WSDOT

WASHINGTON TRANSPORTATION PLAN, PHASE 2—IMPLEMENTATION 2017 - 2040

ALIGN THE FUNDING STRUCTURE WITH THE MULTIMODAL VISION

ENHANCE MULTIMODAL CONNECTIONS AND CHOICES

MAINTAIN AND PRESERVE ASSETS

MANAGE GROWTH AND TRAFFIC CONGESTION

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April 30, 2018

The Washington State Department of Transportation (WSDOT) is proud to present the Washington Transportation Plan – Phase 2 Implementation 2017-2040. This long-range statewide plan addresses all of our modes of transportation to take advantage of the capacities we have in the system, recognizes that there is limited funding for investments, and is driven by community engagement.

The state's multimodal transportation system is facing complicated challenges today and on the horizon. The economy is booming, funding is limited, technology is changing, and we have an ever-increasing amount of people and goods that need to use an aging system. We need to face these problems together, and the foundation of that collaboration is engagement. We asked, you responded, we listened, and the result is more than just a plan; it is a call to action.

We heard that primary transportation concerns include investing in solutions that keep assets in a state of good repair through maintenance and preservation; striving to get the most from our existing system by operating more efficiently; managing growth and travel demand by working with our partners before considering system expansion; offering more choices than driving alone; and continuing the state's ongoing commitment to eliminating traffic related deaths and serious injuries through implementing Target Zero. In turn, we worked with our partners to develop strategies to address these concerns in the focus areas and action items you will find in this plan.

Washington state has a complex system of public and private ownership and management of transportation assets, which include airports, bicycle and pedestrian facilities, freight rail, passenger rail, marine and river ports, ferries, public roads, highways, and public transportation (vanpools, park and rides, buses, light rail, commuter rail). Phase 2 reflects the reality that the transportation system cannot function efficiently unless we share data and ideas.

I appreciate the many hours of work contributed to make Phase 2 a viable call to action. This was possible due to our Steering Committee, Advisory Group, and subject matter experts from the Washington State Transportation Commission, Metropolitan Planning Organizations, Regional Transportation Planning Organizations, the Tribal Transportation Planning Organization, public agencies, and WSDOT.

This plan is not the end of the conversation, it is the beginning. I encourage you to continue to work with us on the implementation of the action items and on improving our dynamic transportation system.

Sincerely,

Roger M. Millar, PE, FASCE, FAICP
Secretary of Transportation

ACKNOWLEDGEMENTS

The Washington Transportation Plan, Phase 2 – Implementation 2017-2040 (Phase 2) was produced by the Washington State Department of Transportation (WSDOT), Multimodal Planning Division; and with financial support of the Federal Highway Administration, Federal Transit Administration and the state of Washington. Agency, Tribal, advocacy group representatives, and SCJ Alliance contributed their knowledge and expertise and helped guide the plan to completion.

The WSDOT would like to express its gratitude to current and past members of the Phase 2 Steering Committee, Advisory Group, and technical experts.

At various intervals of Phase 2's development, the following individuals served on the Steering Committee:

- Jerry Litt (Commissioner) - Washington State Transportation Commission.
- Lon Wyrick (Executive Director) and Matt Ransom (Executive Director) - Metropolitan Planning Organizations and Regional Transportation Planning Organizations.
- Amy Scarton (Assistant Secretary), Brian Lagerberg (Director), Kathleen Davis (Director), and Kerri Woehler (Director) - Washington State Department of Transportation.

The Advisory Group was represented by the following organizations:

- Association of Washington Business
- Association of Washington Cities
- Cascade Bicycle Club
- Feet First
- Federal Highways Administration
- Federal Transit Administration
- Freight Mobility Strategic Investment Board
- Futurewise
- Healthy Communities
- King County Metro
- Puget Sound Regional Council
- Regional Transportation Council
- Skagit Council of Governments
- Transportation Choices Coalition
- Transportation Improvement Board
- Washington Indian Transportation Policy Advisory Committee
- Washington Public Ports Association
- Washington Roundtable
- Washington State Association of Counties
- Washington State Office of Financial Management
- Washington State Department of Commerce
- Washington State Department of Ecology

Advisory Group (continued)

- Washington State Department of Transportation
- Washington State Traffic Safety Commission
- Washington State Transit Association
- Washington State Transportation Commission

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- Regions
- Strategic Assessment and Performance Analysis
- Traffic Operations
- Washington State Ferries

CONTENTS

FIGURES & TABLES

EXECUTIVE SUMMARY

The Washington Transportation Plan, Phase 2 – Implementation 2017 - 2040 (Phase 2) is a blueprint to guide our evolving statewide multimodal transportation system in order to accomplish the Vision laid out in the Washington Transportation Plan 2035 - Policy, Phase 1 (Phase 1). The future is uncertain and no one can accurately predict how technology, climate change, natural disasters, and other factors could affect the transportation system and accomplishing the Vision; but what can be done is assess potential outcomes of those factors and prepare for those outcomes. Phase 2 therefore utilizes scenario planning to achieve resiliency by establishing Action Items that will move Washington toward the Vision regardless of how an unknown future unfolds.

Through community engagement with the public, government agencies (federal, tribal, state, local), organizations and various transportation interests, Phase 2 not only provides a framework for accomplishing the statewide Vision for transportation but also provides flexibility for communities to reflect their local context. The major themes from community engagement are:

- There is inadequate funding for preservation and maintenance.
- Traffic congestion is a problem in suburban and urban areas.
- Safety is a concern for drivers, pedestrians, and bicyclists on, across, and adjacent to rural two-lane highways.
- Coordination would be improved if all jurisdictions made public their twenty year financially- constrained project list.

These themes are consistent with the Focus Areas and Action Items developed throughout Phase 2.

Phase 2 includes information on federal and state requirements for a statewide transportation plan. The plan addresses important policy areas such as population and economic growth, an assessment of the statewide transportation system, funding, climate change vulnerability, natural disasters, and technology;

"By 2035, Washington's transportation system safely connects people and communities, fostering commerce, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system."
– Vision established in Phase 1

as well as other trends and challenges facing the statewide transportation system over the next 20+ years. The Phase 2 engagement efforts identified four Focus Areas, which are the pillars of the plan:

MP **Maintain and Preserve Assets**

EC **Enhance Multimodal Connections and Choices**

MG **Manage Growth and Traffic Congestion**

FS **Align the Funding Structure with the Multimodal Vision**

The Focus Areas encompass unresolved statewide policy issues that are vital for reaching the statewide Vision for transportation. These Focus Areas shaped the Scenario Planning effort and are the organizing concepts for the Action Items, which will:

- Achieve the Vision.
- Implement the policy recommendations from Phase 1.
- Support a resilient plan for an uncertain future.
- Make decisions based on data.
- Have consensus from partners.
- Track and report results.

Implementing the Action Items will involve a collaborative effort between many partner organizations. The implementation efforts of Phase 2 Action Items may identify a need to amend or identify new policies, rules, and laws as well as issues for consideration in future plan updates and other planning efforts. The process, tasks, and products outlined below provide a path forward for implementation of the Phase 2 Action Items.

Figure ES-1: Phase 2 Action Item Work Plan Tasks

The work plan flowchart above outlines the key tasks that the Phase 2 Project Team (Project Team) and partners will undertake to implement the eleven Action Items. More detailed information on the work plan and progress updates are available on the project website: www.washtransplan.com.

Table ES-1: Vision, Focus Areas, and Action Items

THE VISION
By 2035, Washington's transportation system safely connects people and communities, fostering commerce, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system.

FOCUS AREAS			
Maintain And Preserve Assets	**Manage Growth and Traffic Congestion**	**Enhance Multimodal Connections and Choices**	**Align the Funding Structure with the Multimodal Vision**
ACTION ITEMS			
MP1	**MG1**	**EC1**	**FS1**
Maintain, preserve, and operate assets and manage demand to meet desired performance on multimodal transportation systems before funding expansion projects	Promote transportation-efficient communities by coordinating and providing state agency technical assistance to emphasize the link between land use and transportation at all levels of government, the private sector, and other organizations	Work to achieve better travel time reliability and door to door multimodal connections for people of all backgrounds and abilities through continued application of practical solutions	Support funding flexibility to reduce barriers to creating an integrated multimodal system that achieves performance objectives
MP2	**MG2**	**EC2**	**FS2**
Support ways to help jurisdictions, transportation asset owners, and transportation service providers prepare for, respond to, and become resilient to emergencies and disasters	Prioritize access for people and goods instead of throughput for vehicles to improve multimodal options, livable communities, and economic vitality for people and businesses	Provide transportation facilities and services to support the needs of all communities, with a focus on equity for populations with specialized needs, those in rural areas, and those who are traditionally underserved	Work to diversify and strengthen transportation revenue sources to hedge against inflation and economic downturns
	MG3	**EC3**	**FS3**
	Research, evaluate, adapt to, and deploy technologies and innovations in all modes; share best practices	Adopt metrics for all modes to align with performance objectives	Address the constraints and opportunities for public-private partnership programs

CHAPTER 1
INTRODUCTION

PURPOSE

The purpose of the Washington Transportation Plan, Phase 2–Implementation 2017-2040 (Phase 2) is two-fold:

- Update the long-range statewide transportation plan (2007-2026 Washington Transportation Plan).
- Implement the Vision and policies established in the Washington Transportation Plan 2035, Phase 1 - Policy (Phase 1).

Since the last update in 2007, there have been demographic, economic, technological, policy, and social changes that have significantly impacted the state's transportation system and those who rely on it.

Table 1 provides further detail on what the Phase 2 update will and will not include. Appendix A provides more information on plan requirements.

PLAN ORGANIZATION

- Chapter 2 lays out the Vision for transportation in Washington that originates from Phase 1. It introduces the four Focus Areas that serve as the pillars of Phase 2, the Action Items that will move Washington closer to its Vision for transportation, the framework for creating a resilient plan, and the state's performance program.
- Chapter 3 provides an overview of the current transportation system, including conditions and key issues for active transportation, aviation, public roads, pipelines, public transportation, rail, and waterways. Freight movement information is included in each relevant mode.
- Chapter 4 reviews trends and issues that make the plan update necessary, including population and economic growth in areas of the state, transportation funding, climate change, natural disasters, and technology.

- Chapter 5 details how Washington can reach its Vision for transportation through organizing around the four Focus Areas, implementing the policy-level Action Items, and ensuring resiliency through continued consideration of the Scenario Planning outcomes.

Table 1: Phase 2 Purpose Summary

Phase 2 will:	Phase 2 will NOT:
Be based on consultation and coordination with metropolitan planning organizations (MPO), regional transportation planning organizations (RTPO), ports, transit agencies, and federal land management agencies (FLMA), and the Washington Indian Transportation Policy Advisory Committee (WITPAC).	Identify local transportation priorities.
Describe the state's existing performance program (see page 17).	Propose new Moving Ahead for Progress in the 21st Century Act (MAP-21) performance measures or targets.
Propose Action Items for each Focus Area for WSDOT and partners to work on after plan adoption (detailed in Chapter 5).	Contain a project list or financial plan.
Reach out to advocacy groups, non-transportation agencies, business interests, and the public with opportunities to participate.	
Meet federal requirements for a long-range statewide transportation plan in 23 USC 135 and SAFETEA-LU (23 CFR Parts 450 and 500 and 49 CFR Part 613), and state requirements for a statewide multimodal transportation plan in RCW 47.06.040.	

FAMILY OF PLANS

The statewide planning process is not a straight line with one plan directing another plan to take action. Instead, it can be thought of as a puzzle, with multiple partners each providing a piece that together forms the overall planning process, as illustrated in Figure 1. WSDOT and its partners agree on the need for an integrated process based on collaboration with each other and the public to arrive at planning and investment decisions. The partners and their plans are described in greater detail in Appendix A.

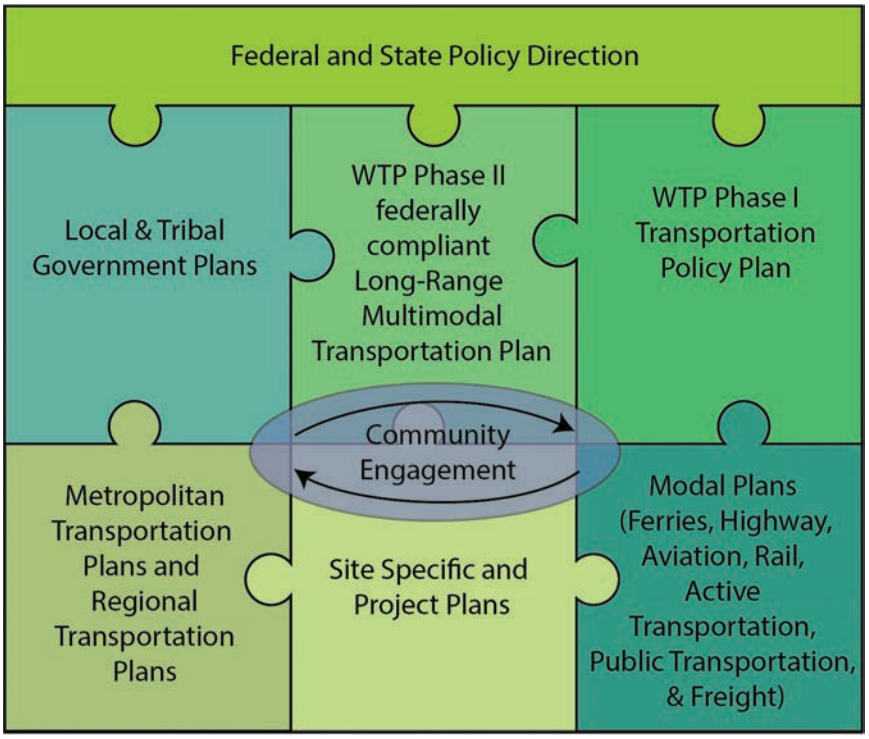
Federal law requires statewide planning to be integrated, but does not define integration. Jurisdictions in Washington achieve integration in their planning processes through sharing the same:

- Goal to move people and goods on the multimodal transportation system.
- Purpose to demonstrate to the public how they will implement policy direction.
- Commitment to coordinate plans with each other.

There are different plans because:

- They have different purposes. Some, like Phase 1 and Phase 2, are umbrella policy plans that help guide decision makers. Others, like metropolitan transportation plans, include specific transportation projects. Further plans are created by transportation owners and operators, such as Sound Transit or the Washington State Ferry System, which need a more detailed plan that meets the needs of a specific constituency.
- They have different requirements. Jurisdictions receive direction from laws, rules, and agency-specific guidance, which come from Congress, federal agencies, Tribal agencies, the state Legislature, and local governments. Jurisdictions' plans demonstrate to the public how they will implement those laws, rules, and guidance.
- They have different timelines. Some funding includes specific requirements for plan content and timelines. Law requires updates on a specific schedule for other plans.

Figure 1: Transportation Planning Integration



COMMUNITY ENGAGEMENT

WSDOT conducted extensive outreach for Phase 2. Below is a list of the parties that WSDOT engaged with in this outreach and/or who contributed to the development of Phase 2.

Steering Committee: The Phase 2 Steering Committee includes the same three members from Phase 1: one representative from the Washington State Transportation Commission, one representative for the MPOs and RTPOs, and one representative from WSDOT.

Advisory Group: The Phase 1 Advisory Group members agreed to continue their work on Phase 2 and additional members were invited to join. The group included representation from 27 different organizations. These organizations included the U.S. Department of Transportation (USDOT), MPOs, RTPOs, WITPAC, state agencies, cities, counties, transit agencies, ports, user groups, non-profit groups, and the business community.

Subject Matter Experts: This group assisted with the Scenario Planning analysis, development of the Action Items, and/or review of draft documents. Experts included staff from Federal Highways Administration, Federal Transit Administration, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, Volpe Center, Army Corps of Engineers, advocacy groups, and WSDOT.

Partners: These organizations invited WSDOT to present Phase 2 at their regularly scheduled meetings and provided insight into their key issues:

- All 12 MPOs, as shown in Figure 2.
- All 14 RTPOs, as shown in Figure 3.
- Okanogan Council of Governments.
- Tribal Transportation Planning Organization (TTPO).
- WITPAC.
- Washington State Transportation Commission.

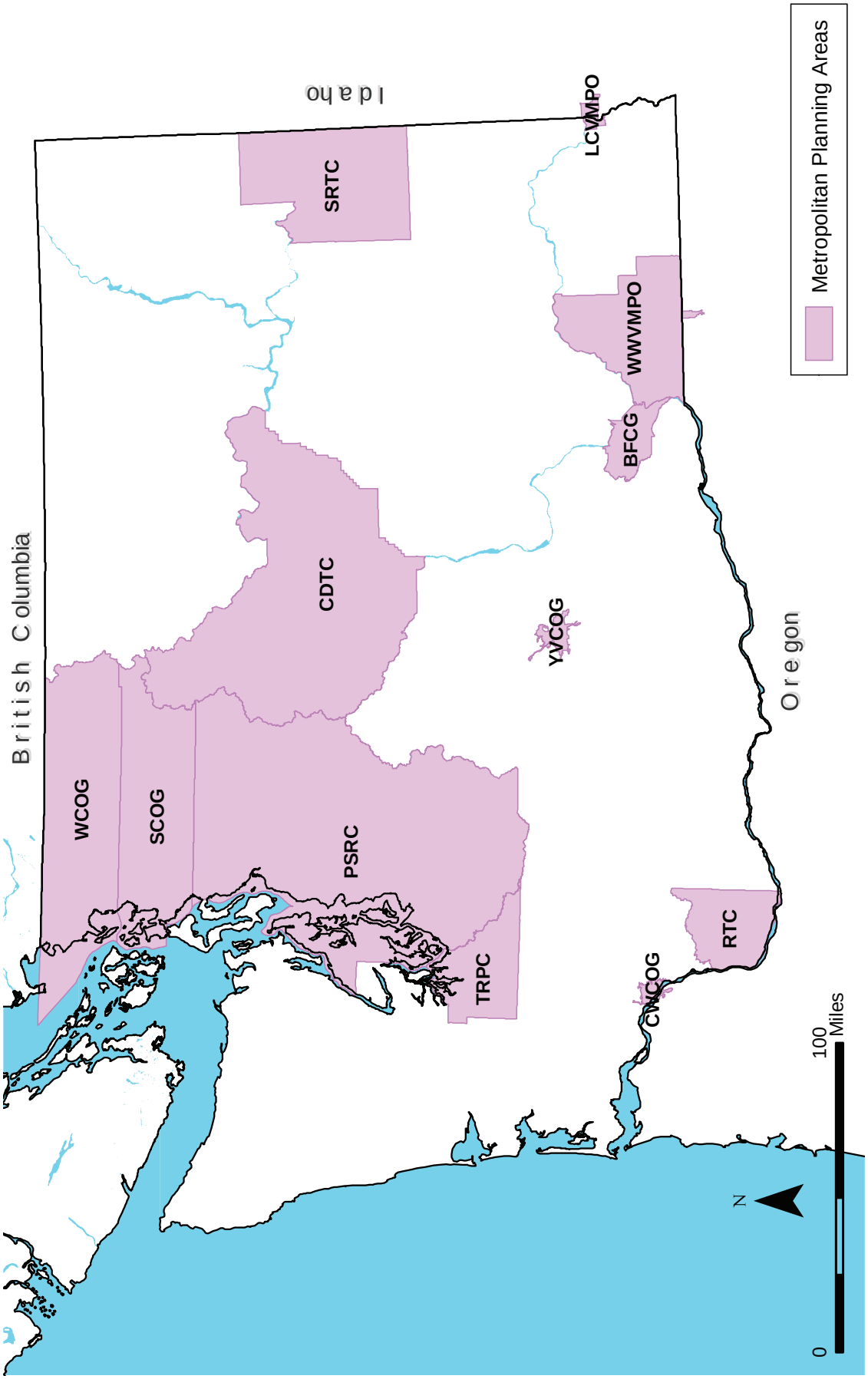


Figure 2: Metropolitan Planning Organizations in Washington

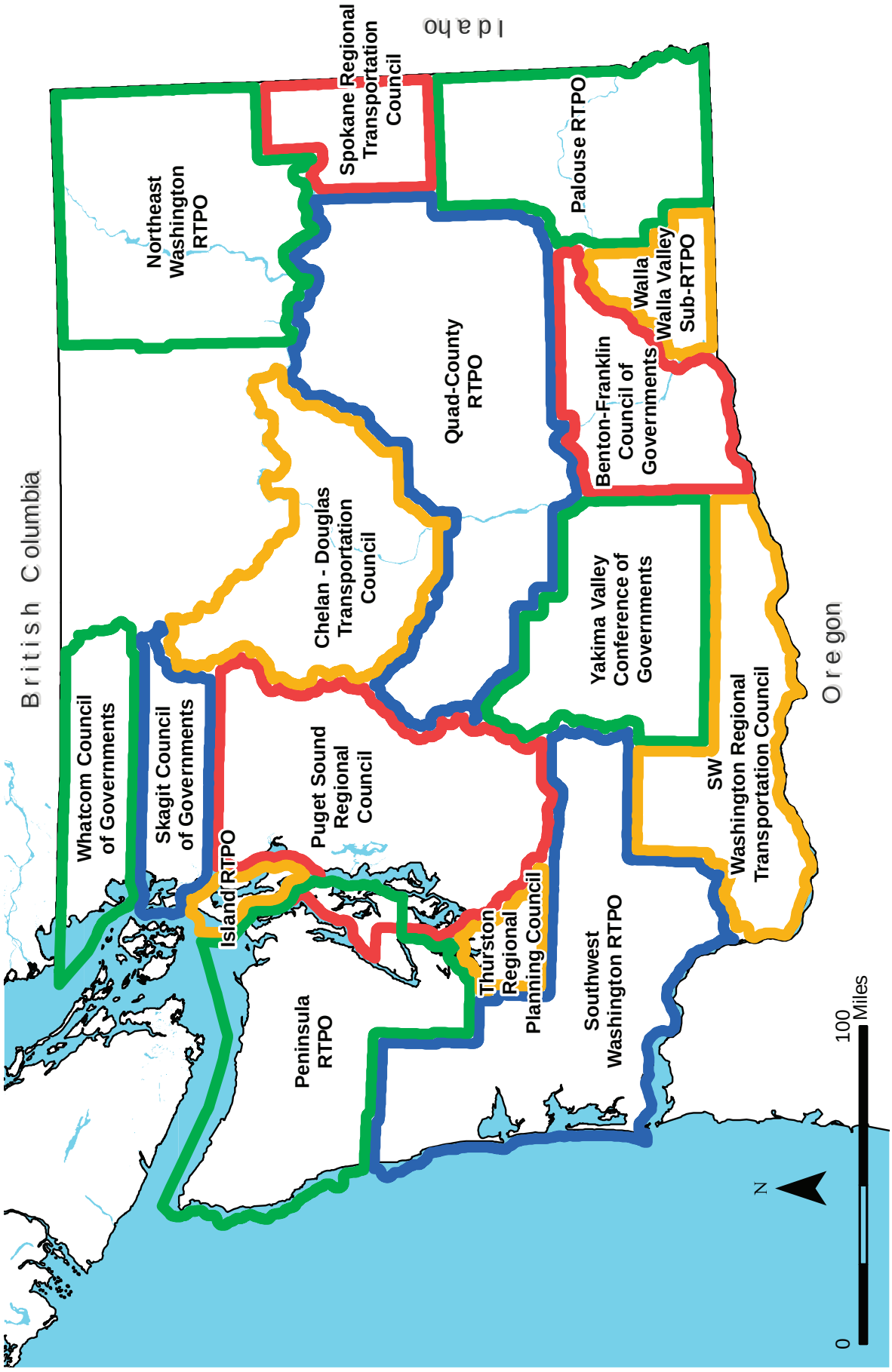


Figure 3: Regional Transportation Planning Organizations in Washington

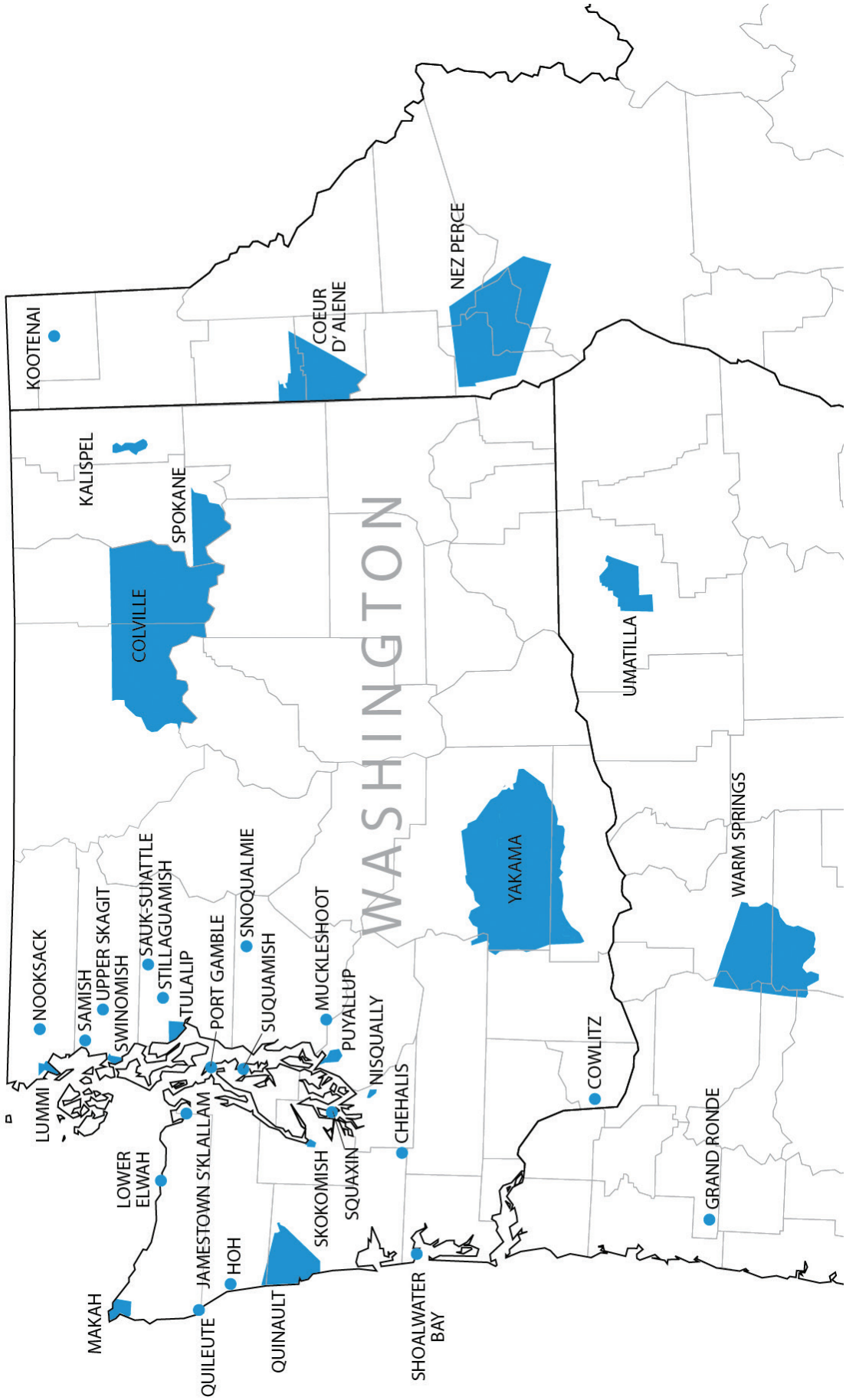


Figure 4: Federally Recognized Tribes with Interests in Washington State

Public: The 19,837 comments received from the public during the 2015 Voice of Washington State (VOWS) Survey shaped the direction of the Focus Areas and Action Items. WSDOT partnered with the Washington State Transportation Commission to add specific questions regarding Phase 2 priorities to the annual VOWS questions. For more information on this survey, see Voice of Washington State Survey[1].

Additionally, the public submitted comments on the draft document during the 45-day public review period.

Outreach Results:

- There were 588 comments received during the public comment period.
- The major themes of the comments are:
  - There is inadequate funding for preservation and maintenance.
  - Traffic congestion is a problem in suburban and urban areas.
  - Safety is a concern for drivers, pedestrians, and bicyclists on, across, and adjacent to rural two-lane highways.
  - Coordination would be improved if all jurisdictions made public their twenty year financially-constrained project list.

See Appendix E for more details.

1 http://wstc.wa.gov/StatewideTransportationSystem/2014.

CHAPTER 2

WHAT ARE WE TRYING TO ACHIEVE?

VISION

After significant public outreach and coordination with numerous agencies, organizations, and individuals, Phase 1 established a Vision for transportation in Washington state. The Vision moves our state in the direction of a multimodal, coordinated, cost-effective, safe, and low-carbon transportation system. It also highlights what transportation does for the people of Washington: more than just movement.

FOCUS AREAS

Of the numerous topics that state policies and plans address, the four Focus Areas of Phase 2 encompass the unresolved statewide policy issues that are the most crucial for accomplishing the Vision. Washington faces challenges and needs on other transportation topics, such as safety and environment, but already has plans and policies in place for these matters. The Phase 2 Focus Areas serve as the pillars of the plan to organize and prioritize the policy recommendations from Phase 1 that move Washington state toward the Vision. Each Focus Area has associated Action Items, which are displayed in Figure 5 and explained in detail in Chapter 5.

"By 2035, Washington's transportation system safely connects people and communities, fostering commerce, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system."
– Vision established in Phase 1

Maintain and Preserve Assets: There is inadequate funding to both maintain and expand the transportation system.

Manage Growth and Traffic Congestion: Past practices have led to congestion and inefficiency across the transportation network and we are on the cusp of significant technological advances.

Enhance Multimodal Connections and Choices: Unreliable travel times and poor connections between different travel modes exist throughout the state and local jurisdictions. *(Photo: Clallam Transit System)*

Align the Funding Structure with the Multimodal Vision: The current funding structure often prevents jurisdictions from working together to achieve performance objectives.

Figure 5: Vision, Focus Areas and Action Items

THE VISION

By 2035, Washington's transportation system safely connects people and communities, fostering commerce, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system.

FOCUS AREAS

Maintain And Preserve Assets	Manage Growth and Traffic Congestion	Enhance Multimodal Connections and Choices	Align the Funding Structure with the Multimodal Vision

ACTION ITEMS

MP1	MG1	EC1	FS1
Maintain, preserve, and operate assets and manage demand to meet desired performance on multimodal transportation systems before funding expansion projects	Promote transportation-efficient communities by coordinating and providing state agency technical assistance to emphasize the link between land use and transportation at all levels of government, the private sector, and other organizations	Work to achieve better travel time reliability and door to door multimodal connections for people of all backgrounds and abilities through continued application of practical solutions	Support funding flexibility to reduce barriers to creating an integrated multimodal system that achieves performance objectives
MP2	**MG2**	**EC2**	**FS2**
Support ways to help jurisdictions, transportation asset owners, and transportation service providers prepare for, respond to, and become resilient to emergencies and disasters	Prioritize access for people and goods instead of throughput for vehicles to improve multimodal options, livable communities, and economic vitality for people and businesses	Provide transportation facilities and services to support the needs of all communities, with a focus on equity for populations with specialized needs, those in rural areas, and those who are traditionally underserved	Work to diversify and strengthen transportation revenue sources to hedge against inflation and economic downturns
	MG3	**EC3**	**FS3**
	Research, evaluate, adapt to, and deploy technologies and innovations in all modes; share best practices	Adopt metrics for all modes to align with performance objectives	Address the constraints and opportunities for public-private partnership programs

RESILIENCY GIVEN UNCERTAINTY

Another key point for Phase 2 is acknowledging uncertainty in the future of transportation. Recent years have seen disruptive advances in transportation technology with many more in development. Likewise, climate change and natural disasters are likely to cause more frequent and severe disruptions to our transportation system. Between 2017 and 2040, major disruptions may occur that will affect the demand for travel, the design and construction of infrastructure, and the way that we pay for transportation, among many other things.

Where many long range plans identify a desired future or analyze alternatives to reach a desired goal, Phase 2 acknowledges that the future is uncertain for transportation and embraces this uncertainty as part of the planning process. Borrowing an approach from the business world, Phase 2 undertook a Scenario Planning effort that fully explores the consequences of uncertainty in technology and climate. This approach supports the resiliency of Phase 2. Chapter 5 and Appendix D provide more detail on the Scenario Planning effort and how it helps build resiliency into the Action Items.

PERFORMANCE PROGRAM

Currently, the Washington State Legislature requires WSDOT to adopt a performance program to track how state funded transportation investments attain the transportation system policy goals in state law RCW 47.04.280. The goals are economic vitality, preservation, safety, mobility, environment, and stewardship. WSDOT reports on how these goals have been attained in biennial attainment reports submitted to the state Legislature and found in the 2016 Biennial Transportation Attainment Report[2]. This report concludes that improvements are being made, yet challenges remain. The challenges include increases in the number and rate of traffic fatalities and serious injuries, increases in traffic congestion and commuter delays and repairs needed for structurally deficient bridges and pavement. WSDOT also reports performance management progress relative to the legislative goals in the Gray Notebook[3].

The federal law "Moving Ahead for Progress in the 21st Century Act" (MAP-21) requires state DOTs and MPOs to develop either joint or separate performance programs to track how federal transportation investments meet the national goals in 23 U.S. Code § 150[4] of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. These are similar to the state goals in RCW 47.04.280[5].

MAP-21 rules require WSDOT and MPOs to report on newly determined federal performance management measures for the following:

- Traffic safety
- Pavement
- Bridges
- System performance
- Freight
- Congestion mitigation & air quality (CMAQ)

Performance targets have been established for five traffic safety measures pertaining to traffic fatalities and serious injuries on all public roads. Washington's Strategic Highway Safety Plan (Target Zero)[6] was used for the basis of determining those targets. The targets, developed in cooperation between WSDOT and Washington MPOs, are required for submittal to the Federal Highways Administration (FHWA) every August. If significant progress is not made on an annual basis, federal funds may be reallocated to address safety issues.

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2 http://wsdot.wa.gov/Accountability/PerformanceReporting/Attainment.htm
3 http://www.wsdot.wa.gov/Accountability/GrayNotebook/navigateGNB.htm
4 http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section150&num=0&edition=prelim
5 http://apps.leg.wa.gov/RCW/default.aspx?cite=47.04.280
6 http://targetzero.com/plan.htm

Performance targets for six pavement and bridge measures, as well as six additional measures for system performance, freight, and CMAQ, need development for state roads (state- and local-owned) categorized as part of the National Highway System (NHS)[7]. Again, the targets are developed in a cooperative effort between WSDOT and MPOs. Initial targets need submittal to FHWA by May 20, 2018 with baseline, mid-, and full-performance progress reports occurring through October 2022; afterwards, the process starts over. Penalty provisions exist for pavement and bridge measures that involve potential reallocation of funds if asset conditions fall below specific targets. However, there are no current funding penalty provisions for federal rules pertaining to system performance, freight, or CMAQ.

For more information, see FHWA's Transportation Performance Management webpage[8] and WSDOT's MAP-21 webpages[9].

POLICY TOPICS COVERED IN OTHER PLANS

SAFETY

Phase 2 does not offer policy recommendations for safety because they have been developed in the state's Strategic Highway Safety Plan, Target Zero[10]. Target Zero aims to reduce traffic fatalities and serious injuries to zero by the year 2030 by working with federal, state, and local agencies to implement strategies for education, enforcement, engineering, emergency response, and leadership/policy. Phase 2 will coordinate with the Washington Traffic Safety Commission during implementation of both plans to support complementary efforts.

ENVIRONMENT

Because Phase 2 does not include projects, it does not discuss environmental mitigation strategies. WSDOT and partners maintain regular contact with federal, state, and local environmental regulatory agencies to ensure proper permits and regulations are followed during the project development process. Projects that require federal approval or receive federal funding may be subject to the National Environmental Policy Act (NEPA)[11] review process. Projects that require state approvals or permits may be subject to the State Environmental Policy Act (SEPA)[12] review process. NEPA and SEPA reviews address potential adverse impacts to the natural and built environment. The natural environment includes fish and wildlife habitat, threatened and endangered species, water quality, and air quality. The built environment includes cultural resources, historical resources, and the transportation system. WSDOT and partners engage the public on specific projects during many stages, including environmental review.

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7 http://www.wsdot.wa.gov/mapsdata/travel/hpms/NHSRoutes.htm
8 https://www.fhwa.dot.gov/tpm/
9 http://www.wsdot.wa.gov/Accountability/MAP-21.htm
10 http://targetzero.com/
11 https://www.environment.fhwa.dot.gov/nepa/nepa_projDev.aspx
12 http://www.ecy.wa.gov/programs/sea/sepa/e-review.html

CHAPTER 3
TRANSPORTATION TODAY IN WASHINGTON STATE

STATEWIDE TRANSPORTATION SYSTEM

This chapter describes the state-interest and state-owned facilities and services. It also includes information for each mode to demonstrate the complexity and size of the entire statewide multimodal transportation system. Each modal summary consists of a cross reference to specific Phase 2 Focus Areas that help achieve the Vision established in Phase 1.

The statewide transportation system includes a variety of facilities and infrastructure that various modes use to move people and goods. Modes included in this plan are categorized as active transportation, aviation, pipelines, public roads, public transportation, rail, and waterways. Regardless of ownership, it is vital that connections between the modes are orderly and efficient. In order to ensure seamless connections, it is important that all transportation owners cooperate, coordinate, and consult with each other.

Transportation plans document these efforts and provide guidance for improving connectivity. Appendix C includes a map and more information by mode, including references to the descriptions of the state's interests, and describes freight movement under each relevant mode.

STATE-INTEREST FACILITIES AND SERVICES

The following state-interest facilities and services are owned and managed by private companies, public agencies, and Tribal governments:

- A majority of the active transportation facilities in some of Washington's 281 cities and 39 counties:
    - Streets, sidewalks, bike lanes, shared-use paths, trails, and public roads.
    - Mapping note: due to scale, these are not shown in Figure 6. system:

- A majority of the aviation
  - 120 of the 136 public use airports.
    - 22 move cargo.
    - Seattle-Tacoma International is the state's busiest airport for passengers and cargo.
    - Mapping note: The locations of the airports are shown on the map in Figure 6. Due to scale, the routes are not shown.
- The entire marine freight infrastructure, which consists of:
  - 22 marine freight ports owned by port districts that are located on the Columbia River, Snake River, Puget Sound, and the Pacific Ocean.
    - 16 deep draft ports.
    - Mapping note: Due to scale, these locations are approximated.
- Portions of the ferry system, which are managed by:
    - Five counties, two transit agencies, one tribe, and two private companies.
    - Mapping note: The routes are shown on the map in Figure 6.

- The majority of public transportation services:
  - 32 transit agencies located in 28 of 39 counties.
  - Six Medicaid brokers in all 39 counties.
  - 50 community transportation providers (due to scale these are not shown in Figure 6).
  - Four intercity bus lines (Travel Washington operated by Greyhound).
  - One light rail service (Sound Transit).
  - 238 park and rides.
  - 12 tribal government transportation services.
  - Mapping notes:
    - Tribal government services have not been mapped.
    - Due to scale, park and rides are not shown in Figure 6.

- Two privately-owned BNSF Railway and Union Pacific Railroad own the majority of the over 3,000 miles of Class I track which are used for the following freight and passenger services:
  - Two long-distance passenger (Amtrak Empire Builder and Amtrak Coast Starlight).
  - One commuter rail (Sounder).
  - One intercity passenger rail (Amtrak Cascades – see Figure 8).
  - Connections to more than 20 freight short lines railroads.
  - Connection to one Class II railroad in Spokane (Montana Rail Link).
  - Mapping note: Due to scale, only active railroads are shown in Figure 6.
- The majority of the public roads, including:
  - 39,226 centerline miles of county roads and 3,281 county bridges.
  - 17,028 centerline miles of city streets.
  - 17,081 centerline miles of "Other" owners. These owners cooperate with state and local governments on access and connections to their roads, but they are not funded by the Washington State Legislature and are not included in the state's transportation budget. "Other" owners are:
    - Federal Agencies
      - Army Corps of Engineers: 178 centerline miles.
      - Bureau of Indian Affairs: 1,468 centerline miles.
      - Bureau of Reclamation: 6 centerline miles.
      - National Fish and Wildlife: 181 centerline miles.
      - National Park Service: 337 centerline miles.
      - U.S. Department of Energy: 74 centerline miles.
      - U.S. Forest Service: 3,946 centerline miles.
      - U.S. Navy/Marines: 473 centerline miles.
      - U.S. Army: 1,992 centerline miles.

- Tribal
  - Indian Nations: 209 miles.
- State Agencies
  - Fish and Wildlife: 1,290 centerline miles.
  - State Parks and Recreation: 195 centerline miles.
  - Department of Natural Resources: 6,661 centerline miles.
  - Department of Corrections: 4 centerline miles.
  - Washington State University and College: 15 centerline miles.
  - Ports[13]: 51 centerline miles.

- Mapping note: Due to scale, these roads are not shown in Figure 6.

13 Ports are listed as a state agency in the Highway Pavement Management System

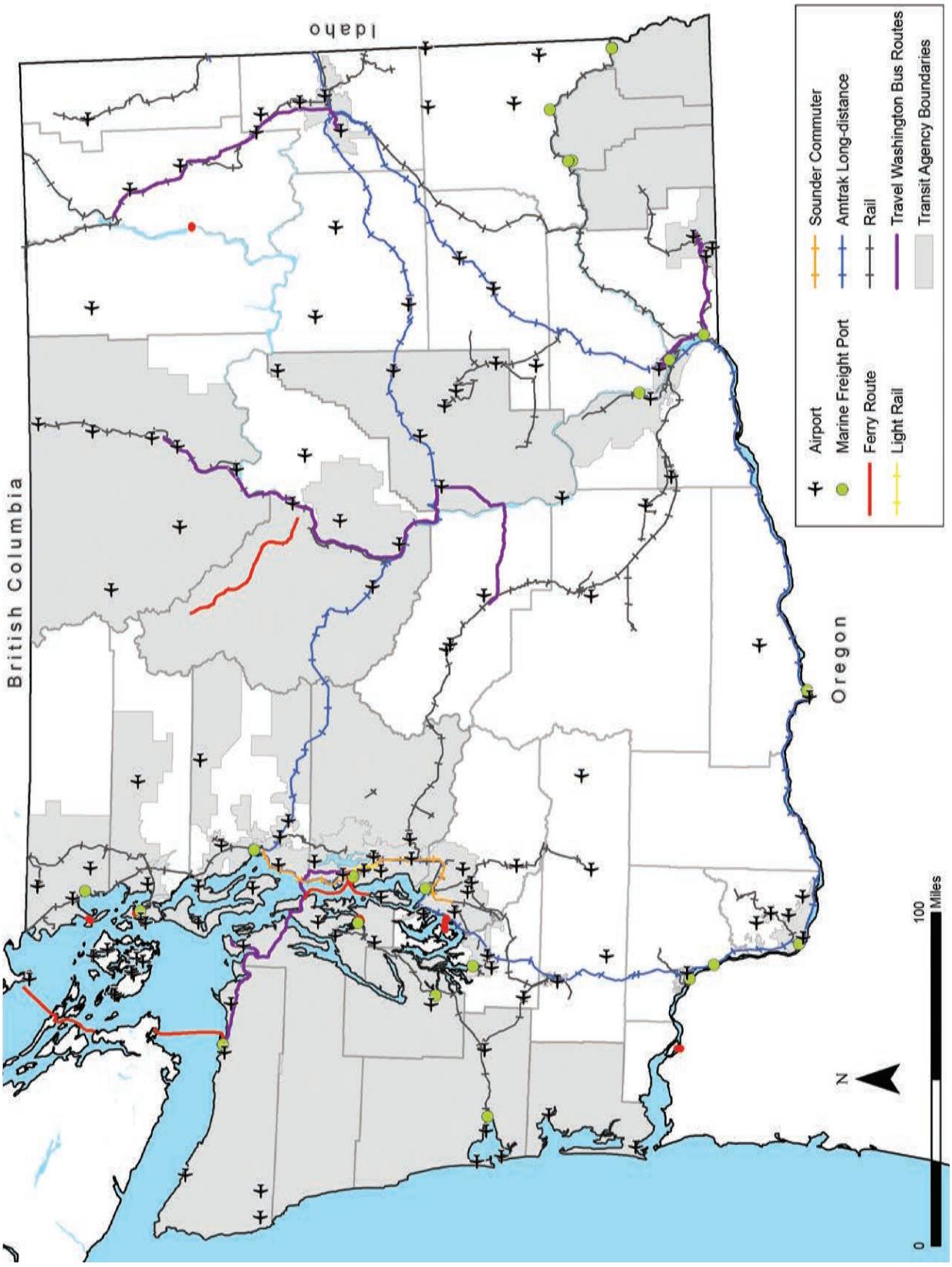


Figure 6: State Interest Facilities and Services

ADJACENT FACILITIES AND SERVICES

Figure 7 shows some of the facilities and services that cross state and provincial boundaries. Phase 2 does not provide details or recommendations for these facilities and services because they are located outside the state's jurisdiction. The map is for illustrative purposes to show that transportation does not stop at borders.

STATE-OWNED FACILITIES AND SERVICES

WSDOT is responsible for owning or managing the following transportation facilities and services.

- Active transportation infrastructure:
  - On or adjacent to most of the 7,056 center line miles of state highways, with the exception of portions of the interstate system.
  - Bike storage on Washington State Ferries.
  - Mapping note: Due to scale, these are not shown in Figure 8.
- Aviation system:
  - 16 public use airports/airfields that provide charter services and emergency response, but not regularly scheduled commercial service.
- The largest ridership on passenger ferries with:
  - 23 vessels and 20 terminals in Puget Sound that serve an annual ridership of more than 24 million.
  - One ferry across the Columbia River that is part of State Route 21, located on the border between Lincoln and Ferry counties.
- The only intercity passenger rail service:
  - Partnership with Oregon and British Columbia for Amtrak Cascades service between Eugene, Oregon and Vancouver, B.C. WSDOT owns three Talgo train sets.
- Freight Rail connections to Class I lines:
  - WSDOT owns 297 miles of short line freight rail known as the Palouse River and Coulee City Railroad.

- Public roads:
  - 7,056 centerline miles of state highways (interstates, U.S. highways, and state routes).
  - 3,300 bridge structures.
  - 99 park and rides.
  - Mapping note: Due to scale, the bridges are not shown in Figure 8.

