WHERE WE’RE GOING
HORIZON 2040 • CHAPTER 3

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FUTURE CONDITIONS
How the forecasted changes in demographics and other conditions will impact the future transportation system.

The purpose of this chapter is to forecast future transportation conditions to the year 2040. One of the tools SRTC uses is the travel demand model and an alternative described as the ‘No-Build’ because it assumes that the only improvements to the regional transportation system are those projects and programs that are funded and programmed in the Transportation Improvement Program (TIP). The 2040 No-Build alternative allows for a point of comparison and analysis to build alternatives. It is also required for environmental and financial review processes.

Another way to look into the future is to utilize Scenario Planning. Exploratory Scenario Planning provides narratives about uncertainties concerning the area transportation system and how the future might unfold. This is so the agency can intentionally develop long range plans to recognize and adapt to potential changing aspects in transportation. WSDOT uses scenario planning to update the Washington Transportation Plan. SRTC’s scenario planning process mirrors WSDOT’s process that explores plausible trajectories of change. The issues identified in this chapter are used to inform the strategies detailed in Chapter 4 How We’ll Get There.

Data used to assist in projecting the future includes the US Census Bureau forecasts demographics, which are provided at various geographic levels. Demographics include population, employment, age distribution, income range, household composition, and residential location and all directly relate to transportation behavior.\(^1\) The US Bureau of Economic Analysis and the Federal Reserve also produce economic forecasts. These forecasts are produced in ranges due to the uncertainty in projecting birth/death rates, immigration and future economic conditions. While not all demographics can be accurately forecasted in the future, SRTC monitors and evaluates local, regional and national trends to ascertain the expected impact to our transportation systems.

POPULATION FORECAST
The SRTC Board adopted population forecasted for Spokane County is 592,969. That’s about 105,000 new persons by the year 2040, about 21 % total growth rate. Employment is expected to grow at a similar rate, see Appendix B for details on forecasting methods.

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According to the US Census Bureau, forecasts throughout the country include a large increase in senior populations through 2040. The aging of the baby boomer generation is the primary reason the senior population is forecasted to grow. Increases in life expectancy and potentially slight decreases in fertility rates also contribute to the senior population. See Figure 3.1 which shows how Spokane’s population is expected to grow is the different age groups.

**Figure 3.1**

Household characteristics are also changing, with fewer households with children and fewer persons per household, see Figure 3.2. What do these changing demographics mean for long range transportation planning in our region? Population growth typically results in increased travel and, depending on the physical layout of a community, could also result in an increase in vehicle miles and/or hours traveled. With continued growth in population and employment, it is expected that there will be continued demand on all transportation systems, including the private vehicular network.

**Figure 3.2**

Travel behaviors are often different between various age groups. The 35 to 44 year old age group tends to travel the most followed by those aged 25-34. Persons aged 16-24 are more likely than those in
other age groups to bicycle for transportation, while those in older age groups are more likely to drive, especially when commuting to work. A new factor is how ride hailing services will impact modes of transportation. With growth expected in the population over age 65 and the younger generation’s interest in alternative modes, there will likely be an increased demand in alternative transportation.

Different households tend to have different travel behaviors as well (e.g., traditional single family, younger couples, single persons, families with no children). These trends are subject to a variety of economic factors such as fuel prices and housing affordability. The physical land use and distribution in the region also has a large impact on modal choices. The development of land use forecasts for Spokane County is detailed in the following section.

**FORECAST METHODOLOGIES AND FUTURE LAND USE**

A travel demand model simulation of future transportation conditions in 2040 is one tool used to evaluate potential system needs and deficiencies. This first 2040 alternative is described as the ‘No-Build’ because it assumes that the only improvements made to the 2015 transportation system are those already committed by agencies or jurisdictions in the near future and programmed in the TIP. As described in Chapter 2, information on the existing transportation system was used to build a travel demand model from the 2015 base transportation network in Spokane County. The forecasted population and employment growth for 2040 were applied to the 2015 base model network to obtain an image of future traffic conditions. The resulting 2040 No-Build model contains the vehicular and transit networks as of 2015, with the addition of funded projects that are programmed for completion in the next four years (listed in the SRTC TIP) and the forecasted growth in population and employment by the year 2040.

**Employment, Housing & Employment Density Forecasts**

SRTC uses housing units, employees, hotel/motel rooms, and higher education commuter students in the regional travel demand model to forecast the number of trips generated by land use type. Using adopted employment forecasts that correlates with the GMA population forecasting process, SRTC then uses persons per household ratios to derive the following number of single family (SF) and multifamily (MF) units, see Table 3.1. For more details, see Appendix B.

| Table 3.1 2040 Housing Unit Growth |
|-----------------------------|--------|----------------|--------|----------------|
|                             | 2015   | % 2015 Total Units | 2040   | % 2040 Total Units |
| Single Family               | 151,365| 78%              | 177,701| 75%             |
| Multi-Family Units          | 42,773 | 22%              | 60,310 | 25%             |
| Total Units                 | 194,138| 100%             | 238,011| 100%            |

It’s plausible that both SF and MF housing may grow faster than SF units as the aging population is anticipated to downsize from SF to MF. This influences transportation by increasing housing density.
Density of housing and employment impacts where trips start and finish and therefore, the transportation needs between these locations. SRTC staff, in close coordination with area agencies, applied the Board adopted 2040 employment and population to SRTC’s travel demand model and to map the projected growth. See Map 3.1 for the 2040 Housing Density and Map 3.2 for the 2040 Employment Density.

Map 3.1 2040 Housing Density

For more information on how household and employment data is collected, forecasted, allocated for each jurisdiction and represented in the travel demand model, please see the SRTC Travel Forecasting Documentation in Appendix B.

Map 3.2 2040 Employment Density
**Future Employment Activity Centers**

Employment activity centers have a major impact on regional and local travel patterns. Employment centers are defined as concentrations of jobs by type - transit focused, freight focused, or both. As described in Chapter 2, SRTC has analyzed concentrations of job types in order to track where employment activity centers will be in the future. Businesses that depend on shipping (and the associated freight focused jobs) are more likely to be located on freight routes and benefit from freight-related road improvements.

Transit focused centers are associated with businesses that are more likely to have employees and customers that use transit and would benefit from related improvements. Future employment centers are forecasted to be largely consistent with existing centers. The employment activity centers as forecasted for 2040 are illustrated in **Map 3.3** which also shows future employment density changes and how transit routes are connected to these locations.

**Future Land Use Analysis**

Future land use forecasts for the year 2040 indicate increased densities in a few areas (such as Downtown Spokane) but overall continued development or growth in outlying or peripheral areas. This forecasted pattern of development is a baseline scenario that was guided by current Spokane County and city comprehensive plans at the time of this Plan. The impact of the 2040 land use projections on the regional transportation systems is described in the following section.

