrics overall. More frequent service ranked highest overall, and improved passenger amenities ranked the lowest. Reduction in greenhouse gas emissions was a polarizing option: it received the second highest number of votes from those who thought it was most important and the second highest number of votes from those who thought it was least important.

Support for Level of Transit Investment Survey Results



Three Scenarios of Investment

- » **Limited:** Growth in service by 25%
- » **Moderate:** Growth in service by 65% with Bus Rapid Transit and on-demand service areas
- » **Substantial:** Growth in service by 100% with additional Bus Rapid Transit and on-demand service areas

Phase Two Stakeholder Feedback

The project team engaged again with the Transit Advisory Group for feedback on the specific direction for establishment of goals and for the future transit network.

The facilitated discussion included topics such as:

1. *Is it better to grow ridership through more frequent service or is access to transit throughout the county more important?*
2. *How much of a priority is it for WTA to reduce carbon emissions?*
3. *Should more frequent service be provided in areas with concentrations of low-income populations?*

Feedback from the group showed support for increasing frequency and speed. It also showed support for reliability improvements (e.g., bus only lanes), especially in communities with a greater need. The group was largely supportive of environmental metrics and there was a noted desire to make riding transit more competitive with driving a single occupancy vehicle.

The feedback generated in Phase 1 and Phase 2 outreach provided critical guidance to the project team in developing a service and capital plan for WTA 2040 that reflected the overall vision and priorities of the community.



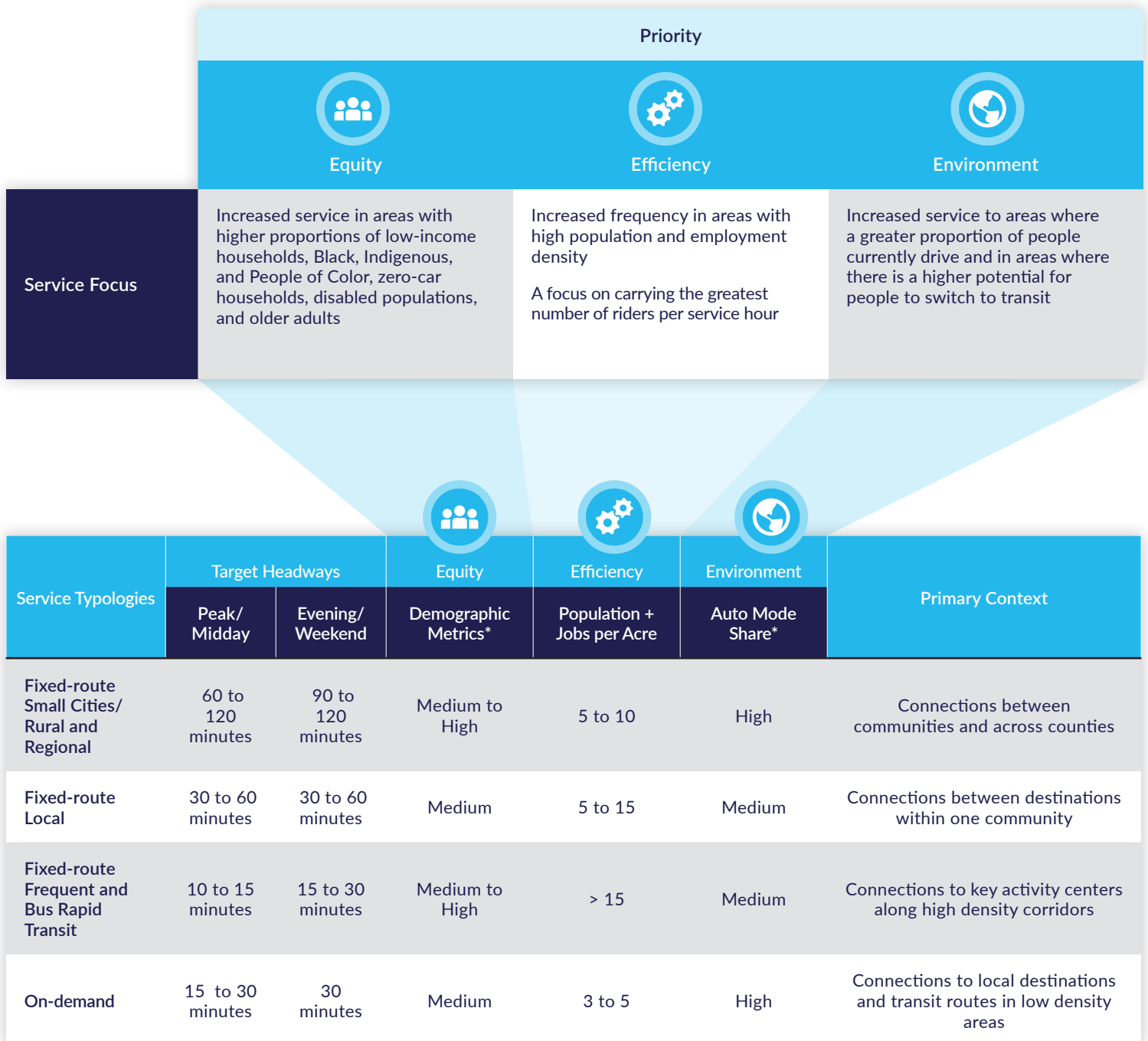
05

Service

A transit network for 2040 requires the appropriate balancing of resources to achieve goals and priorities for service. Transit service for WTA 2040 was developed through multiple inputs, incorporating the valuable feedback provided by the public and stakeholders to define priorities for how service should be allocated and aligning service based on where people would live and work in the future.

Service Allocation Framework

The service allocation framework provides a guideline for how different service typologies will be implemented by WTA to further the priorities of Equity, Efficiency, and the Environment. The framework is adaptable to the unique qualities of a community and accommodates changes in land use conditions, demographics, and travel trends.



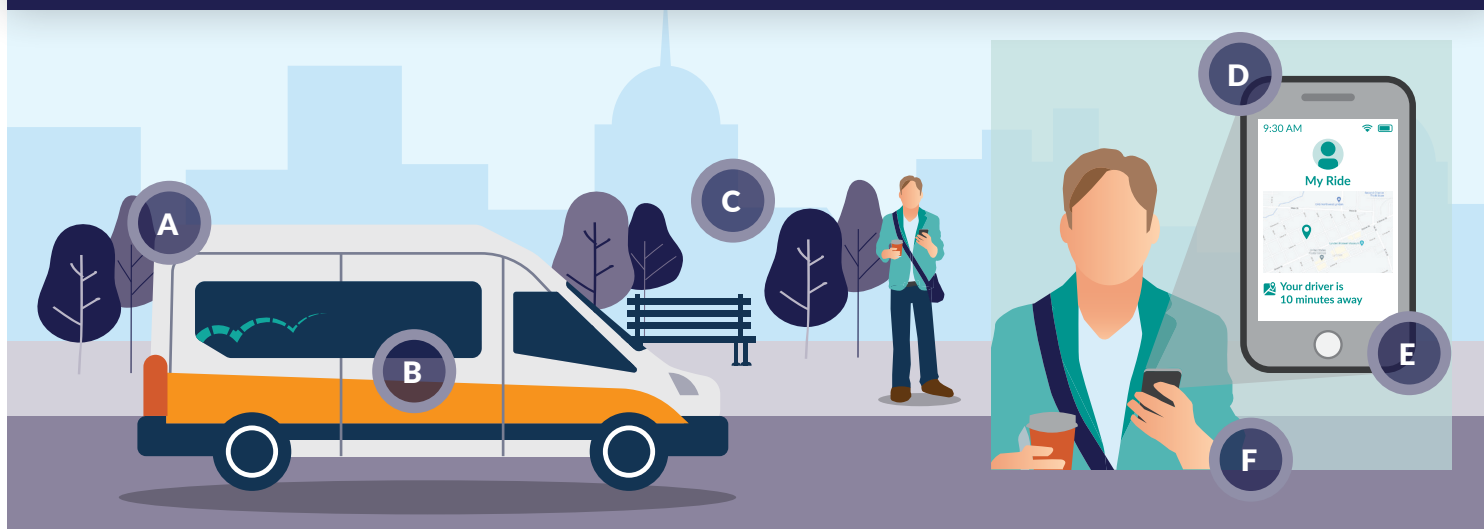
New Mobility Options

WTA has traditionally served the community through a mix of fixed-route, paratransit, zone, and flex services, which has allowed the agency to provide the right type of mobility solution based on the community needs. WTA 2040 recognizes the potential of innovative mobility options and high capacity service to better address emerging travel demand, demographic shifts, and future land use change. The two additional service types in WTA 2040 are on-demand and Bus Rapid Transit. Descriptions for each type are included in the following pages.