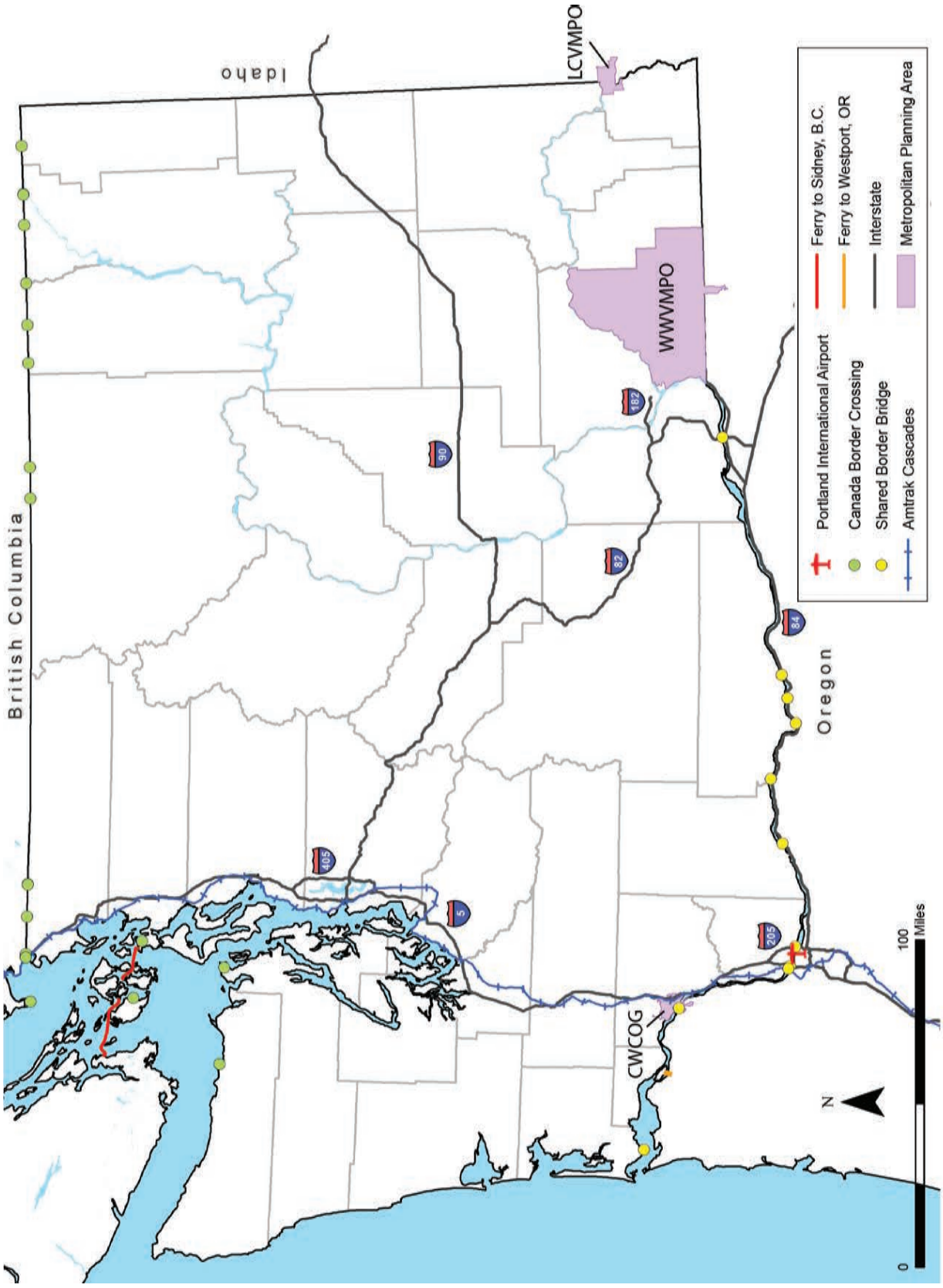


Figure 7: Adjacent Facilities and Services

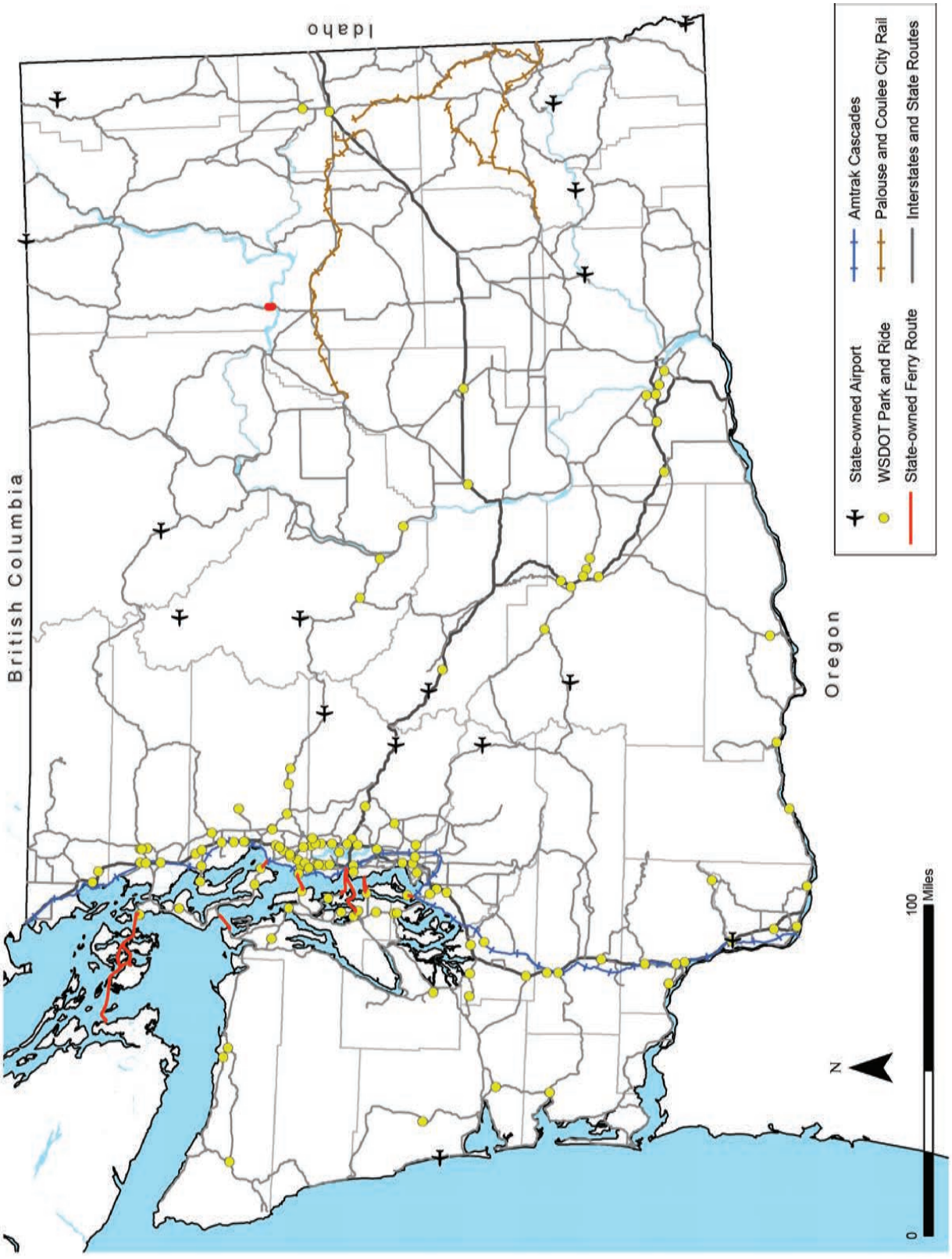


Figure 8: State-Owned Facilities and Services

MODES

Key issues are described by mode below, and are listed in alphabetical order and combined (state-owned and state-interest) where applicable. For example, some modes have the same key issues, regardless of ownership. See Appendix C for more details.

ACTIVE TRANSPORTATION

Walking, bicycling, and using mobility assistive devices are all forms of active transportation. The state plays a critical role in addressing gaps and safety on and across state highways, in particular where the highway forms an element of a local network or provides the primary connection between destinations. Cities and towns own sidewalks, streets, shared-use paths/trails, and bike parking. In rural areas, active transportation users rely on county roads and state highways. On public recreational lands they use trails and trailheads. Currently there is no comprehensive inventory of all of the active transportation facilities and services in the state. However, the Washington State Bicycle and Pedestrian Documentation Project[14] collects usage data in some cities throughout the state.

People use active transportation to connect to buses, trains, and ferries. For many people, active modes are the only way to access transit. Due to their remote location, most people drive to access trails located on public recreational lands.

State law (RCW 47.06.110[15]) describes the state's interest in active transportation as:

- Proposing a statewide strategy to integrate with other modes.
- Coordinating between local governments, regional agencies, and the state.
- Assessing needs.

Details are found in the Washington State Bicycle Facilities and Pedestrian Walkways Plan[16].

The key statewide issues for active transportation addressed in Phase 2 and the Focus Areas they relate to include:

EC — Obtaining common statewide data and metrics, which requires jurisdictions collecting active transportation user data, as well as a common way to store and share these data.

FS — Obtaining adequate and sustainable funding sources

14 https://www.wsdot.wa.gov/bike/Count.htm
15 https://app.leg.wa.gov/rcw/default.aspx?cite=47.06.110
16 https://www.wsdot.wa.gov/bike/bike_plan.htm

MG Helping to manage traffic more efficiently at the local trip level

MP Completing ADA retrofits.

AVIATION SYSTEM

The state aviation system includes 136 public use airports and WSDOT is required by state law to provide support for aeronautical activities. In 2016, there were 24.5 million revenue enplanements, the majority of these were at Seattle-Tacoma International with 21.8 million. That same year, four airports landed 3.2 billion pounds of cargo, primarily from Seattle-Tacoma International with 1.8 billion pounds.[17] WSDOT develops partnerships to preserve aviation facilities, safe air transportation, and airport capacity to meet demand, and to mitigate environmental impacts.

The state's interest in aviation is defined in state law (chapter 47.68 RCW[18]), which directs WSDOT to encourage, foster, and assist in the development of aeronautics in the state and to encourage the establishment of airports and air navigation facilities. The 2017 Washington State Aviation System Plan[19] offers recommendations for stated goals, objectives, and performance measures.

The key statewide issues from the Aviation System Plan addressed in Phase 2 and the Focus Areas they relate to include:

EC Giving people more options for long distance work or personal travel.

MP Improving safety and emergency services.

MG Enabling commerce through the transport of goods and delivery of services.

MG Recommending how airports can link their operations to local and regional transportation plans.

PUBLIC ROADS

The following mileage and travel information is based on data collected annually by WSDOT for the federally required Highway Performance Monitoring System (HPMS). The state total includes all state routes, interstates, and U.S. highways and comes from the State Highway Log and Annual Traffic Report[20]. "City" includes all city streets. The "County" total includes all county roads and "Other" includes only the roads located on state, federal, and Tribal land that fit the federal definition of public road. See Appendix C for more information.

17 Source: https://www.faa.gov/
18 http://app.leg.wa.gov/rcw/default.aspx?cite=47.68
19 http://www.wsdot.wa.gov/aviation/Planning/wasp.htm
20 http://www.wsdot.wa.gov/mapsdata/roadway/statehighwaylog.htm

Table 2 shows the total number of miles reported first to WSDOT and then to the Federal Highway Administration Highway Performance Management System. This table illustrates that although the state highway system has the least amount of center line miles of road at 8.8 percent- it experiences the most use at 56.2 percent of vehicle miles traveled.

Table 2: 2016 Daily Vehicle Miles Traveled

Jurisdiction	Centerline Miles		Daily Vehicle Miles Traveled (Thousands)	Annual Vehicle Miles Traveled (Thousands)	Percent of Vehicle Miles Traveled
State Total (Interstate)	7,056 (763)	8.8% (0.9%)	93,773 (46,132)	34,227,000 (16,838,000)	56.2% (27.7%)
City	17,028	21.2%	43,878	16,015,000	26.3%
County	39,226	48.8%	26,672	9,735,000	16.0%
Other	17,082	21.2%	2,392	873,000	1.4%
Total	80,392	100%	166,715	60,851,000	100%

Source: WSDOT

The key statewide issues for public roads addressed in Phase 2 and the Focus Areas they relate to include:

Pavement and bridge preservation.

Establishing performance frameworks.

Adequate and dedicated funding.

PIPELINES

Pipelines are privately owned, located underground, and convey natural gas and petroleum products. Natural gas pipelines do not connect to other modes.

Petroleum product pipeline connections:

- Crude oil is transported by ship from Alaska or rail from Canada to Puget Sound refineries.

- Refined product (gas, diesel, and jet fuel) moves by pipeline or barge from refineries to distribution centers.
    - Most of the refined product moves by three pipelines. The Vancouver, WA-Tidewater barge facility is one of the major pipeline terminals that transports product upriver via barge to Pasco.
    - Oregon does not have refineries and receives the majority of its petroleum products from Washington.
- Product moves from distribution centers by truck to gas stations.

Natural gas pipeline system:

- Includes wellhead pumps, compressor stations, tanks, underground reservoirs, and pipelines.
    - Puget Sound Energy owns the largest natural gas storage depot in Washington: the Jackson Prairie Underground Natural Gas Storage Facility in Lewis County. This reservoir can hold approximately 44 billion cubic feet of natural gas to meet peak demand in winter.
- One pipeline runs from Sumas along the I-5 corridor and east along the Columbia River. This line carries product from Canada and Wyoming.
- One pipeline runs from the Canada/Idaho border through Washington and Oregon.

The state's interest in pipelines depends on the mode by which product is moved. Rail and truck have a greater impact on the transportation network than use of pipelines. The state includes forecast information in the 2017 Washington State Freight Plan. Pipeline safety oversight is the responsibility of the Washington Utilities and Transportation Commission (UTC) and the U.S. Department of Transportation.

The key statewide issue for pipelines is:

Addressing changes in the transportation of energy products.

PUBLIC TRANSPORTATION

Public transportation includes fixed route, demand response, vanpool, intercity rural bus service, Medicaid and non-emergency transportation, light rail, monorail, streetcar, and passenger ferry service.

Infrastructure includes public roads, buses, vans, transit centers, bus shelters and stops, bus rapid transit platforms, park and ride lots, ferry vessels and terminals, train cars and tracks for light rail and monorail, and bike parking and storage at some locations and on vehicles and vessels.

Public transportation served 221 million passengers in Washington in 2016 via:

- 32 transit systems covering 28 counties that are operated by cities, counties, and public transportation benefit areas.

- Six Medicaid brokerages operated by non-profits that cover all 39 counties.
- Seven intercity services (four of which are WSDOT Travel Washington lines) operated by private companies.
- 238 park and rides.
- 50 community and specialized transportation providers that are operated by for profit and non-profit organizations and serve the general public, persons with disabilities, and seniors.
- 12 tribal government public transportation services providing service to the general public and tribal members.
- Note: See the "Waterways" section on page 34 for ferry information.

According to the 2016 Washington State Public Transportation Plan[21], the state's interest in public transportation is to focus on transit policy, consistent performance measurements, and additional resources to meet growing public transportation needs.

State law authorizes the UTC to regulate rates, services, and facilities for common carriers.

The key statewide issues for public transportation addressed in Phase 2 and the Focus Areas they relate to are:

EC Coordinating services between providers.

FS Access to secure, sustainable funding.

MG Maintaining schedules while competing for space on highways with other users.

RAIL

Rail includes freight and passenger service. Washington has more than 3,000 miles of railroad tracks that provide mobility moving into, out of, within, and through the state. Rail uses a system of main lines, branch lines, industrial spurs, and rail yards operated by these types of carriers:

Class I Railroads

- Own 60 percent of the statewide infrastructure and carry the majority of the passengers and freight.
- Freight service
  - Two privately owned railroads:
    - BNSF Railway operates on 1,633 miles of track.
    - Union Pacific Railroad operates on 532 miles of track.

21 http://www.wsdot.wa.gov/Transit/TransportationPlan

- Passenger rail uses include:
  - Two long-distance services (Amtrak Empire Builder and Amtrak Coast Starlight).
  - One intercity service (Amtrak Cascades).
  - One commuter service (Sounder).

Class II Railroads

- Freight service.
- Uses Class I infrastructure.
- One privately owned.
  - Montana Rail Link connects to BNSF Railway in Spokane.

Class III Railroads

- Own 40 percent of the statewide infrastructure.
- Freight and passenger (tourist trains) services.
- 17 privately operated.
  - Own 20 percent of rail mileage in the state.
- Eight publicly operated.
  - Own 20 percent of rail mileage in the state.
  - WSDOT owns the Palouse River and Coulee City rail system and contracts with private railroads to operate each of the branches.

Key statewide issues for passenger rail addressed in Phase 2 and the Focus Areas they relate to are:

Reducing service disruptions due to landslides.

Developing national standards for equipment.

According to the 2013-2035 Washington State Rail Plan[22], the state's interest in rail is to ensure that rail continues to be a vital part of the statewide transportation system, and that it effectively supports the broader needs of Washington's residents and economy. In addition, the UTC has a railroad safety administration role.

Key statewide issues for freight rail addressed in Phase 2 and Focus Areas they relate to are:

Address first and last mile of freight connectivity.

Fund strategic grade-separated crossings.

22 http://www.wsdot.wa.gov/Rail/Plans.htm

WSF owns and operates auto-passenger ferries and 20 terminals, and offers 10 routes across the Salish Sea.

WATERWAYS

Washington's waterways include the Salish Sea (the Puget Sound, the Strait of Juan de Fuca, and the Strait of Georgia), the Columbia-Snake River system, the Pacific Ocean coast, and Lake Chelan. Watercraft that use these waterways include ferries, cargo ships, barges, container ships, oil tankers, cruise ships, charter boats, and recreational boats. This plan includes details on the ferries and freight issues with emphasis on first and last mile connections.

FERRIES

Since 1951, publicly-owned ferry service has been available on the Salish Sea. Service is provided by WSDOT, King County, Kitsap Transit, Pierce County, Skagit County, Whatcom County, Pierce County, and the Department of Social and Health Services.

Wahkiakum County, WSDOT, and the Colville Confederated Tribes each operate ferry service across the Columbia River and a private company offers ferry service on Lake Chelan. These ferries are managed as a substitute for a bridge and are vital for moving people and goods.

WSDOT Operates:

- Eleven routes.
  - 10 across the Salish Sea.
  - One (Keller Ferry), which crosses Lake Roosevelt as part of State Route 21 in WSDOT's Eastern Region.

Counties Operate:

- Five ferry routes.
  - Four across Puget Sound.
  - One across the Columbia River near Cathlamet.

Transit Agencies Operate:

- One ferry across Puget Sound.

Tribes Operate:

- One route across the Columbia River between Inchelium and Gifford.

Private Companies Operate:

- Three routes on the Salish Sea.
- One route on Lake Chelan.

The state's interest in ferries is one of owner and operator of the country's largest ferry system. For non-WSDOT ferries, the interest is in connecting riders to the statewide transportation system. The UTC regulates rates, services, and facilities for privately-owned commercial ferries.

Key issues for ferries addressed in Phase 2 and the Focus Areas they relate to are:

Long-term fiscal sustainability.

Capital facilities and vessel improvements.

MARINE CARGO

Ships and barges haul marine cargo in tankers, containers, or break bulk. The Salish Sea, Pacific Ocean, and Columbia-Snake River system support cargo movement that amounted to 19 million metric tons of international waterborne container trade in 2015 using Washington's public ports.

- The ports of Seattle and Tacoma, known collectively as the Northwest Seaport Alliance (NWSA), rank fourth among North American ports in total container traffic, behind Los Angeles/Long Beach, New York/New Jersey, and Savannah. International trade in break bulk and containers moving through these ports exceeded $74.7 billion in 2015.
- The ports of Vancouver, Kalama, Olympia, Longview, Grays Harbor, Pasco, and Everett handle mostly bulk goods.
    - Exported agricultural goods move through Kalama, Vancouver, and Longview.
    - Kalama is the largest grain port on the West Coast.
    - The Port of Everett directly serves the Boeing Company assembly plant in Snohomish County.

Key statewide issues for marine cargo addressed in Phase 2 and the Focus Areas they relate to include:

Navigation channels and infrastructure require regular maintenance.

Rail Access to ports must be maintained and improved.

Improvements are needed for processes related to federal trust funds for inland waterways system.

Land-use encroachment threatens port operations.

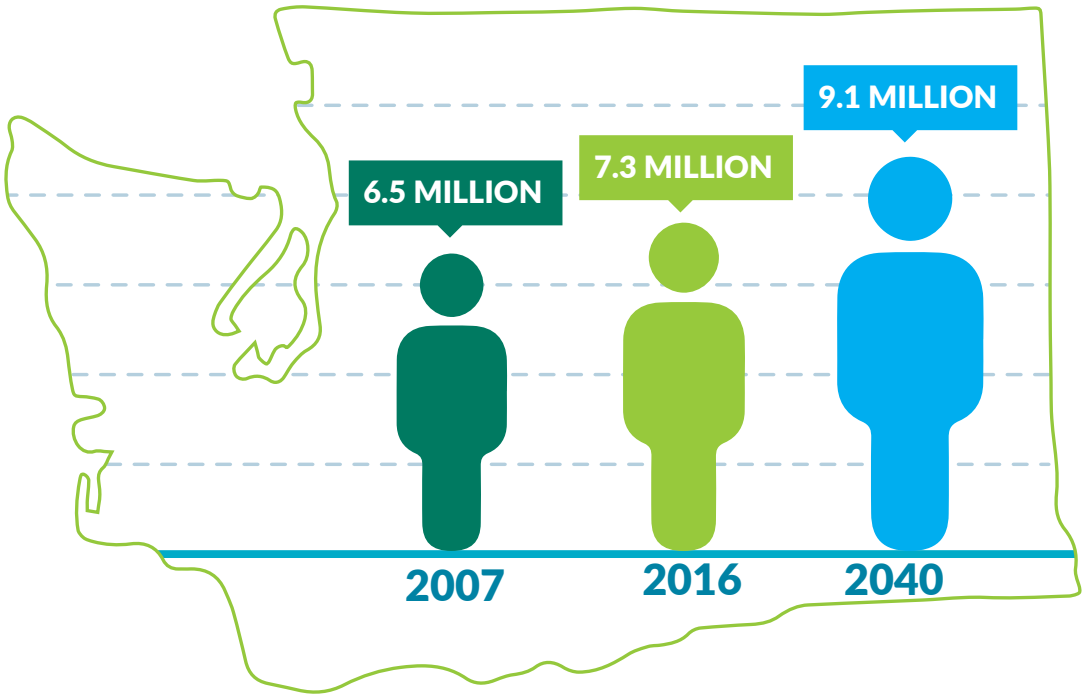
Chapter 4
TRENDS AND CHALLENGES

This chapter describes trends and key issues affecting the transportation system, including: population and economic growth, transportation funding, climate change, natural disasters, technology, and a shift to cleaner transportation. These trends illustrate the potential needs for transportation in the future and help guide the Action Items Phase 2 proposes to reach the Vision.

POPULATION

Washington's population increased from 6.5 million in 2007 to 7.3 million in 2016 and it is forecasted to be 9.1 million in 2040. With this growth in population has come increasing demands on the transportation system with daily vehicle-miles traveled (VMT) growth from 152,117 in 2007 to 163,432 in 2016.

Figure 9: Statewide Population Growth



Growth Management

The Washington State Department of Commerce's Buildable Lands[23] program is mandated by RCW 36.70A.215[24]. This law requires the Department of Commerce to evaluate seven Western Washington counties (Clark, King, Kitsap, Pierce, Snohomish, Thurston, and Whatcom) and the cities within them in order to determine if they have designated adequate amounts of residential, commercial, and industrial lands to meet the growth incorporated in their comprehensive plans.

The most up to date information from this program is in a 2007 report[25]. The findings from this report are:

- All of the counties have experienced an increase in population density within the urban growth areas.
- Four of the six counties continued the trend of issuing an increasing percentage of building permits within the urban growth areas, which is considered a broad measure of urbanization. This reduces development pressure on rural and natural resource lands.
- One measure that may reflect the home mortgage practices of the early part of the decade is the increase in the percentage of single-family homes, as a share of total building permits, in three of the five counties reporting on development by structure type. Only Clark and Kitsap counties recorded significant increases in multi-family housing since the 2002 report. Multi-family housing is generally associated with greater efficiency in infrastructure use and lower housing cost.

23 http://www.commerce.wa.gov/serving-communities/growth-management/growth-management-topics/buildable-lands/
24 http://app.leg.wa.gov/rcw/default.aspx?cite=36.70A.215
25 In 2007, Whatcom County was not included in the list of most populous counties

The 2017 state Legislature requires the Department of Commerce to update the 2007 buildable lands study before December 2018. Until this study is updated, information on growth management can be inferred from other studies. One such study is from the U.S. Forest Service and is summarized in Table 3. As the table shows, Washington is losing open space, and increased development results in the need for additional transportation infrastructure and services. Note that the counties not included in this table are predicted to remain at zero-to-five percent urban land from 2010-2040.

Table 3: Urban Land by County

	Percent Urban Land		
	2010	2020	2040
Asotin	0-5	0-5	5-10
Benton	0-5	5-10	10-20
Franklin	0-5	0-5	5-10
King	10-20	20-40	40-60
Kitsap	20-40	40-60	40-60
Pierce	10-20	20-40	40-60
Skagit	0-5	0-5	5-10
Snohomish	10-20	10-20	20-40
Spokane	10-20	10-20	20-40
Thurston	10-20	10-20	20-40
Walla Walla	0-5	0-5	5-10
Whatcom	0-5	0-5	5-10

Source: U.S. Forest Service, Open Space Conservation. https://www.fs.fed.us/openspace/loss_space.html

This information from the Washington State Transportation Commission 2016 Annual Report offers the following growth management related recommendations:

- The transportation system does not adequately support current and future population densities.
- Expand the funding toolbox for city and county transportation systems because as counties and cities receive an increasingly smaller share of gas tax revenue, their reliance on and need for a variety of revenue sources grows.
- Encourage infrastructure projects that manage growth in a comprehensive way by creating a single account for multipurpose infrastructure projects.
- The commission recommends regional transportation planning organizations and the state use all existing authority to require and ensure adequate transportation facilities and services are in place concurrent with growth expectations. In addition, land use plans and local permitting strategies should be designed to thoroughly consider transportation impacts at all jurisdictional levels and include strategies to address them if increased impacts cannot be avoided.

ECONOMY

The Washington State Office of Financial Management (OFM) tracks the following statewide economic trends:

- Wage and salary manufacturing employment in 2015 was 291,104 (number of jobs).
  - The sharp drop in Washington manufacturing employment from 1998 to 2004 was due primarily to a loss of over 50,000 jobs in the aerospace sector; since then the sector has added over 23,000 jobs.
  - Over the last ten years, employment in manufacturing has dropped an average of 1.4 percent per year nationally. The reasons for the loss are two-fold: productivity gains have allowed fewer workers to produce more goods, and the relocation or contracting for manufacturing work overseas.
- Wage and salary employment (including manufacturing jobs) in 2015 was 3.4 million.
  - From 2001 through 2007 wage and salary employment grew 8.7 percent in Washington, outpacing the nation's job growth of 4.5 percent.
  - From 2007 through 2010 non-farm payrolls in Washington and nationwide fell by 5.9 percent and 5.6 percent, respectively.
  - Even with the "great" recession, employment in Washington still managed to grow 15.8 percent between 2001 and 2015 while the nation's employment grew by 7.6 percent.
- Unemployment rate in 2016 was 5.4 percent (U.S. rate was 4.9 percent).
  - Historically, the unemployment rate in Washington has been higher than the U.S. average, due primarily to a relatively high share of resource based industries in the state that have more volatile seasonal employment patterns.
  - Changes in Washington's unemployment rates have tracked closely with the U.S. trend, but the difference between the state and the U.S. rates usually widens during economic downturns.
- Export activity in 2016 was more than $79 billion.
  - Between 1997 and 2005, Washington exports averaged $40 billion of goods per year.
  - Between 2004 and 2008, total exports jumped from $34 billion to $55 billion due largely to a doubling of transportation equipment exports. The leveling off in 2008 was a result of a disruption in aircraft orders due to a protracted labor/management dispute. The slowdown in 2009 exports was due to the global recession.
  - Transportation equipment, primarily aircraft and parts, accounted for over 58.4 percent of Washington exports in 2016.

- Average wage in 2015 was $57, 057.
  - Are inflation adjusted to 2015 dollars.
  - Increased every year since 2001 when it was $49,648.
- Personal income (per capita) in 2016 was $53,493.
  - Personal income includes all income earned by Washington households, including wages, self-employment income, interest, dividends, rent, social security, and other transfer payments.
  - In almost every year since 1980, Washington state's per capita personal income has been higher than that of the U.S. average.
  - In 2016, Washington state ranked 13th among the states in per capita income
- Median home price in 2016 was $314,900.
  - Home prices in Washington accelerated quickly from 2002 through 2007, increasing by over $121,000, a gain of 64 percent.
  - Median prices continued to trend upwards in 2016, increasing 8.9 percent over 2015.
  - Median prices in 2016 exceeded 2007 values by 1.7 percent.

TRANSPORTATION FUNDING

Transportation funds come from different sources and have very specific legal conditions for how, when, where, and by whom they can be spent. The legal conditions range from Washington State Constitution conditions for spending state fuel taxes to local ordinance conditions for spending local option taxes.

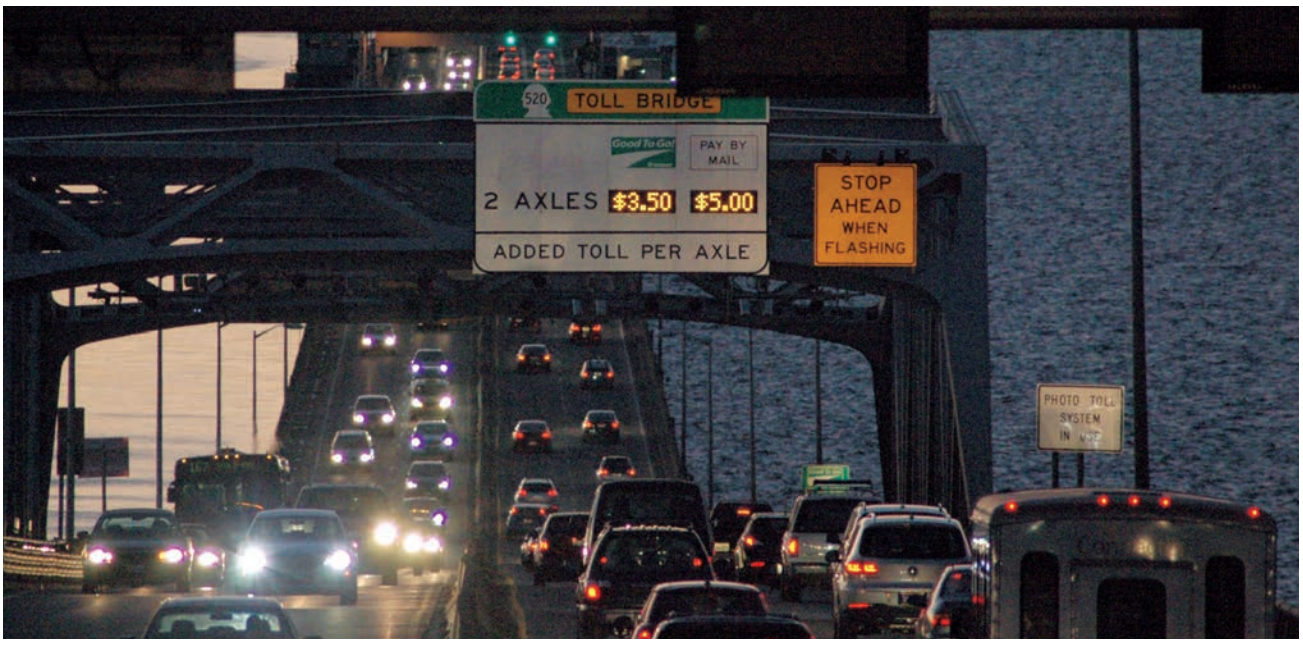
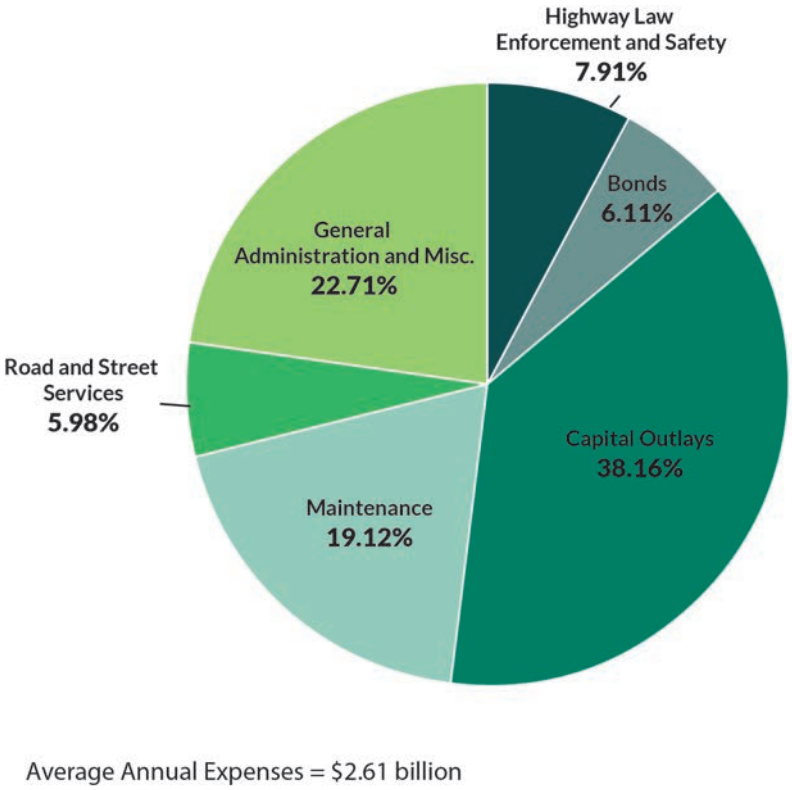


Figure 10 shows the five-year average of the sources of transportation funds available for state and local transportation agencies. This chart is for illustrative purposes only.

Figure 10: Annual Average Transportation Revenue Breakdown by Source (2011-2015)



Note: Sound Transit is not included in Figure 10.

Currently the state fuel tax is set by the legislature at 49.4 cents per gallon and generates approximately $3 billion per biennium.

State 49.4 Cent Fuel Tax Breakdown

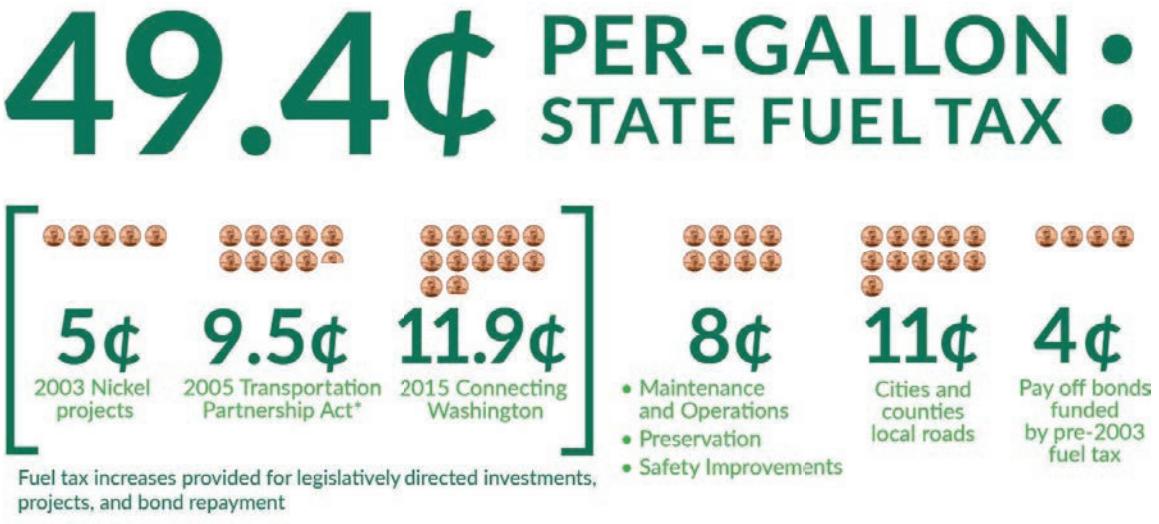
The state fuel tax is the single biggest source of transportation revenue for state and local governments. In the 2015-2017 biennium, state fuel taxes accounted for more than $3 billion of the $8.6 billion state transportation budget.

As Figure 11 illustrates, the state Legislature requires portions of this tax be spent for specific purposes:

- 5 cents must be spent on the projects included in the Washington state legislation known as the 2003 Nickel Package. 5 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.

- 9.5 cents must be spent on transportation projects included in the Washington state legislation known as the 2005 Transportation Partnership Act. 9.5 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.
- 11.9 cents must be spent on the improvements contained in the Washington state legislation known as the 2015 Connecting Washington package. 11.9 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.
- 11 cents must be spent by cities and counties on local roads, subject to local requirements. As shown on page B2, some of this 11 cents is allocated directly to cities and counties and some is granted by state agencies.
    - 2.96 cents goes directly to cities.
    - 4.92 cents goes directly to counties.
    - 3.12 cents is distributed to counties or cities through grant programs administered by County Road Administration Board (CRAB), Transportation Improvement Board (TIB), and the Freight Mobility Strategic Investment Board (FMSIB).
- 4 cents is spent to pay off the bonds and interest funded before the 2003 Nickel projects.
- 8 cents to WSDOT to maintain, operate, preserve, and make safety improvements to the state highway and ferry systems.

Figure 11: Gas and Special Fuel Tax Breakdown



Audits and Accountability

State law (chapter 43.09 RCW[26]) authorizes the State Auditor to perform audits and investigations of the accounts of all state and local agencies. The audits comply with professional standards and to satisfy the requirements of federal, state, and local laws. For more information, see the Office of the Washington State Auditor at http://www.sao.wa.gov.

OFM provides information, fiscal services, and policy support to the Governor, Legislature, and state agencies. This information includes statewide transportation statistics included in the Washington State Data Book[27].

The Washington State Legislative Evaluation and Accountability Program (LEAP) Committee[28] is the Legislature's independent source of information and technology for developing budgets, communicating budget decisions, and tracking revenue, expenditure, and staffing activity. LEAP also provides consulting to legislative committees and staffs, and provides analysis and reporting on special issues at legislative request. For more information, including budgets and reports, see their website at http://leap.leg.wa.gov/.

For more information see, Appendix B, the Joint Transportation Committee Transportation Resource Manual[29]

CLIMATE CHANGE

According to the Washington State Department of Ecology, the climate change effects facing the state are extreme weather, reduced snow pack, rising sea levels, and warmer temperatures. All of these outcomes have potential to affect the statewide transportation system.

The Climate Impacts Group of the College of the Environment at the University of Washington lists projected changes and impacts due to climate change in Table 4[30] :

26 http://app.leg.wa.gov/RCW/default.aspx?cite=43.09
27 https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-state-data-book
28 http://leap.leg.wa.gov/
29 http://leg.wa.gov/JTC/trm/Pages/TRM2017.aspx
30 "Guidance for Considering Impacts of Climate Change in WSDOT Plans," http://www.wsdot.wa.gov/sites/default/files/2017/07/24/GuidanceDoc-ConsideringClimateChangeInWSDOTPlans.pdf

Table 4: Potential Climate Impacts in Washington

Projected Climate Change	Potential Impacts on Certain State-Owned Facilities (Highways, Rail, Airports, and Ferries)
• Increase in average winter precipitation and more extreme precipitation • Change in timing of precipitation (more rain, less snow) • Change in storm track with some extreme storms with higher than normal snow accumulation	• More rock fall, mudslides, sink holes, roadbed failure • Increased large scale river flooding (bridge scour, roadway erosion, inundation) • More localized flooding due to poor drainage or higher groundwater table • Severe wind related road closures • Blown down trees, signs • Less snow removal, on average (some extreme snows)
• Sea-level rise, higher storm surge • More frequent and extensive inundation of low-lying areas (both temporary and permanent)	• Coastal erosion and landslides weaken roadbed and bridge footings • Damage to stormwater drainage and tide gates • Saltwater corrosion of facilities • Detours around frequently flooded coastlines
• Higher average temperatures • Increase in extreme heat events (heat waves) • Drought and low stream and ground water flow	• Wildfire or extreme fire risk • Adverse impacts on road and rail tracks (buckling) • Loss of roadside vegetation (leading to erosion and landslides) • Wetland site failure

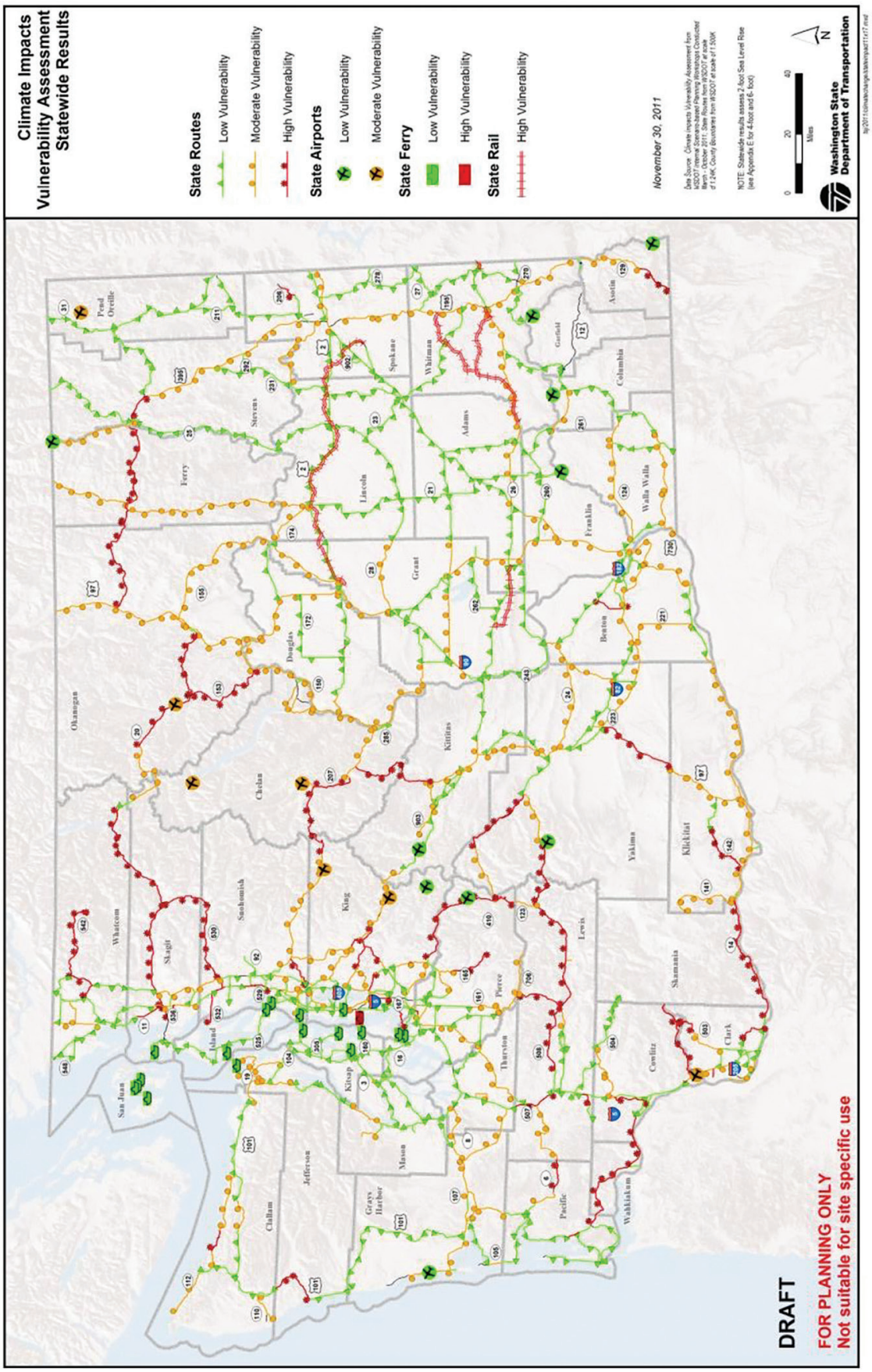


Figure 12: Climate Change Vulnerability

WSDOT completed a statewide assessment of climate vulnerability of state-owned transportation assets in 2011. Figure 12 highlights areas on or adjacent to state owned highways, airports, ferries, and rail that may be vulnerable to climate change. The data are generally suitable for statewide planning purposes but not for specific locations. In general, areas shown with high impact are:

- In the mountains.
- Either above or below steep slopes.
- In low-lying areas subject to flooding.
- Along rivers that are aggrading due to glaciers melting.
- In low-lying coastal areas subject to inundation from sea level rise.

WSDOT and other state agencies partner with local communities and the private sector to provide guidance on potential climate threats and planning for climate resilience through best practice actions. These actions include vulnerability assessments, community adaptation plans, hazard management plans, emergency response plans, and other efforts in coordination with key partners.[31]

NATURAL DISASTERS

In addition to climate change, Washington's transportation system faces natural disasters, such as flooding, landslides, avalanches, drought, wildfires, storm surges, earthquakes, tsunamis, tornadoes, and volcanoes. Immediate impacts include damage to infrastructure, disruptions to service, and disruptions to moving people and freight.

Federal law (the Stafford Act[32]) authorizes states, territories, republics, and Indian Tribal Governments to request a president issue a disaster declaration. A disaster declaration provides a wide range of federal assistance programs for individuals and public infrastructure, including funds for both emergency and permanent work. There have been 43 approved disaster declarations in Washington between January 2007 and January 2018. Some recent examples include:

- In 2014, over 150 wildfires started in North Central Washington on July 8 and continued to burn into September. The fires consumed more than 255,164 acres, 300 homes, thousands of acres of rangeland, and 100 acres of fruit orchards.
- In 2015, a 10-day winter storm event (November 12-21) included heavy rainfall, winds, flooding, landslides, and mudslides resulting in total damages of more than $21 billion.
- In 2015, a two-week winter storm event (December 1-14) included winds, flooding, landslides, mudslides, and a tornado resulting in total damages of $19.3 million. Roads and bridges comprised almost 54 percent – or $10.4 million.

31 "Plan for Climate Resiliency," https://transportationefficient.org/healthy-safe-communities/plan-climate-resiliency/ & "Guidance for Considering Impacts of Climate Change in WSDOT Plans," http://www.wsdot.wa.gov/sites/default/files/2017/07/24/GuidanceDoc-ConsideringClimateChangeInWSDOTPlans.pdf

32 Federal Emergency Management Agency: https://www.fema.gov/disaster-declaration-process

- In 2017, a three-week winter storm event (January 30 - February 22) included snow, ice, rain, high winds, flooding, landslides, and mudslides. Approximately 750 roads were damaged and all three passes over the Cascade Mountains (I-90, US 2, and US 12) were simultaneously closed for the first time since 2008. The damages exceeded $27 billion.

To ensure that the state is ready to meet the challenges brought on by disasters, the Washington Military Department[33] coordinates preparation, response, recovery, and resiliency efforts with federal, state, tribal, and local governments to respond to these disasters. This response includes drills such as Cascadia Rising in 2016, the largest earthquake exercise in state history. The drill simulated a magnitude 9.0 Cascadia Subduction Zone earthquake and tsunami along the Washington and Oregon coast. Thousands of people from Washington, Idaho, and Oregon, participated in the region-wide drill to test a joint response to such an event. The exercise identified challenges with backup communication systems between jurisdictions, the ability to receive resources, and measuring progress towards being prepared.

The December 2007 flooding of Chehalis, including I-5.

TECHNOLOGY

Technological innovations are changing not only the way people and goods travel, but the roles that transportation agencies and service providers play. Trip planning has changed from using paper maps to using phones to plan routes, summon travel services, and pay fares and fees.

33 https://mil.wa.gov/emergency-management-division

The U.S. Department of Transportation Volpe Center[34] identifies these eleven technological advances and innovative concepts that could fundamentally alter the transportation landscape:

- Additive manufacturing (3-D printing).
- Advanced analytics and machine learning.
- Automated vehicles.
- Hyperloop.
- Infrastructure inspection robots.
- Innovative concepts for protecting pedestrians, bicyclists, and motorcyclists.
- The Internet of Things.
- Materials science in infrastructure.
- On-demand ride services (transportation network companies).
- Unmanned aircraft systems (UAS).
- Wireless power transfer.

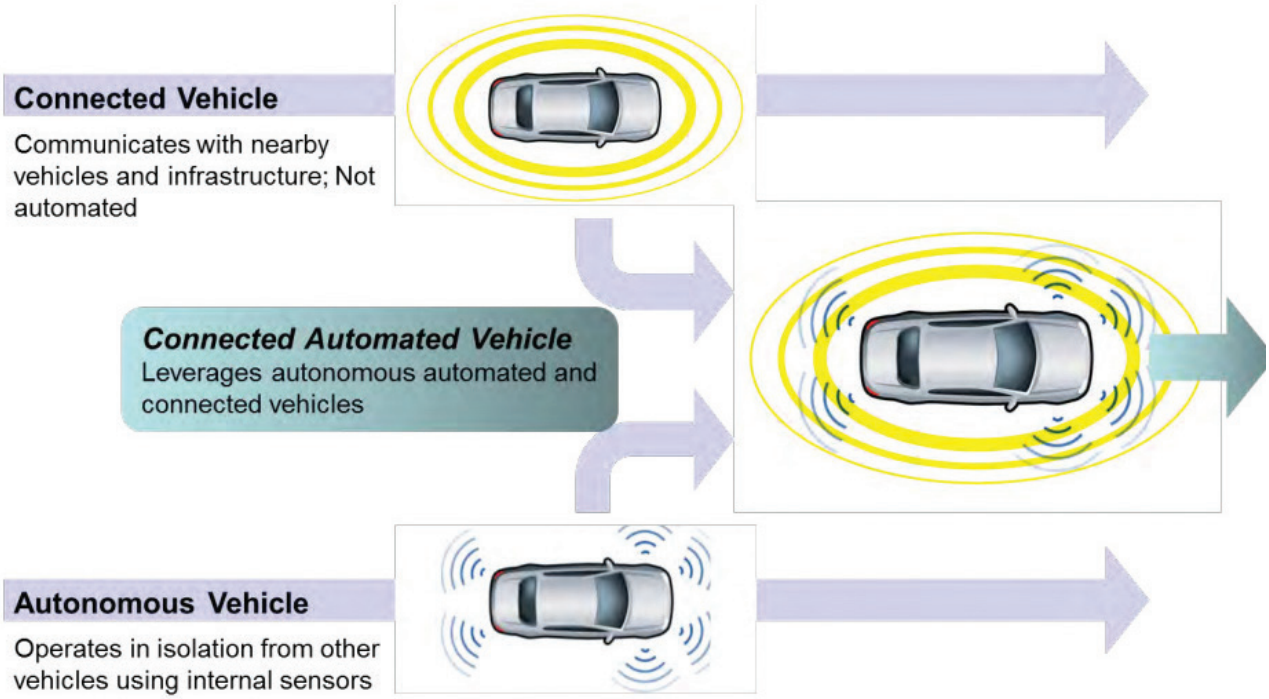
Connected and Autonomous Vehicles (CAV), Electric Vehicles, and Shared Mobility are all technological developments that will have significant implications on our transportation system. While FHWA predicts CAVs will significantly increase safety and reduce crashes, researchers and analysts do not agree on whether these developments will drastically, increase or decrease vehicle miles traveled (VMT). Anticipating and planning for the interaction of these developments may not be easy, but planners should take a number of possibilities into consideration.

For example, if shared mobility and CAVs develop and quickly become dominant vehicles, do plans consider the impacts on an increase in parking demand, or a substantial decrease in parking demand? What will the demand be for park and rides in a CAV dominant scenario? How will plans consider the changes in associated land use? How can CAVs be an extension to a robust transit system to provide first and last mile connections? At the end of the day, any long-range planning process needs a thorough exploration of the potential impacts to the transportation system given a wide array of potential outcomes.

Technological innovations will be further explored in Action Item MG1 and in the update to Phase 1.

34 https://www.volpe.dot.gov/news/11-emerging-technologies-could-have-major-impacts-transportation

Figure 13: What is a Connected Autonomous System?



CLEAN TRANSPORTATION

Governor Inslee's strategic framework for Washington (Results Washington[35]) includes measures to reduce the state's greenhouse gas emissions and concludes that greenhouse gases contribute to climate change.