**PROJECTED FUTURE TRANSPORTATION CONDITIONS**

The forecast of future regional transportation conditions includes the aforementioned technical land use analysis and travel demand modeling. Also, input from various outreach activities including roundtable discussions has been very valuable in gauging the region’s priorities. A series of Horizon 2040 roundtables and various workshops, public meetings, inter-jurisdictional and agency staff meetings, and other community outreach events, captured perspectives and concerns expressed by the public and stakeholders. Some of these perspectives and concerns include:

- Prioritize the maintenance and preservation of existing roadways and bridges.
- Transportation challenges will require both local and regional solutions. Cooperation and coordination among agencies and transportation providers will be critical to our success.
- Technology is changing how people and goods move in our region.
- Our region is diverse and so are the transportation needs.
- There is a strong desire to improve public transit, walking and biking and to integrate them well with land use.
- To plan for the region we need to collect information, monitor and understand the trends.
- Ensure freight mobility is sustained and enhanced for the region’s economic benefit.
Map 3.3 Transit and Freight Focused Activity Centers
• Implement sidewalk improvements such as fixing damaged sections or filling in gaps.
• Enhance safety education and enforcement efforts.
• Improve snow removal and/or storage to ensure accessibility for all users year-round.
• Emphasize future investments as part of an integrated, fully connected multimodal network and to prevent significant growth in congestion.
• Use least cost planning to make rational decisions regarding investments in the transportation system.
• Health care, in particular mental health is an important and often misunderstood transportation need in our community.

The forecasted conditions and projected future concerns and needs for the various transportation networks and programs in the region are discussed in more detail in the following sections.

**Forecasted Traffic Conditions**

The regional travel demand model is used to estimate forecasted increases in traffic and public transportation usage. Table 3.2 illustrates the forecasted increase in daily person, walk/bike, vehicular and transit passenger trips from 2015 to 2040 for the No-Build alternative.

### Table 3.2 Daily Persons, Vehicle and Transit Trip Forecast 2015-2040

<table>
<thead>
<tr>
<th></th>
<th>2015 Base</th>
<th>2040 No-Build</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Person Trips</td>
<td>2,183,800</td>
<td>2,689,100</td>
<td>23%</td>
</tr>
<tr>
<td>Total Vehicle Trips</td>
<td>1,640,800</td>
<td>2,021,200</td>
<td>23%</td>
</tr>
<tr>
<td>Total Transit Passenger Trips</td>
<td>34,900</td>
<td>40,500</td>
<td>16%</td>
</tr>
<tr>
<td>Walk/bike Trips</td>
<td>193,100</td>
<td>240,100</td>
<td>24%</td>
</tr>
</tbody>
</table>

**Vehicle Miles Traveled (VMT) and Vehicle Hours of Travel (VHT)**

Table 3.3 reports Vehicle Miles Traveled (VMT) and Vehicle Hours of Travel (VHT) during the PM Peak Hour and for all day, which were derived from SRTC’s 2015 Base and 2040 No-Build models. VMT and VHT are planning indicators showing the growth of travel by miles and can indicate congestion by revealing how much time vehicles spend on area roadways. These results are used for further comparison with future alternatives. Both Daily and PM Peak VMT and VHT are expected to increase by more than 20%.

### Table 3.3 Vehicle Miles and Hours Traveled for No-Build Scenario

<table>
<thead>
<tr>
<th></th>
<th>2015 Base</th>
<th>2040 No-Build</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM Peak Hour Vehicle Miles Traveled (VMT)</td>
<td>747,800</td>
<td>907,000</td>
<td>21%</td>
</tr>
<tr>
<td>Daily Vehicle Miles Traveled (VMT)</td>
<td>8,841,300</td>
<td>10,744,400</td>
<td>22%</td>
</tr>
<tr>
<td>PM Peak Hour Vehicle Hours Traveled (VHT)</td>
<td>20,200</td>
<td>25,500</td>
<td>26%</td>
</tr>
<tr>
<td>Daily Vehicle Hours Traveled (VHT)</td>
<td>237,000</td>
<td>299,500</td>
<td>26%</td>
</tr>
</tbody>
</table>
It’s important to note that when looking at travel behavior by household, VMT per household is forecasted to decrease slightly by the year 2040 and VHT per household is forecasted to increase by a small amount by 2040, possibly due to the higher levels of congestion in the No-Build alternative (see Table 3.4).

### Table 3.4 VMT and VHT per Household (HH) for No-Build Scenario

<table>
<thead>
<tr>
<th></th>
<th>2015 Base</th>
<th>2040 No-Build</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM Peak Hour VMT per HH</td>
<td>3.9</td>
<td>3.8</td>
<td>-1%</td>
</tr>
<tr>
<td>Daily VMT per HH</td>
<td>46</td>
<td>45</td>
<td>-1%</td>
</tr>
<tr>
<td>PM Peak Hour VHT per HH</td>
<td>0.1</td>
<td>0.1</td>
<td>3%</td>
</tr>
<tr>
<td>Daily VHT per HH</td>
<td>1.2</td>
<td>1.3</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Congestion**

As stated in Chapter 2, congestion can indicate more people are traveling and more economic growth. It can also change travel behaviors and create a shift in travel modes. On the less appealing side, congestion impacts many elements of a community, including personal travel times, costs to shippers, air quality, and fuel consumption. In other words, congestion costs time, gas and money and impacts the quality of life (particularly health and income) of people who travel regularly in congested conditions.

The average commuter in the Spokane urban area loses $911 dollars per year due to traffic delays (38 hours per year spent in traffic). The estimated annual cost of congestion to truck freight movement in the area is $59 million, which includes the costs related to delay and excess fuel consumed.²

From a regional perspective, Spokane had recurring congestion that lasts for a limited period during the AM and PM Peak. Additionally Table 3.3 indicates more potential congestion is expected with the addition of new projects. SRTC’s Congestion Management Process, as mentioned in Chapter 2, identified the top 8 corridors with the most congestion.

Results from SRTC’s 2040 No-Build travel demand model are used to help identify future recurring congestion on those corridors. While it is unlikely that no other roadway improvements would be made to support future growth, the No-Build alternative allows for a direct comparison of the impacts of future growth on the current transportation system. Also, the travel demand model is able to predict growth in recurring congestion. It does not help predict non-recurring congestion, such as accidents and weather events.

The following infographic indicates the additional or increase in travel time, in minutes, on CMP corridors (Map 2.16) in the 2040 No-Build Scenario. The additional travel time is a result of population and employment growth. Chapter 4 will include a comparison of the increase in travel times on corridors after a Build alternative of projects has been selected.