What is On-demand?



On-demand is a service option to expand access to opportunities across the country in support of WTA's focus on advancing equity. Potential service areas for implementation include those areas with population and employment density that may not support cost-efficient fixed-route service but would operate at a lower cost per trip than paratransit.



A Flexibility

Flexibility to serve origins-destinations and requested pickup times.



B Accessible for All

Vehicles are ADA-accessible.



C Local Connections to Your Community

Connect from your home to a nearby fixed-route transit connection or other key destination within your community.



D Easy Pay

Ideally, payment is linked to your on-demand account



E Convenient and Easy to Use

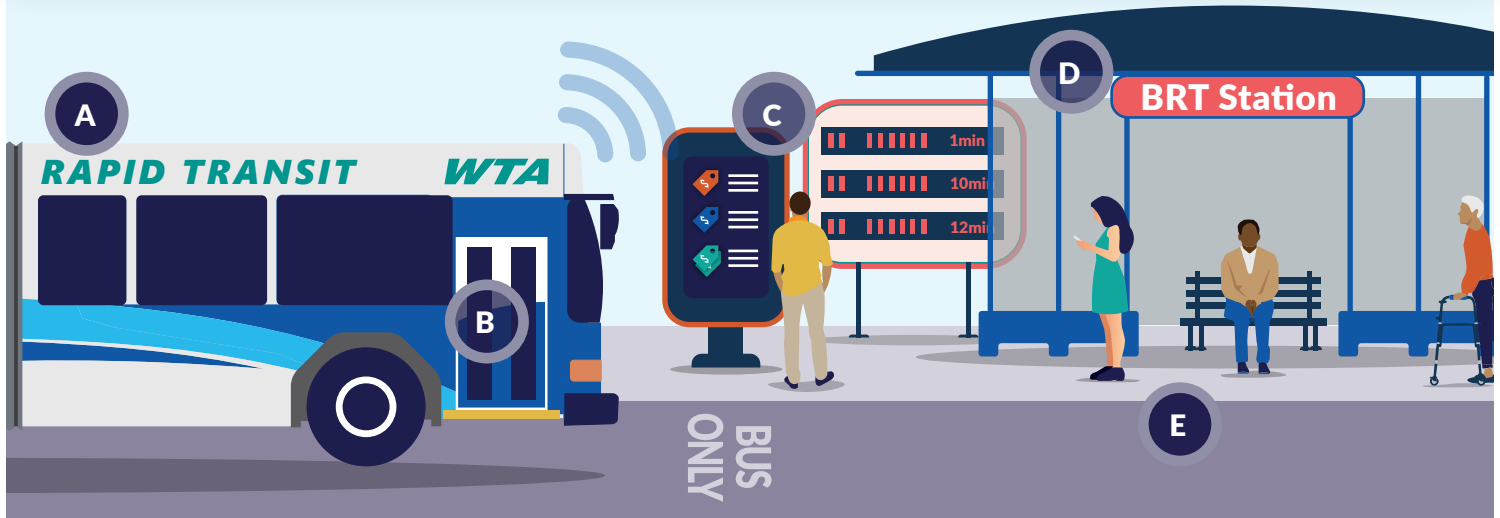
Book a ride through your phone or through calling WTA or visiting the WTA website. and pay through a linked on-demand account



F Short Wait-Times

Short wait-times, at most 10 to 15 minutes.

What is Bus Rapid Transit?



A **Very Frequent Service**
Buses arrive as often as every five to 10 minutes throughout the day, creating a backbone network of frequent service which improves the ability to transfer to different routes.

B **Specialized Vehicles**
Custom buses have unique designs and provide more capacity, more doors, and lower floors for easier loading and unloading.

C **Enhanced Fare Collection Systems**
Off-board fare collection using ticket vending machines, card readers, and other tools at stations allow passengers to load without waiting in line to pay their fares.

D **Additional Elements**
Transit priority treatments to improve speed and reliability plus enhanced stations to improve the rider experience such as real-time arrival signage.

E **Special Branding**
Unique designs make buses and stations more visible, raising awareness of Bus Rapid Transit and increasing customer expectations for higher levels of service.

A prioritization study will be conducted following adoption of WTA 2040 to finalize which routes to advance into planning and preliminary engineering and to secure potential federal funding support. The candidate routes to be evaluated include all routes and corridors targeted for frequent service in the growth investment networks, which include:

- » Gold - Route 331
- » Green – Route 232
- » Blue – Portions of Routes 105, 107, 108, 190, 196, and 197 between downtown Bellingham and Bill McDonald Parkway via WWU

Additional Services

Beyond fixed-route service, WTA 2040 envisions investments in other services to improve connections for the community. This includes the following:

Service Type	2040 Service Network	Enhanced Service Network
Paratransit	Increase of 2.5% annually in service hours, consistent with historical growth rates	Conversion of some areas to on-demand which provide fully ADA-accessible connections, decreasing the need for dedicated paratransit service
Flex	Continued Flex service for routes 71x and 72x. Flex service for 75 becomes on-demand service area	Continue Flex service for portions of route 72x. All other areas become on-demand service
Zone	Continued limited zone service with the possibility of conversion to on-demand if fiscally sustainable	
Vanpool	Expanded opportunities to form vanpool groups and additional support for vanpool initiation	

Land Use - Transit Connection

The relationship between land use and transit service is a key component of WTA 2040. The proposed service increases, service types, and capital facilities are based on accommodating and efficiently serving the growth forecast within Whatcom County. Therefore, service improvements would be phased in the areas within the county that are increasing in density and where demographic data suggests that transit service is needed the most.



Service Improvements for WTA 2040

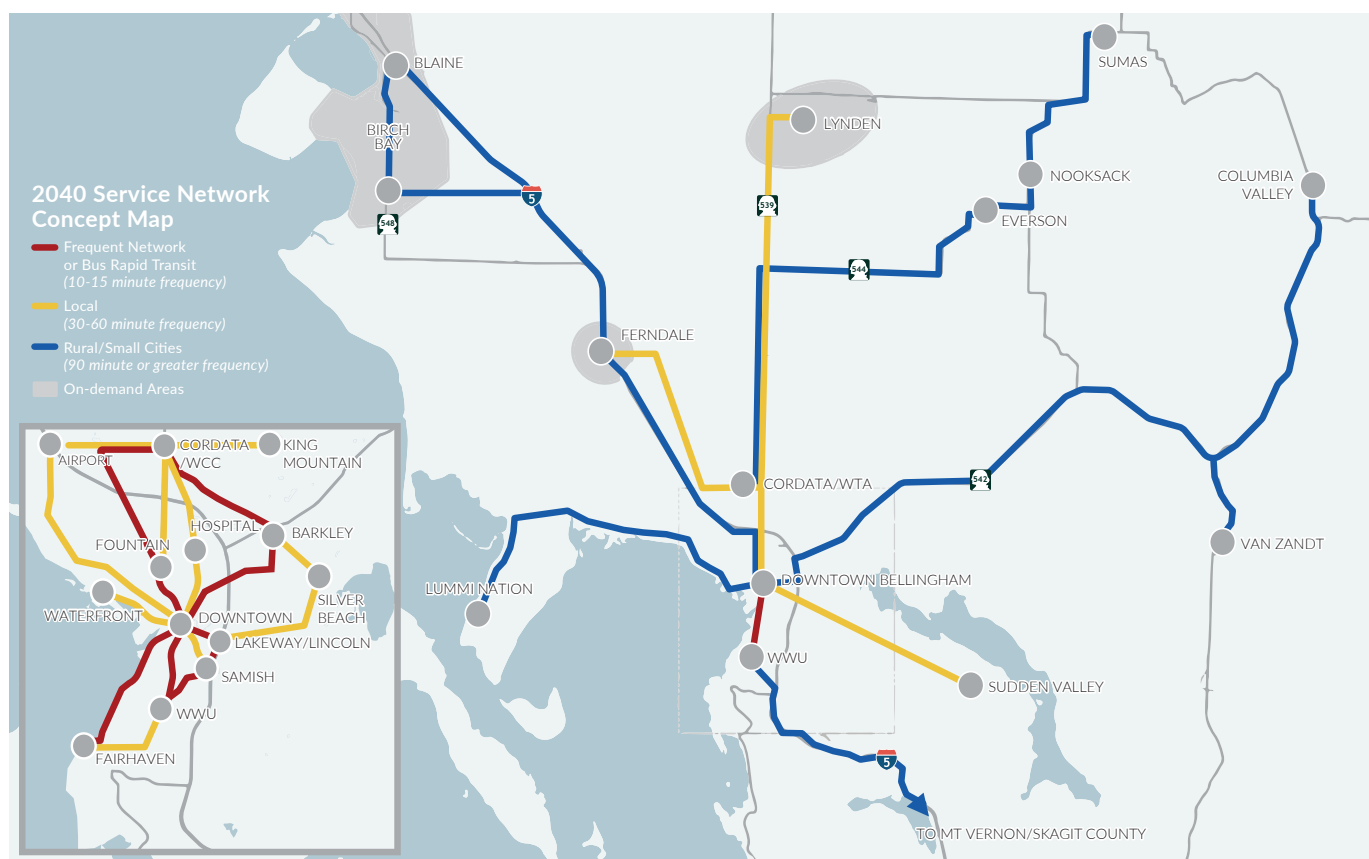
The service allocation framework will guide service planning decisions to identify and implement improvements to transit service across the county. Service planning considers key factors to determine when, where, and how service is provided based on the underlying land use and demographic conditions. Service planning improvements for WTA 2040 will include:

- » **Frequency** – Service headways, or how often a bus arrives will increase on many corridors throughout the system. For example, some routes that currently operate every hour will operate every thirty minutes and some routes that operate with a few trips a day may operate more regularly every hour.
- » **Service span** –The time when transit service is available will increase, with trips provided earlier and later in the day, plus expanded service on weekends.
- » **New coverage** – Areas in the county with planned development not currently served by transit will have new fixed-route service, including along the Waterfront District Redevelopment and in the King Mountain neighborhood in Bellingham.
- » **Improved transfers** – With increased frequencies and new service types, the ability to transfer within the system to connect riders to their destination will improve and they'll spend less time waiting at the transit station.
- » **On-demand** – Service areas will expand beyond the current Lynden Hop pilot program. On-demand services will be used to expand coverage of the system, particularly in areas that may not support more frequent fixed-route service but have higher proportions of priority populations.
- » **Bus Rapid Transit** - A new service type will be implemented to more efficiently serve areas with higher demand, with dedicated transit priority treatments to improve speed and reliability and to operate service more frequently.



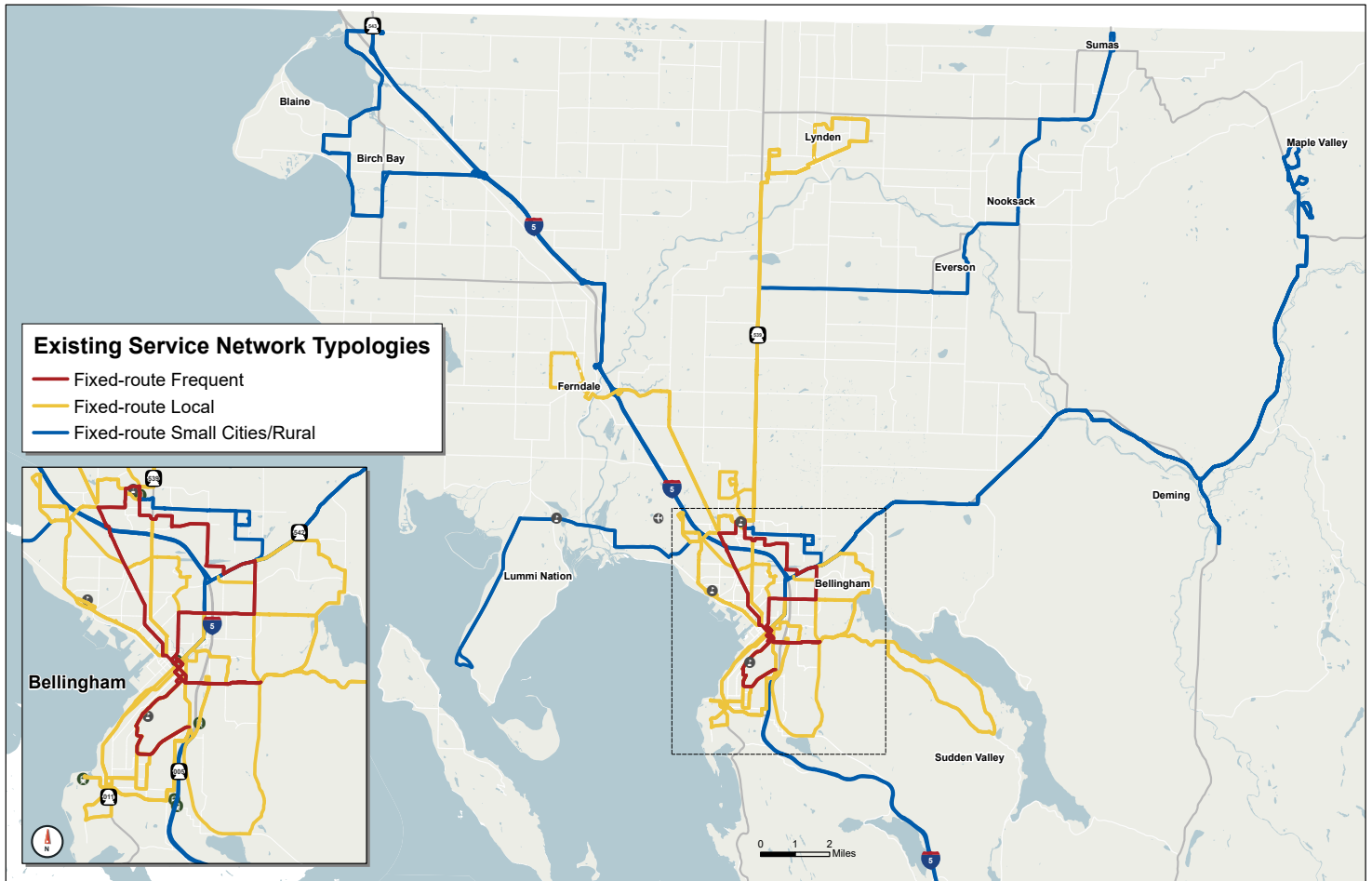
2040 Service Concept Map

The map below provides a high-level summary of the type of service planned for the 2040 Service Network, incorporating the "Three Es" and the Service Allocation Framework. The maps on the following pages convey more detailed route alignments and the change in service from today's network planned for the 2040 Service Network and the Enhanced Service Network.



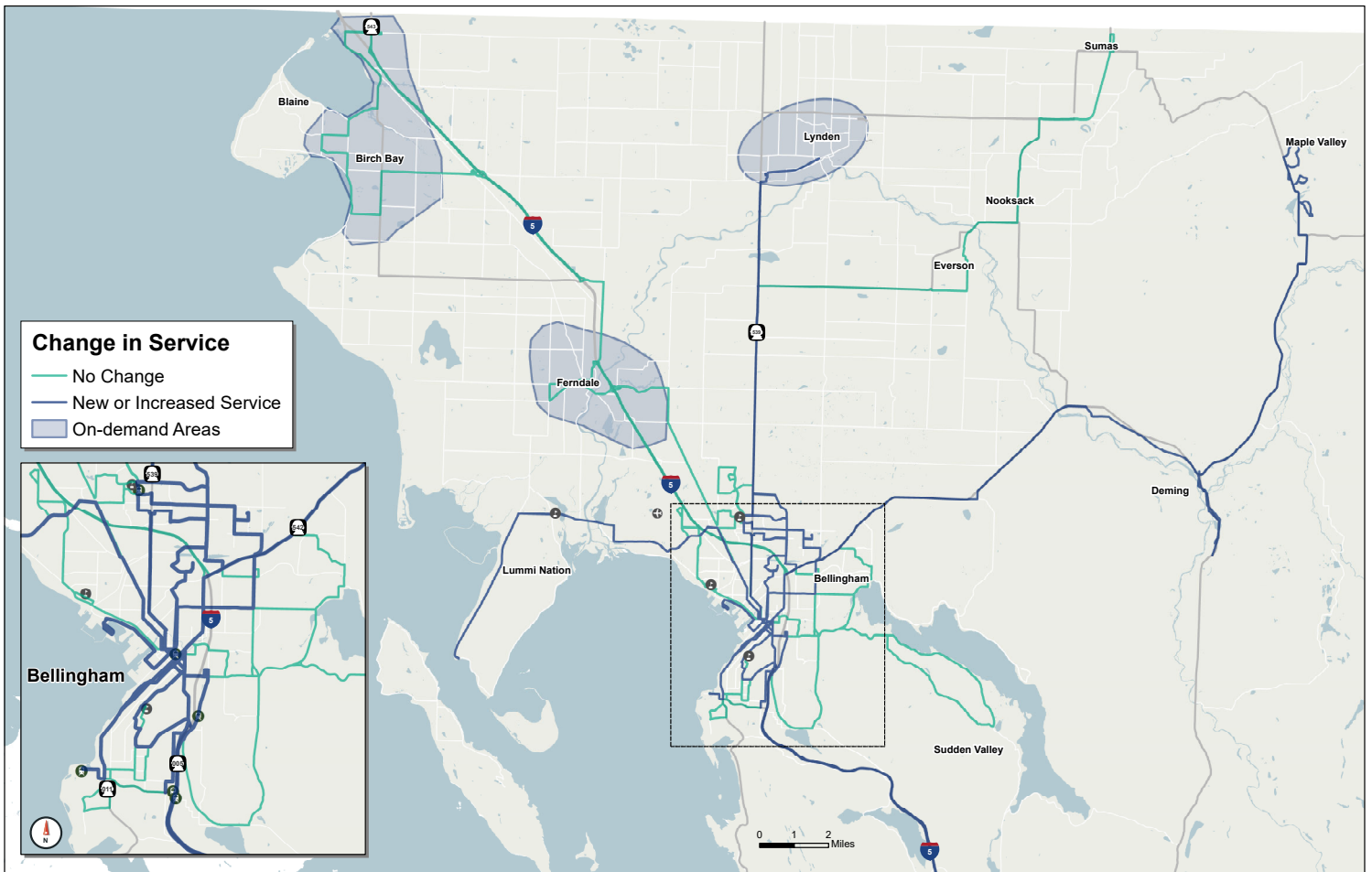
Current Network (2021)