Background: The largest source of greenhouse gases in Washington state is transportation. Under Washington law, greenhouse gas emissions are to be reduced to 1990 levels by 2020. For Washington to meet its statutory limits on greenhouse gas emissions, the volume of emissions from transportation must be reduced. The target of 37.5 million metric tons per year in 2020 equals the statewide greenhouse gases from transportation in 1990.

Status: There has been a downward trend in greenhouse gas emissions from transportation sources since 2008 due to slower growth in economic activity, higher fuel prices, and improved fuel efficiency of vehicles. However, Washington state is not projected to meet the statutory goal of 37.5 million metric tons per year for transportation by 2020[36].

35 https://www.governor.wa.gov/issues/issues/transportation
36 https://data.results.wa.gov/en/stat/goals/jwmx-2eqx/6rbf-43qk/m9ep-tu5s/view

Strategies: The state has a number of initiatives underway, including:

- Adopting policies to encourage the development, introduction and use of biofuels through a Renewable Fuels Standard (RFS).
    - All Washington State Ferries and King County Water Taxi vessels have switched to biodiesel.
- Adopting clean car standards for new vehicles that will reduce greenhouse gas emissions by an estimated 34 percent by 2025.
- Adopting hybrid electric and plug-in electric vehicles at a faster pace than most states in the country.
- Expanding the network of electric re-charging stations that will help push future adoption by ensuring abundant charging opportunities for extended travel distances.
    - The West Coast Green Highway is an effort to provide charging stations that connect from Baja California to British Columbia. WSDOT administers the Electric Vehicle Infrastructure Pilot Program[37] that provides grants for strategically located charging stations along this highway network.
- Changing the sources of energy.
    - Sound Transit will run on 100 percent clean energy starting in 2019[38].
- Providing incentives to employees to use alternative modes of travel to reduce fuel use, such as carpools, vanpools, rideshares, transit passes, and telework.
- Adopting policies to purchase replacement vehicles that are more fuel-efficient or that use alternative fuels.
    - Spokane Transit[39] has 22 diesel hybrid busses in their fleet.
- Implementing demand management strategies such as creating more high occupancy vehicle lanes, providing hard shoulders for buses, and improving connections between modes[40].

37 http://www.wsdot.wa.gov/Funding/Partners/EVIB
38 https://www.soundtransit.org
39 https://www.spokanetransit.com/ride-sta/sta-hybrids-facts
40 https://www.wsdot.wa.gov/Choices/TDMQnA.htm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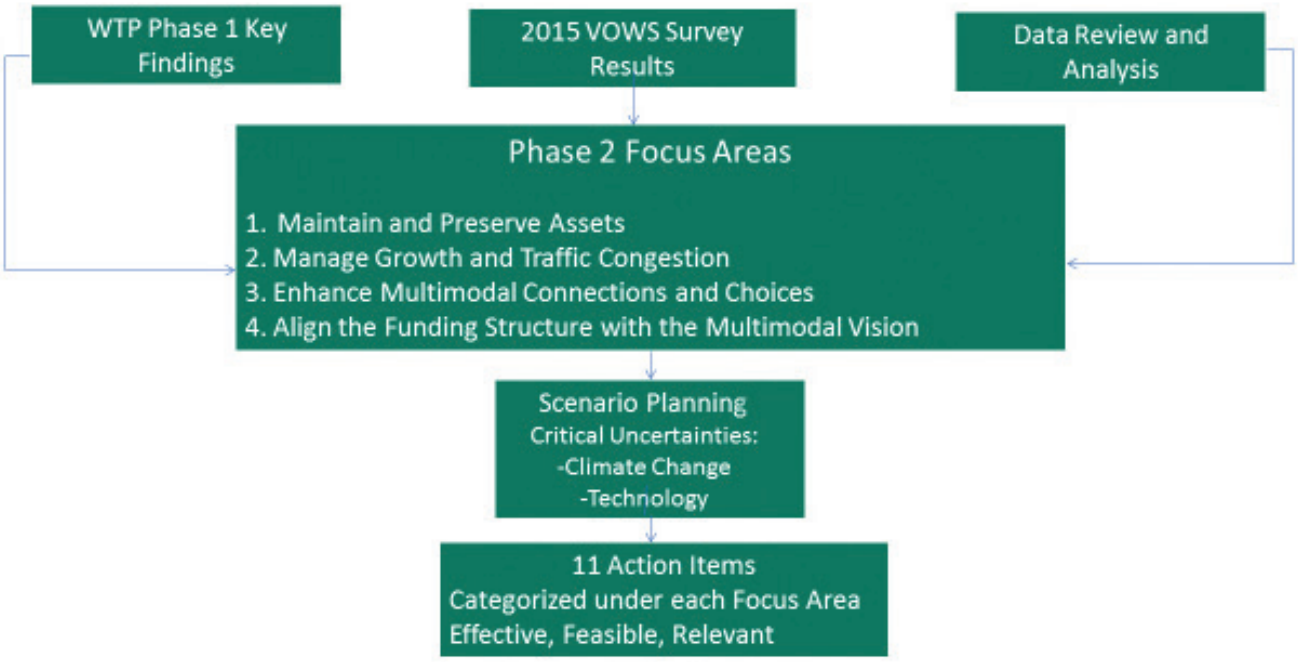
CHAPTER 5
REACHING THE VISION

As the trends identified in the previous chapter continue, Washington's statewide transportation system will continue to see growing demand for moving people and goods. While Phase 2 cannot predict the future for many of these trends, this chapter lays out a path to the Vision through the Focus Areas, the Scenario Planning effort, the Action Items, and the steps and partners that will accomplish them.

With the challenges facing Washington's transportation system, the Project Team and partners identified four Focus Areas that consistently rose to the top as crucial to reaching the Vision. These topics came up consistently as key findings from Phase 1, the Voice of Washington State Survey, and data review and analysis from other plans. This chapter provides information on the Focus Areas, the Action Items that support them, and the steps and partners that will accomplish them.

Figure 14: Reaching the Vision: Focus Areas and Action Items



FOCUS AREAS

The following four Focus Areas serve as the pillars of the plan. They shaped the Scenario Planning effort and are the organizing concepts for the Action Items. The Focus Areas are summarized below and discussed in more detail in Appendix D.

MP

Maintain and Preserve Assets: There is inadequate funding to both maintain and expand the transportation system. Jurisdictions in Washington struggle to keep up their transportation facilities from increasing demand on their networks due to population growth, increased economic activity, and emergency incidents.

MG

Manage Growth and Traffic Congestion: Past practices have led to congestion and inefficiency across the transportation network, and we are on the cusp of significant technological advances. Many communities around Washington state are running out of space to build more roadway capacity. Nevertheless, keeping people and goods moving is critical to Washington's thriving economy and people.

EC

Enhance Multimodal Connections and Choices: Unreliable travel times and poor connections between different travel modes exist throughout the state and local jurisdictions. There are over 400 agencies and jurisdictions responsible for transportation in Washington. Efficient operation and coordination between these various parties are crucial to providing reliable travel opportunities for all users.

FS

Align the Funding Structure with the Multimodal Vision: The current funding structure often prevents jurisdictions from working together to achieve performance objectives.

BUILDING A RESILIENT PLAN

Governor's Executive Order 14-04, the Washington Carbon Pollution Reduction and Clean Energy Action, directed WSDOT to utilize Scenario Planning when updating the Washington Transportation Plan. Scenario Planning provides a framework for furthering a resilient transportation system – one that can reach the Vision for transportation despite an uncertain future. The Scenario Planning process undertaken in Phase 2 illustrates which Action Items will move Washington toward the Vision under all scenarios and which may only be useful in certain cases.

The two critical uncertainties that Phase 2 explored for Scenario Planning are climate change/natural disasters and technological advances. The term "critical uncertainties" refers to the factors with the greatest degree of uncertainty and the highest impact on the ability to achieve the Vision. These uncertainties frame the Scenario Planning process as shown in Figure 15. Through exploring the potential future of transportation in Washington under each of these scenarios, the Project Team and partners created four scenarios:

- Resiliency
- Preparedness
- Resourcefulness
- Reaction

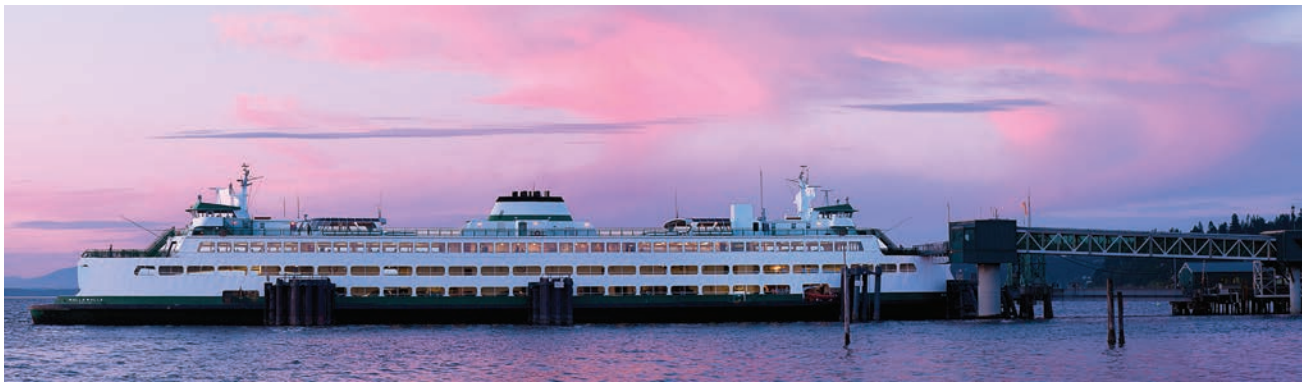
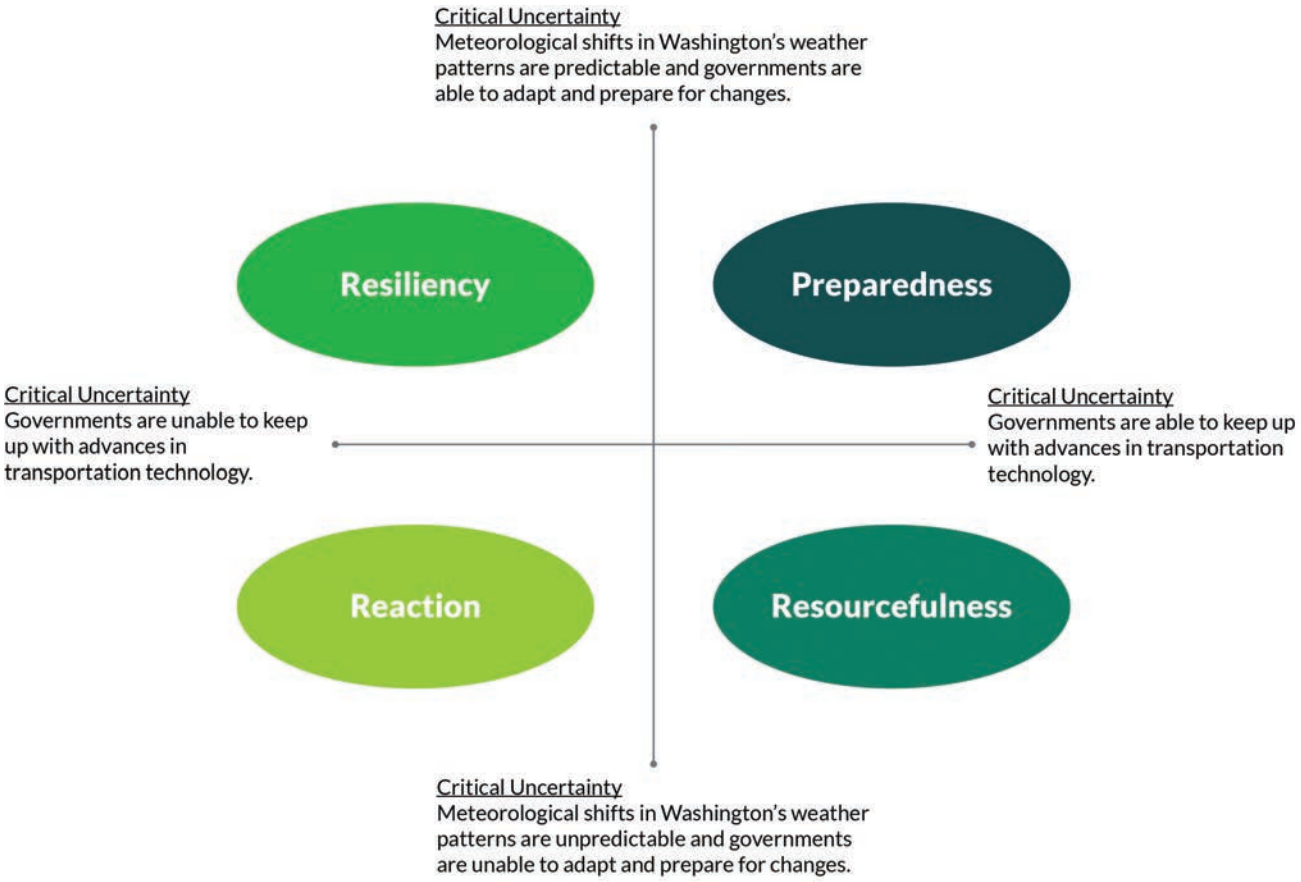


Figure 15: Critical Scenarios Matrix



The major themes that emerged from developing the scenarios are below and more detail is available in Appendix D.

- Equity: Each of the groups described ways in which inequality could be exacerbated by the uncertainties associated with their scenarios. Each scenario highlights concerns about how to ensure equity in the distribution of services, the mitigation of impacts, and the access to opportunities.
- Regulations: Government may be able to use regulatory powers to minimize impacts and address equity, but regulations can have unintended consequences. In a rapidly changing world regulations can hinder nimble and responsive actions that help the transportation network keep up with rapidly changing conditions.
- Collaboration: Between different levels of government or between government and private sector, collaboration is important for reaching the Vision in each scenario. Opportunities to increase collaboration and coordination match the risks associated with decreased collaboration, increased balkanization, and spillover effects on public trust towards government that are possible in some of the scenarios.

- Land Use: Whether depicting a more optimistic or pessimistic future, each scenario describes implications for the way Washington's communities grow, and with that, the kind of transportation system needed to support those communities and the travel choices available to people.
- Adaptability: The importance of adaptability - of government being able to respond and be nimble in its decision making even in the face of uncertainties and rapidly changing situations – is central to each scenario. Adaptability equates to responsiveness; the more dire the circumstances, the more critical the need for adaptation and a responsive government. It also corresponds to resiliency and reliability, essential characteristics for the state's transportation system in the face of an uncertain future.
- Practical Solutions: This term is used throughout the Action Items and it is generally considered to be an approach to increase the focus on transportation system performance and enable more flexible and sustainable transportation investment decisions. The approach includes increasing collaboration with communities and partners as we identify needs and develop coordinated strategies to address the needs. By using this approach, transportation investments can be made at the right place and time for the lowest cost.

ACTION ITEMS

Using the Focus Areas and Scenario Planning effort in combination with the conditions, performance expectations, and needs for the transportation system, the Project Team established a list of Action Items. While WSDOT is the lead agency for Phase 2, these Action Items affect all publicly funded transportation agencies across the state. The list may seem short for a long range planning effort, but many of these Action Items are major undertakings that will take years to accomplish. As the partners accomplish Action Items, new ones will replace completed ones. Each Action Item is:

- Necessary for accomplishing the Vision.
- Tied to policy recommendations from Phase 1.
- Based on conditions, performance expectations, needs, data collection, and analysis.

MP Maintain and Preserve Assets

MP1: Maintain, preserve, and operate assets and manage demand to meet desired performance on multimodal transportation systems before funding expansion projects.

Background: Various transportation assets around the state are deteriorating to the point where it will be more cost-effective to replace rather than repair them. For example, the ferry fleet continues to age faster than it is being recapitalized. To successfully reach the Vision, communities need an emphasis on maintenance and preservation programs to extend the life of assets and minimize costs over the life cycle of the system.

Action Steps:

- Identify funding streams from all levels of government that can fund maintenance, preservation, operations, demand management, and capacity expansions.
- Work with all parties involved to establish desired performance for multimodal transportation systems.
- Better align funding streams with performance through Practical Solutions to focus on maintenance, preservation, operations, and demand management.

MP2: Support ways to help jurisdictions, transportation asset owners, and transportation service providers prepare for, respond to, and become resilient to emergencies and disasters.

Background: Emergency and disaster response exercises have revealed gaps to achieving a unified response. All jurisdictions, transportation asset owners, transportation service providers, and emergency responders in Washington must be ready to act in a coordinated manner for safe and timely response to emergencies and disasters.

Action Steps:

- Include planning that will support efforts to address Resilient Washington recommendations and actions.
- Ensure that resource sharing and interagency emergency coordination memorandums of understanding and agreements between local, regional, and state transportation agencies and service providers are complete and up-to-date and that key personnel are aware of their existence and potential uses.
- Assess data about potential transportation needs in the event of an emergency or disaster, identify gaps and opportunities, and recommend improvements.

MG Manage Growth and Traffic Congestion

MG1: Promote transportation-efficient communities by coordinating and providing state agency technical assistance to emphasize the link between land use and transportation at all levels of government, the private sector, and other organizations.

Background: Development patterns in many areas of the state result in greater demand on limited transportation networks, leading to negative outcomes for the health of Washington's citizens, environment, and economy. The state Growth Management Act encourages communities and state agencies to work together to manage growth effectively.

Action Steps:

- Identify resource gaps and explore ways to further encourage adoption of strategies that promote transportation-efficient communities.
- Implement strategies that support efficient development patterns, designs, and access to land use.
- Share data, policy briefs, training materials, best practices, and other resources.
- WSDOT will participate in Ruckelshaus Center growth management studies.

MG2: Prioritize access for people and goods instead of throughput for vehicles to improve multimodal options, livable communities, and economic vitality for people and businesses.

Background: Commonly used measurement methods for vehicle throughput ignore the number of passengers in vehicles, active transportation mode share, and value of goods being transported. The multimodal transportation system can offer access for people and goods in many ways, often more efficiently. Decision makers need better data and tools to support livable communities and economic vitality for people and businesses.

Action Steps:

- Identify methods, data, and tools to measure access for people and goods.
- Evaluate the application of access measures in different transportation planning and decision-making processes.
- Explore connections between established levels of service and ability for condensed growth.
- Develop, disseminate, and adopt best practices for measuring access for all modes.

MG3: Research, evaluate, adapt to, and deploy technologies and innovations in all modes; share best practices.

Background: New transportation technologies and innovations frequently affect travel more quickly than government is able to keep up. Governments and transportation innovators need to coordinate efforts more closely in order to smoothly incorporate appropriate advances to the multimodal system.

Action Steps:

- Explore plausible and desired futures.
- Research trends in emerging technologies and innovations.
- Determine related transportation system needs.
- Identify opportunities for technologies and innovations to address these needs.
- Deploy technologies and innovations or execute pilot projects to test them; provide and circulate recommendations to interested parties.

EC Enhance Multimodal Connections and Choices

EC1: Work to achieve better travel time reliability and door to door multimodal connections for people of all backgrounds and abilities through continued application of Practical Solutions.

Background: Travel times and connections for multiple modes can be unreliable for trips both short and long. From freight and logistics companies scheduling deliveries to commuters deciding how to travel to work and when to leave, predictable movement of people and goods is crucial for a healthy statewide transportation system.

Photo: Clallam Transit System

Action Steps:

- Propose metrics to track travel time reliability, network completeness, and multimodal connections for all users.
- Develop case studies and best practices for applying Practical Solutions to improve reliability and multimodal connections.
- Create template for reporting the effect on travel time reliability and multimodal connections.
- Disseminate metrics, best practices, and reporting templates for implementation in collaboration with partners.

EC2: Provide transportation facilities and services to support the needs of all communities, with a focus on equity for populations with specialized needs, those in rural areas, and those who are traditionally underserved.

Background: Jurisdictions, transportation agencies, and service providers around Washington are at different stages of accommodation for users with special transportation needs. An individual living with good access to transportation has more opportunities than someone reliant on limited options, and these connections become more important as the cost of housing in centrally located areas increases. All users need the ability to access and utilize the multimodal transportation network.

Action Steps:

- Document ongoing needs of populations with special transportation needs, those in rural areas, and those who are traditionally underserved.
- Determine ongoing needs of transportation service providers and asset owners to support these populations.
- Establish and document measurable strategies to improve access to goods, services, and opportunities for these populations For example, examine the jobs/housing balance.
- Track the implementation of strategies to provide facilities and services that support the needs of these populations; share leading practices.

EC3: Adopt metrics for all modes to align with performance objectives.

Background: Metrics for evaluating investments in multimodal transportation are evolving and have not yet been established in Washington. While community needs and priorities differ, accepted ways of measuring progress toward these priorities can ensure that all jurisdictions are able to achieve their performance objectives.

Action Steps:

- Research evaluation methods, including identification of how investments affect all modes regardless of funding source or project scope.
- Establish metrics and evaluation programs that include equity.
- Determine steps for adopting metrics into policy documents.
- Recommend, implement, and disseminate evaluation metrics.

FS Align the Funding Structure with the Multimodal Vision

FS1: Support funding flexibility to reduce barriers to creating an integrated multimodal system that achieves performance objectives.

Background: Transportation funding is frequently divided up into silos that make investments in the transportation network challenging and create barriers to meeting performance expectations for issues such as travel time reliability, multimodal connections, equity, and modal choice.

Action Steps:

- Identify common circumstances where restrictions exist that prevent use of available funds.
- Document opportunities and risks to providing flexibility in use of these funds.
- Recommend steps to improve funding flexibility with considerations for equity, including seeking legislative authority to optimize the use of public funds where necessary.

FS2: Work to diversify and strengthen transportation revenue sources to hedge against inflation and economic downturns.

Background: Gas tax revenues are predicted to decrease in the future due to increased fuel efficiency and vehicles powered by alternative fuels. Bond repayments are legally tied to future gas tax revenues, so jurisdictions statewide will need reliable and sustainable revenue sources that do not compromise existing indebtedness.

Action Steps:

- Explore alternative transportation funding strategies.
- Assess how different funding methods impact users, potential transportation revenues, and existing indebtedness.
- Propose funding options that can strengthen and diversity our transportation funding structure.

FS3: Address the constraints and opportunities for public-private partnership programs.

Background: Public agencies and private sector companies indicate interest in public-private partnerships generally, but few of them currently move forward. With transportation funding continuing to devolve from the federal level to states and local jurisdictions, there may be increased interest in public-private partnerships.

Action Steps:

- Determine constraints and opportunities for public-private partnerships.
- Explore options for funding and financing.

- Develop strategies to overcome or address these constraints to public-private partnerships while safeguarding equitable access to the transportation system.
- Identify areas of opportunity where public-private partnerships can address transportation needs.

ACTION ITEMS AND RESILIENCY

The Scenario Planning process and the Action Items make Phase 2 a resilient plan by ensuring that steps the Project Team and partners take toward the Vision are robust across multiple scenarios. An Action Item is robust in a scenario if it is feasible in the circumstances, effective at moving toward the Vision, and relevant to the context. While assembling the list of Action Items, the Project Team and partners prioritized choices that proved robust under multiple scenarios. Table 5 illustrates the robustness of each Action Item across the scenarios. Note that some Action Items are less robust than others, but still highly important for the success of Phase 2.

Table 5: Robustness Checklist

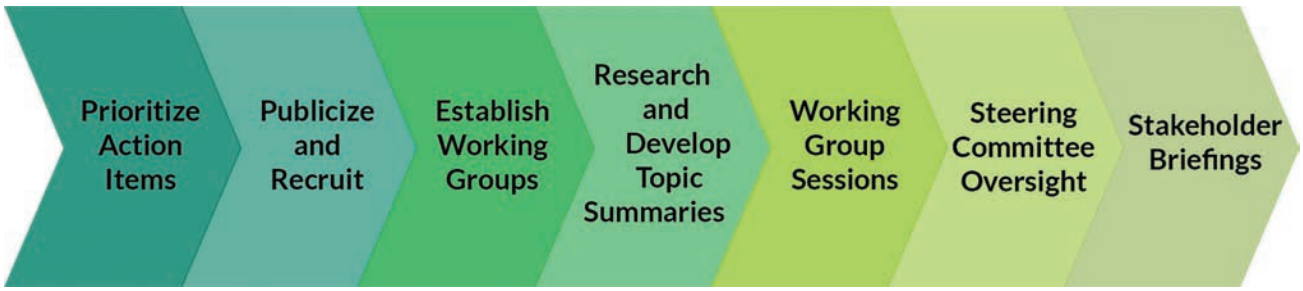
Focus Areas	Scenarios			
	Resiliency	Preparedness	Resourcefulness	Reaction
MP1	✓	✓	✓	✓
MP2	?	✓	✓	?
MG1	✓	✓	✓	✓
MG2	✓	✓	✓	✓
MG3	x	✓	✓	x
EC1	x	✓	x	x
EC2	✓	✓	✓	✓
EC3	x	✓	✓	x
FS1	✓	✓	✓	x
FS2	x	✓	x	x
FS3	✓	✓	✓	✓

✓ = Is robust in scenario | ? = Robustness depends on some outcomes in scenario | X = Is not robust in scenario

MOVING FORWARD

Implementing these Action Items and steps will involve a collaborative effort between many partner organizations. The implementation efforts of the Phase 2 Action Items may identify a need to amend or identify new policies, rules, and laws as well as issues for consideration in future plan updates and other planning efforts. In the end, the aim of the Action Items is to achieve state, regional, and local performance goals. The process, tasks, and products outlined below provide a path forward for implementation of the Phase 2 Action Items and steps.

Figure 16: Phase 2 Action Item Work Plan Tasks



Task: Prioritize Phase 2 Action Items

With input from all partners regarding ongoing efforts, opportunities to collaborate, and areas of interest, the Steering Committee prioritizes the Action Items.

Potential prioritization criteria:

- Ability to leverage funding.
- Part of current/upcoming planning effort.
- Opportunities for early accomplishments.
- Federal or state requirement.

Product: Prioritized list

Task: Publicize and Recruit

Members of the Phase 2 Advisory Group and other organizations and agencies offered comments during the plan development process and expressed interest in being involved in plan implementation. After the Steering Committee prioritizes the Action Items, the Phase 2 Project Team will publicize the opportunity and recruit relevant agencies, organizations, and other stakeholders to participate.

Examples of Publicizing: Website, email contact, regularly scheduled meetings with partners.

Product: Lists of stakeholders interested in implementing the Action Items.

Task: Establish Working Groups

The Phase 2 Project Team establishes working groups to collaborate in implementing the prioritized Action Items.

Product: Groups of stakeholders committed to actively working on implementation of the Action Items.

Task: Research and Develop Topic Summaries

The Phase 2 Project Team, with involvement from Working Group members, will undertake policy scans, literature reviews, and other research efforts to develop topic summaries and other materials for the Working Groups. The Project Team will coordinate with ongoing planning efforts to incorporate information from these various plans into the Action Items implementation.

Product: Short summaries of findings from research and other ongoing planning efforts for sharing with Working Groups, Steering Committee, WSTC, WSDOT staff, and other interested parties – these will be shared via email, website, and print with an emphasis on interactive web content.

Task: Working Group Sessions

Each Working Group will meet (frequency to be determined) to strategize ways to complete Action Steps, and make recommendations for topics to share with all partners. These strategy sessions will include the research and review of relevant materials. One outcome of these sessions will be identifying opportunities to inform the decision making process for each Action Item. Working Groups may wish to include additional staff or subject matter experts to inform their sessions.

Product: summaries, topics for discussion, proposed actions and recommendations for Steering Committee review and approval.

Task: Steering Committee Oversight

Similar to the Phase 2 plan development process, implementation of the Action Items will involve consultations with the Steering Committee. The Steering Committee will:

- Prioritize the Action Items.
- Confirm interpretations and updates of Focus Areas, Action Items, and Action Steps to maintain alignment with policy plan update.

Product: Decisions on topics from all partner sessions, recommendations to move forward with proposed actions, review and approval of major deliverables.

Avalanche control on SR20. http://www.wsdot.wa.gov/maintenance/avalanche/default.htm

APPENDICES

APPENDIX A:
TECHNICAL MEMORANDUM #1
VISION, POLICIES, GOALS

CONTENTS

PURPOSE

This memo includes the Vision, policies, and key findings that will guide the Washington State Department of Transportation (WSDOT) during development of the Washington Transportation Plan, Phase 2 – Implementation 2017-2040 (Phase 2). WSDOT researched and analyzed information from transportation plans, studies, laws, rules, and guidance documents.

The memo has the following purposes:

- Document information and sources used.
- Reference guide for transportation planners developing other plans and studies.

BACKGROUND

The WTP established a 20-year Vision for the development of the statewide transportation system. The WTP is updated in two phases:

- **Phase 1 – Policy** (Phase 1) is the update to the WTP 2030 that provides policy guidance and recommendations for all transportation modes. Phase 1 is based on the six transportation policy goals established by the Legislature: preservation, safety, mobility, environment, stewardship, and economic vitality (RCW 47.04.280[1]). The Washington State Transportation Commission led and adopted it as the WTP 2035, and delivered it to the governor and the Legislature in January 2015.
- **Phase 2 – Implementation** (Phase 2) is an update to the 2007-2026 WTP that meets the federal and state requirements for the long-range statewide transportation plan. It implements policy recommendations from Phase 1 for the state's multimodal transportation system. This system includes public roads, ferries, public transportation, aviation, freight and passenger rail, ports, and active transportation. Implementation of the WTP is a statewide responsibility led by WSDOT but completed with cooperation from metropolitan planning organizations (MPOs), regional transportation planning organizations (RTPOs), transit agencies, tribal governments, ports, advocacy groups, government agencies, and communities in order to achieve the plan's Vision.

The WTP's Vision Statement is:

"By 2035, Washington's transportation system safely connects people and communities, fostering commerce, operating seamlessly across boundaries, and providing travel options to achieve an environmentally and financially sustainable system." (Phase 1, page 14)

WSDOT must follow federal and state requirements for plan process and plan content. The state requirements are found in Title 47 Revised Code of Washington (RCW), primarily in chapter 47.06. The federal requirements are found in Title 23 U.S. Code, primarily in Section 135 and chiefly in Part 450 of Title 23 Code of Federal Regulations (CFR).

1 http://apps.leg.wa.gov/RCW/default.aspx?cite=47.04.280

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) require statewide transportation planning self-certification. As part of the self-certification, WSDOT will make available to FHWA and FTA a crosswalk that shows how federal requirements are addressed in Phase 2.

Potential Environmental Mitigation

Phase 2 does not include a discussion of potential environmental mitigation, because it does not contain a project list. WSDOT and its partners maintain regular contact with federal, state, and local environmental regulatory agencies to ensure proper permits and regulations are followed. Projects that require federal approval or receive federal funding may be subject to the National Environmental Policy Act (NEPA) review process. Projects that require state approvals or permits may be subject to the State Environmental Policy Act (SEPA) review process. NEPA and SEPA reviews address potential adverse impacts to the natural and built environment. The natural environment includes fish and wildlife habitat, threatened and endangered species, water quality, and air quality. The built environment includes cultural resources, historical resources, and the transportation system. The public is invited to participate in the NEPA[2] and SEPA[3] processes.

GOALS

Federal and state laws established the goals for transportation in RCW 47.04.280[4], 23 USC Sec 135[5], and 23 USC Sec 150[6].

GOVERNOR'S EXECUTIVE ORDERS

As a state agency, WSDOT is required to comply with all of the Governor's Executive Orders[7]. The following orders have specific requirements related to statewide planning that WSDOT will follow:

- **14-04 WASHINGTON CARBON POLLUTION REDUCTION AND CLEAN ENERGY ACTION**: This order requires WSDOT to include strategies that increase efficiencies, reduce costs, and reduce greenhouse gas emissions.
- **13-04 RESULTS WASHINGTON**: This order requires state agencies to adopt a LEAN culture and to increase citizen engagement, increase employee engagement, engage in cross-agency collaboration, regularly report to the governor, align with the five goal areas in Results Washington, and increase accountability. Phase 2 will implement these provisions in this order:

2 https://www.fhwa.dot.gov/
3 https://ecology.wa.gov/
4 http://apps.leg.wa.gov/RCW/default.aspx?cite=47.04.280
5 https://www.ecfr.gov/cgi-bin/text-idx?SID=2656ebeea82e8ee3a2d1a9907c38c216&mc=true&node=se23.1.450_1206&rgn=div8
6 http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section150&num=0&edition=prelim
7 https://www.governor.wa.gov/office-governor/official-actions/executive-orders

- **Citizen Engagement**:
  - WSDOT's Community Engagement Plan[8] provides a framework for community engagement efforts. It focuses on outcomes and usable guidance rather than process and includes best practices.
  - Appendix E details to whom WSDOT will reach out, when WSDOT will conduct outreach, where the outreach will occur, and how WSDOT will conduct outreach. Feedback received in the development process helped guide the plan's strategies.
- **Employee Engagement**: The Phase 2 Project Team (Project Team) will invite and rely on the participation of the whole WSDOT agency, particularly:
  - Senior leadership, who will provide guidance, provide one staff person to be on the Steering Committee, distribute drafts, contribute feedback, and recommend adoption to the WSDOT Secretary.
  - Planners from regions, modes, and offices, who will provide key findings from their plans and studies and conduct outreach.
  - Cartographers and analysts from Transportation Data and GIS, who will provide transportation and collision data, mapping products, and data analysis.
  - Engineers from Local Programs, who will jointly develop the statewide planning processes required by federal law to apply to both Phase 2 and the Statewide Transportation Improvement Program (STIP).
  - Programmers from Capital Program Development and Management, who will provide information on the state highway system and feedback on the level of detail they need to guide the programming (timing and cost) of improvements.
  - Biologists and planners from Environmental Services, who will provide planning-level environmental information and feedback on the level of detail they need to guide the scoping of improvements.
  - Engineers from regions and headquarters, who will provide feedback on the level of detail they need to guide the design and construction of improvements.
- **Cross-Agency Collaboration**:
  - The Steering Committee from Phase 1 stayed on for Phase 2. This committee has one representative from each of the following: the Washington State Transportation Commission, an RTPO, and WSDOT.
  - WSDOT assisted the Transportation Commission in the development of Phase 1. Commission staff are aiding WSDOT with a smooth transition to Phase 2. For example, the two agencies have successfully collaborated on the July 2015 Voice of Washington State

8 http://www.wsdot.wa.gov/planning/default.htm

Survey (VOWS)[9] to help inform key issues for Phase 2 (page A34).

- WSDOT meets regularly with staff from FHWA and FTA to discuss best practices for statewide planning.
- WSDOT invited the Advisory Group from Phase 1, which includes representatives from other state agencies, to advance with Phase 2.

WSDOT SECRETARY'S EXECUTIVE ORDERS

These executive orders from the WSDOT secretary are particularly pertinent to the development of the long-range statewide transportation plan:

- **E 1025.01 TRIBAL CONSULTATION**. This order directs WSDOT to consult with tribal governments before a decision is made or any action is taken. WSDOT describes how this order is followed in the Tribal Communication and Consultation Protocols for Statewide Policy Issues and the draft Process for Consulting with Non-Metropolitan Local Officials, Tribes, and Federal Land Management Agencies. Details of this process are in Appendix E.
- **E 1090.00: MOVING WASHINGTON FORWARD: PRACTICAL SOLUTIONS**. This order directs WSDOT employees to implement least-cost planning and practical design principles throughout all phases of project delivery. WSDOT will implement least-cost planning principles during development of transportation performance expectations by engaging stakeholders in evaluating the social, environmental, and economic costs and benefits of their expectations. These expectations are high level and not for specific projects.

PLAN REQUIREMENTS

Phase 2 will meet the requirements for these two plans:

- Federally required Long-range Statewide Transportation Plan[10]
- State required Statewide Multimodal Transportation Plan[11]

FEDERAL GUIDANCE

WSDOT follows guidance from the FHWA and FTA. FHWA offers guidance for compliance with:

- Americans with Disabilities Act Title VI of the Civil Rights Act of 1964[12]
- Presidential Executive Order 13166 Improving Access to Services for Persons With Limited English Proficiency[13]

9 http://voiceofwashingtonsurvey.org/
10 http://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim)%20OR%20(granuleid:USC-prelim-title23-section135)&f=treesort&edition=prelim&num=0&jumpTo=true
11 http://app.leg.wa.gov/rcw/default.aspx?cite=47.06.040
12 https://www.fhwa.dot.gov/pgc/index.cfm?ddisc=66&dsub=1582

- Environmental Justice Department of Transportation Order 5610.2(a)[14]

FTA offers guidance for compliance with:

- FTA Circular C 4702.1 B Title VI Requirements and Guidelines for Federal Transit Administration Recipients[15]
- FTA Circular C 4703.1 Environmental Justice Policy Guidance for Federal Transit Administration Recipients[16]

WSDOT documents compliance with this assistance in the statewide planning "self-certification" submitted to the FHWA and to the FTA.

TRANSPORTATION PLANS REVIEWED

This section summarizes transportation plans that are developed by federal, state, tribal, and local governments and are reviewed by the Project Team. Plan requirements are determined by each plan's funding source. This section is organized by plan type.

WHY ARE THERE SO MANY PLANS?

- Jurisdictions receive direction from laws, rules, and agency-specific guidance. Jurisdictions' plans demonstrate to the public how they will implement the direction.
- Some project funding requires a specific plan within a specific timeline.
- Transportation owners and operators, such as Sound Transit or the Washington State Ferry System, need a more detailed plan that meets the needs of a specific constituency.
- Since plans are interdependent, big issues from the modes and jurisdictions will rise to the state level for consideration in Phase 2 and specific issues identified in Phase 2 will be passed along to modes and jurisdictions for more analysis.

KEY ISSUES COMMON TO ALL REVIEWED PLANS

- Define system performance.
- Identify right-size infrastructure to meet needs of performance and communities.
- Increase system reliability.
- Improve connections to other modes.

13 https://www.fhwa.dot.gov/pgc/results.cfm?id=4125
14 https://www.fhwa.dot.gov/pgc/results.cfm?id=4892
15 https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf
16 https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_EJ_Circular_7.14-12_FINAL.pdf

STATEWIDE PLANS

These are broad policy-level plans that provide guidance and recommendations to decision-makers. These plans do not normally contain specific projects.

Long-range Statewide Transportation Plan

- Current Plan: 2007-2026 Washington Transportation Plan[17]
- Summary of Key Findings:
  - The plan recommended that the Legislature should adopt the following investment guidelines: preservation, safety, economic vitality, mobility, and environmental quality and health.
  - Mobility of goods and people is fundamental to a functional society. Investments must shift from moving vehicles to moving people and goods.
  - Needs exceed available funding and priorities must be established.
  - There are limits to how much revenue can be raised through the gas tax. Innovative solutions can lower costs, target revenue generation, and impact strategic planning for the future.
- Scheduled Update: Phase 2 (this plan)
- Lead Agency: WSDOT develops this plan for adoption by the WSDOT Secretary of Transportation.
- Plan Purpose: Describe the current condition and the plausible future (minimum 20 years) of the following:
  - National Highway System (NHS)[18]
    - Highway routes and connections to transportation facilities, which include:
      1. Interstates, U.S. highways, state routes.
      2. Urban principal arterials (city streets).
      3. Rural principle arterials (county roads).
      4. Major intermodal facilities.
      5. Strategic highway network that is of importance to the U.S. strategic defense policy.
    - Accessible pedestrian walkways and bicycle/pedestrian facilities used as forms of transportation – not purely recreational (See the Washington State Recreation and Conservation Office for information on recreational trails at http://www.rco.wa.gov/).
    - Connections between the NHS and public transportation, non-motorized modes, and facilities for rail, commercial vehicles, waterways, and aviation—particularly with respect to intercity travel.

17 http://www.wsdot.wa.gov/NR/rdonlyres/B1E8FB10-D415-4228-817D-9C4BE4569128/0/WTPLinks2.pdf
18 http://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/washington/index.cfm

  - Federal lands transportation: particularly access roads to and within federal land management areas, which include the U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife, National Park Service, and Army Corps of Engineers. See FHWA Western Federal Lands Highway for more information at http://flh.fhwa.dot.gov/.
  - Tribal transportation: particularly access roads to and within Indian reservations. See FHWA Tribal Transportation for more information at http://www.fhwa.dot.gov/tribal/index.htm.
- Major Requirements:
  - US 23 §135[19] - Statewide and nonmetropolitan transportation planning
  - 23 CFR Part 450, Subpart B[20] – Statewide and nonmetropolitan transportation planning and programming
- Funding:
  - WSDOT develops this plan with federal and state funds at approximately a 30/70 match. This means that WSDOT pays for plan development with state funds (primarily from the state gas tax) and then is reimbursed by FHWA and FTA for 30 percent of the total.
  - WSDOT is eligible to be reimbursed by FHWA and FTA under the following conditions:
    - WSDOT has a work plan[21] approved by FHWA and FTA.
    - WSDOT submits "self-certification" to FHWA and FTA that the plan was developed in accordance with federal laws, FHWA rules, and FTA rules in effect at the time of the plan's adoption. If FHWA and FTA agree with this self-certification, then the agencies can approve the Statewide Transportation Improvement Program (STIP).

Strategic Highway Safety Plan

- Current Plan: Washington State Strategic Highway Safety Plan 2016 (Target Zero[22]).
- Summary of Key Findings:
  - The state has made significant progress, but it is not on track to achieve Target Zero.
  - To be most effective, Target Zero puts emphasis on the largest contributing factors:
    - Impairment contributed to 57 percent of all traffic fatalities.
    - Lane departure contributed to 56 percent of all traffic fatalities.
    - Speeding contributed to 38 percent of all traffic fatalities.
    - Overall, 81 percent of traffic fatalities involved at least one of the three factors listed above and 20 percent of the traffic fatalities involved all three.

19 http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section135&num=0&edition=prelim
20 https://www.ecfr.gov/cgi-bin/text-idx?SID=14271bbb9e850d00c1ec4c549be6a606&mc=true&node=pt23.1.450&rgn=div5
21 http://www.wsdot.wa.gov/NR/rdonlyres/97CE524C-D71B-4480-883B-1CB1360F32FD/0/2015_Strategic_Plan_and_Research.pdf
22 http://targetzero.com/Default.htm

- Scheduled Update: Not scheduled
- Co-sponsors: Washington State Traffic Safety Commission nd WSDOT for adoption by the governor.
- Plan Purposes: This plan contains specific goals, objectives, and strategies for reducing traffic fatalities and disabling injuries. Washington's plan is titled "Target Zero" because the state aims to end traffic deaths and serious injuries by 2030.
- Target Zero has strategies for:
  - **Education**. Give road-users the information to make good choices, such as driving unimpaired, wearing a seat belt, and avoiding distractions.
  - **Enforcement**. Use data-driven analysis to help law enforcement officers pinpoint and address locations with a high number of behavior-driven fatal and serious-injury crashes, such as speeding and impairment.
  - **Engineering**. Design roads and roadsides using practical solutions to reduce crashes, or to reduce the severity of crashes if they do occur.
  - **Emergency Medical Services (EMS)**. Provide high-quality and rapid medical response to injury crashes.
  - **Leadership/Policy**. Change laws, agency rules, or policies to support safer roads and driving. In this version of the Target Zero plan, these strategies are included in a separate chapter for easy reference by policy-makers, legislators, and legislative staff.
  - Evaluation, analysis, and diagnosis help to determine how the agency is doing in meeting its goals, understand what is contributing to crash occurrences, and select appropriate countermeasures to reduce those crashes using the approaches listed above.
- Requirements:
  - 23 USC Section 148[23] - Each state is required to develop this plan as a condition of receiving federal surface transportation funds.
  - This plan does not offer safety strategies for non-surface transportation modes such as aviation, freight rail, passenger rail, and marine and river navigation.
- Funding: The commission receives federal funding (FHWA) and state funding to develop the plan.
- Connection to Phase 2: This plan must be consistent with Phase 2 as per 23 USC Section 135[24]. WSDOT ensures consistency by serving on the Traffic Safety Commission (the Secretary is a commissioner). Key issues from Target Zero are considered for inclusion in the Action Items.

23 https://www.gpo.gov/fdsys/granule/USCODE-2011-title23/USCODE-2011-title23-chap1-sec148/content-detail.html
24 https://www.gpo.gov/fdsys/granule/USCODE-2011-title23/USCODE-2011-title23-chap1-sec135

Statewide Human Services Plan

- Current Plan: 2013 Washington Statewide Human Services Transportation Plan[25]
- Summary of Key Findings:
  - Human services transportation needs vary across the state by regional demographics, and land-use context.
  - Many human service transportation system users live in rural areas or on the edges of urban areas due to the general lower cost of living.
  - Long distances between destinations can be a significant barrier for transportation system users.
  - Often, human service agencies have identified opportunities to better coordinate their services and programs, but lack the resources to actually carry them out.
  - Overall, there is a lack of adequate information about the appropriate transportation choices for people who have special transportation needs.
- Scheduled Update: Summer 2018
- Lead Agency: WSDOT
- Plan Purpose:
  - Assist community and social service agencies with coordination at the state level under policies authorized by the Legislature and directed by state law and federal rules.
  - Address statewide deficiencies and identify projects that cross service areas or jurisdictions.
  - Align the plan with the state's proven initiative for an integrated, 21st century transportation system focused on corridor solutions by operating efficiently, adding capacity strategically and managing demand.
  - Leverage opportunities for additional federal funding from other federal discretionary programs.
- Requirements:
  - 49 U.S. Code §5310[26]
  - FTA Circular C9070.1F[27]
- Funding: State and federal
- Connection to Phase 2: This plan provides data and key issues for the proposed Action Items.

25 http://www.wsdot.wa.gov/acct/HSTP/
26 https://www.transit.dot.gov/funding/grants/49-usc-section-5310
27 https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/fta-circulars

Statewide Transportation Policy Plan

- Current Plan: WTP 2035[28]
- Summary of Key Findings:
  - Preservation and maintenance. Regular preventive maintenance and long-term preservation of key infrastructure components produce economic benefits and are more cost effective than deferred maintenance, which must then be remedied with expensive reconstruction.
    - A sustainable funding source, established at the state level and directed to state and local preservation, would support a more strategic approach to asset management.
  - Safety. The death toll on Washington's streets, roads, and highways remains unacceptably high.
    - Further focus is needed to improve safety on tribal and rural two-lane roads, and to reverse the growth in pedestrian and bicyclist fatalities and injuries.
  - Freight mobility. The increase in truck and rail freight traffic raises concerns about future system reliability and safety.
    - Guidance from both the Washington Rail Plan and Freight Mobility Plan can help to develop strategic freight rail partnerships that support essential rail services and determine which freight rail investments should receive public financial support.
  - Public transportation. Support of further investment in public transportation, including improved access to transit, will help accommodate the growing demand for it.
    - Enhanced local transportation revenue options should be supported for those jurisdictions with a demonstrated need for additional funding capacity to ensure that the growing demand for public transportation can be met.
  - Public health. Strategies that promote bicycling and walking, as well as greater use of public transportation, are shown to increase physical activity levels, contribute to overall improved personal health, and reduce individual and public spending on health care.
    - State and local agencies should more effectively coordinate policies on transportation and public health, which will generate significant long-term health benefits and economic savings to individuals and the state as a whole.
  - Accountability and transparency. State and local agencies, business and industry groups, and many others seek improved efficiency and greater accountability for expenditure of transportation funds.
    - State and local transportation agencies should adopt broad performance management practices to improve accountability for expenditure of both federal and state transportation funds.
- Scheduled Update: Adopted before December 2018

28 https://washtransplan.com/

- Lead Agency: Washington State Transportation Commission (WSTC) develops and adopts this plan.
- Plan Purpose: Provides policy guidance and recommendations across all transportation modes and regions in the state.
- Requirements:
  - RCW 47.01.071 (4)[29] - Commission – Functions, powers, and duties
  - RCW 47.04.280[30] - Transportation system policy goals
  - RCW 47.01.250[31] - Consultation with designated state officials
- Funding: The WSTC, with assistance from WSDOT, uses state funding (primarily from state gas tax) to develop this plan.
- Connection to Phase 2: State law RCW 47.06.020[32] requires WSDOT to assist the Transportation Commission with the Statewide Transportation Policy Plan. WSDOT supplies staff for the plan Project Team, data and information, comments on drafts, and provides support.

Statewide Multimodal Transportation Plan

- Current Plan: 2007-2026 Washington Transportation Plan[33]
- Summary of Key Findings:
  - The following investment guidelines should be adopted by the Legislature: preservation, safety, economic vitality, mobility, and environmental quality and health.
  - Mobility of goods and people is fundamental to a functional society. Investments must shift from moving vehicles to moving people and goods.
  - Priorities must be established because the need exceeds the available funding.
  - There are limits to how much revenue can be raised through the gas tax. Innovative solutions can lower costs, target revenue generation, and impact strategic planning for the future.
- Scheduled Update: Phase 2 (this plan)
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Ensure continued mobility of people and goods within regions and across the state in a safe, cost-effective manner.

29 http://app.leg.wa.gov/RCW/default.aspx?cite=47.01.071
30 http://app.leg.wa.gov/RCW/default.aspx?cite=47.04.280
31 http://app.leg.wa.gov/RCW/default.aspx?cite=47.01.250
32 https://app.leg.wa.gov/rcw/default.aspx?cite=47.06.020
33 http://app.leg.wa.gov/RCW/default.aspx?cite=47.01.250

  - The plan must include:
    - A state-owned facilities component to guide investments in state highways, including bicycle and pedestrian facilities, and state ferries.
    - A state-interest component to define the state's interest in aviation, marine ports and navigation, freight rail, intercity passenger rail, bicycle transportation and pedestrian walkways, and public transportation.
  - WSDOT often combines this plan with the long-range statewide transportation plan.
- Requirements:
  - RCW 47.06.040[34] - Statewide multimodal transportation plan
  - RCW 47.04.280[35] - Transportation system policy goals
  - RCW 47.01.250[36] - Consultation with designated state officials
- Funding: WSDOT uses state funding (primarily from the state gas tax) to develop this plan.
- Connection to Phase 2: WSDOT often combines this plan with the long-range statewide transportation plan.