Performance Targets
The U.S. DOT has issued a series of final rules that require transportation system performance targets. Each rule specifies a performance measurement and target setting process for State DOTs and MPOs. Performance targets must be set in the following performance areas:
- Safety
- Pavement & Bridge Condition
- System Performance
  - Congestion
  - Freight
  - Congestion Mitigation & Air Quality

The primary purpose of this process is to increase the transparency and accountability of states and MPOs for their investment of federal taxpayer dollars into transportation infrastructure and services. And to ensure that states and MPOs invest money in transportation projects that collectively make progress towards the achievement of national goals.

Safety
Due to timing of the final rules, Safety is the first target setting performance area. WSDOT established safety targets and must make progress towards these targets and report annually in the Highway Safety Improvement Program (HSIP). Due to this schedule, SRTC must set a safety target by Feb., 27th 2018.

WSDOT and its partners adopted a Target Zero approach to setting the safety target, meaning developing a trend line towards zero fatalities and injuries by 2030. WSDOT’s Safety targets are reported in Table 3.5.

<table>
<thead>
<tr>
<th>Table 3.5 WSDOT 2018 Safety Targets</th>
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</thead>
<tbody>
<tr>
<td>Current 5 Year Rolling Averages</td>
</tr>
<tr>
<td>Fatalities</td>
</tr>
<tr>
<td>Fatality Rate</td>
</tr>
<tr>
<td>Serious Injury</td>
</tr>
<tr>
<td>Serious Injury Rate</td>
</tr>
<tr>
<td>Non Motorist Fatalities &amp; Injuries</td>
</tr>
</tbody>
</table>

Source: Washington State Department of Transportation
While there are no penalties to MPOs, there are penalties to WSDOT if the state has not met or made significant progress toward achieving the performance targets after two years. The State DOT would:

- Dedicate its obligation authority equal to the apportionment for HSIP to the state for the prior year to highway safety improvement projects until the US DOT Secretary determines that the state had made significant progress or met the targets; and
- Annually submit to U.S. DOT a safety implementation plan until the U.S. DOT Secretary determines that the state has made significant progress or met the targets.

SRTC supports the State target and adopt Spokane’s portion of the safety target to contribute to the success of the State.

### Table 3.6 SRTC 2018 Safety Targets

<table>
<thead>
<tr>
<th>Current 5 Year Rolling Averages</th>
<th>2016 Baseline</th>
<th>2018 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>30.4</td>
<td>26.1</td>
</tr>
<tr>
<td>Fatality Rate</td>
<td>0.828</td>
<td>0.71</td>
</tr>
<tr>
<td>Serious Injury</td>
<td>133</td>
<td>114</td>
</tr>
<tr>
<td>Serious Injury Rate</td>
<td>3.619</td>
<td>3.102</td>
</tr>
<tr>
<td>Non Motorist Fatalities &amp; Injuries</td>
<td>38</td>
<td>32.6</td>
</tr>
</tbody>
</table>

Source: Washington State Department of Transportation

### System Performance

The System performance rule was finalized on May 20, 2017. The Statewide process to develop congestion targets is not far enough along to report. Amendments to Horizon 2040 will be made to adopted performance targets in the future if necessary.
Asset Management
Transportation assets are the physical elements, such as pavement, bridges, culverts, signs and other roadway features that make up the transportation system. Transportation asset management is the process of maintaining and preserving assets by strategically planning and investing state, federal and local funds to obtain the best long term benefit.

To achieve these goals, WSDOT developed maintenance and preservation practices to establish a consistent approach to identifying transportation needs and deficiencies during all stages of an asset’s lifecycle. The goal is to maintain the performance of the facility before it drops below acceptable standards but not so soon that resources are wasted. This required process is called Asset Management.

WSDOT has the requirement to write the Asset Management Plan for our State, which includes:
- Identifying performance measures and targets,
- Identifying existing assets on the NHS and their condition,
- Identifying gaps between the existing condition and state targets,
- Performing lifecycle cost analysis to achieve the desired condition at minimum practical cost,
- Identifying, evaluating and prioritizing risks that may affect the asset performance condition,
- Including a 10‐year financial plan, and
- Describing investment strategies to preserve the condition of the assets and performance of the National Highway System (NHS).

Performance Evaluation
To ensure transportation system performance and condition is linked to decision‐making, SRTC uses an evaluation tool to aid in project selection. See Page 2‐14 for additional information and Chapter 4.

Projected Roadway Operations, Maintenance and Preservation Needs
Currently, there isn’t a consistent regional system for monitoring road and bridge conditions as well as estimating maintenance, operations and preservation expenditures in Spokane County. However, WSDOT’s Economic Analysis Division provides a summary of historical revenues and expenditures by county and jurisdiction. Over the last few years, transportation maintenance expenditures in Spokane County have averaged about $42 million per year. However, this doesn’t account for unfunded needs like deferred maintenance due to financial limitations.

Transportation Systems Management and Operations (TSMO)
TSMO is an approach that uses regional strategies to improve mobility, safety, reliability, and reduce congestion for all users while ensuring the preservation of the existing transportation systems. The Spokane Regional Traffic Management Center (SRTMC) is currently updating the projects and programs included in the 2013 Spokane Region Intelligent Transportation Systems Plan. The Plan aims to proceed with the following:
Installation of new, and upgrade of existing, ITS infrastructure,
Improved communications connectivity and coordination between partner agencies, stakeholders and the public,
Install regional traffic control projects in specific corridors,
Implement a system for performance measurement of transportation operations,
Coordination and potential systems connectivity with the Idaho Transportation Department,
Regional traveler information and weather information projects,
Regional maintenance and construction activity database,
Incident management improvement projects,
Smart bus implementation, transit signal priority study/pilot program, and other public transportation projects,
Data collection, management, and archive projects to share with partner agencies,

All of the above items are either managed or coordinated through the SRTMC. The operation of the SRTMC and The Regional ITS plan illustrates the benefit of integrating TSMO strategies in Horizon 2040. “The plan also supports the continued use and advancement of performance measurement to support the congestion management process, long range planning efforts, and emerging funding requirements.”3 These strategies will be considered in Chapter 4 How We’ll Get There.

### Forecasted Freight Movement Conditions

As discussed in Chapter 2, the Inland Pacific Hub (IPH) project provided a wealth of information about freight mobility in the region. The IPH Regional Freight Profile report, using base year data from 2007, forecasts freight commodity flows for the mid (2017) and long (2027) terms.4 The study identified several current issues that could pose a significant challenge for future trade competitiveness, economic development, and transportation planning. One of the biggest issues identified during the IPH study was the large lane imbalance for the region. Lane imbalance is the difference in the amount of goods shipped outbound compared to inbound. This creates increased costs and logistical issues for shippers, which obviously impacts area businesses.