Current levels of service and service types in today's network as shown in the map below provide a comparison for how service may look in the future. The 2040 Service Network and the Enhanced Service Network maps are shown on the following pages to highlight how service is planned to change from today's service levels.

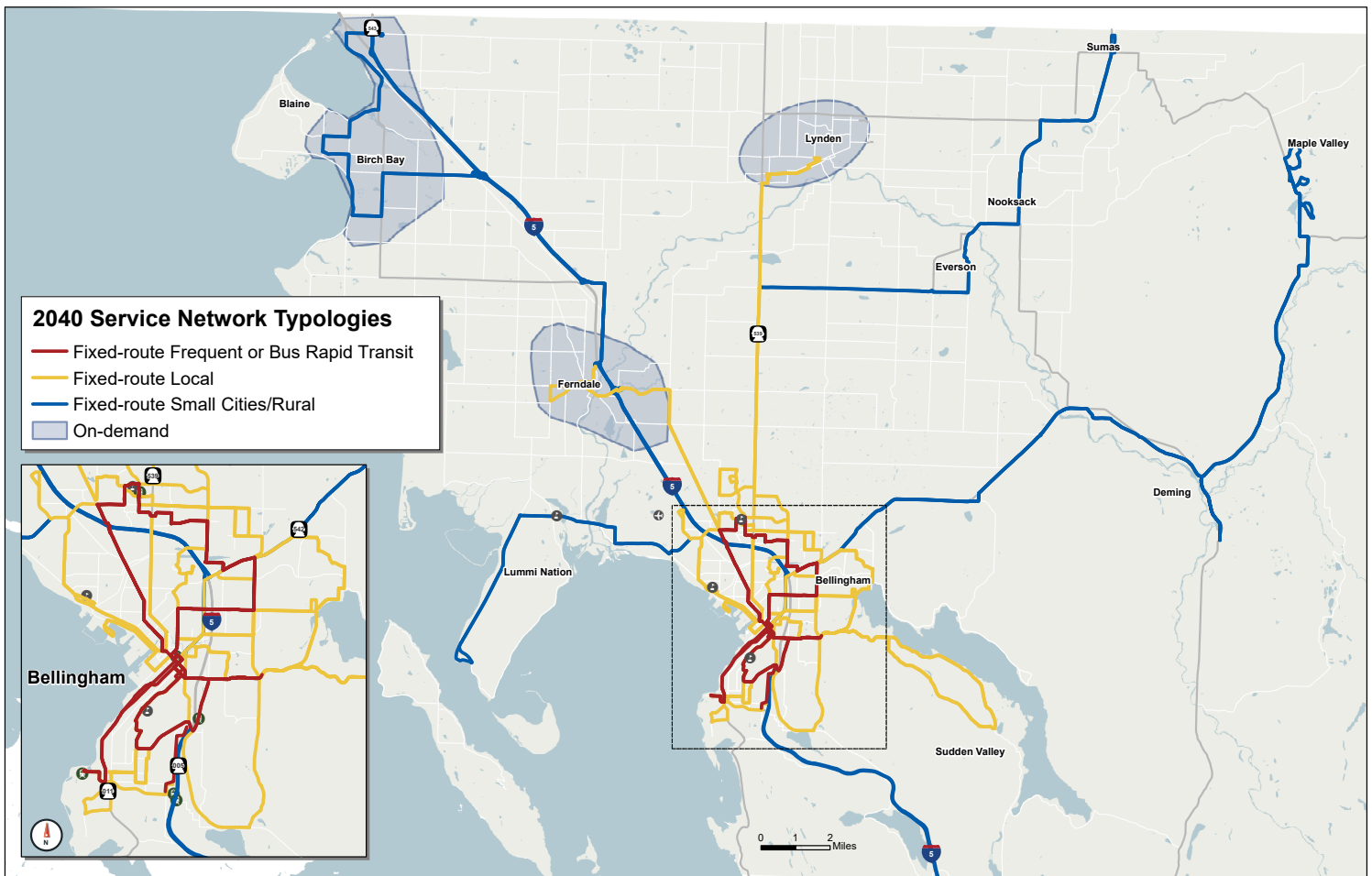


Change in Service for the 2040 Service Network

The 2040 Service Network is based on moderate growth of service that is supported by WTA's current financial resource base (primarily, the existing WTA sales tax rate of 0.6%). The network plan identifies how WTA plans to increase and adapt service based on current expectations for growth within the county and expectations of demand for service. The change in service and the future service typologies for the 2040 Service Network are shown in the following two maps:

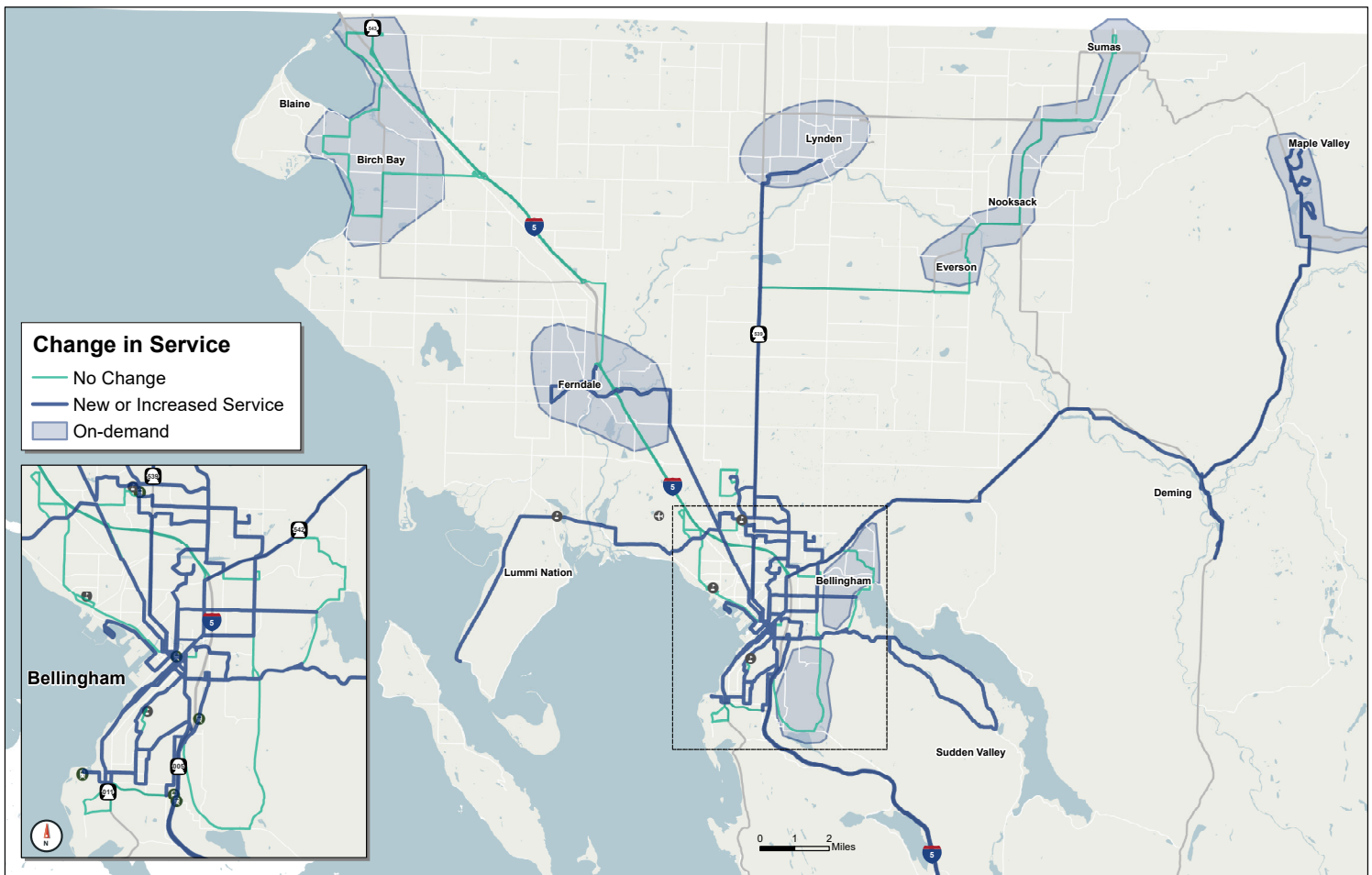


2040 Service Network Typologies

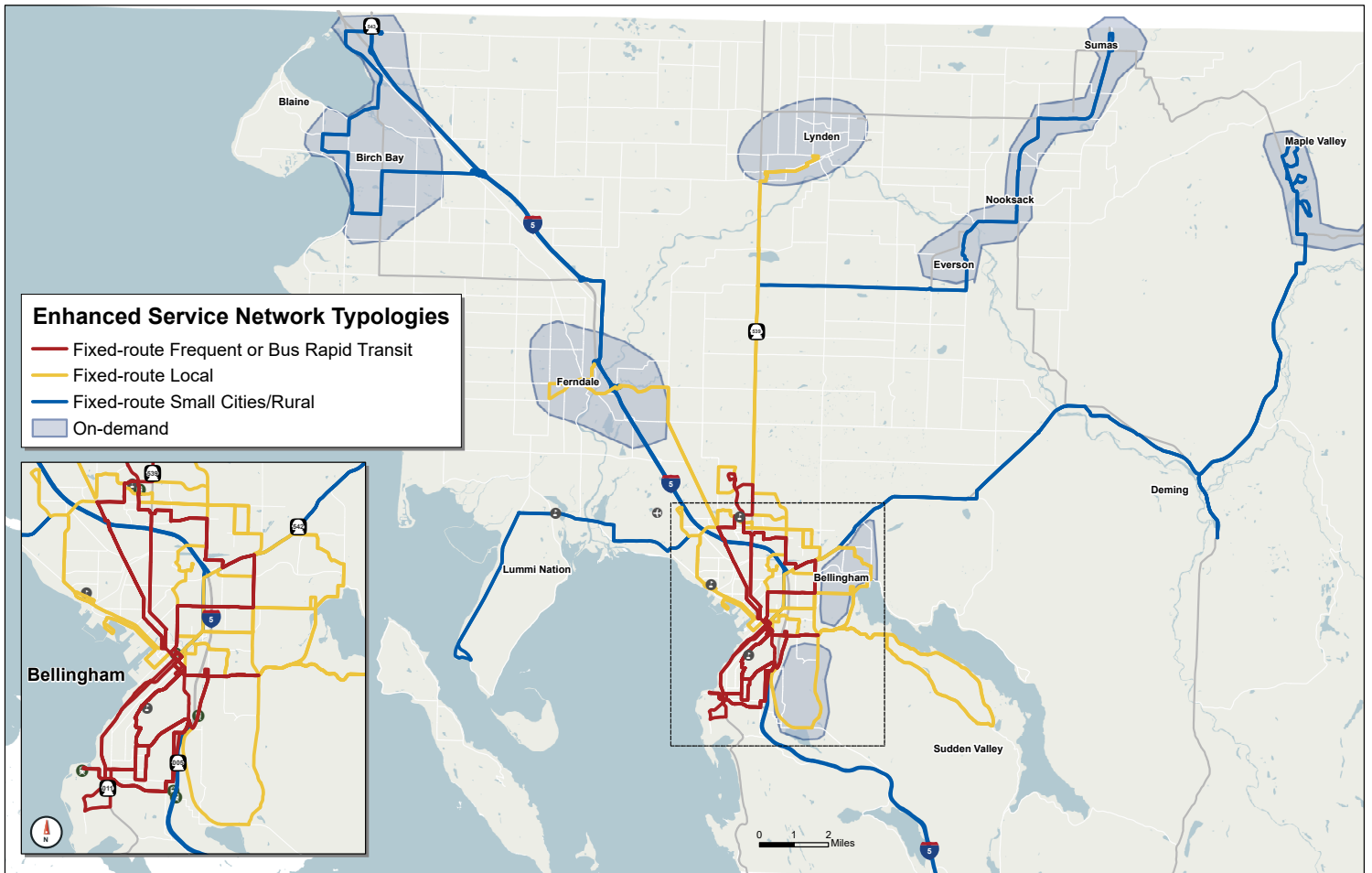


Change in Service for the Enhanced Service Network

The Enhanced Service Network is an option WTA could pursue if demand significantly increased and therefore additional funding became available, for example through a local sales tax. An enhanced investment could provide for additional bus rapid transit (BRT) lines and additional on-demand service areas. The Enhanced Service Network is an option WTA could pursue if demand significantly increased and therefore additional funding became available (for example through a higher local sales tax rate or other funding sources). The change in service as compared to today and the future service typologies for the Enhanced Service Network are shown in the following maps:



Enhanced Service Network Typologies





"This [on-demand] service has been a true blessing for me and other seniors especially. Since I had to stop driving the first of this year it has been a burden to always rely on family or friends for transportation. The Lynden Hop has given me my independence back. I can now schedule a ride for doctor's visits, trips to the Lynden Senior Center, or brief shopping trips. It is such a joy to know I can get around town whenever I need to do so."

-Customer Feedback

06

Capital

Expanding service requires the support of capital infrastructure such as fleet, maintenance facilities, and transit centers to ensure safe and efficient operations. *WTA 2040* increases WTA's investment in capital projects to leverage service increases, to improve the customer experience, and to enhance the role that WTA plays in multimodal connectivity throughout the county. This chapter describes the supporting capital elements necessary to implement and operate the transit network over the next 20 years.

Capital Needs

The table below highlights the key capital elements necessary to support the service networks in WTA 2040. The following pages in this section provide more detail for each capital project.

Project	Key Capital Needs
Bellingham Station	<ul style="list-style-type: none"> » Capacity expansion » Facility upgrades
Bus Rapid Transit	<ul style="list-style-type: none"> » Transit priority treatments » Facility upgrades » Increased fleet for improved frequency
Fleet	<ul style="list-style-type: none"> » Expansion of the fleet for all service types
Maintenance, Operations, and Administration Base (MOAB)	<ul style="list-style-type: none"> » Capacity expansion » Facility upgrades
Speed and Reliability	<ul style="list-style-type: none"> » Increased investment in transit priority treatments
Passenger Facilities and Non-Motorized Access	<ul style="list-style-type: none"> » Fully ADA-accessible stops » Transit access investments
Park and Rides	<ul style="list-style-type: none"> » Continued monitoring of utilization
Zero Emission Fleet Transition	<ul style="list-style-type: none"> » Pursue grant funding for zero emissions buses and equipment
Technology Expansion	<ul style="list-style-type: none"> » Automated passenger counters » Digital signage and other technology elements

Bellingham Station

Bellingham Station serves as the primary hub for transfer activity, operational support, and customer service for WTA. It currently operates at capacity with buses loading and unloading passengers and laying over at 10 bays at the facility throughout the day. The station includes a passenger concourse, passenger waiting area, restrooms, staff offices and break room, and a customer service booth. Bellingham Station cannot accommodate additional service and the station needs to be expanded to provide new bays and upgraded passenger waiting areas.