Transportation Asset Management Plan

- Current Plan: Under development
- Summary of Key Findings: Under development
- Scheduled Update: Spring 2018
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purpose: Risk-based asset management plan for the National Highway System (NHS) to improve or preserve the condition of the assets and the performance of the system. The plan shall, as a minimum, be in a form that the Washington State Secretary of Transportation determines to be appropriate and include:
  - A summary listing of the pavement and bridge assets on the NHS in the state, including a description of the condition of those assets.
  - Asset management objectives and measures.
  - Performance gap identification.
  - Life cycle cost and risk management analysis.
  - A financial plan.

34 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.040
35 http://app.leg.wa.gov/RCW/default.aspx?cite=47.04.280
36 http://app.leg.wa.gov/RCW/default.aspx?cite=47.01.250

  - Investment strategies.
- Requirement: 23 U.S.C. 119(e)(1) (MAP-21 § 1106)[37]
- Funding: State and federal
- Connecting to Phase 2: This plan provides data and key issues for the proposed Action Items.

FEDERAL UMBRELLA PLANS

Federal Lands Collaborative Long Range Transportation Plan (CLRTP) Pilot Project

- Current Plan: Summer 2018
- Plan Goals:
  - Place-based Collaboration: Plan and manage a transportation system based on collaboration and mutually beneficial actions.
  - Resource Protection: Plan and manage federal lands transportation networks to emphasize stewardship of natural and cultural resources and promote ecological sustainability.
  - Safety: Provide safe and appropriate multimodal transportation access for all users of federal lands.
  - Access and Connectivity: Provide a seamless, multimodal transportation system that supports community connectivity and access to public lands.
  - Visitor Experience: Promote ease and enjoyment of travel to and within federal lands.
  - Asset Management: Provide a transportation system with sustainable assets that endure over time.
- Scheduled Update: Not scheduled
- Lead Agency: Western Federal Lands Highway Division
- Plan Purposes:
  - Create a template for a policy-level plan for how federal land management agencies (FLMAs) in Washington and Oregon will plan and manage their transportation systems over the next 20 years. These FLMAs include: the U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Park Service, and U.S. Army Corps of Engineers.
  - FLMAs work with other federal agencies, tribes, WSDOT, Oregon Department of Transportation, and local governments to identify opportunities, benefits, strategies, and guidance for long range transportation planning. Through interagency coordination, the plan will establish common goals and objectives for maintaining and improving the transportation system (including roads, bridges, trails, and transit) that provide public access to and within federal lands.

37 https://www.gpo.gov/fdsys/granule/USCODE-2011-title23/USCODE-2011-title23-chap1-sec119

- CLRTPs consist of two components:
  - A multi-agency "umbrella plan" that focuses on issues common to all agencies in the region.
  - Agency-specific "drop-down plans," which provide agency-specific details for participating FLMAs.

- Requirement: 23 USC §201[38] - Federal lands and tribal transportation programs
- Funding: Federal funds (FHWA) are used to develop this plan.
- Connection to Phase 2: Federal law requires this planning process to be consistent with the metropolitan and statewide planning processes. WSDOT provides staff to serve on the CLRTP's core team to advise maintaining consistency in the process.

MODAL PLANS

WSDOT develops modal plans that are consistent with and include strategies to implement the state's "umbrella plans." There are two types of modal plans: state-owned modal plans are for modes that WSDOT owns or manages; state-interest modal plans are for modes that connect with state-owned modes. WSDOT updates modal plans periodically and the timing of the update is often determined by eligibility of federal project funds. For example, WSDOT was able to compete for and ultimately secure nearly $800 million in federal funds for passenger rail improvements because the State Rail Plan was updated to meet Federal Rail Administration requirements.

State-owned Modal Plans

Highway System Plan

- Current Plan: 2007-2026 Highway System Plan[39]
- Summary of Key Findings:
  - Safety: The number of fatalities remains unacceptably high and WSDOT continues to look for ways to achieve further reductions. Speeding and impaired driving cause 60 percent of all traffic fatalities in Washington. Statewide prevention measures can include low cost fixes such as centerline rumble strips.
  - Mobility: The growth in travel demand has caused many urban and suburban highways to operate less efficiently. Mobility needs are separated into three investment tiers that build upon previous work to maximize every dollar invested.
  - Economic Vitality: Investments in the freight transportation network generate overall economic prosperity and wealth for Washington's residents.
  - Health and the Environment: Investing in the state's transportation system can help address individuals' goals for a healthy environment.

38 http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section201&num=0&edition=prelim
39 http://www.wsdot.wa.gov/planning/hsp.htm

- Scheduled update: Not scheduled
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Include the program and financing needs and recommendations for the state highway system, which consists of interstates, U.S. highways, and state routes.
  - Include the following required elements:
    - System preservation.
    - Highway maintenance.
    - Capacity and operational improvement.
    - Scenic and recreational highways.
    - Path and trails.
- Requirements:
  - RCW 47.06.040[40] - Component of the Statewide Multimodal Transportation Plan
  - RCW 47.06.050(a)[41] - State-owned component of the Statewide Multimodal Transportation Plan
- Funding: WSDOT uses state funding (primarily from the state gas tax) to develop this plan.
- Connection to Phase 2:
  - State highways are a required element of the federal long-range statewide transportation plan.
  - Key unresolved statewide policy issues are considered for inclusion in the Phase 2 Action Items.

Ferry System Plan

- Current Plan: Ferries Division Final Long-Range Plan June 30, 2009[42]
- Summary of Key Findings:
  - WSDOT must adopt operational and pricing strategies to maximize the use of its existing assets and provide the most cost effective service, while responding and adapting to the changing characteristics of its customer base.
  - Ridership is expected to grow by 37 percent between 2006 and 2030.
  - Lack of vehicle capacity during peak periods is the greatest constraint.
  - Excess vehicle capacity during non-commute and off-season is also a challenge.

40 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.040
41 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.050
42 http://www.wsdot.wa.gov/ferries/planning/

  - Adopting operational and pricing strategies will allow WSF to provide the best service at the lowest possible cost, minimize fare increases, and fill under-used non-peak capacity.
- Scheduled Update: Completed by December 2018.
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Presents Vision for future of the system.
  - Maintains current level of service.
  - Presents service and capital investment strategies.
  - Outlines service changes, vessel purchases, and terminal improvements to meet the demand for travel on WSDOT's ferries on Puget Sound.
- Requirements:
  - RCW 47.06.040[43] - Component of Statewide Multimodal Transportation Plan
  - RCW 47.06.050(b)[44] - State-owned component of the Statewide Multimodal Transportation Plan
  - RCW 47.60.375[45] - Capital Plan
  - ESB 5096 - 2017-18[46] - Making transportation appropriations for the 2017-2019 fiscal biennium
- Funding: WSDOT uses state funding to develop this plan.
- Connection to Phase 2:
  - Ferry service is considered a form of public transportation and is a required element of the federal long-range statewide transportation plan.
  - Key unresolved statewide policy issues are considered for inclusion in the Phase 2 Action Items.

State-Interest Modal Plans

Aviation System Plan

- Current Plan: July 2017 Washington Aviation System Plan[47]
- The significant challenges that face the state's aviation system in the next 25 years include:
  - Washington's growing population, which has doubled in the last 30 years and will increase by an additional 2.5 million or 40 percent by 2030.

43 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.050
44 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.050
45 http://app.leg.wa.gov/RCW/default.aspx?cite=47.60.375
46 http://app.leg.wa.gov/billsummary?BillNumber=5096&Year=2017
47 http://www.wsdot.wa.gov/aviation/Planning/wasp.htm

  - Limited funding.
  - Concentration of aviation activity in key regions of the state.
  - Local land use conflicts.
  - Uncertain economic conditions.
- Scheduled Update: Not scheduled
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Addresses existing statewide aviation capacity and implementation strategies for future air transportation needs for all general aviation and commercial airports.
  - Includes the WSDOT owned and managed airports.
- Requirements:
  - RCW 47.06.040[48] - Statewide Multimodal Transportation Plan
  - RCW 47.06.060[49] - State-interest component of the Statewide Multimodal Transportation Plan
  - 49 USC Sec 47101[50] - Policies
- Funding: WSDOT uses state and federal funding to develop this plan. The Federal Aviation Administration (FAA) oversees aviation and makes available FAA funds for developing this plan as per federal law 49 USC Sec 47101 and FAA guidance.
- Connection to Phase 2: Aviation is not surface transportation and is not a required element of the federal long-range statewide transportation plan. However, this plan provides information on surface transportation connections to airports and statewide policy issues to the long-range statewide transportation plan.

State Rail Plan

- Current Plan: Washington State Rail Plan 2013-2035[51]
- Summary of Key Findings:
  - Funding and implementation of this plan relies on a mix of private and public actions, including public-private partnerships.
  - System needs far exceed public funds available and the plan focuses on actions that can be completed with existing resources.

48 http://app.leg.wa.gov/rcw/default.aspx?cite=47.06.040
49 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.060
50 https://www.gpo.gov/fdsys/search/pagedetails.action?collectionCode=USCODE&browsePath=Title+49%2FSubtitle+Vii%2FPart+B%2FChapter+471%2FSubchapter+I%2FSec.+47101&granuleId=USCODE-2007-title49-subtitleVII-partB-chap471-subchapI-sec47101&packageId=USCODE-2007-title49&collapse=true&fromBrowse=true
51 http://www.wsdot.wa.gov/Rail/staterailplan.htm

- Scheduled Update: Adoption in late 2018 or early 2019
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Outlines strategies and provides a blueprint for ensuring the continued movement of people and goods on the rail system in support of a healthy economy.
  - Consistent with federal and state requirements, this is the first state rail plan to incorporate freight rail and passenger rail into a unified planning document.
  - Describes what is working well, identifies the strengths and challenges, and highlights policy priorities.
  - Sets a course for state action and investment to ensure that these vital services continue to meet transportation needs now and through 2035.
- Requirements:
  - RCW 47.06.080[52] - Freight Rail Plan
  - RCW 47.06.090[53] - Intercity Passenger Rail Plan (Amtrak Cascades)
  - RCW 47.06.040[54] - Statewide Multimodal Transportation Plan
  - RCW 47.79.040[55] - Rail Passenger Plan
  - RCW 47.76.220[56] - State Rail Plan
  - 49 CFR 266.15 - State Rail Plan
- Funding: WSDOT uses state and federal funding to develop this plan.
- Connection to Phase 2:
  - This plan identifies and evaluates capacity issues, access, and abandoned lines on the state's rail system.
  - Rail is not surface transportation, does not receive funds from FHWA or FTA, and is not a required element of the long-range statewide transportation plan.
  - Washington State requires WSDOT to develop this plan as a state-interest component of the statewide multimodal transportation plan as per Title 47 RCW. This plan combines all the state requirements for a rail plan.

52 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.080
53 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.090
54 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.040
55 http://app.leg.wa.gov/RCW/default.aspx?cite=47.79.040
56 http://app.leg.wa.gov/RCW/default.aspx?cite=47.76.220

- The Federal Rail Administration oversees rail and administers FRA funds for developing this plan as per federal rule 49 CFR 266.15[57].
- Provides information on connections to rail and key unresolved statewide policy issues to the long-range statewide transportation plan.

Public Transportation System Plan

- Current Plan: 2016 Washington State Public Transportation Plan[58]
- Summary of Key Findings:
  - Recognizes that a connected, coordinated transportation system that serves all people is instrumental to thriving communities.
  - Acknowledges that widespread innovation and continuous improvement are key to meeting ever-changing transportation needs.
  - Advocates for ongoing emphasis on delivering positive customer experiences.
  - Provides a framework for a more performance focused and integrated approach to transportation.
  - Advances the state's interest and role as a public transportation provider.
- Scheduled Update: Not scheduled
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes: Recommend goals, criteria, and strategies for coordinating a statewide public transportation network.
- Requirements:
  - RCW 47.06.110[59] - Public Transportation Plan (state-interest component of the Statewide Multimodal Transportation Plan)
  - RCW 47.06.040[60] - Statewide Multimodal Transportation Plan
- Funding: WSDOT uses state funds to develop this plan.
- Connection to Phase 2: Key unresolved statewide policy issues are considered for inclusion in the Phase 2 Action Items.

57 https://www.gpo.gov/fdsys/search/pagedetails.action?collectionCode=CFR&browsePath=Title+49%2FSubtitle+B%2FChapter+II%2FPart+266%2FSection+266.15&granuleId=CFR-2001-title49-vol4-sec266-15&packageId=CFR-2001-title49-vol4&collapse=true&fromBrowse=true
58 http://www.wsdot.wa.gov/Transit/TransportationPlan/default.htm
59 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.110
60 http://app.leg.wa.gov/RCW/default.aspx?cite=47.06.040

Bicycle and Pedestrian Walkways Plan

- Current Plan: State Bicycle Facilities and Pedestrian Walkways Plan (2008)[61]
- Summary of Key Findings:
  - The popularity of bicycling and walking is increasing.
  - There are more than $1.6 billion in unfunded improvement needs.
  - People support investments in facilities that make bicycling and walking easier and safer. This plan takes a major step towards accomplishing that goal by establishing policies, guidelines, and strategies that support bicycling and walking as an integrated part of the transportation network.
- Scheduled Update: Adoption in late 2018 or early 2019 (renamed Active Transportation Plan in next update)
- Lead Agency: WSDOT develops this plan for adoption by the Washington State Secretary of Transportation.
- Plan Purposes:
  - Propose statewide strategies for improving connections, increasing coordination, and reducing traffic congestion.
  - Assess the statewide bicycle and pedestrian transportation needs.
- Requirements:
  - RCW 47.06.040 - Statewide Multimodal Transportation Plan
  - RCW 47.06.100 - Bicycle Transportation and Pedestrian Walkways Plan (State-interest component of the statewide multimodal transportation plan)
- Funding: WSDOT uses state funds to develop this plan.
- Connection to Phase 2: Key unresolved statewide policy issues are considered for inclusion in the Phase 2 Action Items.

State Freight Mobility Plan

- Current Plan: 2017 Washington State Freight System Plan[62]
- Summary of Key Findings:
  - Washington is one of the most trade-dependent states in the nation.
  - Washington has a strong freight system.
  - Preserving Washington's multimodal freight system is its greatest need.

61 http://www.wsdot.wa.gov/bike/bike_plan.htm
62 http://www.wsdot.wa.gov/publications/fulltext/freight/Freight-Plan-2017SystemPlan.pdf

  - The top trends that shape future freight demand are population growth, U.S. energy production, port completion, and automated vehicles.
  - If we want more jobs, more regional domestic product, and a larger tax base in the future we must make needed policy changes at the federal and state levels and invest in freight mobility improvements.
- Schedule Update: Not scheduled
- Lead Agency: WSDOT develops this plan for approval by the Federal Highway Administration.
- Plan Purposes:
  - Analyze existing and future freight needs to improve the performance of the state's freight systems, which include cargo hauled in trucks, ships, barges, rail, and aircraft.
  - Analyze how trucks use the NHS and connect at intermodal facilities.
- Requirements:
  - 49 USC Section 70202[63]
  - RCW 47.06.040[64] - Statewide Multimodal Transportation Plan
  - RCW 47.06.045[65] - Freight Mobility Plan
- Funding:
  - WSDOT uses state funds (primarily gas tax) and FHWA provides funds to develop this plan.
- Connection to Phase 2:
  - The State Freight Plan had the option to be a stand-alone plan that is consistent with the long-range statewide transportation plan or it can be incorporated into it. WSDOT chose to create a separate plan.
  - Key unresolved statewide policy issues are considered for inclusion in the Phase 2 Action Items.

Washington State Electric Vehicle Action Plan: 2015-2020

This WSDOT plan[66] describes the current conditions, challenges, and 13 Action Items to reach the state's goal of increasing the number of plug-in vehicles in Washington from 10,000 in 2014 to 50,000 by 2020. The Action Items are:

1. Renew the sales and use tax exemption for the purchase or lease of clean cars.
2. Transform public and private fleets.
3. Conduct public education and outreach to increase consumer awareness and demand.
4. Provide more electric vehicle (EV) charging signage to increase public awareness of availability.

63 https://www.gpo.gov/fdsys/granule/USCODE-2015-title49/USCODE-2015-title49-subtitleIX-chap702-sec70202
64 http://app.leg.wa.gov/rcw/default.aspx?cite=47.06.040
65 https://app.leg.wa.gov/rcw/default.aspx?cite=47.06.045
66 http://www.wsdot.wa.gov/NR/rdonlyres/28559EF4-CD9D-4CFA-9886-105A30FD58C4/0/WAEVActionPlan2014.pdf

5. Explore providing other incentives to increase use of electric vehicles.
6. Complete the build-out of Washington's fast charging network along highways.
7. Explore funding mechanisms and business models to bolster installation of electric vehicle supply equipment (EVSE).
8. Support workplace charging.
9. Address building codes, policy, and zoning barriers to EV infrastructure.
10. Engage utilities.
11. Require future state-supported DC fast charging stations to serve more vehicles.
12. Support and participate in regional partnerships to advance EVs.
13. Track and participate in national EV efforts.

TRIBAL, REGIONAL AND LOCAL PLANS

Tribal Transportation Plans

There are 29 federally-recognized tribes located in Washington. Tribes may, but are not required to, develop transportation plans following FHWA guidance. During the development of Phase 1, WSDOT requested each tribe to provide their estimated 20-year transportation needs. This section summarizes this information.

- Summary of Key Findings:
  - The transportation needs exceed the current and expected funding.
  - There is a need for increased coordination among tribes, MPOs, and RTPOs.
  - There is a concern about tolling on reservations and on usual and accustomed areas.
  - There is a concern about transportation and treaty obligations – such as fisheries and access to cultural sites.
- Plan Purpose:
  - Clearly demonstrate a tribe's transportation needs and to develop strategies to meet those needs. These strategies should address future land use, economic development, traffic demand, public safety, and health and social needs. The planning process should result in a long range transportation plan (LRTP).
  - Should have a time horizon of 20 years to match state transportation planning[67] horizons.

67 25 CFR § 170.5: Transportation planning means developing land use, economic development, traffic demand, public safety, health and social strategies to meet transportation current and future needs.

- Requirements:
  - 23 CFR Part 170[68]
  - 23 USC § 201[69]
  - 23 USC § 202[70]
  - 23 USC § 207[71]
- Connections to Phase 2:
  - Transportation planning procedures for the Tribal Transportation Program (TTP) must be consistent with statewide and metropolitan planning processes.
  - Only regionally significant TTP projects must be developed in cooperation with state and metropolitan planning organizations and included in tribal transportation plans, federal lands transportation plans, federal lands access program.
  - FHWA/BIA approved tribal transportation improvement programs shall be included in appropriate state and MPO plans and programs without further action on the transportation improvement program (23 USC 201 (C)(4)[72]).

FEDERAL LAND MANAGEMENT TRANSPORTATION PLANS

- Current Plan: Umbrella plan and templates for agency-specific plans are in development.
- Plan Purposes: Identify the condition and future needs of the NHS, which was expanded to include some roads on federal lands.
- Requirements: Federal law (23 USC 201[73]) requires federal land management transportation planning to be consistent with statewide and metropolitan planning according to rules developed by FHWA. As of 2017, FHWA has not developed these rules.
- Funding: Agencies can receive federal (FHWA) funds to develop their plans.
- Connection to Phase 2: The five agencies in Washington State that manage federal lands are the U.S. Forest Service, the Bureau of Land Management, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the National Park Service. WSDOT consults with these agencies by:

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68 https://www.gpo.gov/fdsys/granule/CFR-2012-title25-vol1/CFR-2012-title25-vol1-part170/content-detail.html
69 http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title23-chapter2&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUyMy1zZWN0aW9uMjA3%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim
70 http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title23-chapter2&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUyMy1zZWN0aW9uMjA3%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim
71 http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title23-chapter2&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUyMy1zZWN0aW9uMjA3%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim
72 http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title23-chapter2&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUyMy1zZWN0aW9uMjA3%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim
73 http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title23-chapter2&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUyMy1zZWN0aW9uMjA3%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim

- Participation in the Federal Lands Collaborative Long Range Transportation Planning Assistance and Pacific Northwest Pilot core team. This team is developing an umbrella plan and templates for each agency to use to create its own transportation plan.
- Providing transportation planning advice, providing transportation data, sharing information, and receiving feedback on its proposed plans.
- Developing processes through the core team for continued collaboration and consultation between the Federal Land Management Agencies, WSDOT, Oregon Department of Transportation, and the Western Federal Lands Highway Division of the FHWA.

METROPOLITAN TRANSPORTATION PLANS (MPO PLANS)

- Current Plans: Each MPO has a plan, which can be found on its website. A list of MPO contact information is available on WSDOT's directory[74].
- Summary of Key Findings: These are gathered each year by the Washington State Transportation Commission as part of its Annual Report[75].
- Scheduled Updates: Every four-to-five years, depending on the MPO's air quality attainment status.
- Plan Purposes: Like Phase 2, the plan purposes must include the current condition and 20-year forecasted needs of the surface transportation system within the MPO's boundaries.
- Major Requirements:
  - US 23 §134 - Metropolitan transportation planning[76]
  - 23 CFR Part 450, Subpart C - Metropolitan transportation planning and programming[77]
  - Americans with Disabilities Act[78]
  - Title VI of the Civil Rights Act of 1964[79]
  - Presidential Executive Order 13166 - Improving Access to Services for Persons With Limited English Proficiency[80]
  - Environmental Justice Department of Transportation Order 5610.2(a)[81]
  - FTA Circular C 4702.1 B - Title VI Requirements and Guidelines for Federal Transit Administration Recipients[82]

74 http://www.wsdot.wa.gov/sites/default/files/2017/08/01/WSDOT-Directory-MPO-RTPO.pdf
75 http://wstc.wa.gov/
76 http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title23-section134&num=0&edition=prelim
77 https://www.ecfr.gov/cgi-bin/text-idx?SID=1e8ed2c856951792e87dd9e194bf64c5&mc=true&tpl=/ecfrbrowse/Title23/23cfr450_main_02.tpl
78 https://www.fhwa.dot.gov/pgc/index.cfm?ddisc=66&dsub=1582
79 https://www.fhwa.dot.gov/pgc/index.cfm?ddisc=66&dsub=1584
80 https://www.fhwa.dot.gov/pgc/results.cfm?id=4125
81 https://www.fhwa.dot.gov/pgc/results.cfm?id=4892
82 https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/fta-circulars

- FTA Circular C 4703.1 - Environmental Justice Policy Guidance for Federal Transit Administration Recipients[83]

- Funding:
  - MPOs develop this plan with federal and state funds at approximately a 30/70 match. Each MPO pays for plan development with non-federal funds and is subsequently reimbursed by FHWA and FTA for 30 percent of the total.
  - Each MPO is eligible to be reimbursed by FHWA and FTA under the following conditions:
    - MPO has a work plan approved by FHWA and FTA.
    - MPO submits "self-certification" to FHWA and FTA that the plan was developed in accordance with federal laws, FHWA rules, and FTA rules in effect at the time of plan adoption. If FHWA and FTA agree with the self-certification, then the agencies can approve the Metropolitan Transportation Improvement Program (MTIP).
- Connection to Phase 2:
  - Each MPO must develop this plan every four or five years, depending on air quality attainment status, as a condition for receiving federal surface transportation funds for planning, scoping, designing, constructing, operating, and maintaining NHS and transit systems within the metropolitan area as per 23 USC Sec 134[84].
  - This plan is considered part of the federally required "metropolitan transportation planning process."
  - MPOs conduct their metropolitan transportation planning process according to rules and guidance issued by two federal U.S. Department of Transportation Agencies, the FHWA and the Federal Transit Administration (FTA).
  - MPOs must submit documentation that they followed the rules and guidance (self-certification) to FHWA and FTA every year.
  - If FHWA and FTA agree that the MPO followed the rules and guidance, the agencies can approve the MPO's TIP.

REGIONAL TRANSPORTATION PLANS (RTPO PLANS)

- Current Plan: Each RTPO has a plan, which can be found at its website. A list of RTPO contact information is available on WSDOT's directory[85].
- Summary of Key Findings: These are gathered each year by the Washington State Transportation Commission as part of its annual report[86].

83 https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/fta-circulars
84 https://www.gpo.gov/fdsys/granule/USCODE-2011-title23/USCODE-2011-title23-chap1-sec134/content-detail.html
85 http://www.wsdot.wa.gov/sites/default/files/2017/08/01/WSDOT-Directory-MPO-RTPO.pdf
86 http://wstc.wa.gov/

- Plan Purposes:
  - Identify existing or planned transportation facilities, services, and programs. This includes but is not limited to: major roadways, such as state highways and regional arterials, transit and active transportation services and facilities, multimodal and intermodal facilities, marine ports and airports, railroads, and noncapital programs, including transportation demand management that should function as an integrated regional transportation system.
  - Establish levels of service standards for state highways and state ferry routes, except those considered transportation facilities of statewide significance.
  - Address concurrency strategies required under RCW 36.70A.070[87] (transportation elements of the local comprehensive plan).
- Requirements:
  - RCW 47.80.030[88] - Regional transportation plan – Contents, review, use
  - Chapter 468-86 WAC[89] - RTPO Planning Standards and Guidance
- Funding: RTPOs use state funds, primarily from the state gas tax, to develop plans.
- Connections to Phase 2:
  - The Washington State Legislature authorized counties to form RTPOs in order to coordinate local land use planning with regional transportation services in RCW chapter 47.80.
  - Each RTPO must periodically develop a regional transportation plan that identifies existing or planned transportation facilities, services, and programs. These include but are not limited to: major roadways, such as state highways and regional arterials, transit and active transportation services and facilities, multimodal and intermodal facilities, marine ports and airports, railroads, and noncapital programs, including transportation demand management that should function as an integrated regional transportation system.
  - Each regional transportation plan must be consistent with countywide planning policies and with state transportation plans.
  - RTPOs receive state transportation funds to develop this plan. They do not receive FHWA planning funds and are not subject to federal planning requirements.

87 http://app.leg.wa.gov/RCW/default.aspx?cite=36.70A.070
88 http://app.leg.wa.gov/RCW/default.aspx?cite=47.80.030
89 http://apps.leg.wa.gov/wac/default.aspx?cite=468-86

TRANSPORTATION ELEMENTS OF LOCAL COMPREHENSIVE PLANS

Each local government that is required or elects to plan under the Growth Management Act must develop and update a comprehensive plan. Transportation is an obligatory element of this comprehensive plan. The level of detail for each component varies depending on the size and budget of the local government.

- Purpose: Implement the land use element of the comprehensive plan.
  - Inventory the air, water, and ground transportation facilities and services and include regionally-coordinated level of service standards.
  - Describe the current and future needs and funding.
- Requirement: RCW 36.70A.070[90] - Comprehensive plans—Mandatory elements
- Connection to Phase 2:
  - The Washington state legislature requires certain counties and cities to plan for current and future growth in local comprehensive plan, as per Chapter 36.70A.RCW[91].
  - Each comprehensive plan must include a transportation component that is consistent with the plan's land use element.
  - The transportation element must include:
    - Land use assumptions.
    - Estimated traffic impacts.
    - Facilities and services needed.
    - Financing analysis.
    - Intergovernmental coordination efforts.
    - Demand-management strategies.
    - Pedestrian and bicycle component.
  - The transportation element must be consistent with the RTPO's Regional Transportation Plan.

90 http://app.leg.wa.gov/RCW/default.aspx?cite=36.70A.070
91 http://app.leg.wa.gov/RCW/default.aspx?cite=36.70A

SIX-YEAR TRANSIT PLANS

- Current Plan:
  - There are 32 transit districts and each is required to have a plan.
  - Districts are classified as rural, small urban, and urban, and plans vary depending on size, services, and budget.
- An overview of statewide transit operations the Washington State 2014 Summary of Public Transportation[92] includes:
  - 84 percent of the state's population lives within the boundaries of a transit district.
  - The Americans with Disabilities Act (ADA) requires transit agencies to provide paratransit services (demand response) to individuals that cannot use fixed route service because of a functional disability. This service is not required if the transit system provides fixed route deviated services.
  - Voters in Ellensburg approved the creation of a city transit system, partially supported by local taxes.
  - Skagit County, Sound Transit, and Ellensburg are seeking to create or expand their respective transit districts.
- Plan Purpose: The six-year plan for each municipality and regional transit authority shall specifically set forth those projects of regional significance for inclusion in the transportation improvement program within that region.
- Requirements: RCW 35.58.2795 - Public transportation systems – Six-year transit plans[93]
- Connection to Phase 2
  - The Washington State Legislature requires each municipality and each regional transit authority to prepare a six-year transit development plan.
  - This plan shall be consistent with local governments' comprehensive plans.
  - The plan shall consider the policy recommendations affecting public transportation contained in the state transportation plan approved by the State Transportation Commission (Phase 1).

Regional Transit Authority Maintenance and Preservation Management Plan

State law allows two or more contiguous counties each having a population of 400,000 to establish a regional transit authority to develop and operate a high-capacity transportation system. Sound Transit is the state's only regional transit authority. It operates Sounder commuter rail and Link light rail.

- Current Plan: Sound Transit Long-Range Plan adopted December 18, 2014[94]

92 http://www.wsdot.wa.gov/publications/manuals/fulltext/M3079/spt.pdf
93 http://app.leg.wa.gov/RCW/default.aspx?cite=35.58.2795
94 https://www.soundtransit.org/sites/default/files/documents/pdf/projects/lrpupdate/2015123_lrpupdate.pdf

- Summary of Key Findings:
  - Continue expansion of high-capacity transit, especially light rail.
  - Build the system faster than currently planned.
  - The system should be easy to use.
  - Transit should be fast, reliable, frequent, and separated from vehicle traffic.
- Plan Purposes:
  - Inventory all transportation system assets.
  - Describe how assets will be preserved based on lowest life-cycle cost methodologies.
  - Provide a high-capacity public transit system that provides for long-term mobility, connectivity, and convenience.
  - Strengthen communities' use of the regional transit system.
  - Create a financially feasible system.
  - Improve the economic vitality of the region.
  - Preserve and promote a healthy and sustainable environment.
- Requirements: RCW 35.58.2795 - Public transportation systems – Six-year transit plans[95]
- Funding: State funding is available for WSDOT-certified plans.
- Connection to Phase 2:
  - Sound Transit is the state's only regional transit authority.
  - Serves as the basis for mass transit expansion in King, Snohomish, and Pierce counties' urban growth areas upon the 2023 completion of the current set of projects funded through Sound Transit 2.

95 https://www.wsdot.wa.gov/publications/manuals/fulltext/M3079/spt.pdf

MPO/RTPO SUMMARIES

2016 Annual Report – Washington State Transportation Commission[96]

Each RTPO and MPO submitted regional priorities for the 2016 annual report. All regions reported a need for increased funding for preservation and maintenance because the needs exceed available funding. Region-specific concerns are as follows:

Benton-Franklin Council of Governments

This[97] is the MPO and Transportation Management Area (TMA) for the Tri-City Metropolitan Area and the RTPO for Benton and Franklin counties. Agriculture is a critical component of the regional economy. Area issues include:

- Mainstreaming active transportation into planning, rather than considering it an alternative.
- Maintaining their regional traffic count program and securing complete funding for partially funded projects in Connecting Washington package.
- Obtaining data and technical analysis for a comprehensive freight profile.
- Maintaining their travel demand model.

Chelan-Douglas Transportation Council

This[98] is the MPO and RTPO for all of Chelan and Douglas counties. Area priorities include:

- Having adequate and ongoing funding sources to maintain their transportation system in a state of good repair.
- Reliably moving agricultural commodities.
- Building a third access point over either the Wenatchee River or Columbia River to connect Wenatchee urban core to the state highway system.
- Reducing the impact of unit trains by relocating the BNSF switchyard out of downtown Wenatchee.

Island RTPO

This is the RTPO for Island County. The county does not have a MPO. The RTPO held its first meeting on September 28, 2016 and does not have a regional transportation plan. The county is composed of two islands. Camano Island connects via a state highway bridge. Whidbey Island connects via one state highway bridge and two Washington State Ferry routes. Passenger ferry connections to employment centers in central Puget Sound is a top area priority.

96 http://wstc.wa.gov/documents/2015_AnnualReport.pdf
97 http://bfcog.us/
98 http://www.chelan-douglas.org/

Northeast Washington Regional Transportation Planning Organization

This[99] is the RTPO for Ferry, Pend Oreille, and Stevens counties, none of which has a MPO. Area priorities include maintaining safe and reliable use of state highways that are located adjacent to rivers and across mountain passes.

Palouse Regional Transportation Planning Organization

This[100] is the RTPO for Asotin, Columbia, Garfield, and Whitman counties. None of these counties has a MPO. Area priorities include:

- Securing funding to maintain and improve pavement.
- Maintaining regional rail network.
- Moving the Connecting Washington funding for SR 26 to earlier than 2021.
- Preserving the inland waterway transportation system.

Peninsula Regional Transportation Planning Organization

This[101] is the RTPO for Clallam, Jefferson, Kitsap, and Mason counties. None of these counties has a MPO. Area priorities include preserving existing highways, lack of local match for needed projects, and a need for a dedicated source to meet alternative-fuel vehicle state requirements by 2018.

Puget Sound Regional Council

This[102] is the MPO and RTPO for all of King, Pierce, Snohomish, and Kitsap counties. Key issues for the region are job and population growth that exceeded projections with subsequent increases in traffic congestion. Remaining priorities are:

- Additional funding for city streets, county roads and local transit.
- Near-term operational improvements that can provide congestion relief in state freeway corridors.
- Building an integrated regional transit network around the approved Sound Transit system.

Quad County Regional Transportation Planning Organization

This[103] is the RTPO for Adams, Grant, Kittitas, and Lincoln counties. None of these counties has an MPO. Concerns in the region include state funding to rehabilitate rail lines for the Port of Moses Lake, the Port of Warden, and the Palouse River and Coulee City Railroad, as well as preserving and maintaining existing infrastructure in a safe condition.

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99 http://tricountyedd.com/new-rtpo/
100 http://www.palousertpo.org/
101 http://www.wsdot.wa.gov/partners/prtpo/
102 https://www.psrc.org/
103 http://www.grantcountywa.gov/GCPW/HTM/QUADCO-RTPO.htm

Southwest Washington Regional Transportation Council

This[104] is the MPO for all of Clark County, and the council also serves as the RTPO for Clark, Skamania, and Klickitat counties. A chief concern in this region is the connection and separation of truck, rail, and river freight movement. Vancouver-area concerns include population growth, particularly in the suburbs, and access across the Columbia River. The council collaborates with the adjacent MPO in Portland, Oregon area to address accommodating commuters that live in one state and work in the other.

Skagit Council of Governments

This[105] is the MPO and RTPO serving all of Skagit County. Region priorities include securing funding for maintenance and preservation, addressing identified key at-grade rail crossings, and securing reliable funding for Skagit Transit's regional connector service.

Cowlitz-Wahkiakum Council of Governments

This[106] is the MPO for urbanized areas in Cowlitz County (Longview, Kelso and Rainier, Oregon) and the RTPO for Cowlitz, Grays Harbor, Lewis, Pacific, and Wahkiakum counties. The biggest challenge is securing sustainable funding to maintain and preserve the existing transportation network.

Spokane Regional Transportation Council

This[107] is the MPO and RTPO serving all of Spokane County. Concerns in this county include: completing the north-south freeway, separating railroads from roads, and preserving and maintaining pavement and bridges.

Thurston Regional Planning Council

This[108] is the MPO and RTPO serving all of Thurston County. Concerns in this county include changing population demographics, improving travel mode split, main street highways, high capacity transportation, and changing technology. Addressing Joint Base Lewis-McChord (JBLM) traffic congestion, especially on I-5, also remains a priority.

Walla Walla Valley MPO and Walla Walla Sub-RTPO

This[109] is the bi-state MPO for urbanized areas in Walla Walla and Umatilla counties in Oregon and the RTPO for Walla Walla County in Washington, per agreement with the Benton-Franklin Council of Governments. The primary concerns for this region are maintaining and preserving the existing transportation network and maintaining walkable communities with adequate transit service.

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104 http://www.rtc.wa.gov/
105 http://scog.net/
106 http://www.cwcog.org/
107 https://www.srtc.org/
108 http://www.trpc.org/
109 http://www.wwvmpo.org/

Whatcom Council of Governments

This[110] is the MPO and RTPO serving all of Whatcom County. The primary concern in this county is maintaining security and freight mobility at the four U.S./Canada border crossings. The COG leads the International Mobility and Trade Corridor Program to address border crossings issues. Other challenges include maintaining the County Connector regional bus service and continuing Smart Trips, the partnership among local governments, public agencies, employers, and schools that promotes transportation by walking, biking, sharing rides, and riding the bus.

Yakima Valley Conference of Governments

This[111] is the MPO for the greater Yakima area and the RTPO for Yakima County. Challenges include finding alternative sources (other than state and federal) to maintain and preserve the transportation system, exploring the need for expanding regional public transportation, and enhancing strategic freight improvements to meet the needs of the agricultural economy.

Counties not in an RTPO:

Okanogan County wildfire recovery and preparedness is a major issue with transportation aspects. The short line for freight rail is important for sustaining industrial development and employment; ferry service and connections to ferry service dominate transportation issues in San Juan County. Without public transportation on the islands, the WSF reservation system and multimodal connections to and from the ferry terminal in Anacortes are of increasing significance.

110 http://wcog.org/
111 https://www.yvcog.org/

TOTAL NUMBER OF SURVEYS SENT:

30,631

TOTAL NUMBER OF SURVEYS COMPLETED:

7,524

RESPONSE RATE:

25%

KEY ISSUES FROM THE VOICE OF WASHINGTON STATE SURVEY

The Voice of Washington State Survey (VOWS)[112] is a survey panel that is maintained by the Transportation Commission. WSDOT partnered with the Commission to develop the 2015 survey.

The purposes of the survey were to:

- Gauge attitudes and priorities.
- Introduce Phase 2.
- Include questions from past surveys to track trends.

Results of the survey:

- 78 percent favored retaining the Phase 1 Vision Statement.
- Grades have been progressively worse since 2012.

Top Transportation Issues:

- Traffic/Congestion
- Public/Mass Transportation
- Rail
- Streets/Roads
- Growth and Development
- Infrastructure

Grades:

- Funding Fairness: D+
- State System: C-
- Local System: C

112 http://voiceofwashingtonsurvey.org/

REQUIREMENTS

Transportation System Policy Goals

- It is the intent of the legislature to establish policy goals for the planning, operation, performance of, and investment in, the state's transportation system. The policy goals established under this section are deemed consistent with the benchmark categories adopted by the state's blue ribbon commission on transportation on November 30, 2000. Public investments in transportation should support achievement of these policy goals (RCW 47.04.280):
    - Economic vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
    - Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.
    - Safety: To provide for and improve the safety and security of transportation customers and the transportation system.
    - Mobility: To improve the predictable movement of goods and people throughout Washington State, including congestion relief and improved freight mobility.
    - Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.
    - Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Federal Planning Factors

- In general (23 USC 135) - Each state shall carry out a statewide transportation planning process that provides for consideration and implementation of projects, strategies, and services that will:
    - Support the economic vitality of the United States, the states, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.
    - Increase the safety of the transportation system for motorized and nonmotorized users.
    - Increase the security of the transportation system for motorized and nonmotorized users.
    - Increase the accessibility and mobility of people and freight.
    - Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
    - Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.
    - Promote efficient system management and operation.
    - Emphasize the preservation of the existing transportation system.

- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- Enhance travel and tourism.

National Goals

- National Goals: It is in the interest of the United States to focus the federal-aid highway program on the following national goals (23 USC Sec 150):
  - Safety: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
  - Infrastructure condition: To maintain the highway infrastructure asset system in a state of good repair.
  - Congestion reduction: To achieve a significant reduction in congestion on the NHS.
  - System reliability: To improve the efficiency of the surface transportation system.
  - Freight movement and economic vitality: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
  - Environmental sustainability: To enhance the performance of the transportation system while protecting and enhancing the natural environment.
  - Reduced project delivery delays: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Centennial Accord

The state and federally recognized tribes in Washington entered into an Accord on August 4, 1989 that established the framework for a government-to-government relationship. Each state agency's directors, including the Secretary of Transportation, established a documented plan to implement the Centennial Accord.

WSDOT also follows the Consultation Protocol for Policy & Statewide Issues and a Secretary Executive Order on Tribal Consultation (E 1025.01) For more information see http://www.wsdot.wa.gov/tribal/.

Nondiscrimination

- The Americans with Disabilities Act of 1990[113] requires recipients of federal funds to provide equal access in its programs, services, and activities for persons with disabilities. WSDOT's plan to comply with ADA can be found in the Secretary's Executive Order: E 1069.01.
- Presidential Executive Order #13166: Improving Access To Services For Persons With Limited English Proficiency (LEP). This requires federal agencies to ensure that recipients of federal financial assistance (WSDOT) provide meaningful access to their Limited-English-Proficiency applicants and beneficiaries.
    - FHWA and FTA requires WSDOT to develop and follow an LEP Plan.
- Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin.
    - FHWA requires recipients of federal funds (WSDOT) to develop a Title VI Plan and submit accomplishment reports.
    - FTA requires recipients of federal funds (WSDOT) to develop a Title VI Plan and submit accomplishment reports – these requirements and reports are different from those required by FHWA.
- Presidential Executive Order #12898: Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations. This requires federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs on minority and low-income populations.
    - FHWA requires recipients of federal funds (WSDOT) to develop EJ strategies and follow them during development of the long-range statewide transportation plan.
    - FTA requires recipients of federal funds (WSDOT) to develop EJ strategies and follow them during development of the long-range statewide transportation plan– these strategies are different from those required by FHWA.
    - See http://www.wsdot.wa.gov/Environment/EJ/ for more information.

Governor's Executive Order 14-04: Washington Carbon Pollution Reduction and Clean Energy Action

Specifies that WSDOT develop the federally-compliant, long-range statewide transportation plan with a renewed focus on transportation strategies to increase efficiency and reduce costs and greenhouse gas emissions. For more information see http://www.governor.wa.gov/office-governor/official-actions/executive-orders.

113 http://www.wsdot.wa.gov/NR/rdonlyres/EA8B0C20-F4E8-4125-9978-D9B771E4A2F5/0/SEO_106901.pdf

WSDOT Strategic Plan: Results WSDOT

Results WSDOT identifies six goals for WSDOT to implement in order to achieve the department's Vision, mission, and values:

- **Goal 1 - Strategic Investments:** Effectively manage system assets and multimodal investments on corridors to enhance economic vitality.
- **Goal 2 - Modal Integration**: Optimize existing system capacity through better interconnectivity of all transportation modes.
- **Goal 3 - Environmental Stewardship**: Promote sustainable practices to reduce greenhouse gas emissions and protect natural habitat and water quality.
- **Goal 4 - Organizational Strength**: Support a culture of multi-disciplinary teams, innovation and people development through training, continuous improvement and Lean efforts.
- **Goal 5 - Community Engagement**: Strengthen partnerships to increase credibility, drive priorities and inform decision-making.
- **Goal 6 - Smart Technology**: Improve information system efficiency to users and enhance service delivery by expanding the use of technology.

Stewardship and Oversight Agreement on Project Assumption and Program Oversight by and between FHWA and WSDOT

This includes the provision that WSDOT will prepare and submit the long-range statewide transportation plan to the FHWA Division as needed and that FHWA will review and comment on the plan. For more information, see http://www.wsdot.wa.gov/NR/rdonlyres/B4C90CCE-2585-426F-A518-1352CE8814A9/0/2015FHWAStewardshipAgreement.pdf.

WSDOT's Strategic Planning and Research (SPR) 2017-2019 Biennium Work Program

The SPR meets federal requirements for WSDOT to have a work program to remain eligible to receive and use federal transportation planning and research funds. It includes the commitment that WSDOT will develop Phase 2 as the federally-compliant long-range statewide transportation plan to meet the requirements in 23 CFR Parts 450 and 500 and 40 CFR Part 613 dated February 14, 2007.

Washington State Transportation Budget

Washington has three state budgets[114]: operating, capital, and transportation. The biennial transportation budget appropriates state and federal transportation funds to state agencies. This budget may require agencies to develop specific plans, studies, and projects.

114 http://leap.leg.wa.gov/

Federal Surface Transportation Act

This federal law funds the state's surface transportation programs, which includes development of the long-range statewide transportation plan.

- Each act amends federal laws in Title 23 – Highways and Title 49 – Transportation.
- FHWA issues rules to implement the federal laws in the Code of Federal Regulations.
- In order for WSDOT to spend federal surface transportation funds, the agency must have an FHWA-approved work plan and appropriation in the state transportation budget.
- Plans adopted after May 26, 2018 are required to follow FAST Act rules.
- Phase 2 will be adopted in December 2017 or January 2018 and will meet the SAFETEA-LU rules from February 14, 2007.

Table A-1: Further Information by Topic

Topic	Source	Title	Website
State Information: Transportation Budget, Taxes, Agencies, Jurisdictions, Modes, Planning, & Glossary	Washington State Legislature Joint Transportation Committee	Transportation Resource Manual January 2015 Update	http://leg.wa.gov/JTC/trm/Pages/TRM2015.aspx
Federal Rules (CFRs)	U.S. Government Publishing Office	Electronic Code of Federal Regulations	https://www.ecfr.gov/cgi-bin/ECFR?page=browse
Federal Laws (U.S. Code)	Office of the Law Revision Counsel	United States Code	http://uscode.house.gov/
State Laws (RCW) and Rules (WAC)	Washington State Legislature	Office of the Code Reviser	http://leg.wa.gov/CodeReviser/Pages/default.aspx
State Budgets	Washington State Legislative Evaluation & Accountability Program Committee	Senate and House Budget and Funding Proposals	http://leap.leg.wa.gov/leap/archives/index_budgetsp.asp

Table A-1: Further Information by Topic (continued)

Topic	Source	Title	Website
FTA Requirements	U.S. Department of Transportation Federal Transit Administration	FTA Circulars	https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/fta-circulars
FHWA Requirements and Guidance	The Federal-Aid Highway Program Policy & Guidance Center	Statewide Planning	https://www.fhwa.dot.gov/pgc/index.cfm?ddisc=95&dsub=1246
State Requirement	Washington Governor Jay Inslee	Executive Order 14-04 WASHINGTON CARBON POLLUTION REDUCTION AND CLEAN ENERGY ACTION	http://www.governor.wa.gov/office-governor/official-actions/executive-orders
Tribal Information	Governor's Office of Indian Affairs	Washington State Tribal Directory	http://www.wsp.wa.gov/
FHWA Requirements	U.S. Department of Transportation Federal Highway Administration, Office of Planning, Environment & Realty	Environmental Justice	https://www.fhwa.dot.gov/environment/environmental_justice/
FHWA Requirements	U.S. Department of Transportation Federal Highway Administration	Civil Rights	https://www.fhwa.dot.gov/civilrights/programs/tvi.cfm
FHWA Guidance	Office of Planning, Environment & Realty	Planning Glossary	https://www.fhwa.dot.gov/planning/glossary/
State Information	Office of Financial Management	Washington State Data Book	http://www.ofm.wa.gov/databook/default.asp
Statewide Transportation Policy Plan	Washington State Transportation Commission	WTP 2035	https://washtransplan.com/
Statewide Surveys	Washington State Transportation Commission	Voice of Washington State & Ferry Riders Opinion Group	http://wstc.wa.gov/
Local Government Resource Website	MRSC	Planning; Transportation	http://mrsc.org/Home.aspx

Table A-1: Further Information by Topic (continued)

Topic	Source	Title	Website
WSDOT Planning	Washington State Department of Transportation	Multimodal Transportation Planning	http://www.wsdot.wa.gov/planning/default.htm
County Road & Ferry Data	County Road Administration Board (CRAB)	Homepage	http://www.crab.wa.gov/
Driver & Vehicle Information	Department of Licensing	Homepage	http://www.dol.wa.gov/
Designates and administers freight mobility grants on strategic freight corridors (T1-T5)	Freight Mobility Strategic Investment Board (FMSIB)	Homepage	http://www.fmsib.wa.gov/
Administers grants to cities and counties	Transportation Improvement Board (TIB)	Homepage	http://www.tib.wa.gov/
Develops Strategic Highway Safety Plan (Target Zero) and collects traffic safety data	Traffic Safety Commission (WTSC)	Homepage	http://wtsc.wa.gov/
Regulates some transportation service rates (not tolls or ferry fares) and responsible for rail safety	Utilities and Transportation Commission (UTC)	Homepage	https://www.utc.wa.gov/Pages/Default.aspx
Traffic Enforcement, Collision Data	Washington State Patrol (WSP)	Homepage	http://www.wsp.wa.gov/

APPENDIX B
TECHNICAL MEMORANDUM #2
TRANSPORTATION FUNDING

CONTENTS

PURPOSE

This appendix describes the transportation revenue sources and expenditures under the control of the Washington State Legislature. It should be noted that there are many transportation investments made at the federal, Tribal, and private level that are outside the scope of this plan.