Along these same lines is the issue of through freight traffic. *Almost 53 percent of freight by tonnage and 54 percent of freight by value*
just passes through the area. This through traffic uses capacity on the regional highway and rail transportation system and causes wear and tear to it but generates very little economic benefit to the region. The situation is a natural by-product of being located along national freight corridors such as Interstate 90 and the two Class I rail lines.

The tonnage of inbound freight to Spokane County is forecasted to increase 21 percent by 2027 while outbound is expected to increase more than 9 percent during the same period. The largest forecasted growth in export commodities is machinery, waste/scrap materials, transportation equipment, fabricated metal products, and nonmetallic minerals. The largest inbound growth commodities include electrical equipment, machinery, transportation equipment and rubber/miscellaneous plastics. Secondary traffic, which is primarily warehousing and intermodal container transfers at transload, consolidation and distribution facilities, is expected to experience some of the largest growth. Transport to/from rail ramps is also forecasted for strong growth through 2027, for the reasons described in the following rail subsection.

The lane imbalance issue is particularly burdensome for the regional trucking industry. Nearly 32 percent of commodities shipped via truck are outbound compared to only 21 percent inbound. This indicates a potentially high number of trucks that return empty. Several trucking issues were raised as part of the IPH effort and in the Horizon 2040 roundtables. The primary concern was about north-south movement and support for the completion of the North Spokane Corridor. Also, the need to improve or expand bypass routes, such as Bigelow Gulch was consistently heard. Another issue included the need to address regulatory differences across neighboring states and Canada.

Trucking
The majority of freight in the region is transported by truck. Fifty-four percent of freight by weight is hauled by truck while 79 percent of freight by value is moved by this mode. Nearly 34 percent of the weight and 65 percent of the value of the truck freight just passes through the region. Truck freight tonnage is forecasted to increase 18.5 percent by 2027. Over the midterm, truck freight flows to northern markets are forecasted to increase by 26 percent while inbound movements are expected to grow by 21 percent. The outbound commodities expected to have the most growth in transport via truck are transportation equipment, machinery, farm products, and fabricated metal products. For inbound commodities, the largest growth is forecasted for transportation equipment, petroleum/coal products, chemicals/allied products, and fabricated metal products.

The lane imbalance issue is particularly burdensome for the regional trucking industry. Nearly 32 percent of commodities shipped via truck are outbound compared to only 21 percent inbound. This indicates a potentially high number of trucks that return empty. Several trucking issues were raised as part of the IPH effort and in the Horizon 2040 roundtables. The primary concern was about north-south movement and support for the completion of the North Spokane Corridor. Also, the need to improve or expand bypass routes, such as Bigelow Gulch was consistently heard. Another issue included the need to address regulatory differences across neighboring states and Canada.

![Freight Flow by Weight, 2007](image)
Rail
The vast amount of freight transported by rail just passes through the Spokane area. More than 81 percent of the tonnage and over 92 percent of the value of goods on rail is through freight. The future trend for through freight traffic is unclear. However, internal, inbound, and outbound rail freight is forecasted to increase by 1 percent through the year 2027. The forecasted increase in intermodal tonnage is nearly 43 percent by 2027. As stated in the IPH study, this “is a clear indication that freight is switching even more toward truck transport and intermodal trailers and containers.”

The highest growth commodities shipped inbound via rail are forecasted to be food/kindred products, transportation equipment, and chemicals/allied products. For outbound rail commodities, growth in fabricated metal products, transportation equipment, and clay, concrete, glass or stone is expected. Coal and other bulk products are also forecasted to increase, perhaps dramatically depending on the status of several proposed export terminal projects in western Washington and Oregon. However, the exact increase in commodity flow, including the number or length of unit trains and the impact to our regional transportation system, is unknown at this time.

Also mentioned in Chapter 2, the potential for increased rail traffic due to several proposed bulk commodity port projects is a regional issue SRTC continues to monitor. While the exact number of additional trains and the specific impact to our regional transportation system is yet unknown, SRTC staff continues to communicate with lead agencies and will closely study the information once available.

Air Freight
The commodities transported by air carriers are mostly high value, time-sensitive products that many businesses depend upon. Therefore, strengthening the opportunity to use air cargo was a high priority of many stakeholders that participated in the IPH project. The outbound commodities forecasted to have high growth are machinery, fabricated metal products, and food/kindred products. Import growth is expected in transportation equipment and fabricated metal products. More information on projected increases in air cargo is provided in the following Future of Air Transportation section.

Future Freight Mobility Needs
The primary deficiencies that need to be addressed were derived from the extensive outreach, research and analysis for the IPH project. Some of the identified needs include:
- address the significant empty backhaul issue due to shipping lane imbalances;
- improve access to northern markets by enhancing the capacity of north-south trucking routes and tapping into existing rail service to Canada; and
- address the truck size and weight regulatory differences with neighboring states and Canada.

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The IPH Transportation Investment and Project Priority Blueprint was developed to outline a recommended scenario of projects that are bundled together for optimal economic benefit. The final Blueprint strategies are discussed in more detail in Chapter 4, How We’ll Get There.

**Passenger Rail**
The Spokane area is served by Amtrak with one scheduled trip eastbound and two westbound each day. The Empire Builder train travels between Chicago and Portland or Seattle passing through Minneapolis-St. Paul with a departure from Spokane to Seattle at 2:15 a.m., Spokane to Portland at 2:45 a.m., and an eastbound departure at 1:30 a.m. The inconvenience of the late night/early morning passenger train schedules is frequently expressed at public meetings. **There is no forecasted increase for passenger rail service in our area.**

**The Future of Air Transportation**
Aviation demand forecasts are used to determine what improvements should be made at the airport facilities and also can help predict traffic and noise impacts. The following information is from Spokane International Airport’s Master Plan, Chapter 2 Aviation Forecasts.6

**Passenger Projections**
Passenger activity at SIA is forecasted to 2030. The number of passengers boarding that depart from SIA, or enplanements, is projected to grow from 1.6 million in 2016 to 3.1 million by 2030. Also SIA has added direct flights from several airlines in 2017, to San Diego, San Francisco, Chicago, Dallas-Ft Worth and Sacramento.

**Air Cargo Projections**
Growth in air cargo at SIA is also expected to increase. The latest annual cargo forecast for 2030 is for nearly 72,000 tons of air cargo to pass through SIA. According to WSDOT’s draft freight plan, air cargo at SIA is forecasted to be more than 76,000 metric tons by 2024 and nearly 98,000 by 20347.