Key elements to support the growth planned in WTA 2040 for both investment networks include:

- » Four additional transit bays
- » Updated passenger concourse
- » Electric charging station
- » Additional bike storage
- » Solar panels
- » Improved landscaping and architectural updates
- » Space to handle articulated buses
- » Increased on-demand vehicle access points
- » Expanded multimodal connections

Fleet

Both the 2040 Service Network and the Enhanced Service Network will require substantial additions to the fleet to support increases in service. Based on the forecast growth in revenue hours, revenue-miles, paratransit demand, and vanpool needs, the following table highlights the total fleet needs for each network.

Fleet Type	Fixed Route	Paratransit	On-Demand	Vanpool
Existing	62	47	2	15
2040 Service Network	86	61	8	22
Enhanced Service Network	104	61	19	27

Articulated Buses

WTA conducted a study in 2016 to understand the benefit and feasibility for deploying 60' articulated buses on specific routes where overcrowding typically occurs (generally near Western Washington University). Articulated buses provide additional seated and standing capacity and reduce the need to operate additional 40' buses to accommodate higher loads. While they can reduce costs per passenger served, they incur higher fuel and maintenance costs and cost more to procure. They would require additional capital investments such as reconfigurations to stop locations and transit centers, and modifications to the maintenance and operations base. Based on proposed improvements in WTA 2040 for Bellingham Station and the Maintenance, Operations, and Administration Base, 60' articulated buses may be accommodated in the future and should be further reviewed for potential incorporation into the fleet, particularly with the implementation of Bus Rapid Transit.

Maintenance, Operations, and Administration Base (MOAB)

MOAB serves as the primary location to store, maintain, and operate the fleet while also serving as the main administrative headquarters for WTA. It was built in 2002 and requires a remodel and expansion to accommodate growth over the next 20 years. An initial assessment has been conducted to identify facility needs and estimated costs. For the purposes of this plan, MOAB is assumed to include the North and Midway lots which are outlying parcels adjacent to the main base.

Key elements to support the growth planned in WTA 2040 for both investment networks include:

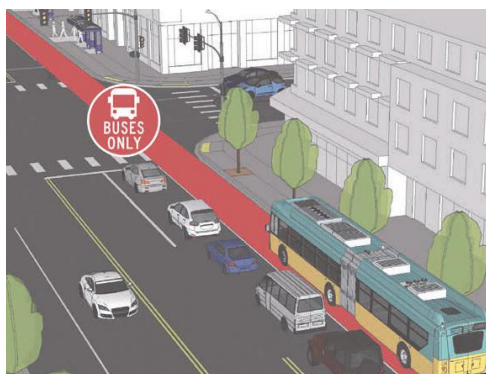
- » Additional maintenance bays to accommodate additional fixed-route buses
- » Maintenance and storage of additional paratransit, vanpool, on-demand, and support vehicles
- » Maintenance bay reconfiguration and construction to accommodate 60' articulated buses
- » Fleet electrification infrastructure
- » North Lot construction for additional fleet parking
- » Improved and expanded office and meeting space
- » Expanded office parking for WTA employees and guests



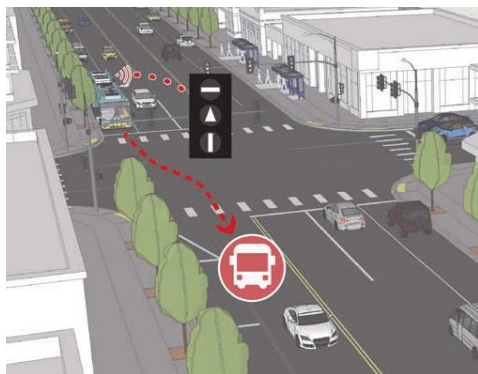
Speed and Reliability

Over the next 20 years as Whatcom County's population and employment grows, congestion on the roadways will increase and may impact transit operations. Slower speeds result in longer travel times for customers and potentially requires additional service hours and vehicles to provide the same level of service, further impacting efficiency and the rider experience. Speed and reliability investments are a vital capital investment to address these issues and leverage a successful partnership with local jurisdictions to prioritize and plan for transit priority treatments. For cost estimating purposes, WTA 2040 assumes that all frequent corridors in each growth investment network would include investments in speed and reliability improvements that ensure that the operating speeds continue to be maintained over the next 20 years. Specific locations and corridors would be identified through a High Frequency Transit Corridor Speed and Reliability Study to begin in 2022.

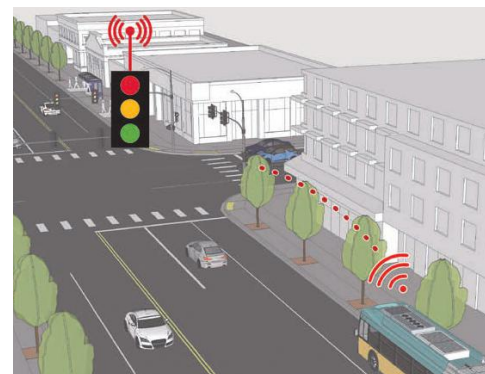
Speed and reliability investments could include:



Bus-only Lanes¹



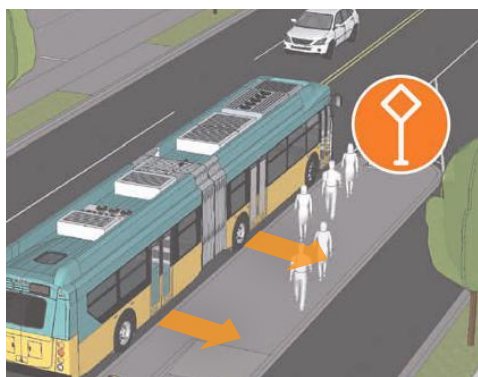
Queue Jumps¹



Signal Priority¹



Bus Bulbs¹



Level Boarding¹

¹ King County Metro Transit Speed and Reliability Guidelines and Strategies, August 2021

Passenger Facilities and Non-Motorized Access

WTA maintains 879 stops throughout its network. Of those stops, 19% have shelters and 28% have benches. Approximately 54% of these stops do not have accessible pads or connections to sidewalks and present barriers for persons in mobility devices. Safe and comfortable walking, rolling, and biking connections to transit can be just as important to a rider's experience as their time waiting and riding the bus. There is capacity to park up to 40 bicycles at WTA's four transit stations: Cordata Station, Bellingham Station, Ferndale Station, and Lynden Station.

WTA has mapped pedestrian accessibility to stops (see page 25) and is working with local partners to add improvements. *WTA 2040* identifies strategies to improve non-motorized access and ADA-accessibility while enhancing the rider experience.

The elements include:

- » Ensure all stops are ADA-accessible by 2040
- » Designate a "Transit Access Fund" that funds local jurisdiction construction of pedestrian access investments such as sidewalks and pedestrian crossings to better connect walkers to transit
- » Expand the number of benches and shelters across the system



Park and Rides

WTA currently owns three park and ride lots and serves seven lots across Whatcom and Skagit counties. These three lots are underutilized and present opportunities for reimagining other transit supportive uses on WTA-owned property. The largest, most utilized lot served by WTA is the Lincoln Creek Park and Ride, which is owned and maintained by Western Washington University (WWU).

Station	Number of Stalls	Bicycle Parking
Cordata Station	70	10
Bellingham Station	101*	20
Ferndale Station	131	4
Lynden Station	89	6

*Stalls are owned by City of Bellingham

WTA's park and ride lots are currently underutilized. WTA 2040 does not anticipate a need to expand its current parking facilities and instead focuses on improving non-motorized access and utilizing on-demand services as a means to expand access to the transit system beyond the fixed-route network. WTA will continue to monitor demand at park and rides and will identify potential options for enhancing the existing assets, such as enhancing operations, incorporating transit-supportive uses, or enabling transit-oriented development. WTA will continue to work with WWU and the City on a redesign of the transit stop at Lincoln Creek park and ride as part of a WWU initiated project.



Zero Emission Fleet Transition

Transitioning the WTA fleet to zero emission vehicles is a key strategy for WTA to advance its environmental goals and align with federal and state initiatives. WTA has begun to acquire electric buses and charging equipment, and the results of vehicle in-service testing and life cycle costs will be used to develop a long-term strategy for electrification. Some key considerations for electrification include the following:



Charging Infrastructure

Plan and design the electric charging infrastructure at MOAB based on future fleet size and identify specific on-route charging locations to complement base charging and install charging locations at Bellingham Station, Cordata Station and other locations to extend the range of electric vehicles.