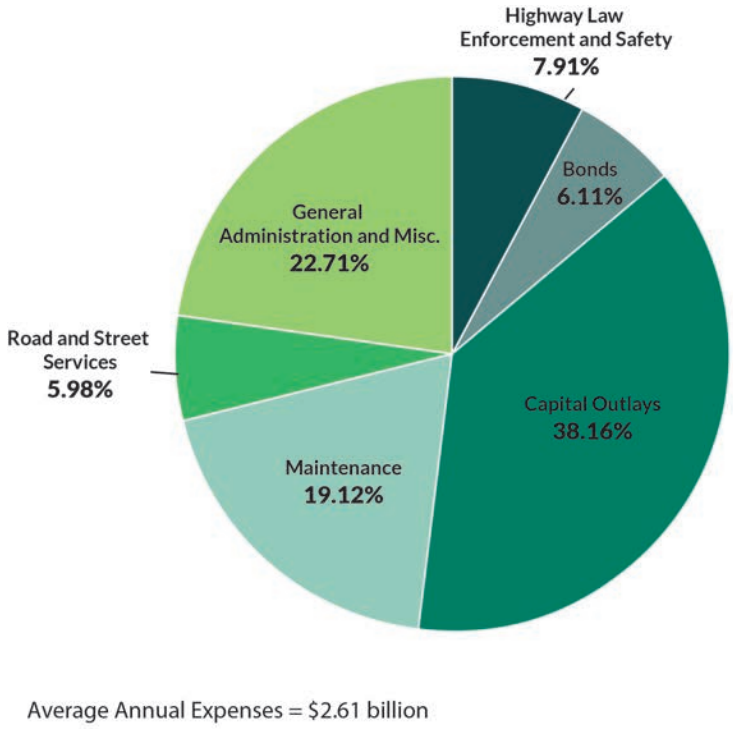
Transportation funding is often described as being restricted to silos. This means that funds come from different sources, or silos, and have very specific legal conditions for how, when, and where they can be spent and who can spend them. The legal conditions range from Washington State Constitution conditions for spending state fuel taxes to local ordinance conditions for spending local option taxes.

For more information see the Joint Transportation Committee Transportation Resource Manual[1] and the Legislative Evaluation and Accountability Program Committee (LEAP)[2].

SUMMARY OF TRANSPORTATION FUNDING SOURCES

Figure B-1 shows the five year average of the sources of transportation funds available for state and local transportation agencies. This chart is for illustrative purposes only.

Figure B-1: Average Annual Transportation Revenue Breakdown by Source (2011-2015)



Source: WSDOT. Note: Percentages do not total 100 percent due to rounding. Sound Transit is not included in this chart. See page B18 for more information.

1 http://leg.wa.gov/JTC/Pages/default.aspx
2 http://leap.leg.wa.gov/

Currently the state fuel tax is set by the legislature at 49.4 cents per gallon and generates approximately $3 billion per biennium.

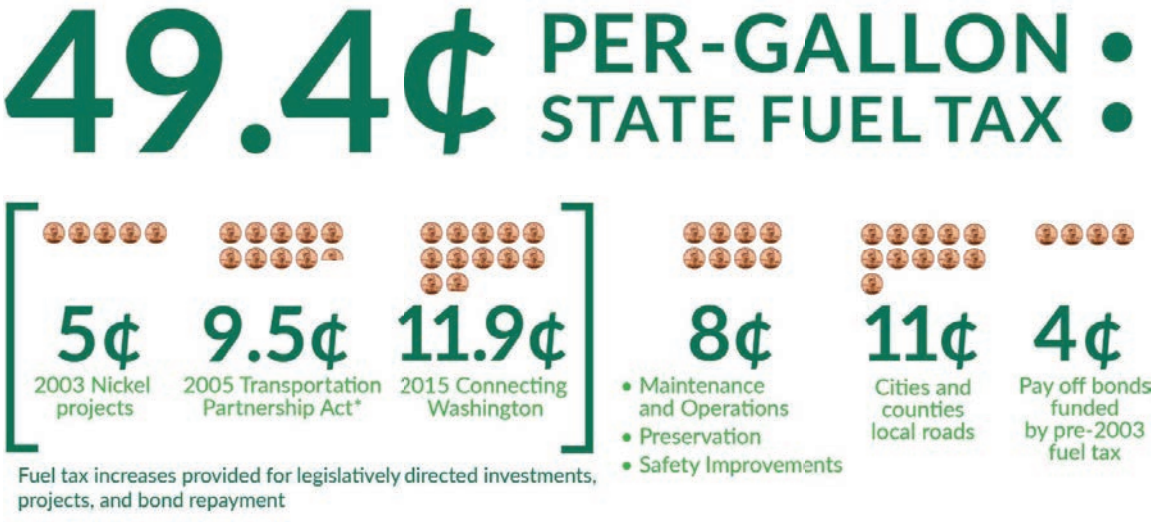
State 49.4 Cent Fuel Tax Breakdown

The state fuel tax is the single biggest source of transportation revenue for state and local governments. In the 2015-2017 biennium, state fuel taxes accounted for more than $3 billion of the $8.6 billion state transportation budget.

As Figure B-2 illustrates, the Washington State Legislature requires portions of this tax be spent for the particular purposes such as:

- 5 cents must be spent on the projects included in the Washington state legislation known as the 2003 Nickel Package. 5 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.
- 9.5 cents must be spent on transportation projects included in the Washington State legislation known as the 2005 Transportation Partnership Act. 9.5 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.
- 11.9 cents must be spent on the improvements contained in the Washington State legislation known as the 2015 Connecting Washington package. 11.9 cents will be sent to this account until all the construction bonds, including interest on the bonds, are paid.
- 11 cents must be spent by cities and counties on local roads, subject to local requirements. Some of this 11 cents is allocated directly to cities and counties and some is granted by state agencies.
    - 2.96 cents goes directly to cities.
    - 4.92 cents goes directly to counties.
    - 3.12 cents is distributed to counties or cities through grant programs administered by County Road Administration Board, Transportation Improvement Board, and the Freight Mobility Strategic Investment Board.
- 4 cents is spent to pay off just the bonds (and interest) funded before the 2003 Nickel projects.
- 8 cents to WSDOT to maintain, operate, preserve, and make safety improvements to the state highway and ferry systems.

Figure B-2: Gas and Special Fuel Tax Breakdown



Federal Sources

Federal transportation law (MAP-21, FAST Act, etc.):

- Determines the rates of federal transportation taxes and fees (how much money).
- Sets the distribution of federal funds among states and local agencies (who gets the money).
- Creates programs (e.g., for highways, transit, ferries, research, aviation) and establishes eligibility, criteria, budgets, and spending rules (what you can spend money on).
- Details safety and environmental regulations that guide the design, construction and operation of transportation projects receiving federal funds (the rules for spending).

Federal transportation funds are distributed back to states through formula programs and grants. Congress eliminated earmarks in 2011. WSDOT administers all federal highway transportation funds, subject to federal and state criteria, including funds that go to local agencies. WSDOT acts as a fiscal agent for the federal government, ensuring that local agencies comply with the multitude of federal transportation and environmental laws and regulations. MPOs/RTPOs and transit agencies make many local funding decisions, and directly receive the majority of federal transit funds. For federal aviation funding, WSDOT receives funding for projects at eligible state-owned airports while the majority of aviation funds in Washington go directly to eligible locally-owned airports.

Federal fuel taxes include:

- Gasoline: 18.4 cents per gallon.
- Diesel fuel: 24.4 cents per gallon.
- Special fuels: 18.4 cents per gallon.
- Gasohol (mixture of 90 percent gasoline and 10 percent ethanol): 18.44 cents per gallon.

Table B-1 below shows that for the last three years, Washington has received more from the Federal Highway Trust Fund than it has given via federal gas taxes.

Table B-1: Rate of Return for Washington from the Highway Trust Fund Highway Account, 2015-2017

Rate of Return Using Data Available at the Time of Appointment	Year			3 Year Total
	2015	2016	2017	
A. Washington apportionment received, fiscal years 2015-2017 (all programs)	$666,496,655	$697,345,000	$775,274,336	$2,139,115,991
	2013	2014	2015	
B. Washington contributions to the Highway Trust Fund, fiscal years 2013-2015 (based on FHWA Highway Statistics Table FE-9)	$589,424,000	$643,513,000	$665,218,000	$1,989,155,000
Rate of return using appointment-year data, fiscal years 2015-2017 (A÷B)	113.1%	108.4%	116.5%	112.7%

For more information on federal funding, see the Washington State Legislature, Joint Transportation Committee, Transportation Resource Manual at http://leg.wa.gov/JTC/trm/Pages/TRM2017.aspx.

JURISDICTION SUMMARIES

Tribes

Tribes receive transportation funding from:

- Fuel tax agreements – 24 tribes have agreements with the Washington State Department of Licensing to share portions of the state fuel tax sold at tribally-licensed retail stations[3].
- Federal funding programs administered by the Bureau of Indian Affairs and the Federal Transit Administration.
- General purpose tribal revenue: funding derived from tribal general purpose funds vary by Tribe.

3 http://www.dol.wa.gov/

LOCAL GOVERNMENTS

Cities receive transportation funds from:

- 2.96 cents per gallon of the state motor vehicle fuel tax.
- Grants from the Transportation Improvement Board and the Freight Mobility Strategic Investment Board.
- Federal-aid programs.
- General-purpose local revenue sources, including local retail sales and use taxes, real and personal property taxes, local real estate excise taxes, other licenses, impact fees, and other fees and taxes.
- Transportation local option taxes:
    - Commercial parking tax.
    - Border area motor vehicle fuel tax (for cities along the Canadian border).
    - Portion of countywide local option motor vehicle fuel tax.
    - Business & occupation tax, residential excise tax, and sales & use tax (limited to public transportation system purposes).

Counties receive funds from:

- 4.92 cents per gallon of state motor fuel tax.
- Grants and distributions from County Road Administration Board.
- Grants from the Transportation Improvement Board and the Freight Mobility Strategic Investment Board.
- Federal-aid programs.
- County road levy (property tax).
- Transportation local option taxes:
    - Countywide motor vehicle fuel tax (10 percent of state fuel tax).
    - Commercial parking tax.
    - Local option taxes for high occupancy vehicle (HOV) lanes:
        - Motor Vehicle Excise Tax (MVET) or employer tax.
        - Eligible counties are King, Pierce, and Snohomish.

County ferry districts receive funds from:

- Annual ad valorem property tax levies of up to 75 cents per $1,000 of assessed valuation (councilmanic) (RCW 36.54.130). The levy limit in King County is up to 7.5 cents per $1,000 of assessed valuation.

- Voter-approved annual excess property tax levies (RCW 36.54.140).

Local improvement districts/Road improvement districts receive funds from:

- Special assessments on property taxes.

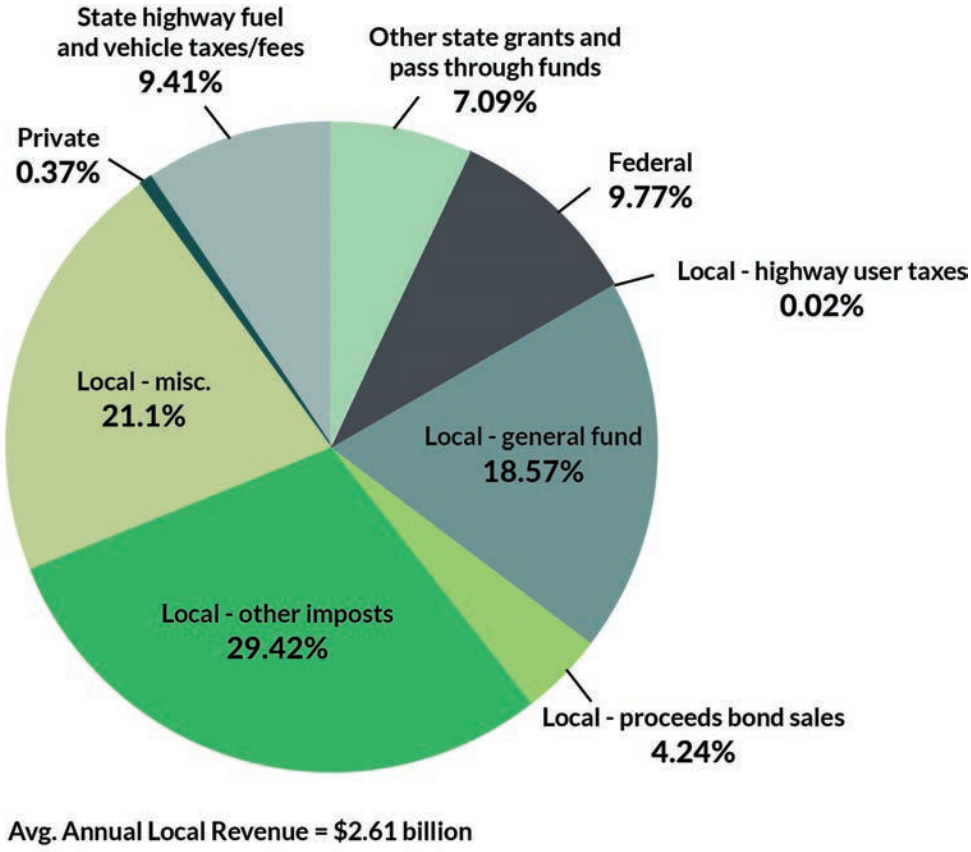
Ports receive funds from:

- User fees.
- Property lease and rental fees.
- Property tax levies.
- Interest income.
- Federal grants.
- Bond proceeds (general obligation and revenue).

Public transit systems receive funds from:

- Fares.
- Advertising revenues, contracts for services to colleges and universities.
- Federal operating grants.
- Local tax options:
  - Sales tax.
  - Business and Occupation (only the City of Pullman collects this tax).
  - Special authority for passenger only ferry service.
  - Property tax.
- High capacity taxes:
  - Sales and use tax.
  - MVET (Sound Transit only).
  - Sales tax on car rentals.
  - Employer tax.

Figure B-3: Local Governments Transportation Revenues by Source: Five-Year Average



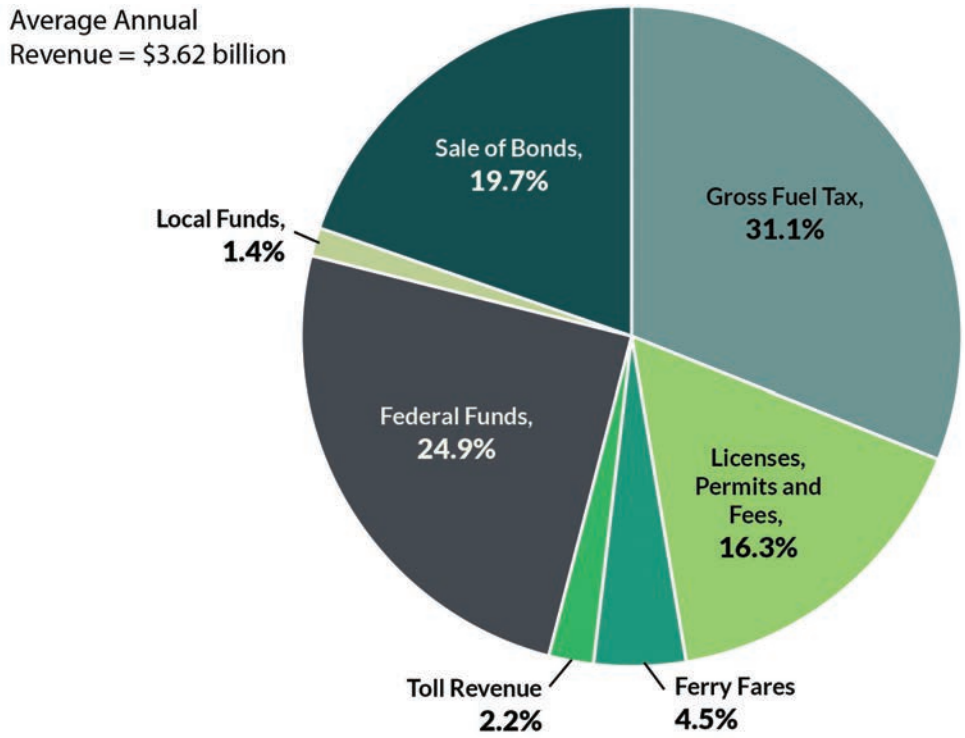
Note: The percentages do not add up to 100 percent due to rounding.

State Agencies

State agencies receive transportation funds from:

- State motor vehicle tax.
- Sale of bonds.
- Federal funds.
- Licenses, permits, and fees .
- Ferry fares.
- Tolls.

Figure B-4: State Transportation Revenue Sources: Five-Year Average (2011-2015)



Note: The percentages do not add up to 100 percent due to rounding.

Regional Transit Authority

Sound Transit is the only regional transit authority. It receives funds from:

- Sales tax.
- Car rental tax.
- MVET.
- Employer tax.
- Fares.
- Property assessments.

TRANSPORTATION FUNDING BY MODE

How is active transportation funded?

The state Legislature has authorized some local governments (cities and counties) to access the following sources:

- Local option taxes (3.75 cents/gallon of state gas tax).

- Property tax road levy (county roads).
- Transit taxes (sales and/or utility).
- Commercial parking tax.

State agencies administer funds to the below-listed programs as follows:

- Transportation Improvement Board grants from state gas tax and other appropriated funds to administer the :
  - Sidewalk Program (urban and small city).
  - Arterial Preservation Program, which enhances arterial safety, support growth and development, improve mobility and physical condition.
  - Small City Preservation Program, which is for cities and towns with less than 5,000 residents and offers grants to reconstruct or maintain the transportation infrastructure.
  - Complete Streets Program, which is flexible money given to any city or county in Washington state that has an adopted complete streets ordinance and shows an ethic of planning and building streets that use context-sensitive solutions to accommodate all users, including pedestrians, transit users, cyclists, and motorists.
- WSDOT grants from gas tax and other appropriate funds to administer:
  - Safe Routes to Schools: Improves safety and mobility for children by enabling and encouraging them to walk and bicycle to school. Funding from this program is for projects within two-miles of primary, middle, and high schools.
  - Pedestrian and Bicycle Safety Program: Aids public agencies in funding cost-effective projects that improve bicycle and pedestrian improvements.
- Washington State Recreation and Conservation Office grants from non-gas tax funds to administer the:
  - Non-Highway and Off-Road Vehicle Program, which provides funding to develop and manage recreation opportunities for such activities as cross-country skiing, hiking, horseback riding, mountain bicycling, hunting, fishing, sightseeing, motorcycling, and riding all-terrain and four-wheel drive vehicles accessed via a non-highway road (public road that was not built or maintained with gasoline tax funding). The following are eligible to apply:
    - Local agencies.
    - Special purpose districts, such as park districts and port districts.
    - Native American tribes.
    - State agencies.
    - Federal agencies.

- Washington Wildlife and Recreation Program provides funding for:
  - Recreation and Conservation Office-administered program that provides funding for a broad range of land protection and outdoor recreation, including park acquisition and development, habitat conservation, farmland and forestland preservation, and construction of outdoor recreation facilities (which includes active transportation facilities).
- Washington Traffic Safety Commission invests state and federal funds to administer:
  - Annual Grants: Annually awarded for projects that address one of more of the top Target Zero priorities – which may include Active Transportation projects. The following are eligible to apply:
    - Washington state agencies.
    - Federally recognized tribal governments.
    - Cities, counties and their sub-agencies.
    - Non-profit organizations with existing IRS 501 C(3) status.
    - Public schools (and private schools with non-profit status).
  - School Zone Grants: To purchase crossing guard equipment and training, and school zone enforcement equipment.

How is the aviation system funded?

In this state, 64 of the 136 public-use airports are included on the National Plan of Integrated Airport Systems (NPIAS) and are eligible for federal and state grants. The rest are primarily small local and rural airports that rely on state, local, and private funding. Federal funds are used primarily for infrastructure improvements, while operating costs are funded through local airport fees. Additional funding is required to meet the basic maintenance needs of the system.

In fiscal year (FY) 2017 (July 2016 through June 2017) 30 projects at 32 airports were funded. WSDOT's leveraged dollars are part of $1.76 million in total state funds for the Airport Aid Grant Program. The state and federal funds, combined with nearly $6.6 million in local matching contributions, amount to nearly $60.6 million in total dollars for FY2017.

In FY2017, 43 percent ($25.7 million) of the nearly $60.6 million in federal, state and local aid investment dollars is slated for projects that preserve and improve airport pavement. Planning, property acquisition, maintenance, and security projects account for seven percent ($4.0 million) of the combined grant dollars, with safety improvements accounting for the remaining 50 percent ($29.9 million).

How is the public road system funded?

State highways and bridges in the state of Washington are generally funded through federal, state, and local funding sources.

Cities and counties have three large sources of revenue; property taxes, sales and use taxes and business and utility taxes. Counties use local sources, mainly the property tax, to fund their transportation infrastructure. Cities provide their own funding from local revenues for city-owned roads and bridges. Both the city and county local revenues are not directly related to transportation and therefore compete with other agenda items. The Revised Code of Washington (RCW), 47.24.010[4] states, "…in such city or town which are designated as forming a part of the route of any state highway; and all such streets, including curbs and gutters and street intersections and such bridges and wharves, shall thereafter be a part of the state highway system and as such shall be constructed and maintained by the department from any state funds available therefor." Therefore, bridges that fall on a state route are maintained by the state highway system and not the city or county.

Washington state's public roads relies heavily on the Motor Vehicle Fuel Tax as the main source of revenue at 53.3 percent in 2014. As the overall population is also expected to rise by 1.2 percent by FY 2027, the total consumption of vehicle fuel is also projected to steadily rise. The second greatest source of revenue is licenses, permits, and fees at 22.6 percent in 2014.

How are pipelines funded?

Private companies own, operate, and fund pipelines.

How is public transportation funded?

- Public transit agencies are primarily funded through voter-approved local taxes. In 2015, local taxes contributed $1,790 million to public transit.
- In 2015, public transit agencies collected $314.0 million in fare revenues. The majority of this revenue ($255 million) was collected from users of fixed-route bus service.
- The 2015 average farebox recovery rate (the percent of annual operating costs recovered by passenger fares) for fixed-route service offered by public transit agencies was 26.2 percent.

CONNECTING WASHINGTON HIGHLIGHTS

High-level funding highlights:

$9.4 billion – State and local road projects

$3 billion – Debt service and contingency

$1.4 billion – State highway maintenance, operations and preservation

$602 million – Fourth Olympic Class ferry, terminal construction and preservation

4 http://apps.leg.wa.gov/rcw/default.aspx?cite=47.24.010

- In 2015, Washington public transit agencies received $348 million in federal funds.
- During the 2015-17 biennium, the state transportation budget provided $144,633,000 million in funds to public transit agencies, local jurisdictions, and public transportation providers through the Special Needs ($41,250,000), Regional Mobility (RCW 47.66.030[5]) ($74,976,000), Rural Mobility (RCW 47.66.100[6]) ($20,438,000), Vanpool ($6,969,000), and Transit Coordination grant programs ($1,000,000).
- As described above, the Travel Washington Intercity Bus program is funded in part by the FTA. The FTA 5311 Non-Urban Program requires states to set-aside 15 percent of their federal transit apportionment to support intercity bus service. The federal grant funds require a 50 percent local match for operating assistance. WSDOT has been granted FTA authority to use the private investment in the intercity system (primarily from Greyhound) as the required match, and therefore is supporting the four Travel Washington routes with only federal funds.

How is freight rail funded?

Private sources fund Class I Railroads. Occasionally, the Class Is have partnered with the public sector on capital projects such as grade crossings.

Public sources for Class III include:

- Freight Rail Assistance Program.
- Freight Rail Investment Bank.

How is passenger rail service funded?

- Amtrak is a government owned corporation funded by the federal government and fare box recovery.
- Amtrak Cascades is funded by ticket sales and sponsorship by WSDOT and ODOT.
- Sounder is commuter rail service operated by a regional transit district located in portions of King, Snohomish, and Pierce counties. It is funded by sales and uses tax collected in the district; regional car tab tax (MVET) for vehicles registered in the district; regional property tax for properties located in the district; fares, and rental car sales tax for transactions in the district.

How is ferry service funded?

- FTA Passenger Ferry 2015-2016 Grant Program provides competitive grants for passenger ferry projects.[7]
- FHWA Ferry Boat Program under the FAST Act funds construction of ferry boats and terminal facilities.

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5 http://app.leg.wa.gov/RCW/default.aspx?cite=47.66.030
6 http://app.leg.wa.gov/RCW/default.aspx?cite=47.66.100
7 Source: https://www.transit.dot.gov/funding/grants/grant-programs/passenger-ferry-2015-16-grant-program-projects

- County Ferry Districts:
  - Local option taxes (property tax).
  - Fares.
- Public Transportation Benefit Area:
  - Local option taxes (MVET, sales tax).
  - Fares.
- WSDOT:
  - Passenger fares.
  - State fuel tax.

BUDGETS AND EXPENDITURES

State Agencies

The Washington State Legislature passes three separate budgets.

- Transportation budget: Appropriates operating and capital funding to agencies that provide a wide variety of transportation functions and services.
- Capital budget: Pays for acquiring and maintaining state buildings, public schools, higher education facilities, prisons, public lands, parks, and other capital facilities.
- Operating budget: Pays for the day to day expenses of state government.

Each budget contains allocations for a two year two period, known as a biennium that begins July 1 and ends two years later on June 30. For example, the 2017-2019 biennium started July 1, 2017 and ends June 30, 2019.

Table B-2 shows how the Legislature allocates funds from the Transportation Budget to state agencies. Some agencies rely on the transportation budget (such as WSDOT) and others receive supplementary funding to perform transportation-related tasks. WSDOT not only receives funding for agency duties and transportation projects, it is also responsible for passing along funding to local governments for transportation investments.

Table B-2: 2017-19 Transportation Budget - Operating and Capital (Dollars in Thousands)

	Total Budget Enacted (6/30/2017)	Percent of Total
Department of Transportation	5,747,666	66%
Washington State Patrol	504,955	5%
Department of Licensing	619, 467	5%
Joint Transportation Committee	1,589	.02%
Legislative Evaluation & Accountability Program Committee	597	.01%
Office of Financial Management	1,696	.02%
Board of Pilotage Commissioners	3,790	.04%
Utilities and Transportation Commission	1,604	.02%
WA Traffic Safety Commission	27,282	.3%
Archaeology & Historic Preservation	496	.006%
County Road Administration Board	99,393	1.15%
Transportation Improvement Board	264,839	.03%
Transportation Commission	2,536	.03%
Freight Mobility Strategic Investment Board	51,593	.59%
State Parks and Recreation Commission	986	.01%
Department of Fish and Wildlife	250	.003%
Department of Agriculture	1,254	.014%
Bond Retirement and Interest	1,626,811	18.7%
Total	**8,654,504**	**100%**

Source: http://fiscal.wa.gov/BudgetTran.aspx

From more information see the Joint Transportation Committee Transportation Resource Manual[8] and the Legislative Evaluation and Accountability Program Committee (LEAP)[9].

8 http://leg.wa.gov/JTC/trm/Pages/TRM2017.aspx
9 http://leap.leg.wa.gov/index.html

State Transportation Agencies Expenditures

As the largest single transportation agency, WSDOT receives the largest share of the transportation budget. WSDOT's operating and capital budgets are shown below. NOTE: These charts illustrate WSDOT's breakdown of the State Transportation Budget – these are not to be confused with State Operating and State Capital budgets. Due to rounding, some figures may exceed 100 percent.

Figure B-5: WSDOT 2017-19 Biennium Operating Budget = $1.846 Billion

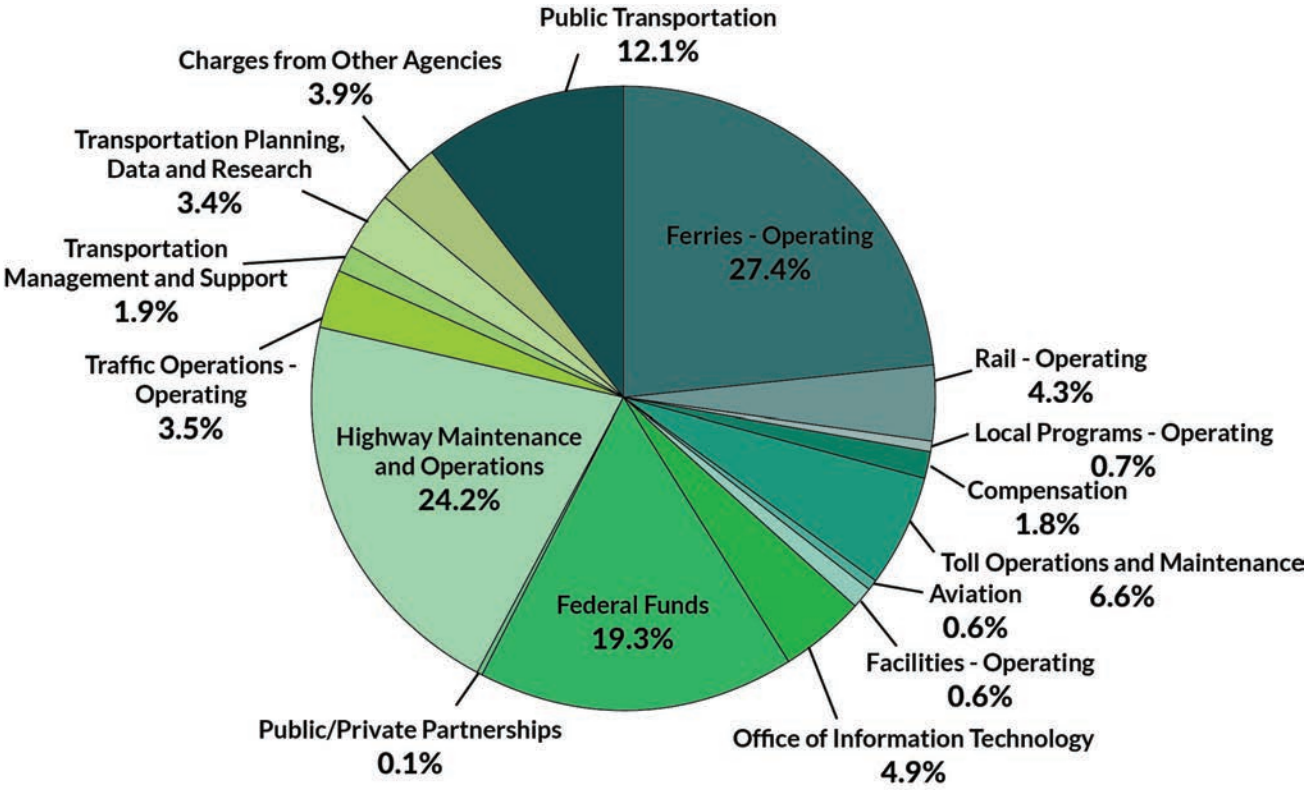
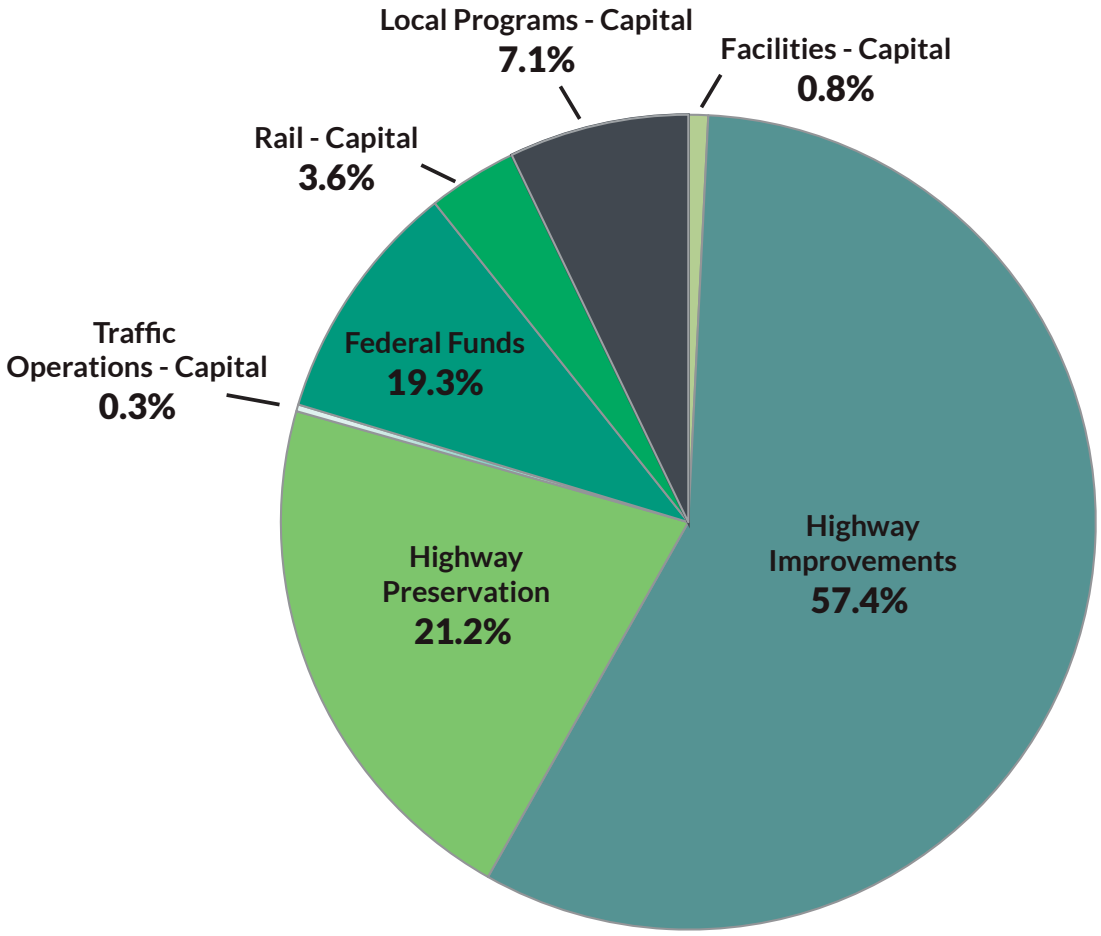


Figure B-6: WSDOT 2017-19 Biennium Capital Budget = $3.879 Billion



Note: The percentages do not add up to 100 percent due to rounding.

Local Governments

Budgets

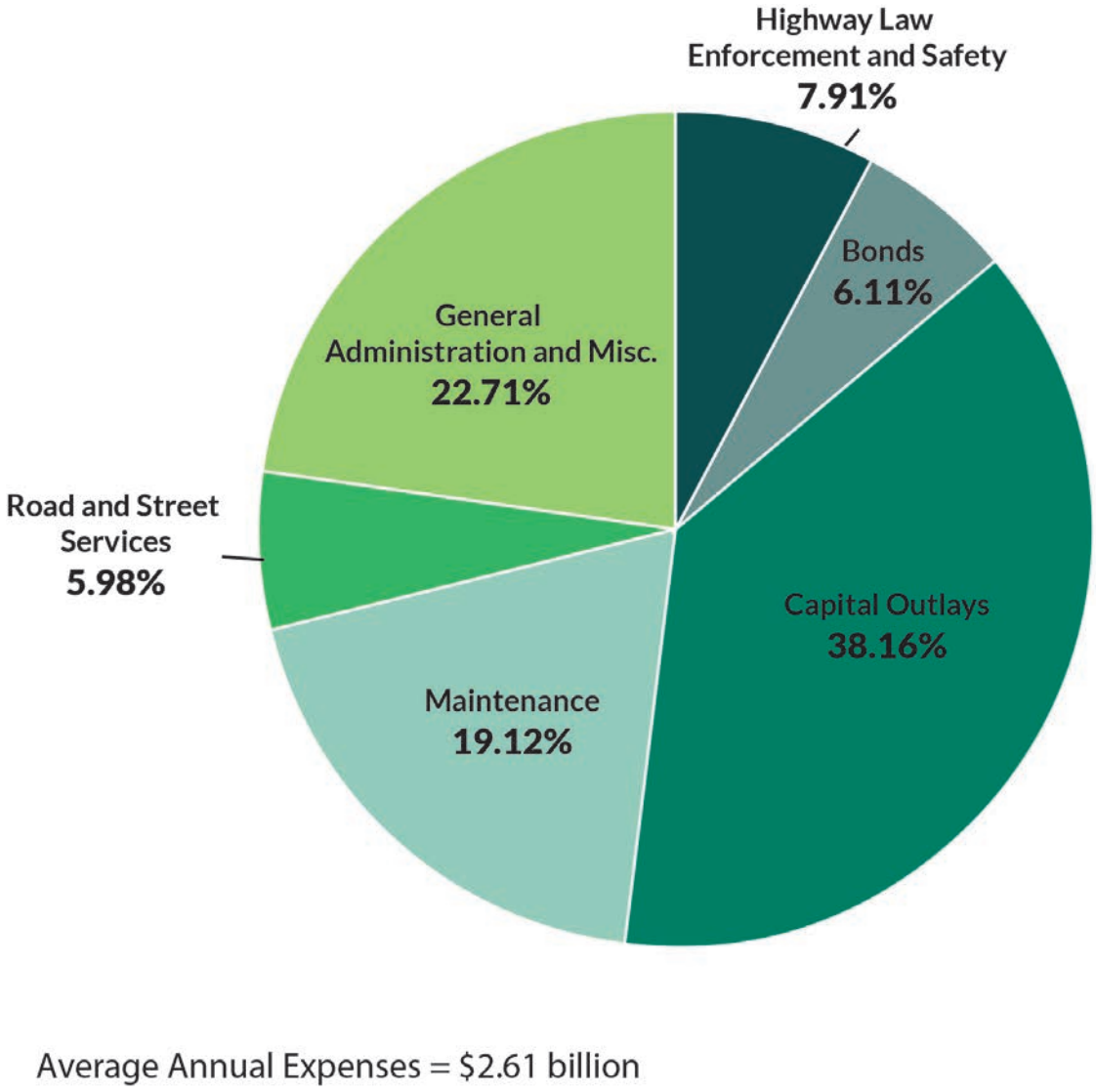
Cities, counties, ports, and transit agencies have separate budgeting processes. For more information, see the MSRC[10] website.

Local Governments Expenditures

Figure B-7 shows the average spending by local governments for transportation. This is shown for illustrative purposes only.

10 http://mrsc.org/Home.aspx

Figure B-7: Local Governments Transportation Expenditures by Type of Spending: Five-Year Average



Regional Transit Authority

Sound Transit Budgets and Expenditures[11]

Table B-3: Sound Transit Revenue - 2017 Budget Summary (Dollars in Thousands)

Sources	2015 Actual	2016 Actual	2017 Budget
Retail Sales and Use Tax	699,114	753,591	1,024,473
Motor Vehicle Excise Tax	79,564	84,657	236,936
Rental Car Tax	3,297	3,489	3,497
Property Tax	-	-	126,585
Federal Grants	148,268	149,313	108,425
Local & State Contribution	4,607	60,038	11,797
Passenger Fare Revenue	65,426	80,406	87,961
Investment Income	5,125	12,746	9,646
Miscellaneous Revenues	41,185	14,113	12,013
Bond Proceeds	601,141	477,549	-
Total	1,647,726	1,635,903	1,621,334

Table B-4: Sound Transit Operating Expenses and Outlays - Operating (Dollars in Thousands)

Departments	2015 Actual	2016 Actual	2017 Budget
Communications & External Affairs	6,977	6,510	7,387
Design, Engineering & Construction Management	34,823	37,593	45,929
Executive	16,312	17,345	24,300
Finance & Information Technology	35,346	40,134	49,203
Legal	2,776	3,097	3,741
Operations	197,410	230,857	267,514
Planning, Environmental & Project Development	6,478	6,920	9,034
Subtotal Transit Mode Budgets	212,700	252,324	299,348
Miscellaneous Revenues	41,185	14,113	12,013
Bond Proceeds	601,141	477,549	-
Total	1,647,726	1,635,903	1,621,334

11 https://www.soundtransit.org/About-Sound-Transit/Accountability/Financial-documents

Table B-5: Sound Transit Expenditures - Projects (Dollars in Thousands)

Project Types	2015 Actual	2016 Actual	2017 Budget
System Expansion	709,375	710,180	1,167,621
Enhancement	16,235	5,969	30,742
Rehabilitation & Replacement	23,797	10,331	24,150
Administrative	55,661	52,676	81,521
Subtotal Project Budgets	805,067	779,156	1,304,035

Table B-6: Sound Transit Totals (Dollars in Thousands)

	2015 Actual	2016 Actual	2017 Budget
Sound Transit Expenditures Debt Service	114,496	120,442	143,975
Total Expenses and Outlays	1,137,263	1,156,922	1,752,358

REVENUE COLLECTION AND EXPENDITURE DETAILS

State agencies (usually the Department of Licensing) collect user taxes and fees. They send them to the State Treasurer where they are placed into accounts as directed by state law, and expended after being appropriated by the Legislature. The majority (55 percent) of the state sources of revenue is from the state fuel tax on highway purposes fuel (gasoline and diesel). The state fuel tax is subject to restrictions in the Washington State Constitution and must be used on Washington highways. There are other state taxes and fees, which are deposited into transportation accounts for transportation projects. For example, vehicle license fees paid by vehicle owners and businesses are used for transportation projects. There is also a 0.3 percent sales and use tax on purchases of new motor vehicles and a rental car tax which are both used for transportation projects.

Federal revenues come from the Highway Trust Fund (HTF)[12]. The HTF revenue sources are federal fuel taxes and other federal user fees. In addition, there are transfers from the federal general fund to the HTF for transportation purposes. First Congress must pass an authorization bill (currently FAST Act[13]). Federal transportation funds work as a cost share reimbursement program. WSDOT and other state and local entities must pay for the transportation projects up front and then request for reimbursement from the federal government. The amount of the federal share varies, but is usually 80 percent. WSDOT administers most federal highway transportation funds, subject to federal and

12 https://www.fhwa.dot.gov/highwaytrustfund/
13 https://www.congress.gov/bill/114th-congress/house-bill/22/text

state criteria, including funds that go to local agencies. WSDOT acts as a fiscal agent for the federal government, ensuring that local agencies comply with the multitude of federal transportation and environmental laws and regulations.[14]

Tolling on new or existing highways or bridges must be authorized by the Washington State Legislature or upon a majority vote of the people within the boundaries of the unit of government empowered to impose tolls as per RCW 47.56.031[15]. The current tolling revenue shown in Figure B-4 is from the Interstate 405 express toll lanes, State Route 167 express toll lane pilot, State Route 520 corridor, and the second Tacoma Narrows Bridge.

Highway Construction Bonds are an important source of funding for transportation capital projects authorized in chapter 47.10 RCW[16]. Debt service is the periodic payment of principal, interest, insurance, and covenants on a bond. Transportation bonds are typically issued as 25 or 30-year debt. Bonds are backed by future fuel tax, license, permits and fee revenue and/or tolls and the revenue must be collected for the entire 25 or 30 years debt period. The Washington State Treasurer is also authorized to refinance original issues of bonds if conditions warrant this type of transaction. Refunding prior bond issues can reduce total debt service requirements and achieve budgetary savings over the remaining term of the bond.

Ferry revenue is generated exclusively by the Washington State Ferries that operate on the Puget Sound.

Local governments collect local taxes and fees for transportation such as through local option transportation taxes[17] (authorized by chapter 82.80 RCW[18] to add to vehicle registration and/or property taxes) and sales taxes under specific conditions and following specific processes. Local governments collect and spend revenue for county roads, city streets, ferry services, and public transportation.

Regional Transit Authority

Sound Transit is located in portions of Snohomish, King, and Pierce counties and is the state's only regional transit authority. State law (RCW 81.112.070[19]) grants Sound Transit "all the powers necessary to implement a high capacity transportation system and to develop revenues for system support." Local taxes, including car tab, property and sales taxes make up just over half of Sound Transit's total funding. The rest comes from federal grants, fares, interest earnings and miscellaneous revenue. In 1996, 2008 and 2016 voters within the Sound Transit District[20] approved tax increases to build and operate the regional mass transit system.

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14 Note: The federal fuel taxes are not subject to restrictions in the Washington State Constitution but the federal HTF has its own rules and restrictions surrounding the use of the funds that states must meet.
15 http://app.leg.wa.gov/RCW/default.aspx?cite=47.56.031
16 http://app.leg.wa.gov/rcw/default.aspx?cite=47.10
17 http://app.leg.wa.gov/RCW/default.aspx?cite=47.56.031
18 http://app.leg.wa.gov/rcw/default.aspx?cite=82.80
19 https://app.leg.wa.gov/rcw/default.aspx?cite=81.112.070
20 https://m.soundtransit.org/sites/default/files/documents/pdf/about/stdistrictmap07_10.pdf

AUDITS AND ACCOUNTABILITY

The State Auditor is authorized by state law (chapter 43.09 RCW[21]) to be the auditor of all public accounts this includes all state and local agencies. The auditor may perform audits and investigations. The audits are designed to comply with professional standards and to satisfy the requirements of federal, state, and local laws. For more information, see the Office of the Washington State Auditor at http://www.sao.wa.gov.

The Office of Financial Management (OFM) provides information, fiscal services and policy support to the Governor, Legislature, and state agencies. This includes statewide transportation statistics included in the Washington State Data Book[22].

The Washington State Legislative Evaluation and Accountability Program (LEAP) Committee is the Legislature's independent source of information and technology for developing budgets, communicating budget decisions, and tracking revenue, expenditure, and staffing activity. LEAP[23] also provides consulting to legislative committees and staffs, and provides analysis and reporting on special issues at legislative request. For more information, including budgets and reports, see their website at leap.leg.wa.gov.

21 http://app.leg.wa.gov/RCW/default.aspx?cite=43.09
22 https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-state-data-book
23 http://leap.leg.wa.gov/

Appendix C

TECHNICAL MEMORANDUM #3

CURRENT AND FUTURE CONDITIONS OF THE STATEWIDE TRANSPORTATION SYSTEM

CONTENTS

CONTENTS (continued)


CASE

PURPOSE

This memo documents the data that the Project Team used to develop the Washington Transportation Plan (WTP) Phase 2 – Implementation 2017-2040 (Phase 2). This memo includes information on the current and future condition of the following topics:

- Modal systems: active transportation (bicycle facilities and pedestrian walkways), aviation, public roads, pipelines, public transportation, rail, and waterways.
- Demand
- Demographics

DATA DESCRIPTION

For the purposes of this memo, the term "data" includes quantitative information such as actual and estimated passenger and vehicle counts, actual and projected revenue, and current and projected populations, etc. The data has different base years and horizon dates because there is no statewide common metric or database for transportation data. Each agency collects different data at various points in time, for assorted purposes, at different scales, using diverse measures. The Phase 2 Project Team (Project Team) uses data to broadly illustrate and compare the needs and conditions of each mode of the statewide transportation system. As per 23 CFR Part 450[1], Phase 2 must include a 20-year forecast period at its time of adoption. Since Washington does not have a statewide travel demand model and Phase 2 does not include a project list, the only available 20-year statewide data common to all modes is projected population and state revenue. See Appendix B for revenue details.

DESCRIBE THE SYSTEM: MODES

Active Transportation

What is the active transportation system?

Walking, bicycling, and using mobility assistive devices are all forms of active transportation. The state plays a critical role in addressing gaps and safety on and across state highways, in particular where the highway forms an element of a local network or provides the primary connection between destinations. Cities and towns own sidewalks, streets, shared-use paths/trails, and bike parking. In rural areas, active transportation users rely on county roads and state highways. On public recreational lands they use trails and trailheads. Currently there is no comprehensive inventory of all of the active transportation facilities and services in the state. However, the Washington State Bicycle and Pedestrian Documentation Project[2] collects usage data in some cities throughout the state.

1 https://www.ecfr.gov/cgi-bin/text-idx?SID=dc8aa80f60f2d9c28a913eda4d42e231&mc=true&node=pt23.1.450&rgn=div5
2 https://www.wsdot.wa.gov/bike/Count.htm

People use active transportation to connect to buses, trains, and ferries, and for many it is their only means of accessing transit. Due to their remote location, most people drive to access trails located on public recreational lands.

Where are active transportation facilities and services located?

- Urban Areas: streets, sidewalks, shared-use paths, and trails.
- Rural Areas:
  - On and adjacent to county roads.
  - On any interstates, state routes, and U.S. highways except in these locations:
    - I-205: Glen Jackson Bridge to Exit 36
    - I-5: Columbia River Bridge to Exit 7 (Junction I-5 and I-205)
    - I-5: Exit 101 (Tumwater Blvd.) to Exit 109
    - I-5: Exit 124 to Exit 199
    - I-5: Exit 252 to Exit 257
    - I-90: From I-5 to I-405
    - I-90: Exit 276 to Exit 286
    - I-705: Entire length
- Public Recreational Lands: trails and trailheads.

What is the current condition of active transportation facilities and services?

Individual agencies have different levels of information using various measures and there is no comprehensive inventory of all of the active transportation facilities and services in the state.

What is the demand for active transportation?

There is no common metric for measuring or forecasting demand. Each agency determined demand differently. The most common method to determine demand is to use population forecasts as a proxy.

What is the current use and forecasted statewide demand for active transportation?

WSDOT sponsors annual counts of pedestrians and bicyclists each fall during the morning peak (7-9 a.m.) and afternoon peak (4-6 p.m.). WSDOT is also installing permanent counters across the state.

Table C-1: 2008-2015 Bicycle and Pedestrian Count Information

Quick Stats 1	2008	2009	2010	2011	2012	2013	2014	2015
Cities Involved	20	25	30	30	38	38	49	50
Count Locations	102	194	229	359	409	386	418	478
Volunteers	130	250+	300+	350+	375+	275+	320	320
Total Bicyclists & Pedestrians	19,000	36,925	49,275	51,200	62,191	66,787	72,143	74,490

Source: http://www.wsdot.wa.gov/bicycle/Count.htm

How does active transportation facilities connect to other modes?