**Aircraft Operations Projections**
Aircraft operations, or the number of takeoffs and landings, include air carriers, air cargo operations, general aviation, and military flights. It is expected that overall operations will increase 53 percent from 79,120 in 2010 to almost 121,000 in the year 2030.

**Projected Public Transportation Conditions**
The county’s population is expected to grow by almost 104,000 by 2040, which will likely mean a need for additional transportation services. SRTC monitors trends in the aging population (see Map 2.1), persons with disabilities (see Map 2.2), veterans, young persons, and other sectors of the public that are traditionally known to use public transportation services. The Millennial generation also has a desire for alternatives to vehicle ownership. Together these growing

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7 http://www.wsdot.wa.gov/freight/
populations and changing trends point to a continued future demand for public transportation.

Other traditional factors that could have potential impacts to transit ridership include fuel prices and the success of college and employer bus pass programs. However with the general market move towards electric/hybrid personal vehicles it is unclear if fuel prices will continue to be a major determining factor impacting transit ridership. Newer unknown factors include technological advances such as ride-hailing and ride-sharing apps.

Spokane Transit, the largest local provider of public transportation, offers service within the Public Transportation Benefit Area. Historically, providing efficient transit services to outlying or rural areas has been difficult due to relatively lower housing densities and dispersed activity centers, as well as the lack of local funds to match federal or state monies for operations.

**The SRTC 2040 No-Build model forecasts nearly 6000 more daily passenger trips on transit by the year 2040 (a 16% percent increase).**

Providing more service to meet this demand will be a challenge in the face of limited resources. However, the importance of planning for strategies to address future needs is critical. STA has updated their comprehensive plan to include policies related to Flexible Services such as dynamic routing and Transportation Network Companies (such as Lyft and Uber) partnerships to maximize transit service throughout the PTBA.

In 2016, voters approved STA Proposition 1 to fund a ten year plan to maintain, improve and expand public transit service as the region grows. New revenue from the local sales tax rate increase (0.1% increase effective April 1, 2017, and a second 0.1% effective April 1, 2019) will allow STA to increase overall service by 25% throughout the region. More than 25 projects will expand to reach new areas, provide more trips along major corridors, improve customer amenities, and reduce overall travel times. The first improvements started in 2017, including:

- Later night service on Saturdays throughout the transit system,
- Service on East Indiana between Spokane Valley Mall and Greenacres,
- Night and weekend service on North Nevada,
- Increased weekend frequency in Airway Heights,
- Breaking ground on the West Plains Transit Center near I-90 exit 272,
- Submission of an application for a Federal Transit Administration Small Starts grant and evaluation of the planned Central City Line,
- Beginning the design process for high frequency routes to Cheney, Sprague and I-90, along the Monroe and Regal corridors

**Map 3.4** illustrates the STA fixed route system for the 2040 No-Build alternative in relation to areas of projected residential growth.

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8 [http://stamovingforward.com](http://stamovingforward.com)
The planning efforts for public transportation have a direct impact on the vitality of the region. For almost 15 years community partners have been working on defining a transit project to help further its economic development goals for Downtown Spokane and the University District. The result is a six-mile, corridor-based Bus Rapid Transit (BRT) line connecting Browne’s Addition to Spokane Community College by way of Downtown Spokane and the University District beginning in 2021. It will be operated using a modern-style electric battery bus and is projected to serve nearly 900,000 boardings annually. It will feature more frequent trips and convenient elements like pre-board ticketing, level boarding and improved stations with real-time signage, wayfinding and other amenities. It is projected to increase land and improvement values in the corridor by $175 million over 20 years.

The Central City Line (CCL) is the first HPTN route planned to be fully implemented. Improvements for the implementation of the Cheney, the Monroe-Regal, Division, Sprague and I-90 HPTN corridors are also included in STA Moving Forward Plan. STA Moving Forward and the HPTN are described in more detail on STA’s website.

Combining investment in capital and operations, public transportation projects generate 21,800 jobs per year, per $1 billion investment given the existing mix of operations (71 percent) and capital (29 percent) expenditures. Associated with the 21,800 jobs is roughly $3 billion of sales volume, which adds $1.7 billion of Gross Domestic Product (GDP), (including $1.2 billion of worker income).

The total federal, state, and local tax revenues generated from this economic activity is roughly $432 million.\(^9\)

Additional public transit service is a commonly heard request at public meetings, including during Horizon 2040 roundtables. The amount of seniors living outside the STA service area has created demand for additional public transportation options. Transportation between small towns, rural areas and tribal reservations continues to be an issue. Additional future needs identified by the public and stakeholders include:

- Additional public transit options outside of the STA service area, especially for the elderly and persons with disabilities,
- Commuter service between Spokane and Kootenai Counties (scheduled to be addressed in 2025 with a High Performance Transit “Lite” line from Spokane to Post Falls and Coeur d’Alene on a pilot basis),
- Increased local funding for connecting small towns and rural areas,
- More education and communication about available public transportation resources, and
- Better coordination, connectivity, and communication between all service providers.

For details about project costs and revenues, please see the Financial Plan section of Chapter 4.

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Future Active Transportation Conditions
The outreach for Horizon 2040 provided public comments about the future active transportation needs of the region. While improvements in active transportation were noted over the past few years, topics heard during roundtable discussions include:

- Snow removal and snow storage needs to be improved,
- Pedestrian and bicycle signage, education and enforcement is needed,
- Driver awareness of pedestrians needs to be improved,
- The area lacks a serious bicycle network,
- There is a lack of bike network to trail heads,
- Trail gaps need to be filled in such as Centennial Trail and Fish Lake Trail,
- Sidewalks need improvements such as fixing damaged sidewalks and filling in gaps where none exist,
- Roadways need to be swept more often to improve safety for cyclists,
- Implement land use decisions that support nonmotorized transportation.

Other frequently heard issues include the need for more countdown timers for crosswalks and improving safety, access, and mobility for all users.

The SRTC travel demand model is a tool used to predict the demand for biking and walking in our region. Increasing biking and walking trips will require the need for improved access to comfortable and safe biking and walking infrastructure.

The SRTC 2040 No-Build model forecasts nearly a 24% percent increase in walk/bike trips.

One example of community and business interest in improving access is the Transportation & Pedestrian Safety Plan developed by Inland Northwest Lighthouse, a company that helps to expand job opportunities for blind or visually impaired people. Their Plan identifies street, transit and other improvements “to enhance the ability of blind and low vision employees of the Inland Northwest Lighthouse to travel smoothly, safely, and efficiently to and from their workplace and within their community.”