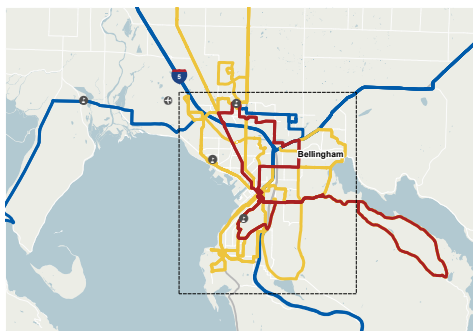
Fleet Procurement

Leverage federal grant funding opportunities to mitigate the additional fleet procurement cost for electric vehicles and develop a fleet procurement transition plan to phase in the vehicles as the supporting infrastructure is constructed.



Utility Coordination

Coordinate with the local utility provider to understand electricity demand management and optimal charging strategies to address potential constraints.



Operations Considerations

Identify potential shifts to operations, including bus blocking, route alignments, and layover locations to efficiently integrate electric vehicles into operations.



Vehicle Maintenance

Assess current maintenance staffing and procedures to align with new requirements and parameters for maintaining, charging, and managing an electric fleet.



Lifestyle Cost Comparison

Conduct an evaluation to understand the lifecycle cost comparisons between diesel-hybrid and zero emissions buses, including procurement, fueling, operations, and maintenance costs.

Technology Expansion

WTA has advanced its technology over the years, with recent efforts to provide mobile payment, real-time bus arrival systems, expanded data management capabilities, and enhanced information technology enterprise systems.

WTA 2040 identifies technology expansion strategies to address the future needs of riders and the agency in the future. The strategies may include:



Automatic Passenger Counters¹

Technology on buses that allow WTA to better understand ridership patterns to improve service by automatically capturing when and where passengers board and alight.



Real-time Digital Signage

Digital displays at high ridership stops provide riders with information such as when the next bus will arrive and whether it is on-time. Additional information can convey important rider alerts such as service changes due to weather or other incidents.



Mobility-as-a-Service (MaaS)

A seamless platform for riders to access all forms of information to support their travel needs, including trip planning, real-time arrival information, mobile payment, and on-demand ride requests.



Automated Vehicle Technology²

Prior to the full automation of vehicles, technology exists that can be incorporated into existing and upcoming vehicle procurements that can improve safety and operations for transit vehicles, including lane-keep assist, automatic braking, and pedestrian warning systems

¹ <https://www.nctr.usf.edu/pdf/77803.pdf>

² <https://www.apta.com/>



"I really appreciate WTA's involvement and partnership on community projects related to transit."

-Response to Phase One Outreach Survey

07

Funding and Implementation

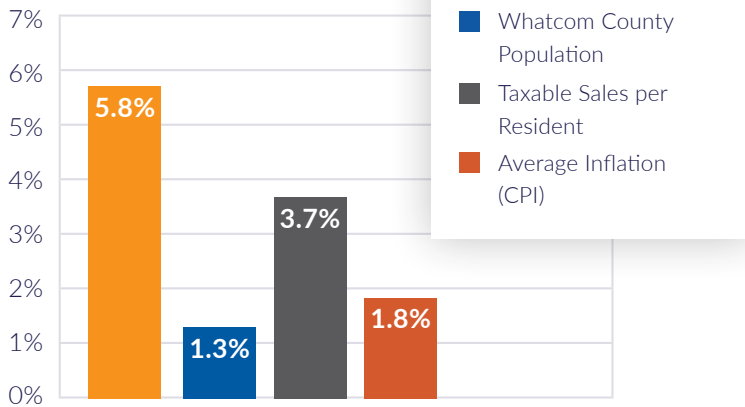
This section details the funding and the near-term and long-term steps required to implement WTA 2040 goals, allocate service, and construct capital facilities. Many of the implementation actions are the same for each investment strategy, and vary only in the amount of funding required to support the level of service and associated capital elements.

Existing Funding

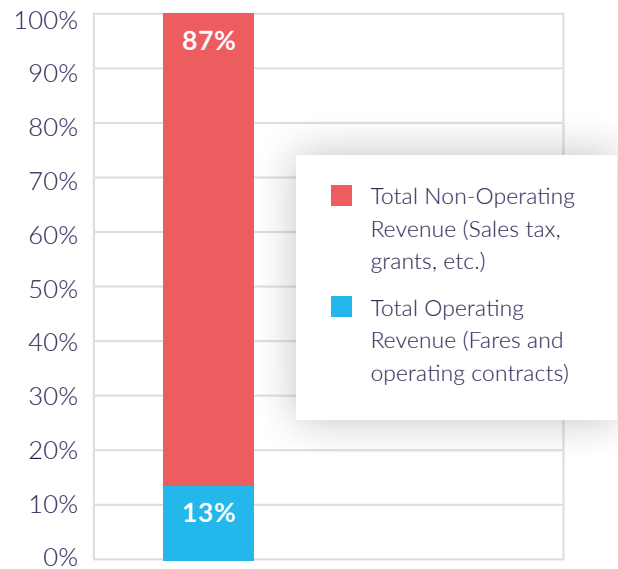
A large proportion of funding for WTA services comes from sales tax, with over 80 percent provided by the current 0.6% rate applied to the sale of all goods and services within Whatcom County. Fares from fixed-route and paratransit generally provide just over 10 percent of WTA’s revenue.

Sales tax historically has grown at a rate greater than population growth when adjusted for inflation, due to cross-border transactions and increased overall economic activity within the region. Between 2010 and 2019, sales tax grew at an annual rate of over 5 percent while the population in Whatcom County grew at an annual rate of 1.25 percent. Adjusting for inflation, this equates to an approximate increase in sales tax revenue of just over 3 percent per year, or approximately double that of the population growth rate.

Average Annual Growth Rates (2010 to 2019)



Mix of Operating vs. Non-Operating Revenue



Funding Strategies

WTA uses all of the funding sources listed below to varying degrees to pay for operating and/or capital expenses. No new options were explored as part of this planning effort. The two most significant funding sources for WTA are the sales tax and federal and state grants. These two would be expected to provide the bulk of the funding needed to implement both the 2040 Service Network and Enhanced Service Network.

Funding Option	Description
Sales Tax	Sales tax authority could be increased from the current 0.6% rate. The maximum rate allowed for WTA is 0.9%; however, any sales tax rate change would not necessarily require an increase to 0.9%. An increase in sales tax authority would require voter-approval.
Partnerships	Partnerships with private companies and public entities could support specific targeted service or capital investment strategies. Some examples include private employers providing partial funding for an on-demand service connection or local jurisdictions directly funding bus stop improvements. A current partnership between WTA and WWU has helped to facilitate improved bus stop locations, grant funding requests, a monthly pass for all WWU students, and a subsidized pass for staff.
Transportation Benefit District	Transportation Benefit Districts (TBD) and other locally based funding options are examples of property tax-based funding sources that can be implemented through voter or City Council approval. A TBD can be a funding strategy to directly connect increased transit service with land use development that supports the service. The City of Bellingham renewed its 10-year TBD in 2021 and has committed to funding transit capital improvements of up to \$500,000 per year.
Federal and State Grants	Provide both capital and operating funding. Funding for the purchase of buses and equipment, facilities, low or zero emission vehicles. Funding for public transportation services to seniors and people with disabilities. State Regional mobility grants pay for capital, operations and transportation demand management. Consolidated grant funding pays for some ADA paratransit service.
Fares	WTA currently receives just over 10% of its revenue from fares. Higher fares can increase revenues; however, they may decrease ridership and may impact overall revenue. WTA is currently evaluating potential implications for transitioning to a fare-free system.
Other	As a public transportation benefit area, WTA may be authorized to use other funding under RCW 35.95 and other state statutes. In addition, under RCW 35.58 WTA has the authority to issue general obligation bonds for capital purposes including but not limited to replacement of equipment. WTA generates a small amount of revenue from advertising and interest.

Implementation and Phasing

Implementation of WTA 2040 requires specific actions to plan and deploy elements described in the plan. Strategies and actions will be carried out over the next 20 years and will be phased in a manner to ensure the system grows with the county and adapts to new conditions in the future.