People bike and walk to buses, trains, and ferries. For many people, nonmotorized modes are the only way to access transit. Bus stops, park-and-ride lots, and intermodal stations consider bicycle and pedestrian accessibility, including bicycle parking.

Due to their remote location, most people drive to access trails located on public recreational lands.

What are the safety statistics for active transportation?

Table C-2 is from the Washington Traffic Safety Commission. The fatalities and serious injuries are those that were as a result of a traffic crash. This is a count of fatally or seriously injured bicyclists, pedestrians, and occupants in vehicles (drivers and passengers). The Traffic Safety Commission reports that although the pedestrian deaths and serious injuries have been declining, the rate of decrease has been slower for pedestrian deaths and serious injury collisions than overall fatalities and serious injuries. In recent years, pedestrian deaths account for 14 percent of all traffic fatalities, up from 11 percent in 2006-2008.

Table C-2: Fatality and Injury Statistics, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016
Bicyclist Fatal Crashes	9	6	11	12	11	7	14	17
Bicyclist Serious Injury Crashes	109	116	114	109	81	102	106	122
Pedestrian Deaths	62	63	69	75	50	78	86	89
Pedestrian Serious Injuries	289	292	288	337	260	306	282	350
All Traffic Deaths	492	460	454	438	436	462	551	535
All Traffic Serious Injuries	2,646	2,482	2,136	2,200	1,915	2,000	1,944	1,885

Aviation System

What is the aviation system?
The Washington aviation system is comprised of 136 public use airports, both publicly and privately owned. Public-use airports are:

- Civilian (as opposed to military).
- Fit the state's definition of airport.
- Are open to the public.

The state's aviation system contributes significantly to its economy and serves a variety of roles and functions. Airports provide unique transportation access as part of Washington's multimodal transportation system. They are crucial on a local, statewide, national, and global level as they efficiently move people and goods, promote business and commerce, and contribute to a better quality of life.

Washington's airports serve a wide range of transportation, economic and emergency activities, including:

- Business travel
- Tourism
- Freight, express, and mail services
- Agricultural
- Disaster management
- Firefighting
- Emergency medical transportation
- Aviation-related business
- Search and rescue
- Access to remote communities
- Recreation

Where are airports in the system located?
Washington's aviation system is a diverse mixture of airports ranging in size from small back-country airports to the state's busiest commercial airport, Seattle-Tacoma International Airport (Sea-Tac). These airports meet a full range of transportation needs.

Which airports have scheduled commercial airline service?
Twelve airports provide scheduled commercial airline service to in-state, domestic, and (in some cases) international destinations.

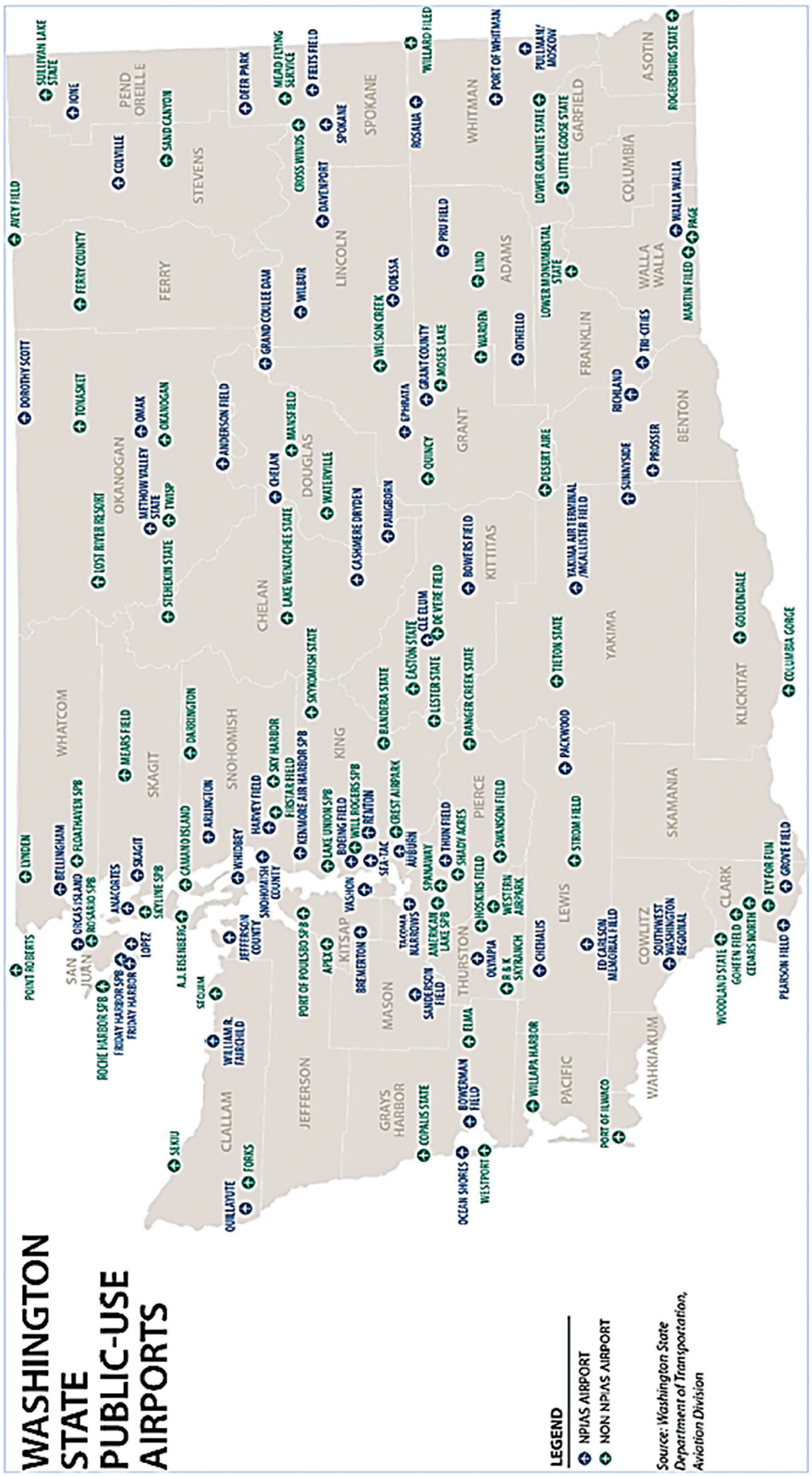


Figure C-1: Washington State Public Use Airports

Figure C-2: WSDOT Managed Airports

What is general aviation aircraft?

Across the U.S., general aviation aircraft are flown for a wide variety of uses. These aircraft include home-built/experimental, glider, agricultural, military surplus, antique and classic WarBirds, ultralight airplanes, helicopters, single and multi-engine aircraft, and corporate and private jets. WSDOT registered 6,512 aircraft as of September 30, 2015, surpassing its 2015 goal to register at least 95 percent, or 6,232, of the active aircraft from 2014. While WSDOT met its goal, this is 48 fewer aircraft than the same time last year. State law requires that all non-exempt aircraft must be registered annually with WSDOT for each calendar year (January 01 to December 31) in which the aircraft is operated or is based within the state. WSDOT Aviation Division's Aircraft Registration opens November 1 for the following year. Aircraft registration fees directly support WSDOT's airport preservation, maintenance and improvement programs.

Sixteen of the 136 public use airports are owned or managed by WSDOT. These airports serve as critical staging areas for statewide wildfire management efforts. In particular, Woodland State, Methow Valley, Lake Wenatchee, Skykomish, and Sullivan Lake State airports dedicate resources and facilities to fighting seasonal fires. WSDOT-managed airports are expected to play a significant role in emergency staging operations in the future due to continuing warming trends.

What is current condition of the aviation system?

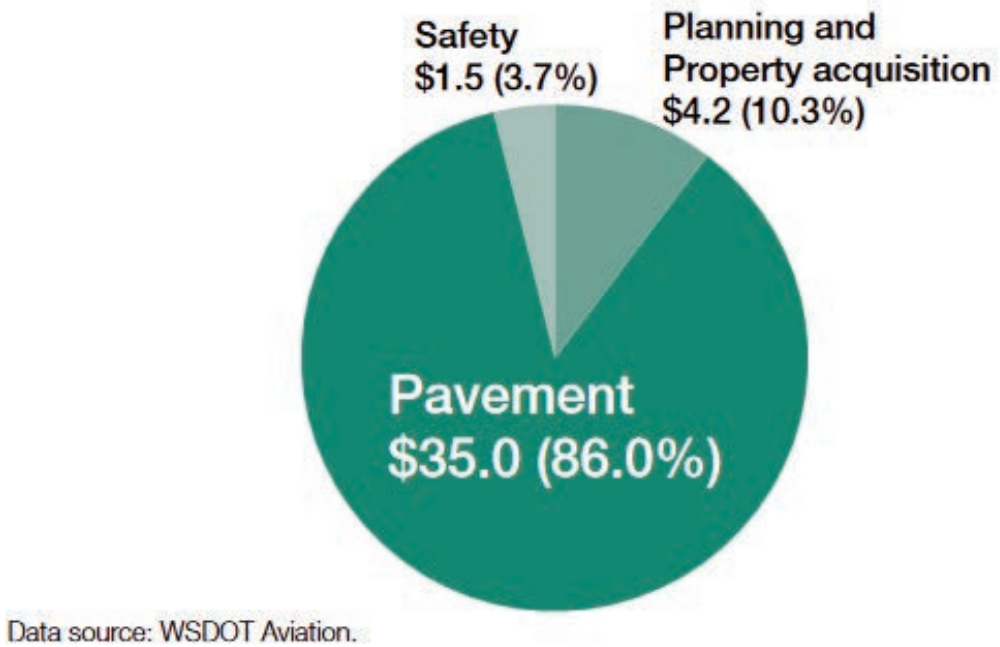
Infrastructure

Pavements represent one of the largest capital investments in Washington's aviation system, and the condition of these pavements is important both from cost-effectiveness and safety standpoints. Timely airport pavement maintenance and rehabilitation are crucial because repairs are much costlier once the condition deteriorates below a certain level. Of Washington's 137 Airports, 100 have paved surfaces. Airport paved surfaces include aprons, helipads, runways, and taxiways. Approximately 71 percent of the 100 airports are at the condition level where they will benefit from preventive maintenance actions, such as crack sealing, joint sealing, patching, and surface treatments. Approximately 18 percent of the pavement infrastructure is in need of more extensive rehabilitation, while approximately 11 percent is in need of reconstruction to restore the pavement. Washington's runways have a combined pavement condition index (PCI) of 80.[3]

Airfield capacity and aircraft storage capacity

To examine airport capacity, each airport's Annual Service Volume (ASV) reflects an airport's ability to process annual operational activity based on airport characteristics such as airfield configuration and fleet mix. While current operations utilize a small percentage of overall state operations capacity, roughly 13 percent operations and demand are not uniformly distributed among all airports.

Figure C-3: WSDOT Slates Majority of Grant Funds for Airport Pavement Preservation Projects
Fiscal year 2016 Airport Aid Grant funding; Dollars in millions



3 2013 Washington State Airport Pavement Management System, Executive Summary

Table C-3: 2014 Operations as Percent of Current Capacity by Airport Service Classification

State Airport Classification	Annual Service Volume	2014 Operations	2014 Operations as % of ASV
Major	3,189,200	940,926	29.5%
Regional	4,675,000	1,286,943	27.5%
Community	6,555,000	707,362	10.8%
Local	5,692,500	212,285	3.7%
General Use	3,910,000	120,766	3.1%
Total System	24,021,700	3,268,282	13.6%

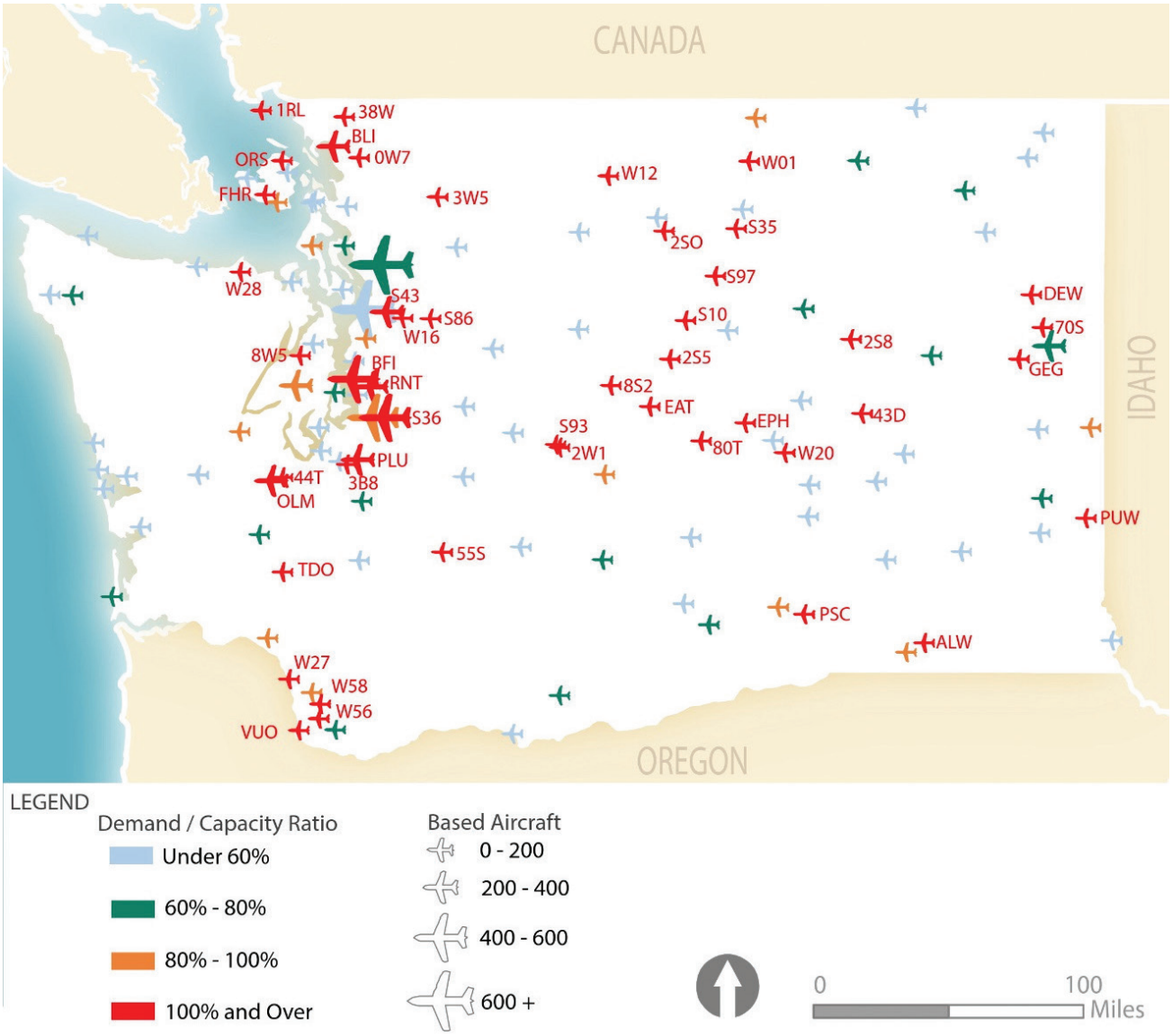
For example, airports located in and around the major population and economic centers of Washington experience the greater demand compared to airports in less developed areas. Some individual airports may face capacity constraints, while other airports have significant excess capacity, a typical dynamic in all states.

Overall aircraft operations demand in Washington is forecasted to increase from 13.6 percent of statewide capacity in 2014 to 17.1 percent of statewide capacity in 2034. The greatest operations demand will still be associated with the major and regional airports. By 2034, utilization of overall operations capacity at major and regional airports will reach 39 percent and 34 percent respectively.

Aircraft storage capacity at airports allows for general aviation (GA) aircraft to be stored in a location that is both safe and convenient when they are not in use. The existing aircraft storage capacity is comprised of both hangar buildings and aircraft tie-down positions at the public use airports across the state. In 2014, the state airport system as a whole had reached 66 percent of its existing aircraft storage capacity. Aircraft storage demand at 21 system airports are currently at capacity.

Overall storage demand in Washington is forecasted to increase by nearly 25 percent by 2034 Assuming no increase in the 2014 aircraft storage capacity numbers, the overall system is anticipated to reach a utilization of nearly 83 percent by 2034. The system as a whole is projected to sustain long-term aircraft storage capacity, however aircraft storage constraints are expected to be met at some Washington airports. Approximately 35 percent (47 of 136) of Washington airports are expected to have capacity shortfalls by 2034.

Figure C-4: Demand/Capacity Ratio of Washington Airports



Airspace capacity

The majority of airspace overlaps occur in the Puget Sound Region where population and aviation activity is highest. Sea-Tac and Boeing Field/King County International Airport show the biggest airspace overlap in terms of potential operational conflict. As such, their proximity implies that flight path coordination between the two airports is required. Airspace within Washington State is subject to overlap from airports outside of the state. Specifically, airports in Southwest Washington are affected by Portland International Airport. In 2015, WSDOT partnered with the FAA to collect aviation spatial data necessary for the implementation of NextGEN technologies in Puget Sound Region. NextGEN is the modernization of the U.S. air traffic system. NextGEN capabilities will help commercial airports

accommodate the demand for additional capacity in a safe, efficient and environmentally responsible manner.

Commercial airline service and general aviation trends

The demand for commercial service and general aviation has remained strong over time. During 2004 and 2005, demand returned to pre-September 11, 2001 (9/11) levels, with additional growth through most of 2007. With the 2008 economic crisis, aviation activity levels fell once more, but demand has since increased steadily at rates much slower than during previous recoveries.

Key takeaways include the following:

- Enplanements have experienced fluctuations in the last 15 years due to factors such as the events of 9/11 and the Great Recession 2007-2009.
- Enplanements were almost to pre-9/11 levels when the economic downturn occurred and were nearly back to those levels by 2014.

Airline consolidation has impacted historical trends, resulting in a decrease in the number of aircraft operations. This is primarily due to airlines "right sizing" markets through the use of larger aircraft (movement from 50-seat regional jets to 70- and 90-seat aircraft) with less frequency, as well as an increase in the overall load factor.

What is the demand for aviation?[4]

- 89 percent of the traffic is at Sea-Tac and Spokane International Airport (SIA).
- In 2015, Sea-Tac welcomed more than 42 million passengers; up 12.9 percent from 2014. In 2034, forecasts project Sea-Tac will reach:
    - 66 million annual passengers (an increase of 24 million from 2015).
    - 540,000 annual operations (up from 350,000 in 2014).[5]
- In 2015, Spokane International had 1,566,332 enplanements.[6] The airport experienced a 4.89 percent in growth between 2014 and 2015.[7]
    - Spokane International is forecasted to reach 3,119,876 enplanements by 2030.[8]

While there has been no overall growth from 2004 to 2014 in enplanements, it is expected that enplanements will increase at an approximate average annual growth rate of two percent over 2014 levels through 2035. The largest growth in enplanements will be seen in the international markets over domestic activity.

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4 The passenger data is from the FAA and found at the USDOT Bureau of Transportation Statistics http://www.transtats.bts.gov/Data_Elements.aspx?Data=1

5 Port of Seattle, Sustainable Airport Master Plan (SAMP)

6 An enplanement is a passenger boarding a commercial service flight.

7 FAA, CY15 ACAIS Calendar Year 2015 Revenue Enplanements at Commercial Service Airports

8 Spokane International Airport Master Plan (March 2014), Chapter 2

The trends related to aircraft size and load factors are expected to continue through 2035, with load factors increasing from 83.4 percent in 2014 to 84.2 percent by 2027, then remaining fairly stable through 2035.

The FAA counts number of flights and the passengers per flight only at the NPIAS airports. Not all of the passengers on a flight originated at or departed from the airport listed. These numbers are important for determining airport capacity but not necessarily the demand on the connecting transportation system.

Table C-4: Washington Aviation System Plan Forecast Summary

Forecast Element	2014	2019	2024	2034	Total Change 2014-2034	Average Annual Growth Rate
Enplanements	21,266,635	25,507,926	29,662,115	38,975,299	83%	3.1%
Air Carrier & Air Taxi/Commuter Aircraft Operations	594,438	670,398	738,004	879,595	48%	2.0%
Non-commercial Aircraft Operations	2,770,273	2,896,993	3,029,460	3,335,224	20%	0.9%
Based Aircraft	7,209	7,608	8,081	9,010	25%	1.1%

Anticipated commercial trends

The FAA projects that total domestic passenger enplanements on large U.S. carriers and regional/commuter carriers combined will increase from approximately 668.4 million in 2014 to approximately 951.0 million in 2035, representing an average annual growth rate of approximately 1.7 percent.

- The largest growth in enplanements will be seen in the international markets over domestic activity.
- The trends related to aircraft size and load factors are expected to continue through 2035, with load factors increasing from 83.4 percent in 2014 to 84.2 percent by 2027 and remaining fairly stable through 2035.

Anticipated general aviation trends

- Current and/or forecasted trends affecting general aviation are summarized as follows:
  - The number of annual general aviation aircraft shipments has stabilized from the decline due to the economy.

- The overall number of general aviation licensed pilots will stabilize and relatively strong growth in the number of sport and "other" pilots is expected.
- Moderate growth is expected in the number active aircraft.
- Jet aircraft are expected to see even more growth from 2014 to 2035, continuing historical trends from 2004 to 2014.

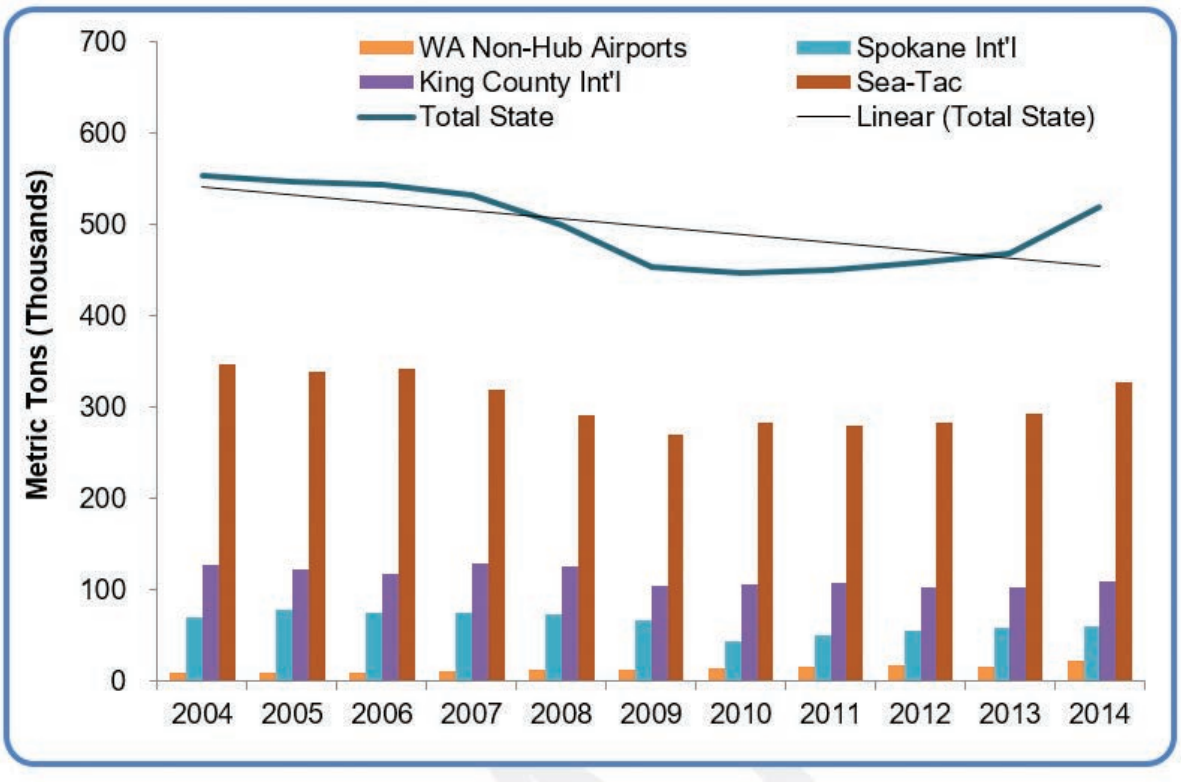
Who operates Washington's airports?

Of the 136 public-use airports in Washington, almost 80 percent are publicly owned, either by municipalities, including port and airport districts, or by the state. Several airports are owned by a combination of public entities. The state-managed airports are mostly small facilities which provide essential services to recreational or remote areas.

Table C-5: Public-Use Airport Management in Washington State

Manager	Number
Airport Authority	1
City	40
County	12
Joint City/County	3
Public Port	33
Private	27
State (WSDOT)	16

Figure C-5: 2004-2014 Airport Cargo Data



The cargo data for SeaTac is from the Port of Seattle: https://www.portseattle.org/About/Publications/Statistics/Airport-Statistics/Pages/default.aspx

How do airports connect to other modes?

Passengers: The majority of passengers travel by personal automobile and park at or near the airport. Airports with scheduled commercial service are also accessible by local or regional transit; ride for hire (shuttle, taxi, other private), bicycle and sidewalk. Seattle-Tacoma International Airport also has a light rail stop with a pedestrian bridge connecting the station to the passenger drop-off area.

Freight: Trucks are used to haul cargo to and from airports.

What is the condition of air cargo?

Air cargo in Washington State is primarily generated by activity at Seattle-Tacoma International Airport (SEA), King County International Airport (BFI) and Spokane International Airport (GEG). Non-hub and small commercial passenger airports within the state account for only four percent of the total air cargo volumes moved in 2014. Air cargo volumes in Washington have fluctuated over the past ten years from a high of 553,415 metric tons in 2004 to a low of 454,419 tons during the economic crisis of 2007-2009.

The trend lines in the following charts reflect a ten-year downward trend, however the financial recovery following the Great Recession of 2007-2009 indicate steady, slow growth. Growing slowly, but faster than the general economy, air cargo volumes in the state slowly increased 3.8 percent per year from 2009 to 524,782 tons in 2014. Most of the growth in air cargo within the state is driven by the increase in international wide-body aircraft air service at Seattle-Tacoma International Airport (Sea-Tac).

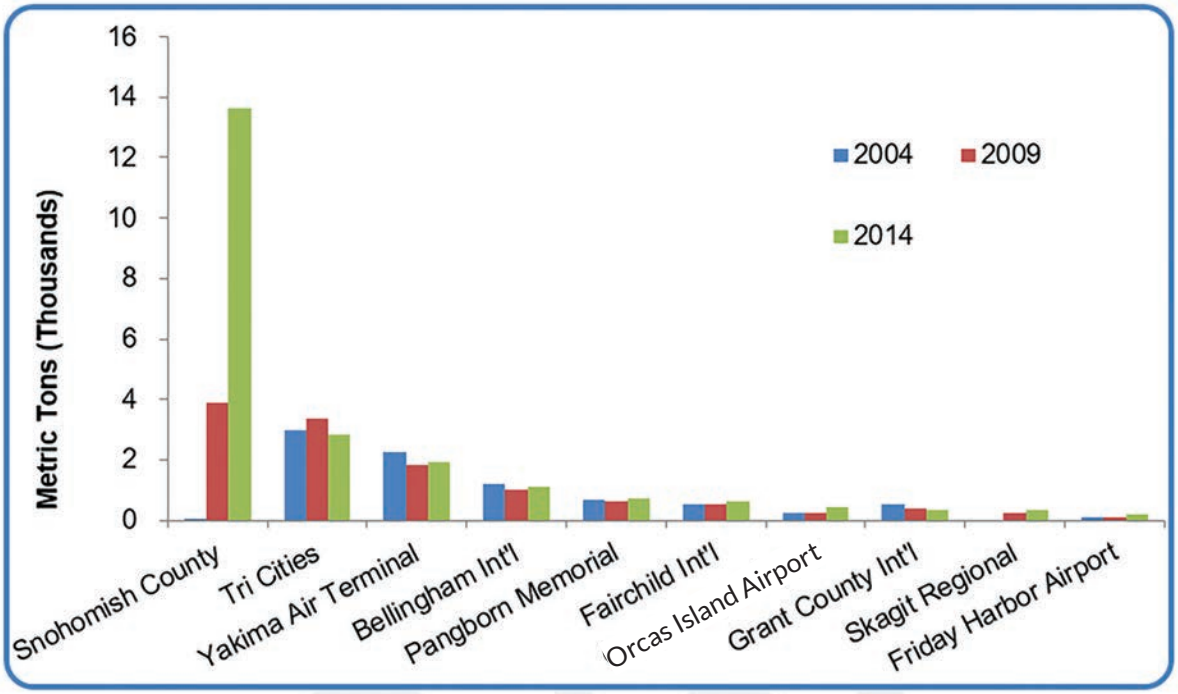
Table C-6: 2012-2016 Cargo and Passenger Data

Year	Metric Tons of Cargo	Number of Passenger Flights	Passengers	Airport
2012	283,500	16,084,545	813,128,058	SeaTac
2013	292,709	16,641,706	824,967,603	SeaTac
2014	327,239	17,839,761	851,517,209	SeaTac
2015	332,636	18,429,859	896,357,664	SeaTac
2016 (Jan and Feb)	46,643	2,554,266	131,987,665	SeaTac
2012		17,593	1,452,702	Spokane International
2013		16,362	1,413,534	Spokane International
2014		16,277	1,442,178	Spokane International
2015		16,118	1,515,349	Spokane International
2016 (Jan and Feb		2,595	216,687	Spokane International

Air cargo activity at other airports in Washington State is generated almost exclusively by FedEx and UPS with very small quantities of enplaned and deplaned by Alaska/Horizon Airlines. Lower deck cargo (belly cargo) capacity at smaller airports in the state is limited due to the regional aircraft utilized to serve these markets.

Due to the lack of wide-body air service, smaller population centers, and the general operational economics of the air cargo business explained previously, Washington State businesses located outside the metropolitan Seattle market are served by air/truck Road Feeder Service from Sea-Tac and King County International or directly to/from other major Midwest and West Coast airports.

Figure C-6: Secondary Washington Air Cargo Markets



What are the safety statistics for aviation?

Statewide general aviation passenger safety WSDOT actively tracks general aviation safety by monitoring the percent of investments allocated to airport safety projects such as runway obstruction removal. In FY2017, 16 percent of Airport Aid Grant funding went to safety projects.[9] While WSDOT does not track passenger safety, WSDOT assists the National Transportation Safety Board (NTSB) after aviation accidents, providing information to help NTSB investigations.

Figure C-7: General Aviation Fatalities in Washington State, 2010-2014

General aviation[1] fatalities in Washington state show little change during five-year period

2010 through 2014; General aviation passenger boardings and fatalities only

	2010	2011	2012	2013	2014
Total boardings	53,766	60,952	37,380	10,062	46,944
Total fatalities	*10*	*8*	*8*	*1*	*10*
(percent)	*(0.02%)*	*(0.01%)*	*(0.02%)*	*(0.01%)*	*(0.02%)*

Data sources: Federal Aviation Administration; National Traffic Safety Board, Aviation Accident Database.

Note: 1 General aviation includes all non-commercial passenger aviation.

9 The Gray Notebook 59. http://wsdot.wa.gov/publications/fulltext/graynotebook/Sep15.pdf

Public Road System

What is the public road system and where is it located?
The system includes:

- State highway system: State law (Chapter 47.17 RCW[10]) designates the state highway system to include all state routes, interstates, and U.S. highways. WSDOT is authorized to perform all duties pertaining to planning, locating, designing, constructing, improving, repairing, operating, and maintaining state highways, bridges, culverts and drainage structures.
    - Responsibilities for state highways located in the city limits varies depending on the city's population. See RCW 47.24.020[11] for details.
    - Joint usage of state highway rights-of-way for facilities for active transportation (nonmotorized traffic) is described in Chapter 47.30 RCW and state in part that WSDOT in "planning and design of all highways, every effort shall be made consistent with safety to promote joint usage of rights-of-way for trails and paths in accordance with the comprehensive plans of public agencies."
    - The official state highway map in only available in digital format (no longer in paper) at the Maps & Data webpage at http://www.wsdot.wa.gov/mapsdata.htm.
- County roads: State law (Chapter 36.75 RCW[12]) defines county roads as every highway or part thereof, outside the limits of incorporated cities and towns and which has not been designated as a state highway. The law also states that "establishing, examining, surveying, constructing, altering, repairing, improving, and maintaining county roads shall be exercised under the supervision and direction of the county road engineer."
- City streets: State law (Chapter 36.75 RCW[13]) defines city streets as every highway or part thereof, located within the limits of incorporated cities and towns, except alleys. State law allows "any city or town to enter into an agreement with the county in which it is located authorizing the county to perform all or any part of the construction, repair, and maintenance of streets in such city or town at such cost as shall be mutually agreed upon."
    - City bridges: State law allows "the boards of the several counties to expend funds from the county road fund for the construction, improvement, repair, and maintenance of any bridge upon any city street within any city or town in such county where such city street and bridge are essential to the continuation of the county road system of the county. Such construction, improvement, repair, or maintenance shall be ordered by resolution and proceedings conducted in respect thereto in the same manner as provided for the laying out and establishing of county roads by counties, and for the preparation of maps, plans, and specifications, advertising and award of contracts therefor."

10 http://app.leg.wa.gov/rcw/default.aspx?cite=47.17
11 http://app.leg.wa.gov/RCW/default.aspx?cite=47.24.020
12 http://app.leg.wa.gov/RCW/default.aspx?cite=36.75
13 http://app.leg.wa.gov/RCW/default.aspx?cite=36.75

- Other public roads: These are the roads located on state, federal, and tribal land that fit the federal definition of a public road.

Table C-7: Public Road System Facilities

	Centerline Miles	Number of Bridges	Rest Areas	Traffic Management Areas
State	7,056.32	3,500	48	6
City	16,940.23			
County	39,273.00	3,247		
Other	17,368.69			

Source: http://www.wsdot.wa.gov/mapsdata/travel/hpms/annualmileage.htm

Table C-8: Public Road Summary

Functional Classification	State Miles	County Miles	City Miles	Other Miles	Total Miles
Rural					
1_Interstate	428.99				428.99
2_PA Frwy/ Exprswy	614.00				614.00
3_PA Other	1,310.48	2.06		0.68	1,313.22
4_Minor Arterial	1,682.76	287.77	9.62	40.75	2,020.90
5_Major Collector	1,479.00	6,246.98	178.33	186.55	8,090.85
7_Local Access NHS			0.13		0.13
Federal Aid Total	5,515.23	6,536.81	188.07	227.98	12,468.09
6_Minor Collector		5,869.78	98.55	275.17	6,243.49
7_Local Access (No NHS)	7.58	20,429.24	1,109.42	16,038.02	27,584.25
Non-Federal Aid Total	7.58	26,299.02	1,207.97	16,313.18	43,827.75
All Rural Total	5,522.81	32,835.83	1,396.04	16,541.16	56,295.84
Urban					
1_Interstate	334.67				334.67
2_PA Frwy/ Exprswy	411.93		5.15		417.08
3_PA Other	487.75	160.64	785.58	6.64	1,440.61
4_Minor Arterial	260.33	776.83	1,673.25	7.07	2,717.47

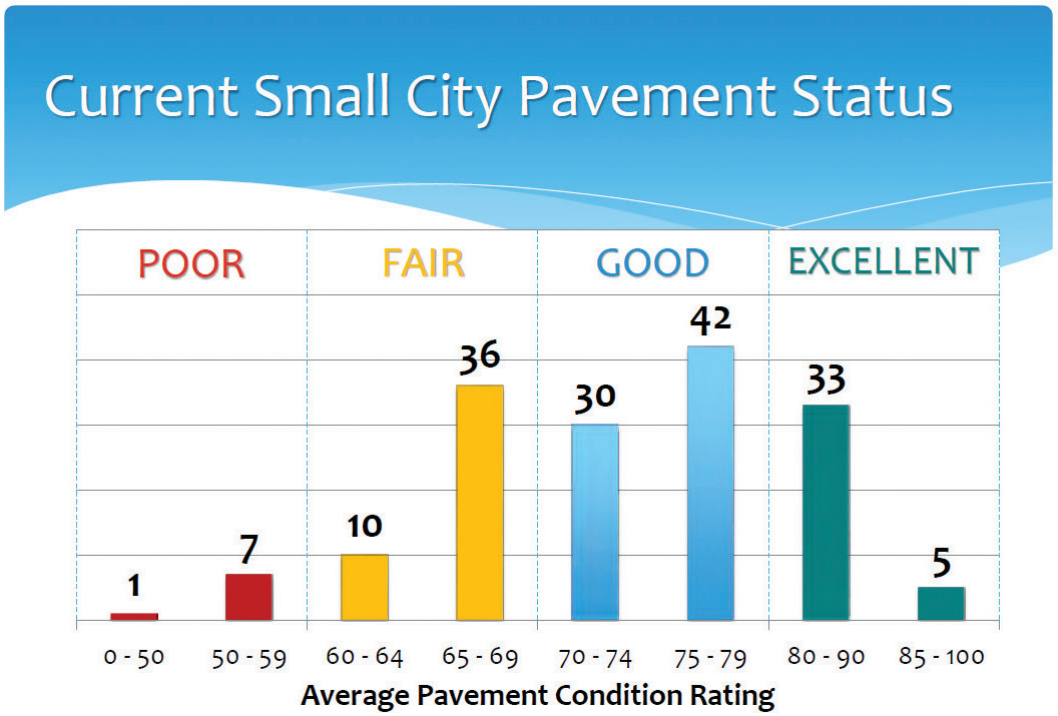
Table C-8: Public Road Summary (continued)

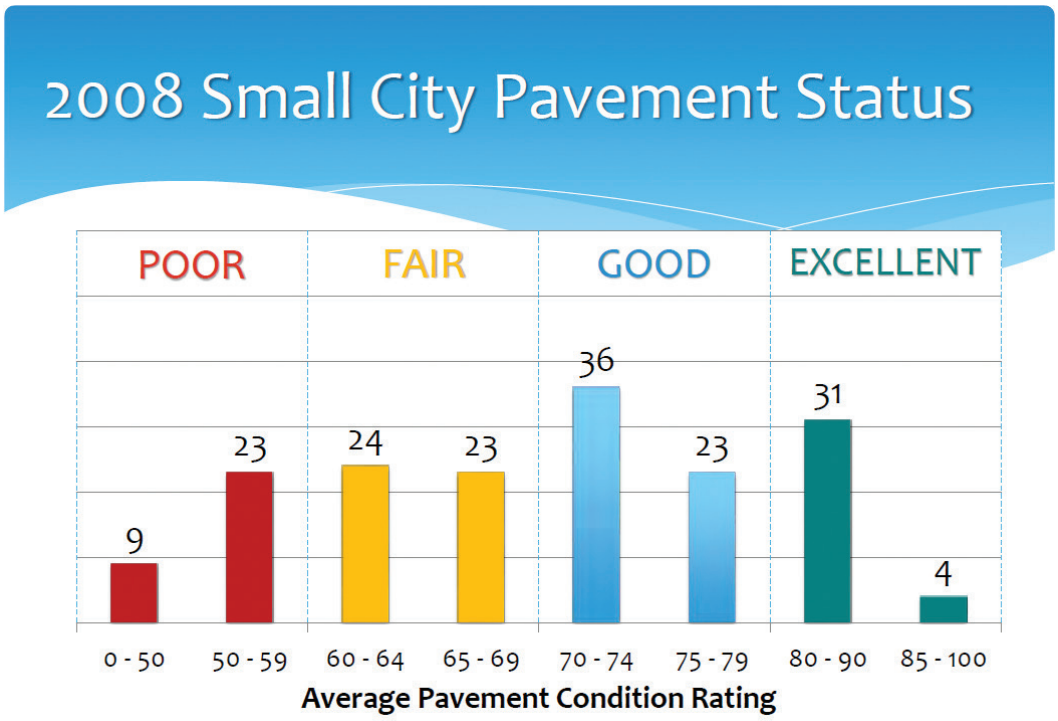
Functional Classification	State Miles	County Miles	City Miles	Other Miles	Total Miles
5_Major_ Collector	46.41	890.43	1,806.14	6.32	2,749.30
6_Minor Collector		126.11	70.01	0.60	196.72
7_Local Access			2.03		2.03
Federal Aid Total	1,541.09	1,954.00	4,342.16	20.63	7,857.88
7_Local Access (No NHS)	7.30	4,436.20	11,290.27	504.51	16,238.28
Non-Federal Aid Total	7.30	4,436.20	11,290.27	504.51	16,238.28
All Urban Total	1,548.39	6,390.20	15,632.43	525.14	24,096.16
Federal Aid Total	7,056.32	8,490.81	4,530.23	248.61	20,325.97
Non-Federal Aid Total	14.88	30,735.22	12,498.24	16,817.69	60,066.03
Arterial and Collector Total	7,056.32	14,360.59	4,626.62	523.78	26,567.30
Local Access Total	14.88	24,865.44	12,401.85	16,542.53	53,824.70
All Public Roads Total	7,071.20	39,226.03	17,028.46	17,066.30	80,392

"Federal Aid" includes all public roads except Rural Minor Collector, and Rural and Urban Local Access unless NHS.

"Other Miles" agencies are: WA State Fish and Wildlife, WA State Parks and Recreation Commission, WA State Department of Natural Resources, WA State Department of Corrections, WA State Universities and Colleges, WA Ports, U.S. Forest Service, National Park Service, U.S. Department of Energy, Bureau of Indian Affairs, National Fish and Wildlife Service, Bureau of Reclamation, U.S. Corps of Engineers, U.S. Navy/Marines, Indian Nations, and U.S. Army.

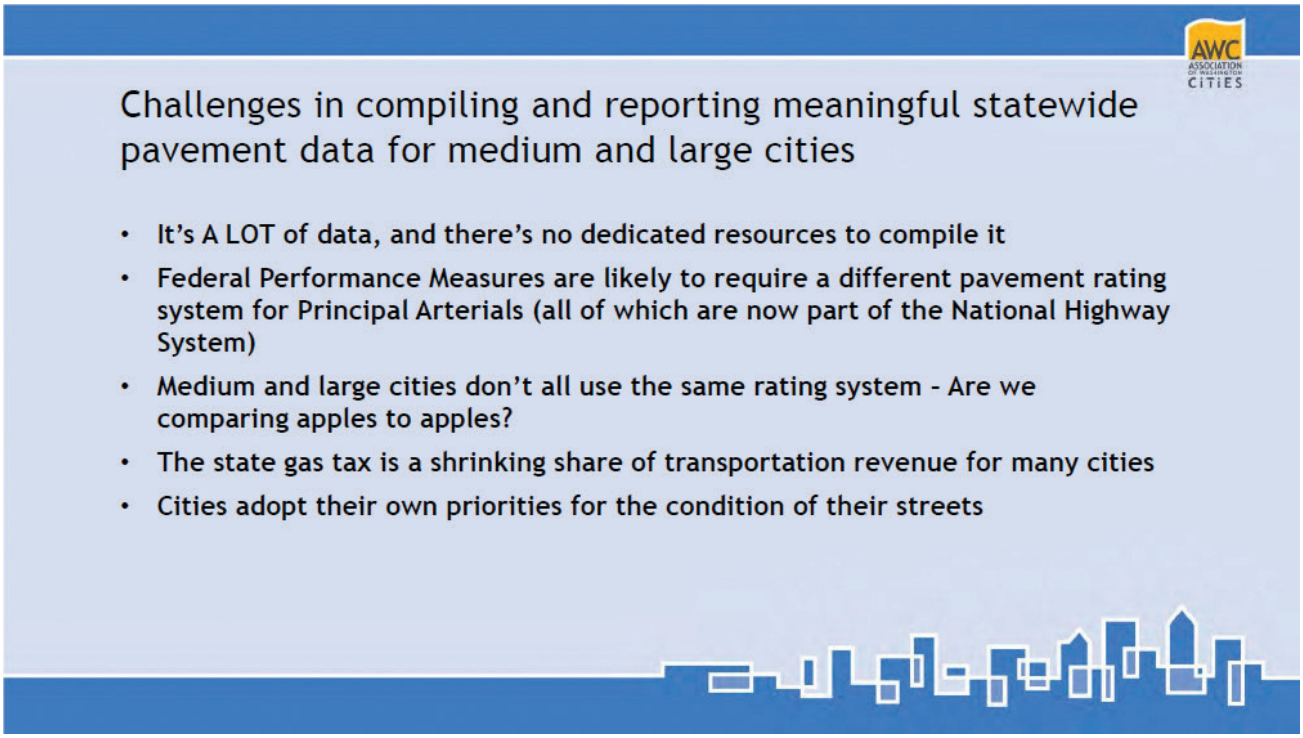
Figure C-8: 2008 & 2016 Small City Pavement Status





Source: TIB PowerPoint Presentation to WSTC 12/14/16

Figure C-9: Challenges in Compiling and Reporting Meaningful Statewide Cities Pavement Data



Source: Association of Washington Cities PowerPoint presentation to the WSTC 12/14/16.

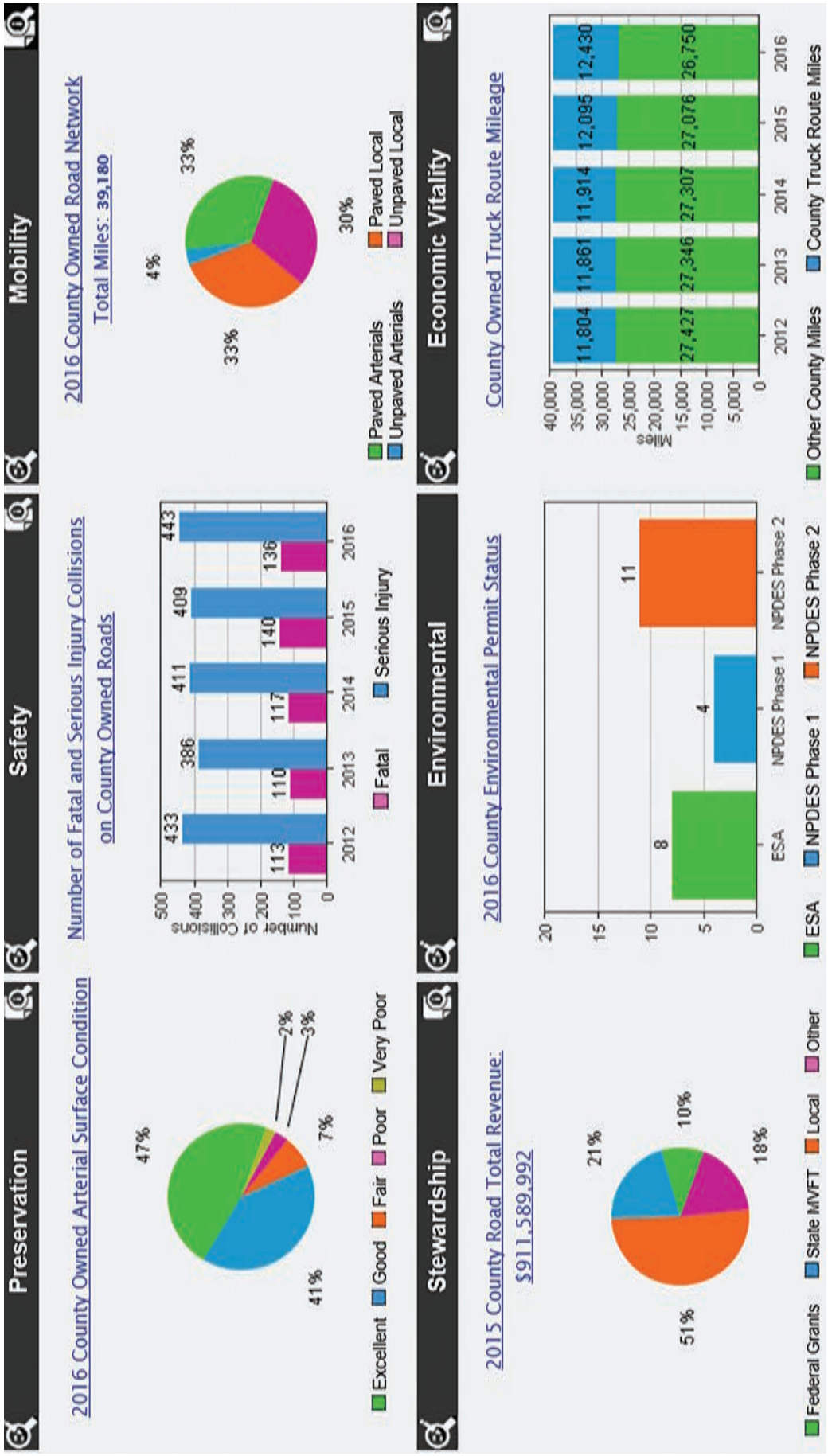


Figure C-10: Washington State County Transportation Metrics Statewide County Road Data

Source: http://www.crab.wa.gov/Metrics/index.cfm

What is the condition of the public road system?

When asset managers discuss road conditions, they use lane miles rather than centerline miles because lane miles is the amount of pavement - not the length of the road. The conditions do not include active transportation assets because they are not currently separately tracked and evaluated for condition specific to use for walking and bicycling.

State Highway System

- WSDOT manages $19 billion of pavement assets which includes approximately:
  - 18,500 lane miles of pavement (excluding bridge decks).
  - 2,000 lane miles of ramps and special use lanes.
  - 7,500 lane miles of shoulders.
- Pavement conditions remain stable from 2014-2015 with 93.1 percent lane miles in fair or better condition.
- Pavement preservation backlog increased by 14.8 percent from 2014-2015. The backlog is expected to decrease with upcoming funding.
- The majority of concrete pavement is at twice as old as its original design life and WSDOT is extending the life cycle through rehabilitation and reconstruction rather than replacement.