Some of the improvements identified in the Plan include the standardization of the use of Audible Pedestrian Signals (APS) and countdown timers for crosswalks at intersections throughout the area, including several that are missing or that need to be correctly programmed; modifying two hazardous intersections in downtown Spokane due to monochromatic color schemes; installation of crosswalk warning lights or other appropriate signage for a mid-block crossing; correct installation of detectable tactile warning strips (truncated domes) at all intersections with APS signals; and the enforcement of the clearing of snow from sidewalks.

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Transit is an extension of the pedestrian and bicycle network, allowing users to extend the length of their trips or reduce the burden of physically demanding routes (i.e. riding a bike downhill and then catching a bus for the return uphill trip).

In cooperation with member jurisdictions, SRTC has developed a Regional Bike Route Priority Network. With limited funding at the regional level, investment in the Regional Bike Priority Network will provide the most regionally-significant impact. Used for planning purposes, the Regional Bike Route Priority Network contains almost 700 miles of existing and proposed routes. Gaps have been identified in areas where connections are limited. Routes on this network focused on connecting key community infrastructure with growth areas while maintaining adequate spacing between routes. The existing Regional Bike Network, when broken down by classification, is mostly made up of unmarked shared-use roadway, see Table 3.8.

Table 3.8 Regional Bike Route Network by Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification Description</th>
<th>Mileage</th>
<th>Percent of Bicycle Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>Shared Use Path</td>
<td>84.7</td>
<td>6.68%</td>
</tr>
<tr>
<td>Class II</td>
<td>Bicycle Lane</td>
<td>119.1</td>
<td>9.40%</td>
</tr>
<tr>
<td>Class III</td>
<td>Signed Shared Roadway</td>
<td>75.6</td>
<td>5.97%</td>
</tr>
<tr>
<td>Class IV</td>
<td>Shared Roadway</td>
<td>987.9</td>
<td>77.95%</td>
</tr>
<tr>
<td>Total Mileage</td>
<td></td>
<td>1267.3</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

The focus of the Regional Bike Priority Network will be to improve the comfort, connectivity and safety of the bike route system for all users.

Research indicates that dedicated bike infrastructure (improvements beyond unmarked-shared roadways) helps drop injury rates.11

SRTC maintains a list of the projects included on the Regional Bike Priority Network. Some of the major gaps currently identified include:

City of Spokane

- 29th Avenue: between Grand Blvd. and Southeast Blvd.,
- Boone Avenue/Atlantic Street/Sharp Avenue: between Howard St. and Centennial Trail/Mission Park,
- Everett Avenue: between A St. and Regal St.,
- Connection between the Fish Lake Trailhead on Government Way and the Centennial Trail,
- The Children of the Sun Trail: between E Columbia Ave. and I-90 (following the NSC),
- The Fish Lake Trail: between Scribner Rd. and Fish Lake Park/Columbia Plateau Trail,
- The University District Bridge: between Riverside Ave./Sherman St. and Spokane Falls Blvd.,
- Peaceful Valley Pathway: between Sandifur Bridge and N Monroe St.,
- Tiger Trail: between W Cliff Ave and W 7th Ave., connecting the south hill to downtown.

Spokane County

- Strong Road: between W. Barnes Rd. and 5 Mile Rd.,

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- Little Spokane Connection: between Little Spokane Dr. and Wandermere Rd.,
- Thorpe Road: between Craig Rd. and Hayford Rd.,
- North Five Mile Trail: between N Five Mile Rd. and N Waikiki Rd.
- Holland Ave Trail: between Division St./US 395 and Wall St.

City of Spokane Valley
- Broadway Avenue: between Barker Rd. and Flora Rd.,
- Mission Avenue: between Flora Rd. and Harvard Rd.,
- Appleway Trail: between N Evergreen Rd. and Sullivan Rd.,
- Millwood-Valley Trail: between E. Trent Ave. and Mirabeau Parkway,
- North Greenacres Trail,
- Abandoned Rail Trail: between S Schafer Rd. and N Havana St.,
- S Dartmouth Rd: between E Sprague Ave. and the Appleway Trail,
- N Sullivan Rd: between the Centennial Trail and E Wellesley Ave.,
- E Trent Ave.: between N Barker Rd. and N Park Rd.,
- Bike/Pedestrian Bridge along N Bowdish Rds.: between E Mission Ave. and E Montgomery Dr.
- Barker Road: between Spokane River and Trent Ave.,
- Barker Road: between south city limits and I-90.

Multi-Jurisdictional
- Millwood Trail: between Children of the Sun Trail/Spokane Community College and Vista Rd.,
- Connection between Glenrose area and the Ben Burr Trail,
- Connection between the City of Spokane and Airway Heights,
- Connection between Airway Heights and Medical Lake.

The Regional Bike Priority Network Map 4.5 is included in Chapter 4.

THE FUTURE OF TRANSPORTATION PROGRAMS

Several regional programs have demonstrated their impact on improving traveling conditions, often at a much more economical level than adding new lanes or roads.

Transportation System Management & Operations
The benefit from operational programs such as incident management, signal coordination, and access management save the region approximately 274,000 hours and $604 million in annual congestion costs.\textsuperscript{12}

Transportation Demand Management
Transportation Demand Management (TDM) is a program of projects, programs and services aimed at improving the efficiency of the existing transportation system. TDM strategies include encouraging

\textsuperscript{12} 2012 Urban Mobility Report. Texas A&M Transportation Institute.
the use of alternatives to driving alone, such as carpools, vanpools, public transit, biking, and walking. Alternative work-hour programs such as the compressed work week, flextime, and telecommuting are also TDM approaches. Other strategies include parking management tactics such as preferential parking for carpools and variable parking pricing, basing the price on demand at any particular time.\textsuperscript{13} State and regional Commute Trip Reduction (CTR) programs implement these types of services and also provide information and education resources to the traveling public.

The Spokane County CTR program began in 1991 to address traffic congestion, air pollution and fuel consumption by focusing on reducing single occupant vehicle trips at major employers. For over two decades Spokane County has administered and assisted seven local jurisdictions that participate in the program. In 2006 legislation was passed that required SRTC, as the Regional Transportation Planning Organization, to create regional goals for the CTR program. SRTC and Spokane County CTR work closely to mirror the goals of local and regional plans while Spokane County functions as the administrator and implementer of the program. Some services CTR has implemented recently include:

- Creation of a MyCommute.org mobile app,
- Expansion of the CTR Guaranteed Ride Home (GRH) program,
- Provision of bike safety classes with League of American Bicyclists-certified trainers,
- Provision of transit and vanpool subsidies for first-time participants, and
- Development of a Liberty Lake shuttle program offering service from a Park & Ride to CTR worksites.

SRTC also reviews local jurisdiction’s CTR plans for regional consistency and to update the SRTC Regional CTR Plan. Local and regional plans must be approved by the CTR board in order to be eligible for state funding.