The following table highlights the key action items and timing to implement the plan:

Element	Action	Timing
Fixed-route Service	6 Year Service Plan to identify potential near-term service changes to address equity, efficiency and environmental service priorities	2022
	Biennial service changes	2023
On-demand Service	Assess performance of the Lynden Hop and determine long-term feasibility	2022 to 2023
	Investigate on-demand service in Ferndale and Blaine/Birch Bay	2023 to 2025
Paratransit	Conduct a needs assessment for the Blaine/Birch Bay area	2022
	Cross-county paratransit feasibility study	2022
Speed and Reliability	Prioritization study to identify transit priority treatments	2022
	Planning and construction of identified priority treatments	2023 to 2040
Bus Rapid Transit Planning	Prioritization study to identify preferred corridor and alignment	2022
	Planning, environmental assessment, design, funding, and construction	2023 to 2025

Element	Action	Timing
MOAB	Planning and project needs assessment	2021 to 2022
	Design and construction	2021 to 2030
Bellingham Station	Planning, conceptual design, and funding	2022 to 2023
	Design and construction	2024 to 2025
Fleet	2040 Service Network <ul style="list-style-type: none"> » 1 to 2 additional fixed-route vehicles per year on average » 4 additional on-demand vehicles by 2040 	
	Enhanced Service Network <ul style="list-style-type: none"> » 2 to 3 additional fixed-route vehicles per year on average » 17 to 20 additional on-demand vehicles by 2040 	
	Both networks <ul style="list-style-type: none"> » 1 to 2 additional paratransit vehicles per year on average » 10 to 20 additional support vehicles by 2040 » 7 to 12 additional vanpool vehicles by 2040 	
Passenger Facilities	Planning and prioritization for additional shelters, benches, and ADA-accessible stops	2021 to 2022
	Implementation of a non-motorized access fund to support local jurisdictional construction of pedestrian projects adjacent to transit stops	2022
IT Projects	Plan and deploy automatic passenger counters	2022 to 2023
	Test and install real-time signage at stations and key stops	2022 to 2025
Electrification	Seek grant funding and purchase electric buses up to existing (2021) capacity	2021 to 2023
	Conduct a feasibility study for transition of the fleet to electric vehicles	2022

Strategies to Achieve the Goals for WTA 2040

Beyond the capital facilities described on previous pages, additional strategies will be leveraged as part of WTA 2040 implementation. The strategies highlight the specific actions, programs, and investments that may be undertaken to achieve the goals for WTA 2040.

Goal #1: Be flexible, nimble, and innovative



Strategies

- Form a cross-departmental Collaborative Innovation Team. Generate and pursue new ideas while allowing for calculated risks.
- Track emerging transportation technology, assess its potential impact on WTA, and prepare strategies to respond before impacts are felt.
- Pursue grants and partnerships that allow WTA to experiment with new ways of meeting transportation needs.
- Improve customer information tools, management of vehicles on the road, load and ridership data, and reporting by building on the Smart Bus architecture.
- Enhance ridership data collection and better integrate data into planning and customer service.
- Reduce the time needed to make to service-related changes while still providing opportunities for robust community input.
- Keep current with changes in private sector transportation and seek partnership opportunities that enhance options for priority populations.
- Continue to monitor autonomous and connected vehicle technology and assess opportunities and impacts to WTA.

Goal #2: Serve as a leader and a key partner in improving the equity and efficiency of local transportation



Strategies

- Continue to partner with Whatcom Council of Governments to extend the reach of the Whatcom Smart Trips program. Work with Smart Trips to provide tools and incentives through employers, schools and community groups to increase walking, rolling, biking, and transit trips.
- Work with large employers to identify their needs and tailor programs and services to increase their use of walking, rolling, biking, and transit.
- Support the work of local community partners to establish car share, bike/scooter share and other shared mobility devices, and identify opportunities to accommodate shared vehicles at transit centers or WTA park and rides.
- Work with local universities and colleges to promote walking, rolling, biking, and transit, and to help manage transportation demand.
- Plan and construct secure and sheltered bicycle parking at transit stations and install bicycle racks at stops with high bicycle traffic.
- Support efforts of local jurisdictions to reduce parking demand and manage parking supply.
- Formalize ongoing discussions between WTA and school districts to make transit a more viable option for K-12 students.
- Support efforts to increase the convenience of public transportation service to Skagit County and the greater Puget Sound area.
- Support partner efforts for high capacity transportation modes such as ferry service to the San Juan Islands and Point Roberts and regional rail (High Speed and Amtrak) by ensuring efficient WTA transit connections.

Transportation Demand Management

Many factors influence how people travel and their reliance on automobiles to make trips. Transportation demand management (TDM) strategies encourage and incentivize people to get out of their cars and use non-motorized modes of travel or transit. Example strategies include transit subsidies, parking disincentives, commuter cash benefits, and on-site bicycle facilities such as showers and bike lockers.

Commute Trip Reduction

Some large employers are required to follow particular program guidelines established by Washington State's Commute Trip Reduction (CTR) law. The purpose of the law is to create partnerships between local government and large employers to reduce traffic congestion, fuel consumption, and air pollution.

Whatcom Smart Trips is a partnership between local government, public agencies, employers, and schools to promote transportation by walking, bicycling, sharing rides, and riding the bus.

Goal #3: Improve accessibility and mobility for priority populations



Strategies

- Partner with institutions, agencies, and municipalities to support low barrier fare policies that decrease transportation barriers for priority populations.
- Ensure all bus stops are ADA-accessible by 2040.
- Seek alternative funding sources, such as local, state, and federal grants to build ADA-accessible bus stops and to purchase and install bicycle and pedestrian amenities.
- Create an “Access to Transit” fund to support local projects that improve sidewalks, crossings and other pedestrian infrastructure at bus stops.
- As new resources become available, focus them on areas serving priority populations.
- Advocate for land use policies that locate low-income housing and social services near frequent transit service.
- Ensure trip planning materials and other essential communications are accessible to people with disabilities, low literacy, low English proficiency, etc.
- Create a community rideshare program and support community groups that provide ridesharing options to priority populations
- Revise service standards to incorporate equity measures and other adjustments to account for new data sources.

Accessibility

In this plan, WTA defines accessibility as the ability of people of all ages, abilities, races/ethnicities, income levels, and genders to be able to safely navigate between places of work, home, play, and essential services.

Goal #4: Serve as stewards of the environment



Strategies

- Create a sustainability plan with strategies to reduce greenhouse gas emissions and energy use throughout all facets of our operations.
- Pursue grant funding to support the transition to a zero-emission fleet by 2040.
- Evaluate the carbon emission impacts of all planning, procurement and business decisions.
- Support the implementation of the City of Bellingham and Whatcom County Climate Actions Plans. Promote the value of public transportation as a way for individuals to reduce their greenhouse gas emissions.

Goal #5: Provide a range of services tailored to the communities we serve



Strategies

- Focus high frequency transit in areas with land use density that supports frequent service.
- Promote transit-oriented development and other transit supportive development to improve the viability and attractiveness of fixed route service.
- Work with developers during the design review process to integrate pedestrian-friendly and transit-supportive design in projects along high frequency corridors.
- Participate in the planning efforts of partner communities to tailor transit service to community needs and to ensure planned land uses and zoning codes can support the desired level of transit service.
- Enhance and expand the transit network based on adopted service standards.
- Participate in local transportation projects to ensure that projects incorporate transit street design best practices and meet WTA's infrastructure standards and guidelines.
- Continue to assess the feasibility of on-demand service and evaluate replacing fixed route and paratransit in areas deemed appropriate for such service.
- Work with community organizations to help address transportation gaps through programs such as community van grants.

WTA 2040 Performance Monitoring

Implementation of the plan will include routine performance monitoring to measure progress in fulfilling the goals and priorities of **WTA 2040**. Ongoing assessment of performance will allow WTA to make updates to the plan and to inform its short-term budgeting and service planning processes. A set of performance criteria will be finalized upon adoption of the plan, but will be incorporated into existing performance reports. The WTA 2040 performance criteria may include the following metrics aligned with the “Three Es”:

Equity:

- » Percent of total population within walking distance of all transit service
- » Percent of priority populations within walking distance to 15-minute service
- » Average number of jobs accessible via transit for priority populations

Efficiency:

- » Riders per service hour by service typology
- » On-demand costs per rider

Environment

- » County-wide mode share of transit for all trips
- » City-specific mode share of transit for particular trip types
- » Estimated greenhouse gas reductions provided by mode shifts to transit
- » Estimated greenhouse gas reductions provided by WTA transition to zero emission operations



Planning Integration of WTA 2040

While WTA 2040 establishes key high-level priorities and goals for WTA service, several mid and near-term processes provide the detail and ensure coordination, phasing and funding of plan elements. The following graphic conveys how the Transit Development Plan (TDP), the capital improvement program (CIP), the annual budget, and annual service planning support the WTA 2040 long range transit plan.