Table C-9: Rehabilitation Versus Reconstruction

Years	Rehabilitation (Lane miles)	Reconstruction (Lane miles)
2016-2025	336	515
2026-2035	567	474
2036-2045	417	504
(2016-2045)	1,350	1,493
Annual Average	45	50

Data source: WSDOT Pavement Office

- 93 percent of maintenance condition targets met in 2016.

Cities and counties:

- Cities and counties manage 116,338 lane miles of pavement.
- Connecting Washington funding is unlikely to change the conditions of local pavement at their current levels.

- Some of the most critical near-term local pavement issues include the following:
  - Funding for urban corridors with heavy bus traffic and freight traffic is below the estimated need for necessary improvements.
  - Normal wear and tear due to increasing average daily travel. Funding to rehabilitate and reconstruct these roads is significantly below the level of need, and capacity has not expanded to meet demand. This places a heavier burden on existing roads, which makes them deteriorate at a faster rate.
  - Local agencies are unsure how NHS pavement conditions in their cities will be evaluated in the future and how this may impact their ability to control roadways and allocate resources in a way that they feel appropriate.
  - Locally owned roadways are disproportionately impacted by severe weather events. In some cases, these events have become extreme, posing a substantial concern for local agencies. An aging drainage infrastructure coupled with an already stressed roadway system is a major concern, particularly in the Puget Sound area.
- Counties face these unique funding challenges:
  - Sources of funding are from property taxes on unincorporated, lower value rural land.
  - Up to 50 percent of the trips on some high traffic county roads come from neighboring counties or cities (not from the tax payers).

Other roads

- Federal law (US Code 23 Sections 201, 203, and 204[14]) requires federal land management agencies (FLMAs) to inventory and assess a subset of their roads as per FHWA specifications. FLMAs are working on this inventory.
- Federal law (US Code 23 Sections 201 and 202[15]) allows tribes to inventory and assess a subset of their roads as per FHWA specifications in order to be eligible for particular federal funding. Tribes are working on this inventory.

14 http://uscode.house.gov/browse/prelim@title23&edition=prelim
15 http://uscode.house.gov/browse/prelim@title23&edition=prelim

What is the demand of the public road system?

The following mileage and travel information is based on data WSDOT collects annually for Highway Performance Monitoring System (HPMS) sections.

Table C-10: 2016 Daily Vehicle Miles Traveled (DVMT) Information

Jurisdiction	Centerline Miles		Daily Vehicle Miles Traveled (Thousands)	Annual Vehicle Miles Traveled (Thousands)	Percent of Vehicle Miles Traveled
State Total [1] (Interstate)	7,056.32 (763.66)	8.8% (0.9%)	93,773 (46,132)	34,227,000 (16,838,000)	56.2% (27.7%)
City	17,028.47	21.2%	43,878	16,015,000	26.3%
County	39.226.03	48.8%	26,672	9,735,000	16.0%
Other [2}	17,081.57	21.2%	2,392	873,000	1.4%
Total	80,392.39	100%	166,715	60,851,000	100%

[1]Interstate figures are also included in the State total. [2]Other Jurisdictions include State Dept. of Natural Resources, State Parks, Other State, Port Districts, Indian, U.S. Forest, and National Parks.

Table C-11: 2015-2016 Other Agency Mileage Report

Agencies	Public Miles Traveled 2015 (Thousands)	Public Miles Traveled 2016 (Thousands)	Percent of Change
Washington State Fish and Wildlife	1,290.18	1,290.18	0.00
Washington State Parks and Recreation Commission	195.37	195.37	0.00
Washington State Department of Natural Resources	6,661.80	6,661.80	0.00
Washington State Department of Corrections	4.59	3.66	-0.93
Washington State University and College	14.38	15.13	0.75
Ports	46.64	50.97	4.33
U.S. Department of Energy	114.00	74.23	-39.77
Bureau of Indian Affairs	1,468.00	1,467.80	-0.20
National Fish and Wildlife Service	181.34	181.34	0.00
U.S. Forest Service	3,944.00	3,945.53	1.53
National Park Service-U.S. Department of Interior	336.89	336.89	0.00
Bureau of Reclamation-U.S. Department of Interior	6.00	6.00	0.00
U.S. CORPS of Engineers	177.59	177.59	0.00
U.S. Navy/Marines	473.44	473.44	0.00
Indian Nations	160.00	209.20	49.20
U.S. Army	1,994.46	1,992.44	-2.03
Total Other Agency Miles	17,068.68	17,081.57	12.89

***Other indicates public roads that are not owned by WSDOT, counties or cities**

People (passenger vehicles)

The statewide number of registered vehicles has kept pace with the statewide population. If this trend continues, there will be more than 8 million registered vehicles in the state in the year 2040.

Table C-12: 2012-2040 Trends in Vehicles and Population

Statewide Totals	2012	2013	2014	2015	2016	2040
Registered Vehicles	6.7 million	6.8 million	6.9 million	7.0 million	7.2 million	8 million (forecasted)
Population	6.8 million	6.9 million	7.0 million	7.1 million	7.2 million	9.1 million (forecasted)

Sources: Washington State Department of Licensing and Washington State Office of Financial Management

Freight (trucks)[16]

The main high volume Truck Freight Economic Corridors are defined by annual tonnage based on Washington State Freight and Goods Transportation Systems[17], and include all T-1 (carrying more than 10 million tons per year) and T-2 (carrying 4 to 10 million tons per year) corridors in the state. Truck Freight Economic Corridors recognize the importance of system resiliency (alternate routes to primary cross-state freight routes during severe weather or other disruptions) and supply chains (first/last mile connections to freight intensive land uses). The Truck Freight Economic Corridors also include first/last mile connector routes serving significant intermodal facilities, agricultural processing centers, warehouse districts, or other freight intensive land uses.

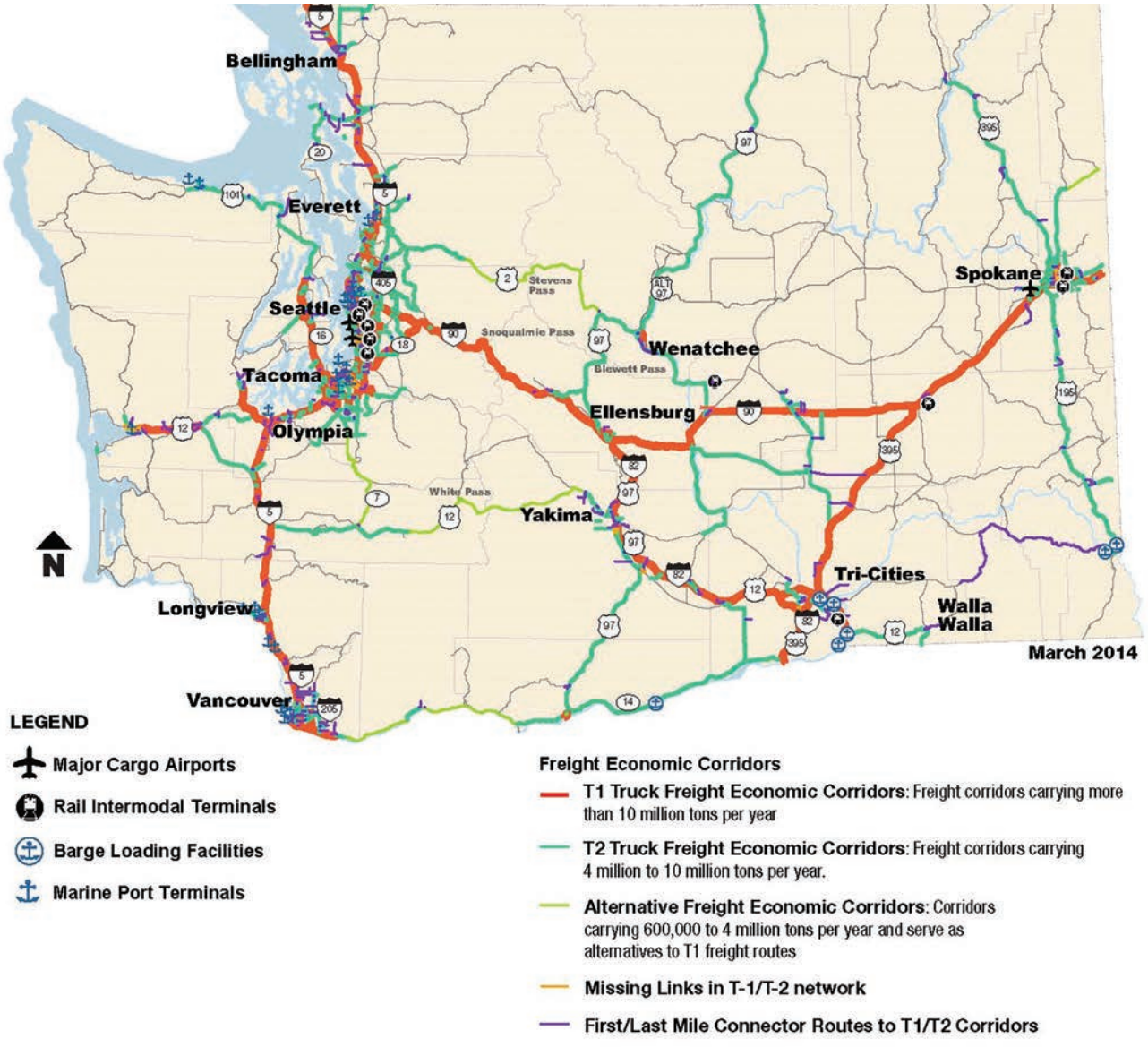
WSDOT uses the Truck Freight Economic Corridors to identify and map supply chains, identify system condition and capacity issues, and to develop performance measures to improve freight mobility. See the Freight Economic Corridors website[18] for more information.

16 Sources:
County Road and County Ferry Information: http://www.crab.wa.gov/LibraryData/REPORTS/CRAB/CRAB_Annual/20160111P1U46327_CRABGUTS.pdf
City Transportation: http://data1.awcnet.opendata.arcgis.com

17 http://www.wsdot.wa.gov/Freight/FGTS/

18 http://www.wsdot.wa.gov/Freight/EconCorridors.htm

Figure C-11: Freight Economic Corridors



Source: WSDOT

According to Federal Highway Administration's Freight Analysis Framework (FAF), truck freight tonnage moved on the roadway network in Washington is projected to increase from 281.2 million in 2015 to 379.4 million in 2035. That translates to a total increase of 35 percent over a 20-year period and an annual growth rate at 1.5 percent. The total truck ton-miles moved will increase from 72.1 billion in 2015 to 102.7 billion in 2035 at an annual growth rate of 1.8 percent. Truck forecast from FAF is for freight moved exclusively by the truck mode, and does not include intermodal shipments, such as truck-rail and truck-water shipments. The FAF4 forecast shows a much slower growth rate for truck freight volume compared to FAF3 projection, which was created based on 2007 Commodity Flow Survey and used in the 2014 Washington State Freight Mobility Plan for the state freight forecast. Table C-13 shows tonnage and ton-miles, a measurement of one ton of freight carried one mile, for the truck freight system in Washington.

Table C-13: Summary of Truck Freight Forecast

	2015	2035	% Change	% Annual Growth Rate
Tonnage (million tons)	281.2	379.4	35%	1.5%
Ton-Miles (billion ton-miles)	72.1	102.7	42%	1.8%

Source: Federal Highway Administration (FHWA) Freight Analysis Framework Version 4. Data was retrieved from FAF4 Data Tabulation Tool (https://faf.ornl.gov/faf4/Extraction0.aspx) by using "Total Flows" query, selecting 2015 and 2035 as the data year.

How do public roads connect to other modes?

The highway and bridge network throughout the state of Washington is multifaceted. Ferries and bridges connect the highway network along with alternate means of transportation such as rail, local or regional transit, buses, and trains. Daily commuters utilize numerous means of transportation to reach their destination.

What are the safety statistics for public roads?

Tables C-14 and C-15 summarize the state's progress in meeting key Target Zero goals. For more information, see the Washington State Traffic Safety Commission at http://wtsc.wa.gov/.

Table C-14: 2009-2016 Public Roads System Safety Statistics

	2009	2010	2011	2012	2013	2014	2015	2016
Bicyclist Fatal Crashes	9	6	11	12	11	7	14	17
Bicyclist Serious Injury Crashes	109	116	114	109	81	102	106	122
Pedestrian Deaths	62	63	69	75	50	78	86	89
Pedestrian Serious Injuries	289	292	288	337	260	306	282	350
Motorcyclists Fatal Crashes	67	65	70	80	71	68	73	80
Motorcyclists Serious Injury Crashes	450	376	344	377	332	339	381	376
All Traffic Deaths	492	460	454	438	436	462	551	535
All Traffic Serious Injuries	2,646	2,482	2,136	2,200	1,915	2,000	1,944	1,885

Table C-15:
2009-2016 Public Roads Safety Statistics Breakdown by the Federal Classifications of Urban and Rural

	2009	2010	2011	2012	2013	2014	2015	2016
Fatal Crashes on Urban	165	184	170	157	200	232	266	281
Serious Injury Crashes on Urban	**	**	**	**	**	**	**	**
Fatal Crashes on Rural	281	231	250	246	201	195	230	240
Serious Injury Crashes on Rural	**	**	**	**	**	**	**	**

Table C-16: 2009-2016 Public Roads Safety Statistics Breakdown by Jurisdiction

	2009	2010	2011	2012	2013	2014	2015	2016
Fatal Crashes on State Highways (includes Interstates)	210	211	210	193	180	188	224	234
Serious Injury Crashes on State Highways (includes Interstates)	850	805	689	651	618	624	657	696
Fatal Crashes on County Road	149	119	129	119	120	118	143	137
Serious Injury Crashes on County Roads	583	524	459	439	364	394	395	432
Fatal Crashes City Streets	82	80	72	87	97	107	119	124
Serious Injury Crashes on City Streets	773	734	649	748	594	648	674	739
Fatal Crashes on Other types of road	12	12	10	4	4	16	13	8
Serious Injury Crashes on Other types of roads	34	36	29	33	25	22	26	27

Source: Washington Traffic Safety Commission Fatal Data Source: Fatality Analysis Reporting System (FARS), WTSC and Serious Injury Data Source: Collision Location Analysis System (CLAS), WSDOT

Pipelines

What is the pipeline system?

In Washington state, the pipelines are underground and carry natural gas and hazardous liquids (petroleum products). The location, construction and operation of these systems are generally regulated by federal and state agencies. The Washington State Utilities and Transportation Commission (UTC) is responsible for developing and enforcing safety standards for natural gas and hazardous liquid pipelines located within the state. The UTC also inspects the portions of interstate natural gas and hazardous liquid pipelines located within Washington; the standards and enforcement actions are the responsibility of the federal Pipeline and Hazardous Materials Safety Administration (PHMSA).

Where are pipelines located?
Three main petroleum pipelines are:

- Olympic (400 interstate pipeline with 299 miles in the state from Blaine to Vancouver)
- Chevron (Salt Lake to Pasco and Pasco to Spokane. It delivers military jet fuel to Fairchild Air Base in Spokane)
- Yellowstone (Billings to Spokane and Moses Lake)

The three main natural gas pipeline systems include wellhead pumps, compressor stations, tanks, underground reservoirs, and pipelines. The three major pipelines are:

- Northwest Pipeline Company's pipeline runs from Sumas south along the I-5 corridor and east along the Columbia River. In addition to delivering Canadian natural gas, the system is bidirectional, with the capability to direct natural gas supplies from the Wyoming natural gas fields and the San Juan Basin to Washington, when needed.
- The Gas Transmission Northwest Company system transports Canadian natural gas from the Canada/Idaho border through Washington and Oregon.
- Puget Sound Energy owns the largest natural gas storage depot in Washington: the Jackson Prairie Underground Natural Gas Storage Facility in Lewis County. This reservoir can hold approximately 44 Bcf of natural gas to meet peak demand in winter.

In total, the system includes five major petroleum refineries (BP West Coast Products and Phillips 66 Company in Ferndale, Shell Oil Products and Tesoro West Coast in Anacortes, and U.S. Oil & Refining in Tacoma).

For more information, including pipeline routes, by county see: http://www.utc.wa.gov/regulatedIndustries/transportation/pipeline/Pages/pipelineMaps.aspx

Pipeline forecast
The three petroleum pipelines moved 50.3 million tons in 2015 and are expected to move 52.8 million tons in 2035.

The two natural gas pipelines moved 1.9 billion cubic feet per day in 2015. There is no available forecast.

How do pipelines connect to other modes?

Natural gas carried in pipelines does not connect to other modes. There are proposals to build plants that will take natural gas from pipelines and then convert it to liquefied natural gas (LNG) and moved by ship or truck.

Hazardous liquid relies on connections to many modes:

- Crude oil is transported by ship to Puget Sound refineries.

- Refined product (gas, diesel and jet fuel) moves by pipeline or barge from refineries to distribution centers.
  - Most of the refined product moves by pipeline. One of the major pipeline terminals is Vancouver, WA – Tidewater barge facility. From Tidewater it is barged upriver to Pasco.
  - Oregon does not have refineries and receives the majority of its petroleum products from Washington.
- Product moves from distribution centers by truck to gas stations.

What are the safety statistics for pipelines?

Table C-17 shows information for incidents involving the public and industry employees that is reported to the U.S. DOT Pipeline and Hazardous Materials Safety Administration.

Table C-17: 1998-2017 Safety Statistics for Pipelines

Washington State			All States		
Calendar Year	Fatalities	Injuries	Calendar Year	Fatalities	Injuries
1998	0	0	1998	21	81
1999	3	8	1999	22	108
2000	0	0	2000	38	81
2001	-	-	2001	7	61
2002	0	0	2002	12	49
2003	0	0	2003	12	71
2004	1	2	2004	23	60
2005	0	0	2005	17	47
2006	0	0	2006	21	36
2007	0	0	2007	15	49
2008	0	1	2008	8	56
2009	0	2	2009	13	64
2010	0	0	2010	22	108
2011	0	3	2011	13	55
2012	0	0	2012	12	57
2013	0	0	2013	9	44
2014	0	1	2014	19	95
2015	0	3	2015	12	51
2016	0	0	2016	16	87
2017	0	0	2017	22	41
Statewide Total	4	20	National Total	334	1,301

Source: U.S. DOT Pipeline and Hazardous Materials Safety Administration https://www.phmsa.dot.gov/pipeline/library/data-stats/pipelineincidenttrends

For more information on pipelines, see the 2017 Washington State Freight System Plan[19].

19 http://www.wsdot.wa.gov/Freight/default.htm

Public Transportation System (Transit)

What is the public transportation system?

Public transportation includes fixed route, demand response, vanpool, intercity rural bus service, Medicaid and non-emergency transportation, light rail, monorail, streetcar, and passenger ferry service.

Infrastructure includes public roads, buses, vans, transit centers, bus shelters and stops, bus rapid transit platforms, park and ride lots, ferry terminals, ferry vessels, light rail train cars and light rail/ monorail tracks.

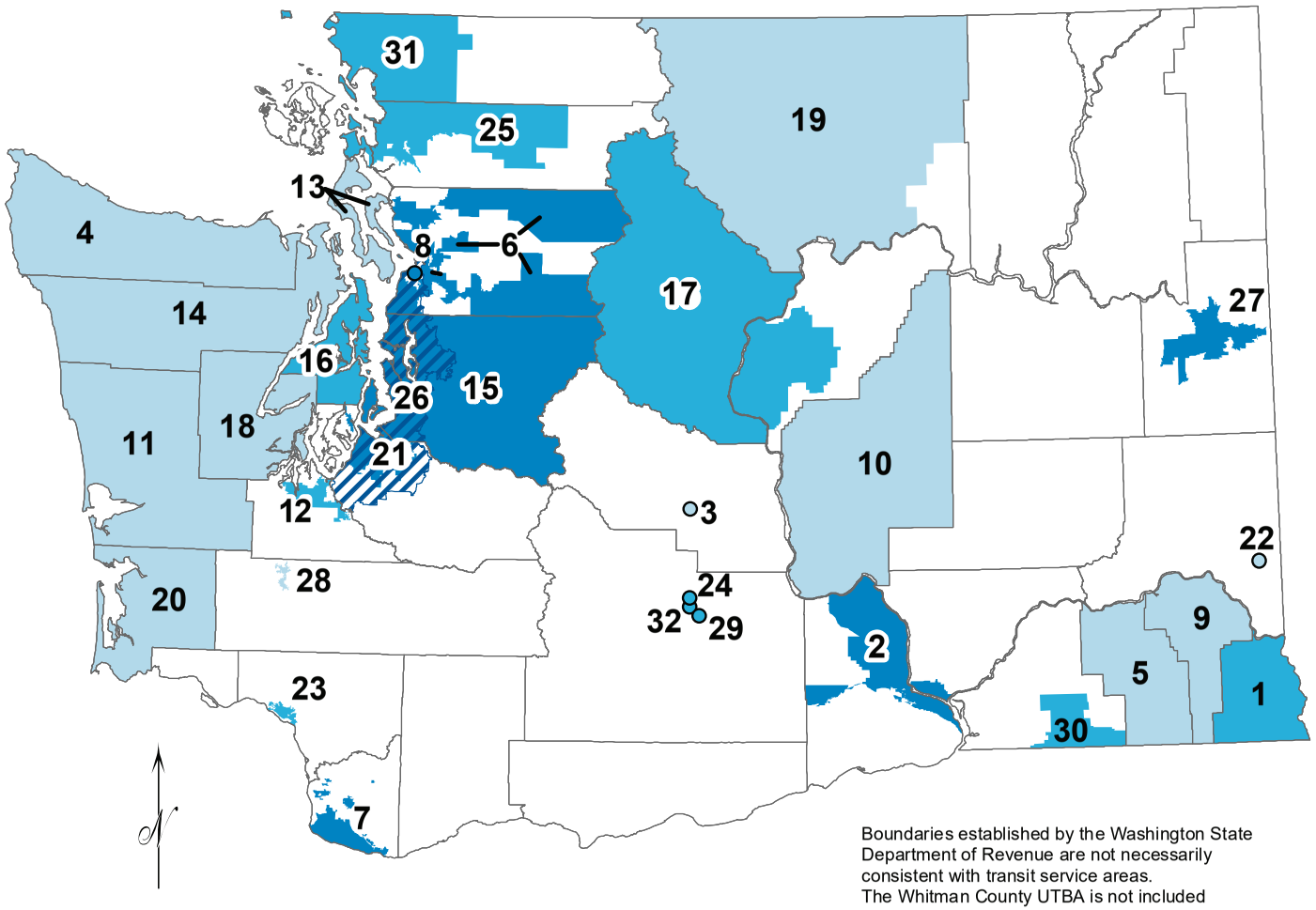
Service providers are public transit authorities, cities, non-profit and for profit transportation providers, intercity bus carriers, universities, and tribes.

Where is the public transportation system located?

The 32 transit districts offer the majority of the service and they are located across the state (see Figure PT -1). As of 2015, approximately 5.8 million people (83 percent of the state's population) live within the boundaries of a transit district.

Tribes, non-profits and other community transportation providers, and WSDOT's Intercity Bus Program (Figure C-13) also provide transit service.

Figure C-12: Washington State's Public Transit Authorities



Boundaries established by the Washington State Department of Revenue are not necessarily consistent with transit service areas.
The Whitman County UTBA is not included because no transportation services are provided within the boundary.

Washington State Department of Transportation

Transit Classification

- Urban
- Small Urban
- Rural
- Regional District
- City

1 Asotin County Transit
2 Ben Franklin Transit
3 Central Transit
4 Clallam Transit System
5 Columbia County Transportation Authority
6 Community Transit
7 C-TRAN
8 Everett Transit
9 Garfield County Transportation Authority
10 Grant Transit Authority
11 Grays Harbor Transportation Authority
12 Intercity Transit
13 Island Transit
14 Jefferson Transit Authority
15 King County Metro
16 Kitsap Transit
17 Link Transit
18 Mason County Transportation Authority
19 Okanogan County Transit Authority
20 Pacific Transit System
21 Pierce Transit
22 Pullman Transit
23 RiverCities Transit
24 Selah Transit
25 Skagit Transit
26 Sound Transit
27 Spokane Transit Authority
28 Twin Transit
29 Union Gap Transit
30 Valley Transit
31 Whatcom Transportation Authority
32 Yakima Transit

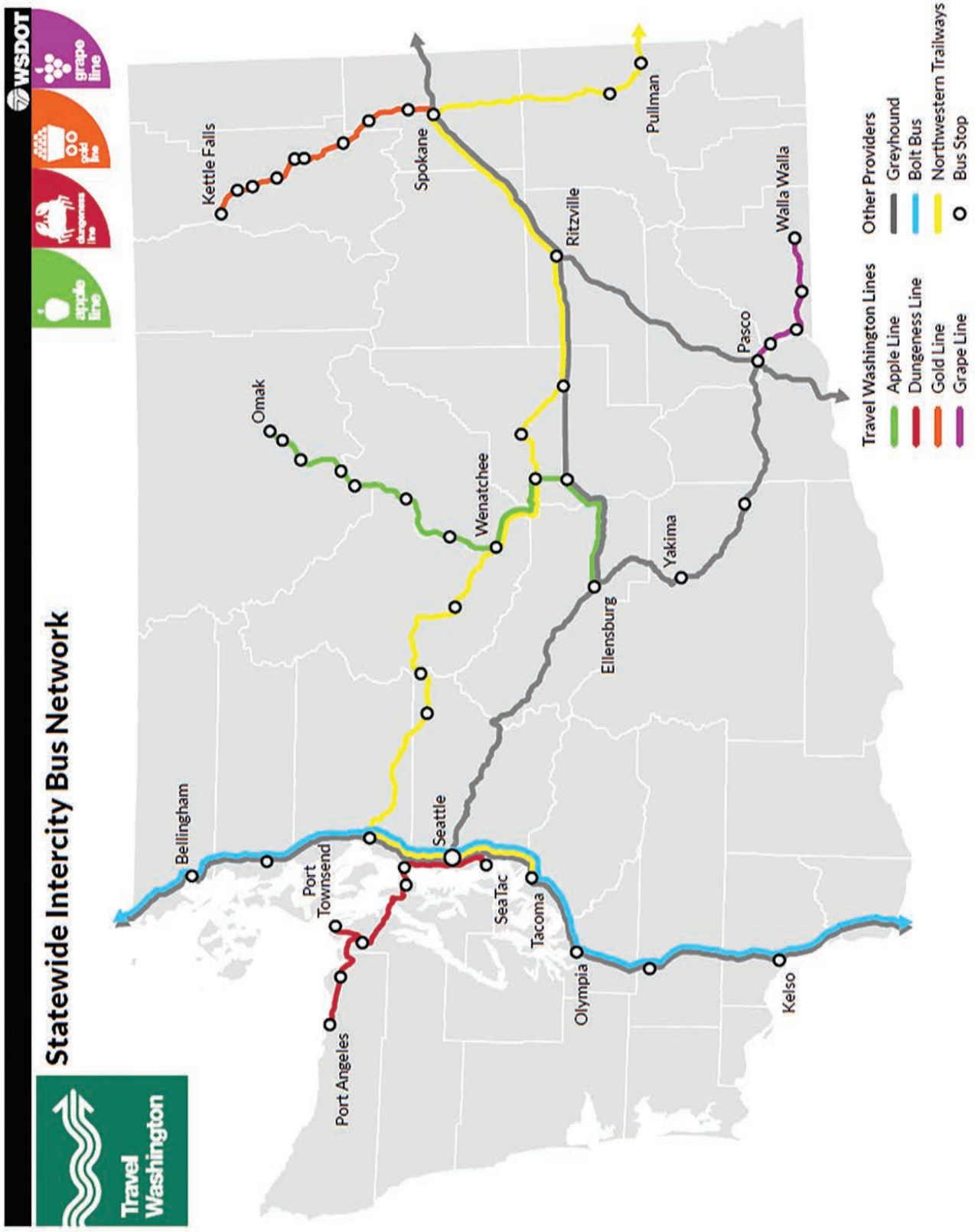


Figure C-13: Statewide Intercity Bus Network

What is the current condition of the public transportation system?

- In 2015, 34.6 percent of the transit fleet vehicles exceeded the Federal Transit Administration's (FTA) definition of minimum useful life.
- In 2014, 37.3 percent met this definition.

As shown in Table C-18, from 2011 to 2016, total passenger trips across all modes increased 8.08 percent. The proportion of trips provided by fixed route services (83.23 percent of all trips in 2016) is still below 2011 levels (87.50 percent), even though the total number of trips is higher; however, the number of light rail trips has increased 123.21 percent since 2011. The total number of trips associated with all modes increased 2.59 percent from 2015 to 2016.

Table C-18: Passenger Trips by Service Mode

	2011	2012	2013	2014	2015	2016	2015-2016 Change (%)
Fixed Route	190,234,530	191,966,046	194,239,523	198,169,160	197,591,641	195,572,311	-1.02
Route Deviated	2,157,594	2,388,370	2,404,556	2,373,499	2,070,774	1,830,682	-11.59
Demand Response	4,557,744	4,427,943	4,379,465	4,356,667	4,277,233	4,222,178	-1.29
Vanpool	8,289,335	8,635,720	8,425,655	8,255,460	8,123,768	7,723,810	-4.92
Commuter Rail	2,626,711	2,803,123	2,968,041	3,361,318	3,851,831	4,312,113	11.95
Light Rail	9,546,221	10,476,045	11,453,266	12,619,200	13,126,042	21,307,980	62.33
Total	**217,412,135**	**220,697,247**	**223,870,506**	**229,135,304**	**229,041,289**	**234,969,074**	**2.59**

Note: Public transportation does not include: school bus service, charter service, intercity bus (Greyhound), intercity passenger rail (Amtrak Cascades), or sightseeing.[20]

20 Definitions for terms in table (Source: Federal Transit Administration, national Transit Database Glossary)

Fixed Route: A system of transporting individuals (other than by aircraft), including the provision of designated public transportation service by public entities and the provision of transportation service by private entities, including, but not limited to, specific public transportation service, on which a vehicle is operated along a prescribed route according to a fixed schedule. [49 CFR 37.3]

Route Deviated: A type of transit service that operates as conventional fixed route bus (MB) service along a fixed alignment or path with scheduled time points at each terminal point and key intermediate locations. Route deviation service is different than conventional fixed route bus (MB) service in that the bus (MB) may deviate from the route alignment to serve destinations within a prescribed distance (e.g., ¾ mile) of the route. Following an off route deviation, the bus must return to the point on the route it left. Passengers may use the service in one of two ways:

- If they want to be taken off route as part of a service deviation, they must tell the bus operator when boarding.
- If they want to be picked up at an off route location, they must call the transit system and request a pickup, and the dispatcher notifies the bus operator.

Demand Response: A system of transporting individuals (other than by aircraft), including the provision of designated public transportation service by public entities and the provision of transportation service by private entities, including, but not limited to, specified transportation service, which is not a fixed route system. [49 CFR 37.3]

Vanpool: A transit mode comprised of vans, small buses and other vehicles operating as a ride sharing arrangement, providing

What is the future demand for public transportation?
There is no statewide common method for forecasting demand. Each agency determines demand differently. The most common method to determine demand is to use population forecasts as a proxy.

Factors influencing demand include:

- Affordability of housing and transportation.
- Transit quality of service as defined in the Transit Capacity and Quality of Service Manual (TRCP 165-Pages 4-7).
- Safety and completeness of active transportation connections to transit stops/stations.
- Gas prices.
- Aging population.
- Traffic congestion.
- Density.
- Funding levels.
- Evolving technologies.
- Attitudes toward owning personal vehicles.
    - Transit quality of service as defined in the Transit Capacity and Quality of Service Manual (TRCP 165-Pages 4-7).
    - Safety and completeness of active transportation connections to transit stops/stations.

How does public transportation connect to other modes?
Public transportation connects to other systems at airports, ferry terminals, transit stations, park and ride lots, tribal reservations, and train stations.

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transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographical area. The vehicles shall have a minimum seating capacity of seven persons, including the driver. For inclusion in the NTD, it is considered mass transit service if it meets the requirements for public mass transportation and is publicly sponsored

Commuter Rail: An electric or diesel propelled railway for urban passenger train service consisting of local travel which operates between a central city and outlying areas. Service must be operated on a regular basis by or under contract with a transit operator for the purpose of transporting passengers within urbanized areas (UZAs), or between urbanized areas and outlying areas. Commuter rail is generally characterized by multi-trip tickets, specific station-to-station fares, railroad employment practices, relatively long distance between stops, and only one-to-two stations in the central business district. Sounder is the only commuter rail service in Washington.

Light Rail: A transit mode that typically is an electric railway with a light volume traffic capacity compared to heavy rail (HR). It is characterized by:

- Passenger rail cars operating singly (or in short, usually two car, trains) on fixed rails in shared or exclusive right-of-way (ROW).
- Low or high platform loading.
- Vehicle power drawn from an overhead electric line via a trolley or a pantograph.

Sound Transit operates the only light rail service in Washington.

What are the public transportation safety statistics?

The following tables summarize safety data reported to the Federal Transit Administration.

Table C-19: Urbanized Area Formula Grant Recipients Safety Data

	Reportable Event	Fatalities	Injuries
2013	112	8	116
2014	104	3	107
2015	159	3	140
2016 (as of 4/3/17)	164	7	116

Includes passengers, pedestrians, transit employees, bicyclists, motorists, trespassers and suicides
Source: https://www.transit.dot.gov/ntd/ntd-data

Table C-20: Rural Subrecipient Safety Data

	Reportable Event	Fatalities	Injuries
2013	7	0	2
2014	8	0	5
2015	4	0	3

Source: FTA NTD https://www.transit.dot.gov/ntd/ntd-data

Table C-21: Tribal Subrecipient Safety Data

	Reportable Event	Fatalities	Injuries
2013	0	0	0
2014	0	0	0
2015	2	0	6

Source: https://www.transit.dot.gov/ntd/ntd-data

Rail System: Freight & Passenger

What is the statewide rail system?

Washington has more than 3,000 miles of railroad tracks that provide mobility into, out of, within and through the state. Rail uses a system of main lines, branch lines, industrial spurs and rail yards operated by these types of carriers:

Class I railroads

- Own 60 percent of the statewide infrastructure.
- Freight service
  - 2 Privately owned:
    - BNSF Railway operates on 1,633 miles of track.
    - Union Pacific operates on 532 miles of track.
  - In most parts of the state, the infrastructure is actually owned by the Class I freight railroads, which allows passenger rail to operate over it using a series of operating agreement.
- Passenger rail
  - Two long-distance (Empire Builder and Coast Starlight).
  - Intercity (Amtrak Cascades).
  - Commuter (Sounder).

Class II railroads

- Freight service.
- Uses Class I infrastructure .
- One privately owned:
  - Montana Rail Link connects to BNSF Railway in Spokane.

Class III railroads (short lines)

- Owns 40 percent of the statewide infrastructure.
- Freight and passenger (tourist trains) service.
- 17 Privately-operated.
  - Own 20 percent of rail mileage in the state.
- Eight Publicly-operated.
  - Own 20 percent of rail mileage in the state
  - WSDOT owns the Palouse River and Coulee City (PCC) rail system and contracts with private railroads to operate each of the branches.

Where is the statewide rail system located?

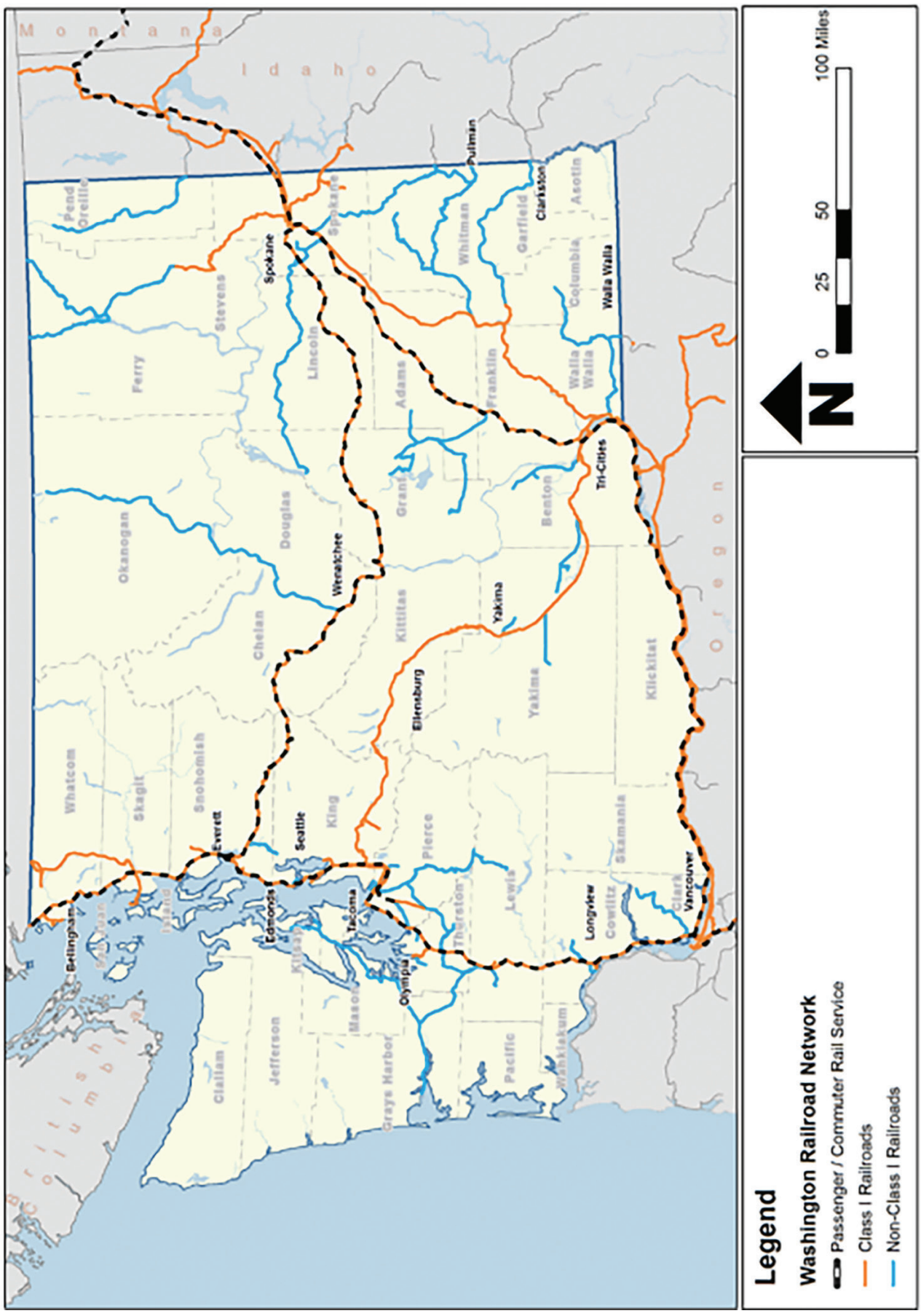


Figure C-14: Washington Rail Network

What is the location of freight economic rail corridors?
WSDOT worked with the Freight Mobility Strategic Investment Board, metropolitan planning organizations, regional transportation planning organizations, counties, cities, tribal governments, and ports to develop objective criteria in defining the statewide system of freight economic corridors.

Freight economic corridors are used to identify and map supply chains, identify system condition and capacity issues, and to develop performance measures to improve freight mobility.

What is the condition of the rail system?
The Washington State Rail Plan 2013-2035 identifies these significant near and long-term challenges facing statewide rail transportation:

- Economic and demographic growth will increase demand for passenger and freight rail services, particularly on privately owned Class I railroads.
- The state's public and private short-line (Class II) railroads, which provide Washington communities and shippers valuable access to the North American freight rail network, face infrastructure investment needs.
- Federal passenger rail policy has provided capital funding to expand frequency and reliability of intercity passenger rail (Amtrak Cascades), but the agreement also requires Washington to bear greater operating costs.

What is the condition of the freight rail infrastructure?
Challenges facing freight service include capacity constraints and maintenance/preservation of the infrastructure.

- The privately owned Class I Rail needs are proprietary information.
- The 2015 Washington State Short Line Rail Inventory and Needs Assessment included the following information:

Table C-22: Reported Infrastructure Needs for Short Lines

	Track	Bridges
Total Identified Need (Publicly Owned)	$429,047,868	$56,414,912
Total Identified Need (Privately Owned)	$102,922,721	$21,838,613
Total Identified Need	$531,970,590	$78,253,525
Grand Total	$610,224,115	

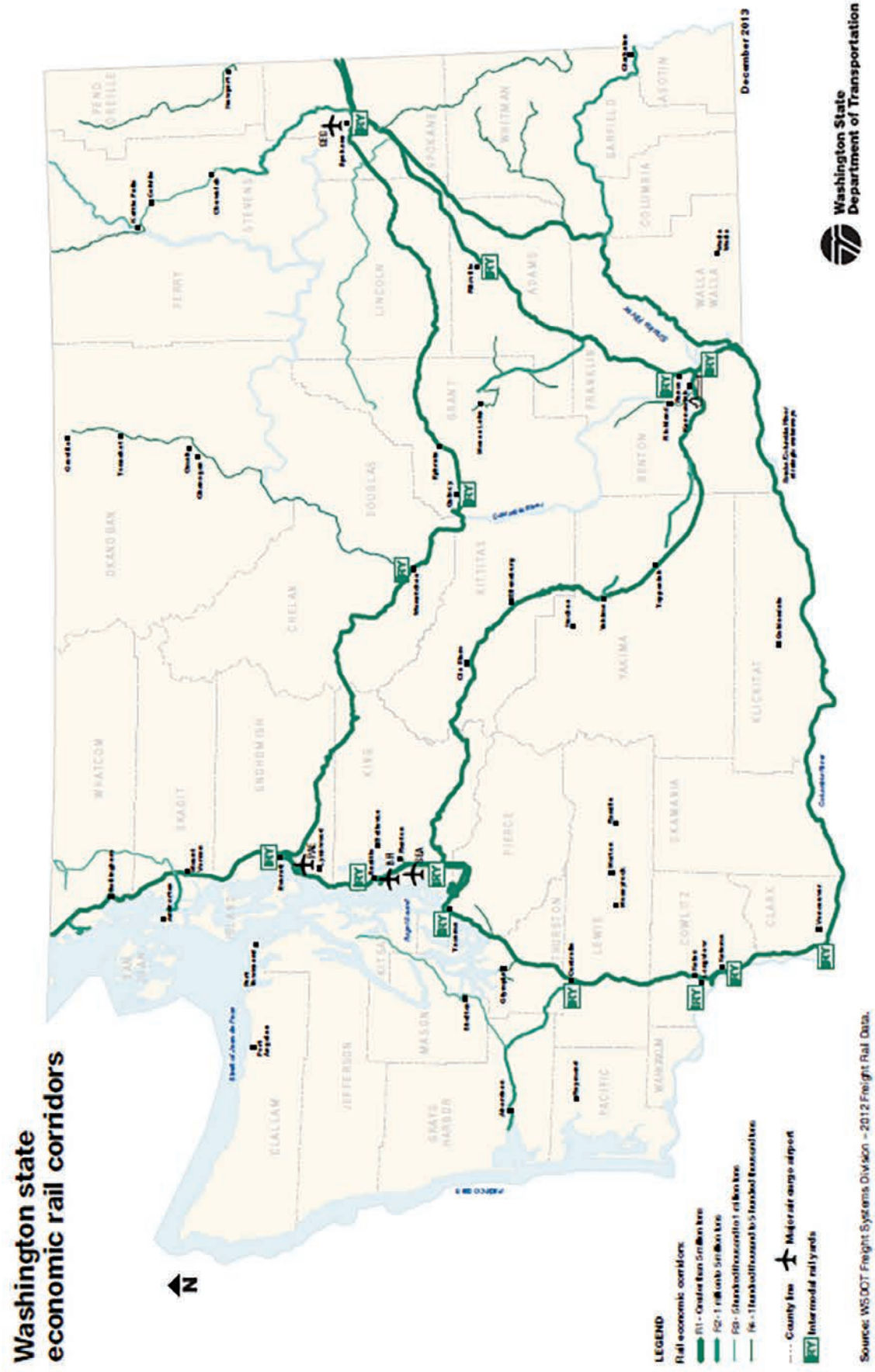


Figure C-15: Washington State Economic Rail Corridors

What is the condition of the passenger rail services?
Challenges facing passenger rail service include unfavorable schedules and service disruptions.

- WSDOT received feedback from stakeholders citing concerns about Empire Builder service to eastern Washington — in particular, arrival and departure times. This long-distance service is designed to serve anchor cities like Seattle, Portland and Chicago at optimal times. Arrivals and departures from other destinations are scheduled around these major markets. This results in late service to Spokane: arrivals and departures occur between midnight and 3 a.m. More favorable arrival and departure times could boost ridership.
- From December through February (the worst of the rainy season), landslides may disrupt the Amtrak Cascades, particularly in landslide prone areas between Seattle and Everett, and passengers may have to travel part of their trip on an Amtrak-provided motor coach. These landslides primarily occur north of Seattle. WSDOT recognizes that this does not support customer service needs and may reduce the number of people that will take the train during that time frame. WSDOT is working with its partners to develop strategies and actions that will reduce the impact of landslides and to help prevent them in the future.

What is the current demand for freight rail?
In 2014[21]:

- 121.8 million tons.
- The total amount of freight transported in the state:
  - 48.6 percent of the total was imported to the state and terminated within the state.
  - 31.5 percent of the total moved through Washington (starting outside the state and not terminating here).
- Farm products such as soybean, corn, and wheat are the largest commodities transported.
  - There was a net increase of 8.9 million tons of farm products (34.3 percent) between 2013 and 2014, mostly due to an increase in soybean and corn shipments.
  - Hazardous materials increased more than three million tons (23.3 percent) due to increased crude oil shipments by rail in the state.
  - Coal traffic also increased two million tons (11.9 percent), rising to 19.3 million tons during 2014.

What is the future demand for freight rail?
According to the Washington State Rail Plan 2013-2305, the two main factors that drive freight growth are population and income. Increased consumption leads to increased business activity and greater demand for goods that use the rail system.

21 Source: Gray Notebook Edition 62, which notes that 2015 data was not available as of June 30, 2016.

In 2015:

- Statewide population was estimated to be approximately 7.1 million (source: OFM).
- Statewide per capita income was $51,146 (source: OFM).

By 2040:

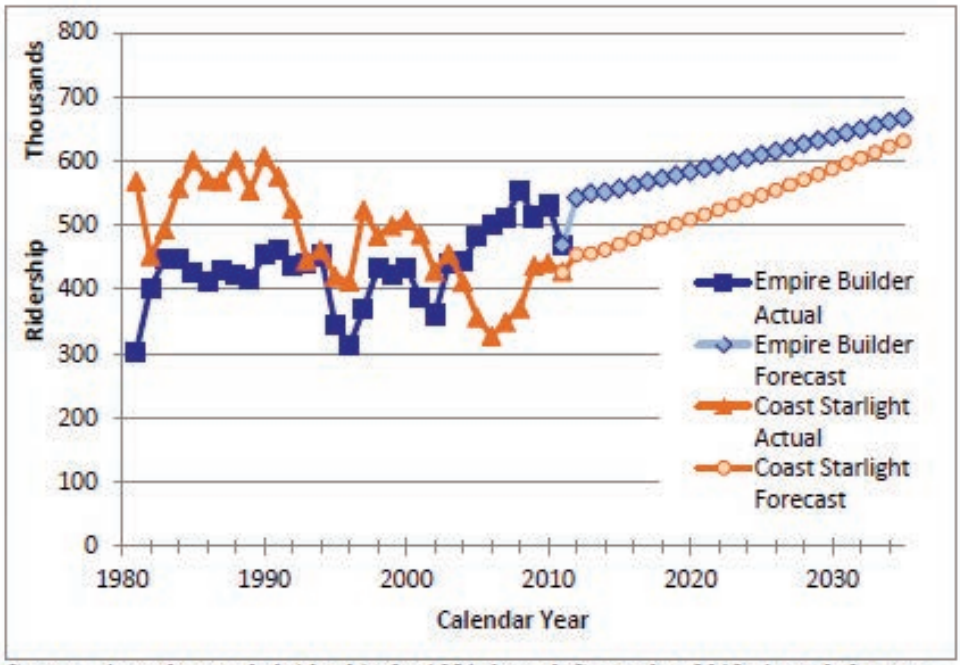
- Statewide population is expected to be 9.1 million (source: OFM).
- Statewide per capita income is expected to be $70,850 (source: OFM using 2009 data).

According to the Washington State Rail Plan 2013-2035, the 2035 forecasts for the commodities that will use the rail system are:

- Approximately 68 million annual tons of cargo:
  - An average compound annualized growth rate of 3.4 percent.
  - 55 percent is expected to be inbound.
  - 19 percent is expected to move outbound.
  - 22 percent is expected to be through movements.
  - 4 percent is expected to be intrastate flows.
- The growth is projected to be heavily weighted to inbound flows, which are projected to increase 90 million tons, compared to an increase of 50 million tons for outbound movements.
- This growth appears to be primarily linked to increased exports through Washington and other Pacific Northwest and British Columbia ports, along with increased consumption associated with a growing state population and per-capita income.

What is the current and future demand for passenger service?