"\textit{HORIZON 2040 emphasizes strategies that reduce vehicular, pedestrian and bicycle collisions.}"

\textbf{Safety}

With the addition of federal performance measures, safety improvements continue to be a high priority for regional transportation investments. Horizon 2040 emphasizes strategies that reduce vehicular, pedestrian and bicycle collisions. The Safety and Security Guiding Principle and associated policies support improvements that eliminate safety deficiencies, promote education and enforcement programs, and stress that proper maintenance of the transportation system is critical. Evaluation criteria for project programming will be regularly revisited by SRTC to ensure there is an appropriate weight for safety investments.

\textsuperscript{13} Transportation Demand Management. Winters, Paul L., Center for Urban Transportation Research.
Security
Future transportation investments will be influenced by security considerations. The incorporation of security into the regional transportation planning process helps to:

- Preserve the reliability and resiliency of the regional transportation systems,
- Maintain essential transportation services,
- Instill confidence in the capability and resilience of transportation infrastructure,
- Support cost-effective transportation security projects,
- Involve stakeholders with security responsibilities in the transportation planning process,
- Establish security policies, performance measures and targets (see Guiding Principles),
- Develop and integrate information systems and other analytical tools to assist in risk assessment and project prioritization, and
- Inform decision makers about transportation security issues and resource availability\textsuperscript{14}.

The risks to transportation facilities are evaluated based on the probability of an incident, the vulnerability of the facility and the potential damage costs.\textsuperscript{15} As discussed in Chapter 2, Greater Spokane

Emergency Management (GSEM) is the coordination agency during major emergencies and has a comprehensive plan for response to events. SRTC will continue to support this effort through project identification, prioritization and selection for funding for critical transportation infrastructure.

FUTURE ENVIRONMENTAL CONDITIONS

Stewardship and improving quality of life are adopted guiding principles at SRTC that lend themselves to our commitment to environmental considerations. The construction of transportation infrastructure and the operation of vehicles have a direct impact on our natural and human environment. With this in mind, our region must be vigilant in understanding and monitoring environmental issues.

The impacts of vehicle emissions and congestion on Carbon Monoxide (CO) levels are significant in the Spokane region. Operating under CO and PM-10 air quality maintenance plans, SRTC is required to track the growth rate of vehicle miles traveled (VMT) in the region. That analysis is available in Chapter 4 in the Air Quality Conformity Determination section.

Additionally, both ozone and fine particulate (PM-2.5) are air pollutants of concern in the Spokane region. In October 2015, the ozone standard was lowered from 75 parts per billion (ppb) to 70. The most recent 3-year average (2014-2016) for ozone in Spokane was 56


\textsuperscript{15} Security Considerations in Transportation Planning: A White Paper. Plozin, Stephen E.
ppb. The PM-2.5 standard is 35 μg/m³, with the Region’s most recent 3-year average (2014-2016) at 24 μg/m³.

On April 29, 2014 Governor Inslee signed Executive Order 14-04: Washington Carbon Pollution Reduction and Clean Energy Action. A portion of the executive order focuses on clean transportation since the greatest percentage of carbon emissions comes from cars, trucks and other transportation-related sources. WSDOT is leading an effort with other agencies and governments to promote strategies, policies and investments that support lower-emission multi-modal options, clean fuels and electrification.

SRTC has policies in Horizon 2040 that will maximize the use of existing infrastructure and improve the availability and safety of lower impact and less expensive alternative modes of transportation. These policies also support environmental conditions that relate to transportation equity issues. The region must ensure that environmental impacts are minimized and do not disproportionately impact areas of populations.

Future projections of other environmental conditions are currently not available for our region, as new or revised regulations and methods to monitor conditions emerge, the potential for increased evaluation may become available. For example, water quality impacts from transportation has become a greater area of emphasis as regulations for cleaning of catch basins and the treatment of runoff from road facilities affect more jurisdictions.

#### Quality of Life

Although many of the indicators used to measure quality of life or livability cannot be forecasted for the future, SRTC will continue to monitor air pollutant levels, transit accessibility, mode share, and the household measures mentioned in Chapter 2. SRTC will partner with the Spokane Regional Health District, Spokane Clean Air Agency and other entities in developing transportation-related strategies to preserve and enhance the region’s quality of life.

As discussed in the *Projected Traffic Conditions* section, congestion has an impact on a region’s quality of life. However, there is a perception that all congestion is bad. This is not necessarily the case in all circumstances for all communities. Some congestion is a sign of economically healthy and vibrant communities. Congestion can mean a lot of people doing a lot of things, which translates to economic activity.

#### Economic Vitality

Highways, roads, bridges and other transportation investments make up nearly 39 percent of the national (non-military) assets. “State and local governments are largely responsible for maintaining the stock of non-defense assets in the U.S., including critical economic infrastructure.”¹⁶ It is estimated that, at a minimum, an additional amount of $26.4 billion is needed annually to maintain existing

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national transportation systems and accommodate future demand. What this translates to at the local level is the potential for job generation and economic impact from manufacturing, construction, operations, maintenance and preservation activities. Transportation projects have some of the highest potential for creating jobs, sustaining employment, generating economic activity and therefore enhancing economic vitality.

Public transportation projects generate about 22 jobs per $1 million investment, while the repair of bridges and roads creates more than 20 and the building of new roads and bridges generates approximately 14.5 jobs for the same level of investment. In contrast, coal, oil/gas, and nuclear industries generate between four and seven jobs per $1 million in investment. Transportation projects also have a huge impact on import-export balance. Road, bridge, rail, and transit projects use nearly 90 percent domestically (often locally) produced materials versus energy projects, which range from 13 percent to 30 percent use of imported supplies. This translates to a potentially significant increase in job generation in the manufacturing sector alone.17

The Inland Pacific Hub project conducted an economic analysis of potential benefits from a scenario of freight-related transportation investments. The results of the study, collectively called the Transportation Investment and Project Priority Blueprint, demonstrated a significant economic impact from the proposed projects, including the generation of more than 46,000 jobs and approximately $3.4 billion in regional value-added benefits. The cumulative economic impact, including those to the freight sector in terms of reliability and productivity, are estimated to result in benefits that would exceed total costs by $1.7 billion.

The Spokane Regional Comprehensive Economic Development Strategy (FY2011-2012)18 stated that “Spokane County is a critical access point for freight, flight and rail systems.” The Strategy recognizes that continued investment in freight, private vehicular and public transportation is critical to ensuring regional economic vitality. “Economic growth and development requires large financial investment in both public and private facilities, be they public infrastructure like transportation, education opportunity (like quality public schools along with graduate professional degree programs), or private capital for factory, office, and residential housing.”

Employment activity centers have a significant impact on regional and local travel patterns. Employment centers are defined as concentrations of jobs by type - transit focused, freight focused, or both. SRTC analyzed concentrations of job types in to track where employment activity centers will be in the future. See Map 3.3 in the Future Employment Activity Centers section of this chapter for the

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forecasted 2040 transit, freight and mixed focus employment centers.

**Energy**

SRTC continues to monitor energy prices as related to transportation forecasting. Several important transportation-related indicators include forecasted vehicle miles traveled, scheduled efficiency ratings, predicted freight movement, and expected energy use by mode.

While the future of energy prices and consumption in our area is unknown, the anticipated increase in total VMT and VHT may translate into increased costs to individuals and businesses, especially if congestion increases.

**SCENARIO PLANNING**

SRTC conducted exploratory scenario planning for the purposes of identifying future risks and opportunities that can test the flexibility and resilience of the Horizon 2040 strategies. This type of planning is a structured way for the agency to look at how the future might unfold and how this might affect issues that confront us.

The Scenario Planning process included two diverse scenarios for uncertain aspects in transportation planning. The first scenario considered how development could occur and the second considered the potential for operation and maintenance funding;

**Area Development Trends**

- The majority of development continues to be focused on the urban fringe, increasing average travel distances in the future.
- A large portion of development is focused in the urban core, reducing average travel distances and increasing the viability of alternatives to the automobile.

**Transportation System Operations and Maintenance**

- New funding provides the resources to adequately operate and maintain the transportation system. However, new delivery methods will be needed to accommodate the significant increase in capital projects and their associated disruptions to residents and businesses.
- Funding is not adequate to operate and maintain the transportation system, necessitating new methods to identify the most critical projects for the region.

In a workshop format, these scenarios were grouped together in various ways to make alternatives for group discussion. The groups discussed these scenarios and how Horizon 2040 policies and strategies could be impacted.

The following themes to address in regional planning stemmed from the workshop:

- There are risks and opportunities associated with all scenarios,
- Assumptions about funding availability are critical in long-range transportation planning,
- Transportation and land use are closely linked, regardless of where future growth occurs,
• Some local agencies are more prepared than others for future uncertainties, and
• Regional cooperation is even more essential when facing the uncertain future.

For strategic transportation planning purposes the following five considerations will be evaluated by the SRTC Board for strategic planning:

• Expand regional coordination to advance the consideration of transportation impacts to service providers,
• Enhance asset management at the MPO level to improve resiliency in transportation infrastructure,
• Increase trends monitoring and data availability to anticipate changing conditions,
• Establish a regional technical assistance program to assist SRTC members in planning for the future, and
• Better integrated transportation, land use and economic development planning.

**SUMMARY OF FUTURE CONDITIONS AND TRANSPORTATION NEEDS**

Assuming the No-Build alternative as described throughout this chapter, the impacts to traffic conditions could require reactive, rather than proactive, measures to be taken to address them. Absent considerable investments in transportation improvements and programs, personal travel and the mobility of goods and services will be hindered, particularly in major corridors such as Interstate 90, US 2, US 395 and several other state highways and arterials.

Ensuring public transit, walking and biking are affordable and convenient year-round options for our community are a need. These modes can offset increases in travel time and delay. Also, we value supporting those users, traditionally underserved users and also attracting the younger generation. Tracking and monitoring alternative modes and congestion will require new data and analytical methods.

Finally, our transportation system is aging and new performance rules require reporting and monitoring of safety, congestion, pavement & bridge; keeping our system’s assets in safe and good condition are a focus of the future. Based on the future conditions, the following table lists the indentified needs and the focus areas they impact.

Strategies to address these transportation issues are described in the following *Chapter 4 How We’ll Get There*. 

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**Chapter 3 Where We’re Going**

Horizon 2040
<table>
<thead>
<tr>
<th>Future Transportation Needs</th>
<th>$</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient transportation funding to manage transportation assets is the most critical issue for the Spokane region, especially when considering the significant costs for roads and bridges. Also, public transportation planning efforts are making progress in addressing increased future demand; however additional funding is critical to ensure implementation.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Absent future improvements, the Spokane region will experience increased congestion in certain congestion management corridors. Mobility improvements should be considered in those corridors or parallel corridors, particularly where redundant network is absent. Tracking and monitoring of congestion will need to be improved.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Public transportation service and other information, technology, design and Travel Demand Management and operations programs (Travel Systems Management) have obvious benefits to the traveling public and freight shippers. This includes programs like CTR and TSMO.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>More coordination is required to plan for larger regional needs, particularly when those needs cross jurisdictional boundaries and impact neighboring communities.</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional monitoring, reporting, and analysis of serious and fatal collisions is necessary to meet federal performance measures and to reduce such collisions and improve the safety of our roadways.</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Freight movement forecasts point to the need for infrastructure and logistics improvements in order to take advantage of future economic opportunities.</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Demographic and land use changes will increase pressure on the regional transportation networks and likely increase use of alternative modes. A systematic process should be put in place to monitoring bicycle &amp; pedestrian use and to assess the results of new projects and programs.</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Future Transportation Needs

<table>
<thead>
<tr>
<th>Equity in transportation planning is a focus as it relates to addressing the transportation needs of historically underserved communities. Improving snow removal and/or storage to ensure accessibility for all users year-round is critical for access to transportation and personal mobility. SRTC and the SRHD should coordinate closely acknowledging transportation as a social determinant of health.</th>
<th>$</th>
<th>⏰</th>
<th>♨️</th>
<th>⛅</th>
<th>⚠️</th>
<th>⛅</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is an increased need for education and enforcement programs to understand and be able to communicate the benefits of sustainable transportation and land use. Also to improve data collection, safety, encourage best practices and innovative to ensure a high quality of life in the region.</td>
<td>$</td>
<td>⏰</td>
<td>♨️</td>
<td>⛅</td>
<td>⚠️</td>
<td>⛅</td>
</tr>
<tr>
<td>Advancement in technology such as the use of ride-hailing apps, electric vehicles and self-driving vehicles should be monitored as it could impact transportation mode shift, safety, design needs, funding and operations.</td>
<td>$</td>
<td>⏰</td>
<td>♨️</td>
<td>⛅</td>
<td>⚠️</td>
<td>⛅</td>
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### FOCUS AREAS

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<tr>
<th>Financial</th>
<th>Air Operations</th>
<th>Condition of Assets</th>
<th>Public Transportation</th>
<th>Regional Coordination</th>
<th>Safety</th>
<th>Operations, Maintenance &amp; Preservation</th>
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<tr>
<td>Active Transportation</td>
<td>Quality of Life</td>
<td>Freight</td>
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