Figure C-16: Amtrak Empire Builder and Coast Starlight Ridership, 1981 to 2035



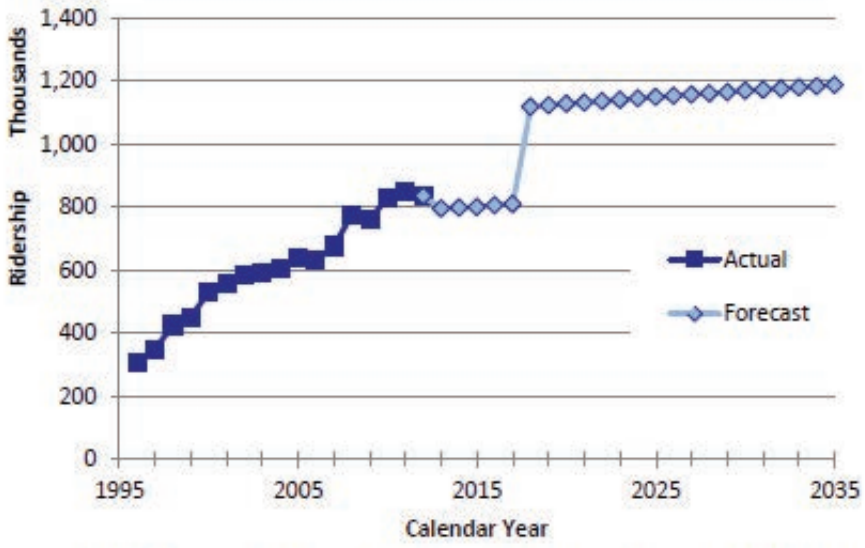
Source: Amtrak recorded ridership for 1981 through September 2012, Amtrak forecasts October 2012 through September 2017, and Cambridge Systematics calculations for October 2017 through 2035.

Amtrak Cascades

- Intercity passenger service is provided by Amtrak Cascades:
  - 2016 ridership: 735,000.
- Sponsored by Washington and Oregon.
- 467 miles long between Eugene, OR and Vancouver, B.C.:
  - 300 miles in Washington.
  - 134 miles in Oregon.
  - 33 miles in British Columbia.
- Uses freight rail lines owned by BNSF Railways and Union Pacific Corporation.
- Operates over 4,000 trains annually.
- Runs 11 daily trains.
- Four daily round trips between Seattle and Portland.
- Two daily round trips between Seattle and Vancouver, B.C.
- Two daily round trips between Portland and Eugene (Oregon).

- Stations in:
  - Bellingham
  - Mount Vernon
  - Stanwood
  - Everett
  - Edmonds
  - Seattle
  - Tukwila
  - Tacoma
  - Olympia/Lacey
  - Centralia
  - Kelso/Longview
  - Vancouver

Figure C-17: Amtrak Cascades Ridership, 1996 to 2035

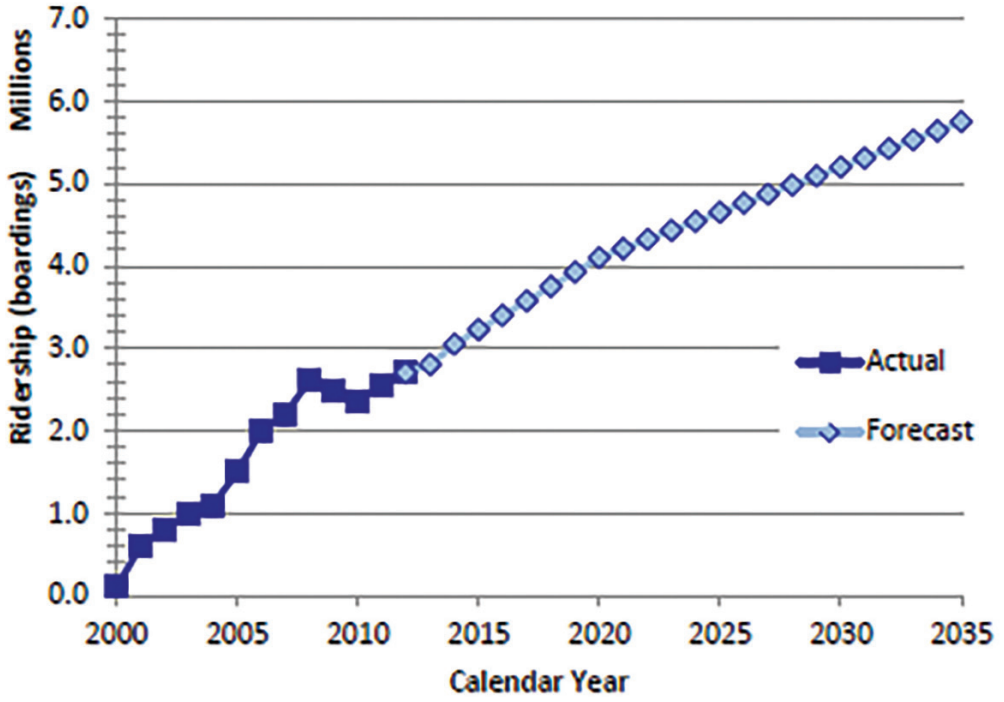


Source: WSDOT historical data and ridership model for Amtrak Cascades. Additional detail and forecast methodology found in Technical Note 4b: *Passenger Rail Ridership Forecasts*.

Sounder (Sound Transit Commuter Rail)

- The federal government defines this service as commuter rail because it operates between in metropolitan and suburban areas, typically serving commuters, usually having reduced fare, multiple-ride, commuter tickets, and morning and evening peak periods operations throughout the day.
- Sole commuter rail service in Washington,
- Shares tracks with freight rail owned by BNSF Railways.
- Routes are:
    - Lakewood and Seattle
    - Everett and Seattle
- Stations are in:
    - Everett
    - Mukilteo
    - Edmonds
    - Seattle (King Street)
    - Tukwila
    - Kent
    - Auburn
    - Sumner
    - Puyallup
    - Tacoma Dome
    - South Tacoma
    - Lakewood

Figure C-18: Sounder Ridership, 2000 to 2035



Source: Sound Transit with Cambridge Systematics projections for 2031 through 2035.
Note: Forecast values provided by Sound Transit for 2012 through 2030 are rounded to the nearest 100,000. Linear growth rate used to calculate ridership levels through 2035.

How does freight rail connect to other modes?

Intermodal rail yards:

- Port of Seattle Intermodal Terminals
- Port of Tacoma Intermodal Terminals
- Tacoma South Intermodal Facility
- Seattle International Gateway
- Argo Intermodal Facility (Seattle)
- South Seattle Intermodal Facility
- Yardley Yard (Spokane)
- Port of Quincy Intermodal
- Port of Pasco Intermodal

How does passenger rail connect to other modes?
Most stations are multimodal hubs with connections to transit, biking, walking, and taxis. Some are served by intercity bus (Greyhound).

What are the safety statistics for the rail system?
According to the Washington Utilities and Transportation Commission, the following statistics are for crashes that occurred at highway rail grade crossings and along rail rights-of-way:

Table C-23: Statewide Rail Crash Statistics

Year	Crossing Collisions	Crossing Injuries	Crossing Fatalities	Trespass Fatalities
2007	48	16	7	9
2008	38	5	4	12
2009	36	7	5	12
2010	36	10	4	15
2011	29	4	8	22
2012	33	18	2	10
2013	20	10	4	17
2014	35	10	5	9
2015	37	7	4	23
2016	40	13	7	7

Source: Washington State Utilities and Transportation Commission at https://www.utc.wa.gov/publicSafety/railSafety/Pages/default.aspx

Waterways: Ferries and Marine Cargo

What are the waterways?

For the purposes of Phase 2, information for the following waterways is included:

- The Salish Sea (The Puget Sound, The Strait of Juan de Fuca, and The Strait of Georgia)
- Columbia-Snake River System
- Pacific Ocean coast
- Lake Chelan

What and where is ferry service?

Ferry service includes the ferries regulated by the Utilities and Transportation Commission. Ferry service is located on the Salish Sea, the Columbia River, and Lake Chelan as shown on the table below.

Publicly owned ferries are:

- A substitute for a bridge and managed as a road or highway.
- Public transportation and managed as a transit service.

What is the current condition of ferry service?

Washington State Ferries (WSF)

- The percent of ferries vessel systems overdue for replacement increased from nine percent in FY2015 to 11 percent in FY2016.
- WSDOT had 87 percent of its ferry terminal systems in fair or better condition in 2015, a 1.6 percentage point decrease from 2014.
- Of WSDOT Ferries' 139 buildings, 97.1 percent were in good or fair condition in 2015, down from 99.3 percent in 2014.
- The total value of vessel systems needing replacement increased from $88.3 million in FY2015 to $132.3 million in FY2016.

WSDOT's Keller Ferry

- The M/V Sanpoil entered service on August 14, 2013.

County Ferries operated as part of the county road system:

- Most up to date source of information is from a County Road Administration Board report dated 2008.

County ferries operated as part of the transit system

- King County Water Taxi[22]
    - Provides commuter service on two routes: Vashon Island to Seattle and West Seattle to Seattle.

22 Source: King County Ferry District 2014-2018 Strategic Plan

- Ridership has been increasing from 2010 to 2016.
- Connections and parking are challenging.

Tribal ferry

- Gifford-Inchelium

Table C-24: State, Tribal and Local Government Ferries

Operator/ Manager	Routes	Purpose	# of Ferry Boats	# of Terminals	Funding Sources	Total Riders (includes drivers) 2016	Total Vehicles 2016
WSDOT: WSF	10 across the Puget Sound	State Highway & Transit	23	20	State Gas Tax, FTA Grant	24,204,895	10,546,355
WSDOT: Eastern Region Keller Ferry	SR21 – across Lake Roosevelt	State Highway	1	0	State Gas Tax		54,020 (2015)
DSHS	Steilacoom - McNeil Island	Transit	1	0	State General Fund		
Colville Confederated Tribes	Gifford – Inchelium	Highway	1	0	Tribal		820 (from WSDOT traffic portal for SR 25)
King County Water Taxi	Vashon Island – Seattle & West Seattle - Seattle	Transit	3	2	Property Tax, FTA Grant	601,942	
Kitsap Transit Passenger Ferry	Bremerton-Annapolis &-Port Orchard	Transit	2	4	Local Sales Tax, FTA Grant	Service Began in 2017	Service Began in 2017
Pierce County	Steilacoom-Anderson & Ketron Islands	Highway	2	3	State Gas Tax, County Road Fund	89,294	101,702
Skagit County	Anacortes – Guemes Island	Highway	1	2	State Gas Tax, County Road Fund	194, 101	73,397
Wahkiakum County	Puget Island – Westport, OR	Highway	1	2	County Road Fund and WSDOT		47,450 (2015)
Whatcom County	Bellingham area -Lummi Island	Highway	1	2	State Gas Tax, County Road Fund	186,097	114,268

Table C-25: Private Ferries

Operator/ Manager	Routes	# of Ferry Boats	# of Terminals	Funding Sources	Total Riders (includes drivers) 2016	Total Vehicles 2016
Black Ball Transport	Port Angeles – Victoria, BC	1	Fares and hotel packages			
Victoria Clipper	San Juan Islands	2	Fares and hotel packages	Not publicly available	Not publicly available	
Victoria Clipper	Seattle – Victoria, BC	2	Fares and hotel packages	Not publicly available	Not publicly available	
Lady of the Lake	Chelan - Stehekin	2	Private	Not publicly available	Not publicly available	

What is the future demand for ferry service?[23]

Forecasting is performed for the Washington State Ferry system routes. The past volumes and future forecast from the final long-range plan are:

Table C-26: WSF Ridership

Year	Annual Ridership	Annual Number of Vehicles
1999	26.8 Million	11.4 Million
2006	23.8 Million	10.9 Million
2030	32.3 Million	14.1 Million

How do ferries connect to other modes?

- All WSF vessels accommodate cars, bicycles and walk-on passengers. All the terminals have regular transit service except Lopez Island and Shaw Island. Lopez and Shaw islands do not have the population to support transit on the islands and consider WSF as a marine highway and a transit service. WSF webpage provides links to transit service for each terminal.
- County and Tribal ferries serve as replacements to bridges and accommodate bicycles, pedestrians, and vehicles.
- King County's and Kitsap Transit's passenger ferries connect to transit, accommodates bicycles, and provides parking.

23 Sources:
County Road Administration Board, http://www.crab.wa.gov/LibraryData/REPORTS/CRAB/CRAB_Annual/20160111P1U46327_CRABGUTS.pdf
WSDOT Gray Notebook, http://wsdot.wa.gov/publications/fulltext/graynotebook/Jun16.pdf

What are the safety statistics for ferries?[24]
The rate of passenger injuries per million riders increased from 0.27 in the first quarter of FY2016 to 0.94 in the first quarter of FY2017, representing a jump from two to seven total passenger injuries.

The rate of Occupational Safety and Health Administration recordable crew injuries per 10,000 revenue service hours decreased from 4.4 in FY2016 to 3.0 in FY2017. This represents five less injuries compared to the same quarter in FY2016, and continues to be well below ferries' annual goal of having a rate of less than 7.6 crew injuries per 10,000 revenue service hours.

Waterways: Marine Cargo

What is the marine cargo system?
Marine cargo uses ships and barges on the three commercially navigable waterways serving Washington:

- Pacific Ocean which is used to move freight to and from overseas markets on a variety of ships and barges from ports along the U.S. coast (including in Alaska) and Hawaii.
- Salish Sea, which provides access for major ports in western Washington to the Pacific Ocean.
- Columbia-Snake River System provides access for inland Washington ports to the Pacific Ocean.

What are the safety statistics for public port districts?
The U.S. Coast Guard enforces the regulations under the International Convention for the Safety of Life at Sea on foreign- flagged vessels trading in US ports. Washington ports are in Sector Puget Sound. In 2016, the U.S. Coast Guard conducted 390 safety inspections and 341 security examinations. They reported zero major control actions and eight detentions. For more information, see https://www.uscg.mil/hq/cgcvc/cvc2/psc/annual_report/annualrpt16.pdf.

POPULATION DEMANDS

The state's demographics are changing. Recent trends indicate the following:

- Statewide population is growing:
  - 4.1 million in 1980.
  - 6.7 million in 2010.
  - From 2014 to 2015, the population increased by 93,200 to reach a statewide total of over 7 million. This was the largest one-year increase since 2008.
  - 9.1 million in 2040 (projected).
- Urban areas are growing:
  - 75 percent of new residents to the state live in the five largest metropolitan counties: Clark, King, Pierce, Snohomish and Spokane counties.

24 Source: http://wsdot.wa.gov/publications/fulltext/graynotebook/Sep16.pdf#page=21

- Rural communities have affordable housing and transportation challenges.
  - Housing may be more affordable in rural areas, but transportation can be a barrier to meeting basic needs. This is due to the distance to services and the inadequacy of public transportation, since low-density population equates to higher service costs.
  - Roads are narrow and often have no shoulders for walking or biking.
- The population is aging:
  - 1.2 million people, or 14 percent of the state's total population, were 65 and older in 2015.
  - A projected 1.9 million people, or 22 percent of the state's total population, will be 65 and older in 2040.
  - Aging populations often have disabling conditions or face other mobility challenges.
- The population is becoming more diverse:
  - 30 percent of the state's population represents non-white ethnicities and races.
  - Washington is the third-most linguistically diverse state in the country with over 163 different languages spoken.
  - Limited-English proficiency is a barrier to those who access information about transportation services.
- The statewide number of people with special needs is increasing. "Special needs" includes persons, including their personal attendants, who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase appropriate transportation:
  - 30 percent of the state's population met the criteria in 2016.
  - 40 percent of the state's population are projected to meet the criteria in 2040.
  - In some rural areas, tribes provide the only public transportation for those with special needs.
- The millennial population in the state's workforce is growing:
  - Numerous studies show they are choosing to live in areas that provide the best options for transportation that do not involve driving their own cars alone.[25]
- Poverty rates are growing (for a single-parent family with two children, poverty is defined at $20,090 per year or less):
  - 14 percent of the state's residents live in poverty.
  - 19 percent of the state's children live in poverty.
  - An estimated 94 percent of welfare recipients do not own a car.
  - 17 of 39 counties are considered "high poverty."

25 Source: 2016 Washington State Public Transportation Plan

- Increased housing costs are pushing people to less expensive suburban and rural areas. These areas have fewer transportation options. A recent study found that shorter commuting time is the single strongest factor in the odds of escaping poverty.

Source: Washington State Public Transportation Plan http://www.wsdot.wa.gov/Transit/TransportationPlan

EMPLOYMENT AND ECONOMIC CONDITION DEMANDS

Distressed areas are counties where the three-year unemployment rate is at least 20 percent higher than the statewide average. The yearly list of distressed areas (Washington State counties) is compiled by averaging the employment and unemployment numbers for the previous three years. We create the distressed areas list in cooperation with the Federal Bureau of Labor Statistics. It is updated annually, usually in the spring.

For more information about distressed areas, see Chapter 43.168[26] of the Revised Code of Washington.

26 http://apps.leg.wa.gov/RCW/default.aspx?cite=43.168

Table C-27: Unemployment Rates in Distressed Areas

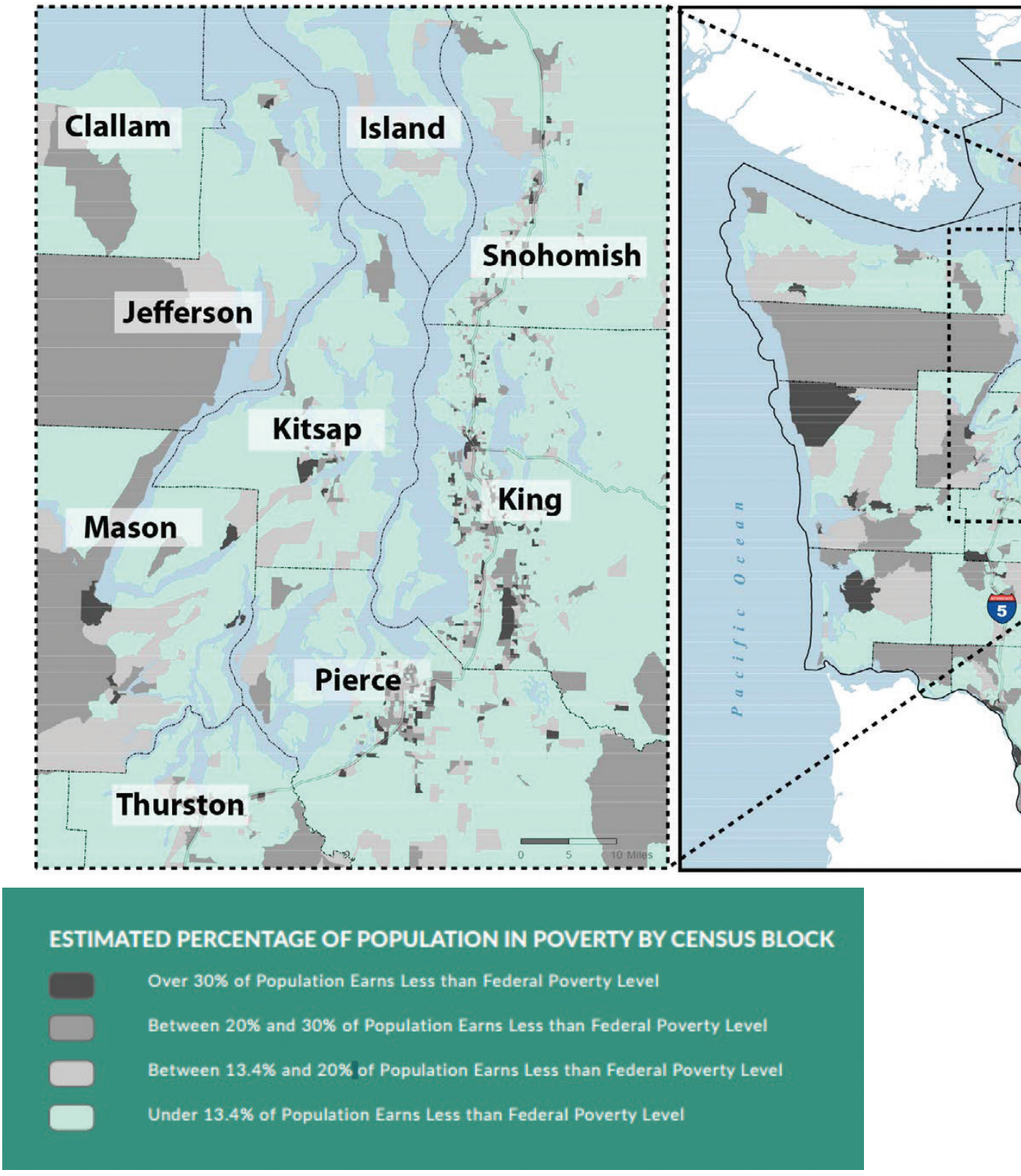
2016 Distressed Areas	Three-year Average Unemployment Rate: Jan 2013 - Dec 2015	Distressed Area: Unemployment Rate Greater Than or Equal to 7.5%
Washington State	6.3%	
Adams County	7.5%	Yes
Asotin County	6.1%	
Benton County	7.7%	Yes
Chelan County	6.3%	
Clallam County	8.7%	Yes
Clark County	7.3%	
Columbia County	7.3%	
Cowlitz County	8.5%	Yes
Douglas County	7.2%	
Ferry County	11.7%	Yes
Franklin County	8.4%	Yes
Garfield County	6.7%	
Grant County	7.7%	Yes
Grays Harbor County	10.4%	Yes
Island County	6.7%	
Jefferson County	8.2%	Yes
King County	4.7%	
Kitsap County	6.3%	
Kittitas County	6.9%	
Klickitat County	8.1%	Yes

Table C-27: Unemployment Rates in Distressed Areas (continued)

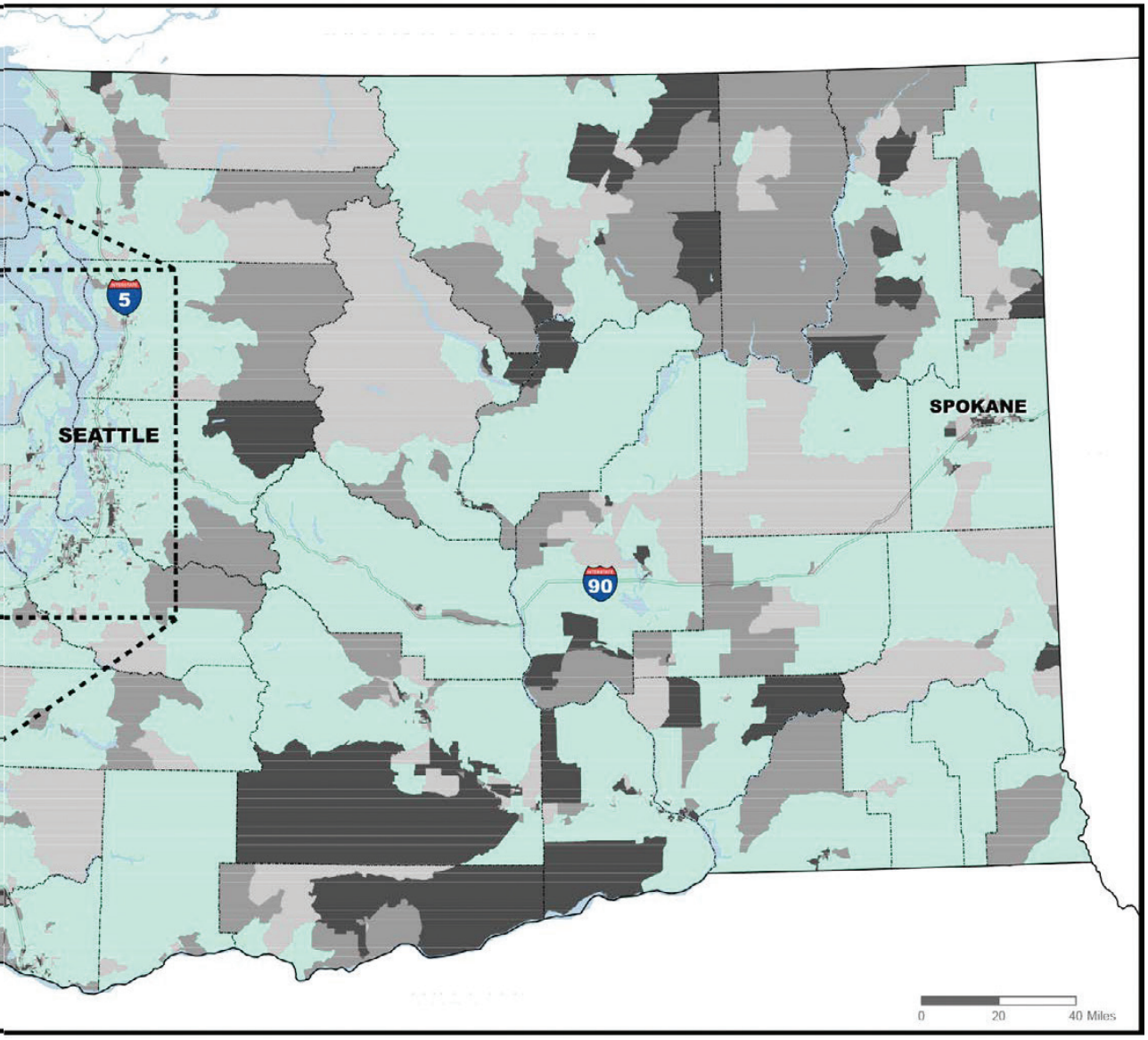
2016 Distressed Areas	Three-year Average Unemployment Rate: Jan 2013 - Dec 2015	Distressed Area: Unemployment Rate Greater Than or Equal to 7.5%
Lewis County	9.3%	Yes
Lincoln County	6.2%	
Mason County	8.7%	Yes
Okanogan County	7.6%	Yes
Pacific County	10.1%	Yes
Pend Oreille County	10.5%	Yes
Pierce County	7.2%	
San Juan County	5.3%	
Skagit County	7.5%	Yes
Skamania County	8.5%	Yes
Snohomish County	5.3%	
Spokane County	7.2%	
Stevens County	9.7%	Yes
Thurston County	6.7%	
Wahkiakum County	10.3%	Yes
Walla Walla County	6.4%	
Whatcom County	6.6%	
Whitman County	5.3%	
Yakima County	8.9%	Yes

[1] Prepared by Washington State Employment Security Department in cooperation with the federal Bureau of Labor Statistics https://fortress.wa.gov/esd/employmentdata/reports-publications/regional-reports/distressed-areas-list.

Figure C-19: Estimated Percentage of Population in Poverty by Census Block



Source: 2016 Washington State Public Transportation Plan at http://www.wsdot.wa.gov/Transit/TransportationPlan


5
SEATTLE
SPOKANE
90
0
20
40 Miles

FREIGHT DEMANDS[27]

An integrated, multimodal system of freight transportation assets, including public roads, railways, waterways, airports, and pipelines exist in Washington. These modal systems rarely function independently from one another, and instead rely on intermodal facilities to move freight from one mode to another. Intermodal facilities, such as rail-truck, marine ports, airports, and pipeline terminals, are locations for such transaction. This transfer is done either directly or through intermediate storage. Trucks are typically involved at some point in most intermodal freight movements.

Washington is interconnected with the rest of the Pacific Northwest region. Some businesses in the state use major intermodal facilities in the neighboring states of Idaho and Oregon for their logistics needs. Vancouver, Washington functions as part of the Portland economic region and depends on highway and rail freight transportation corridors that connect the two states. Shippers and goods receivers in southwest Washington often use the Portland International Airport, located 12 miles from downtown Vancouver, or the Portland marine port, located eight miles from downtown Vancouver, more often than other intermodal facilities in Washington. Several high-volume truck corridors outside of Washington perform as primary routes for companies shipping and carrying freight into, out of, or through Washington. For example, many trucking companies carrying goods from Vancouver, Washington to eastern Washington choose to use Interstate 84 in Oregon instead of SR 14, the parallel route in Washington. Notably, this corridor is critically important when mountain passes are closed during winter weather events. Some businesses in the state use major truck corridors and intermodal facilities in the province of British Columbia. For example, some trucks travelling east-west use the Trans-Canada Highway in British Columbia as their primary truck corridor into or out of Canada.

Freight and Trade Drive Washington's Economy:

- Washington is the second most trade-dependent state in the nation.
- 11,352 small and medium-sized goods exporters.
- $126.8 billion in total imports and exports value.

Freight-dependent industries have a major economic effect:

- 1.41 million jobs in freight-dependent industries (wholesale/retail, manufacturing, construction, transportation, agriculture, forest products)
- $550.5 billion in gross business income for freight-dependent sectors

Freight is an important demand on the statewide transportation system and all modes of freight are projected to growth both statewide and across the country, as shown in the following figures:

27 Source: 2017 Washington State Freight System Plan at http://www.wsdot.wa.gov/Freight/default.htm

Figure C-20: Comparison of Freight Forecasts

Mode	National freight forecast – percent annual growth rate	State freight forecast - percent annual growth rate
Truck	1.2%	1.5%
Rail	0.7%	0.9%
Water	0.9%	0.8%
Air	4.0%	1.9%
Pipeline	1.4%	0.2%
Multiple modes and mail	2.6%	2.1%

Source: National freight forecast growth rate was calculated based on query results from FAF4 Data Tabulation Tool (http://faf.ornl.gov/fafweb/Extraction0.aspx) "Total Flows". The state freight forecast for air cargo comes from the 2017 Washington Aviation System Plan. Forecasts for other modes come from FAF4.

Figure C-21: Summary of Truck Freight Forecast

	2015	2035	% Change	% Annual Growth Rate
Tonnage (million tons)	281.2	379.4	35%	1.5%
Ton-Miles (billion ton-miles)	72.1	102.7	42%	1.8%

Source: Federal Highway Administration (FHWA) Freight Analysis Framework Version 4. Data was retrieved from FAF4 Data Tabulation Tool (http://faf.ornl.gov/fafweb/Extraction0.aspx) by using "Total Flows" query, selecting 2015 and 2035 as the data year.

Figure C-22: Summary of Rail Freight Forecast

	2015	2035	% Change	% Annual Growth Rate
Tonnage (million tons)	49.6	59.0	19%	0.9%
Ton-Miles (billion ton-miles)	56.5	71.0	26%	1.2%

Source: FHWA Freight Analysis Framework Version 4. Data was retrieved from FAF4 Data Tabulation Tool (http://faf.ornl.gov/fafweb/Extraction0.aspx) by using "Total Flows" query, selecting 2015 and 2035 as the data year.

Figure C-23: Summary of Marine Freight Forecast

	2015	2035	% Change	% Annual Growth Rate
Tonnage (million tons)	24.6	28.7	17%	0.8%
Ton-Miles (billion ton-miles)	26.9	32.1	19%	0.9%

Source: 2017 Washington State Freight System Plan

Figure C-24: Summary of Air Cargo Forecast (metric tons)

Year	Seattle-Tacoma International	King County International	Spokane International	Other Airports	Total Air Cargo
2014	319,490	109,653	59,567	22,229	**510,939**
2019	351,540	124,063	67,395	23,363	**566,361**
2024	383,010	140,365	76,251	24,555	**624,181**
2034	441,870	179,680	97,607	27,124	**746,281**

Source: 2017 Aviation System Plan

Figure C-25: Summary of Pipeline Freight Forecast

Mode	2015	2035	% Change	% Annual Growth Rate
Tonnage (million tons)	50.3	52.8	5.0%	0.2%
Ton-Miles (billion ton-miles)	2.1	2.6	24%	1.1%

Source: FHWA Freight Analysis Framework Version 4

APPENDIX D

TECHNICAL MEMORANDUM #4

FOCUS AREAS AND SCENARIO PLANNING

CONTENTS

BACKGROUND

One of the purposes of the Washington Transportation Plan Phase 2 - Implementation (Phase 2) is to carry out recommendations from the Washington Transportation Plan 2035, Phase 1 - Policy (Phase 1).

Phase 1 includes more than 100 non-prioritized recommendations. The Steering Committee agreed that the Phase 2 Project Team (Project Team) should narrow down the 100 recommendations to a few big, bold ideas (Focus Areas) that need further policy work. The Project Team proposed Action Items for each Focus Area that should achieve the Vision statement. The Project Team also proposed a list of partners from the public and private sector that will work on each Action Item. This work is expected to start in 2018 and last several years. WSDOT will facilitate and track progress.

This technical memorandum describes:

- Draft Focus Areas, Action Items, and Action Steps needed to accomplish the Action Items.
- The overall process and steps the Project Team used to develop the Focus Areas and Action Items.
- The types of Scenario Planning exercises that the Project Team conducted.

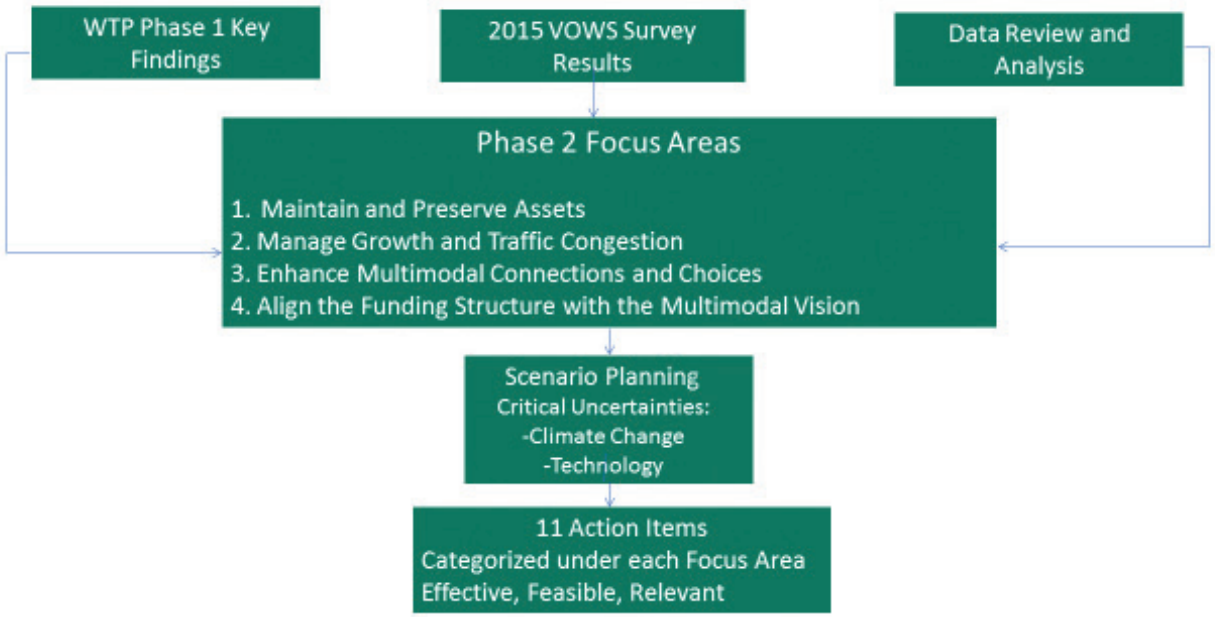
STEPS TO DEVELOP FOCUS AREAS AND ACTION ITEMS

Step 1

The Project Team conducted a workshop at the June 22, 2016 Advisory Group Meeting. The Project Team presented 12 potential Focus Areas to the Advisory Group based on an analysis of:

- Key findings from Phase 1.
- Key issues and data from transportation plans, studies, and reports developed after Phase 1. See Appendix C for more information.
- Policies (laws, rules, guidance, executive orders). See Appendix A for more information.
- 2015 Voice of Washington State (VOWS) Survey.

Figure D-1: Reaching the Vision: Focus Areas and Action Items



The Project Team asked the participants to:

- Break into groups and review the 12 potential Focus Areas to:
  - Decide if the Focus Area is still relevant.
  - Decide if the Focus Area should receive heavy emphasis in the plan.
  - Document recommendations.
- Regroup and:
  - Report out recommendations.
  - Review each group's findings.
  - Discuss the most important Focus Areas.
  - Vote on which Focus Areas should be further explored in Phase 2.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions

Potential Focus Area A: Criteria to Prioritize Investments Recommended Actions from Phase 1
WSDOT should maintain an ongoing public transportation planning process, working with local transit agencies, cities, and counties to identify public transportation corridors of statewide significance. Designation would influence prioritization of the speed and reliability of transit service on designated corridors.
Apply practical design concepts and operational and system management strategies to ensure that transportation improvements are cost-effective and appropriate for the situation.
Partner with the military to prioritize transportation investments that support military related economic activities.
Support the location of transportation facilities, such as transit only lanes, where transit operation in the corridor is critical to maintaining and improving mobility, particularly in urban centers.
Provide expanded travel options by prioritizing projects that improve pedestrian and bicyclist connections to transit, including park-and-ride lots serving regional express bus routes, ferries, and other medium-distance transportation services.
Ensure that the project prioritization process for the transportation improvement program includes objective project evaluation metrics that incorporate the costs and benefits of non-motorized travel. Plan and design bicycle and pedestrian facilities to accommodate future growth in these modes, address safety needs, and avoid future capacity constraints.
WSDOT should coordinate and work with the Transportation Improvement Board, County Road Administration Board, Freight Mobility Strategic Investment Board, and other regional and local transportation partners to establish an implementable set of performance measures and objectives for all state-funded transportation investments.
Include representatives from the public health field in transportation planning to ensure direct and indirect health impacts are considered in transportation investment prioritization. Provide greater connectivity to health services, more consideration of Human Service Plans, and the options for increased physical activity in transportation planning.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area B: Change Funding Structure Recommended Actions from Phase 1
Counties currently have the authority to impose a local fuel tax, but it is not implemented. This option is authorized as a percent of the state tax rate and requires a public vote.
Transit agencies should explore the feasibility of funding transit system development and operating costs from land value capture, that is, by taxing the additional value of adjacent properties that result from improved transit accessibility.
Develop a sustainable statewide strategy for funding transportation that articulates the economic and social benefits of the transportation system, more clearly defines the role of the State in funding non-highway modes, and provides funding options that are flexible and equitable, balancing user-pay with ability-to-pay approaches.
Explore new, sustainable funding opportunities that keep pace with growth and inflation and are not affected by decreases in motor fuel consumption. Options may include further expansion of toll roads and express toll lanes, road usage charges, congestion pricing, employer-funded transportation choices, strategic private sector partnerships, and value-capture strategies.
We recommend increased state funding for paratransit service and a concerted effort to help the state and transit agencies better leverage Federal funding to achieve a more equitable reimbursement for paratransit service.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area C: Enhance Multimodal Choices Recommended Actions from Phase 1
Identify key multimodal transportation corridors in local, regional, and state land use and transportation plans.
Use Coordinated Human Services Transportation Plans and enhanced regional coordination to efficiently and economically increase the productivity of travel options for the growing elderly population.
Seek enhanced collaboration and coordination between state agencies, regional transportation organizations, and public transportation providers to efficiently and economically increase the productivity of travel options for people with special needs. This may include offering educational opportunities to move people from paratransit services to public bus routes, where possible.
The Legislature and transit agencies should consider the needs of rural areas that currently lack transit, ride sharing, or vanpool options, by enhancing coordination opportunities with human service transportation, and possibly with school transportation providers.
Transit agencies should increase the use of small, on-demand transit vehicles, which may be more cost effective than large buses in many areas of the state.
Identify funding and other sources of state support for paratransit.
Promote “Complete Streets” and Safe Routes to Schools policies and implementation for appropriate arterials and collectors within urban growth areas

Potential Focus Area D: Enhance Tourism and Economic Vitality Recommended Actions from Phase 1
WSDOT should collaborate with the Department of Commerce, the Washington Tourism Alliance, and smaller commercial service airports to explore the feasibility of maintaining or expanding flight offerings between smaller commercial service airports to “hub” airports.
Design, plan, and fund transportation infrastructure that supports tourism, such as non-motorized trail networks, scenic byways, intermodal connections for travelers, and enhanced traveler communication systems.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area E: Relieve Congestion Recommended Actions from Phase 1
To address congestion and improve reliability of travel times, the state should invest in and collaborate regionally with cities, counties, and transit agencies to maximize the use and effectiveness of HOV lanes, HOT lanes, and transit lanes by managing system demand and efficiently operating the system. At a minimum, this will necessitate coordination with local and regional transit providers to understand operational needs. In some instances, the state may need to invest directly in transit service within a corridor.
Improve the performance and safety of non-access controlled highways by seeking opportunities to close and consolidate multiple access points in urbanized areas. In urbanizing areas, require access to properties through frontage roads rather than individual access points.

Potential Focus Area F: Maintain and Preserve Investments Recommended Actions from Phase 1
Local transportation plans should specifically protect difficult-to-site facilities, such as airports and rail corridors, from encroachment by incompatible land uses. These plans should also provide for the future expansion of such facilities.
Emphasize the importance of roadway system preservation -- along with operating efficiently, managing demand, and adding capacity strategically for continued economic growth and vitality.
Fare differentials should be used to encourage a shift from auto passengers to those who walk or ride on board in order to maximize person-carrying capacity of the WSF fleet.
Establish a long-term system reinvestment strategy that includes criteria to replace or remove infrastructure from service at the end of its life.
Couple land use policy, siting decisions, demand management, and transportation needs to leverage the value of existing and future transportation infrastructure investments.
Support state and regional economic development goals in identified opportunity zones, industry sectors, and innovative partnership zones.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area G: Accommodate Planned Growth Recommended Actions from Phase 1
Support strategies and investments to better link people and commerce, such as transit-oriented development, bicycle and pedestrian networks, park and ride lots, and broadband access.
Cities and counties should couple land use policy, siting decisions, demand management, and transportation needs to leverage the value of existing infrastructure investments and future transportation investments, such as: (1) Create incentives to concentrate jobs and housing close to transit hubs; (2) Make corridor improvements holistically, including local multimodal street connectivity improvements that support bicycle, pedestrian, car, and truck travel to and from the corridor; (3) Require siting of selected government facilities, such as schools or social services offices, to be accessible by travel modes that meet the needs of the users
Integrate freight delivery into plans for livable communities, ensuring that freight and small package delivery is an integral component of complete streets, providing efficient access to businesses and residences even in dense, walkable communities.
WSDOT transportation strategies and investments should align with state environmental goals, air quality and water quality laws, and land use policies including the Growth Management Act, by supporting local efforts to site growth within existing Urban Growth Areas (UGAs) identified in compliant county and city comprehensive plans; encourage infill development in transit-supported corridors; and provide more transportation options.
Couple land use policy, siting decisions, demand management, and transportation needs to leverage the value of existing and future transportation infrastructure investments.
Support state and regional economic development goals in identified opportunity zones, industry sectors, and innovative partnership zones.

Potential Focus Area H: Seamless Intermodal System Recommended Actions from Phase 1
Encourage partnerships among the state, counties, cities, and transit operators to develop and implement strategies to improve connections between cities, counties, and regions for both freight and passenger modes. Approaches may range from improving multimodal connections, such as completing gaps between adjacent service areas and synchronizing schedules among different service providers, to adding capacity strategically for all modes, including public transportation, by completing the system improvements underway today.
Build on the success of those regional transportation planning agencies that engage and form partnerships with tribal governments, and encourage all MPOs and RTPOs to partner with tribal governments to increase access, mobility, and safety on and to tribal lands.
Similarly, support efforts to improve cooperation and coordination between tribal and non-tribal providers of public transit services.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area I: Improve Traveler Safety Recommended Actions from Phase 1
Invest in sidewalks and other facilities, such as improved crossings, to provide a safer transportation experience for pedestrians.
Also, given recent and anticipated future increases in bicycling, walking, and motorcycling for trips of all purposes, Washington needs to more fully integrate safety considerations into the long-range planning process to help deliver infrastructure improvements that support the safety and mobility for users of these modes.
Develop collaborative, systematic, corridor-based approaches, involving local jurisdictions and rail operators, to address safety and connectivity issues associated with at-grade rail crossings
Implement Results Washington strategies to reduce bicyclist and pedestrian fatalities to zero by 2030.
Embrace the 4 E's of traffic safety (education, enforcement, engineering, and emergency medical services) when planning and implementing transportation safety projects.
Implement the road safety strategies recommended in Target Zero.
The state, city and county agencies with authority for setting speed limits should periodically review posted speed limits in areas or corridors that have experienced changes in development density, traffic volumes, or where specific safety concerns have been identified.
Accelerate efforts to reduce serious injuries and fatal crashes on the roads with highest incident rates, including rural and tribal roads, by implementing low cost safety improvements, and combining engineering with enforcement and public education to achieve the most beneficial impact.
Continue to reduce airspace impacts due to wildlife and man-made structural obstructions to critical airspace near airports.
Identify networks of redundant or alternative routes and choices to maintain mobility, beginning first with corridors critical to commerce and emergency services.
Accelerate efforts to reduce serious injuries and fatal crashes on the roads with high incident rates, including rural and tribal roads.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

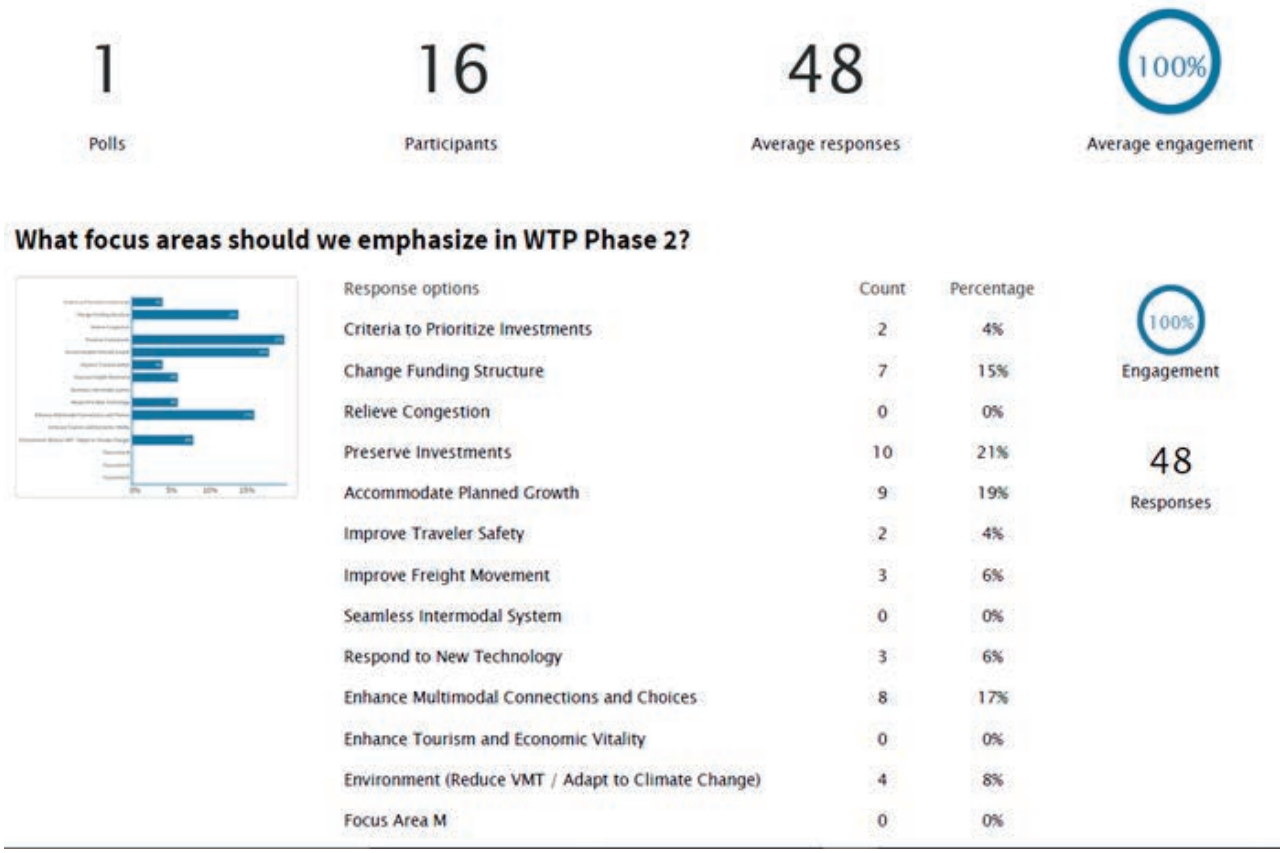
Potential Focus Area J: Improve Freight Movement Recommended Actions from Phase 1
Explore incentives for freight carriers to travel on ferries during off-peak hours.
Help establish an all-weather transportation system, prioritizing investments that will minimize closures affecting agriculture, freight dependent industries, and tourism. Each region should define a core of all-weather state and local roads that meet designated state standards for weight and safety, and improve access from agricultural storage facilities to long-haul routes via county roads.
Through FMSIB or legislative prioritization, establish a cross-jurisdictional approach to maintain and improve connections from producers to distributors for freight to capture those pathways that may be important at a regional or statewide level but not significant or fundable by an individual city or county.
Identify gaps and improve intermodal connectivity for freight movement (e.g., ship to rail or truck, and air to truck).
Maintaining connectivity to each of the state's 75 ports remains important to the state economy.

Potential Focus Area K: Improve Freight Movement Recommended Actions from Phase 1
Promote bicycling and walking as viable transportation options and as a means to improve public health and maintain environmental quality by identifying and addressing multimodal system gaps, such as sidewalk or trail connections.
Support work to identify areas at high risk of environmental damage due to spills or releases from crude oil shipments, as indicated in Executive Directive 14-06.
Make significant progress toward meeting statewide greenhouse gas reduction goals through vehicle and fuel technology, system management and operations, land use, transportation options, and pricing strategies. Identify both near- and long-term actions appropriate for implementation at both state and regional levels.
Continue to promote employer compliance with Washington's Commute Trip Reduction program, which supports alternatives to driving or driving alone including car/vanpools and telecommuting.
Use a risk-based assessment approach to continue to build and retrofit transportation facilities and services to withstand severe seismic events, flooding, and other disasters.
Enhance Regional Catastrophic Preparedness and continuity of operations by further defining and communicating regional approaches to coordination and collaboration that will strengthen Washington transportation systems against risks associated with catastrophic events.
Recognize and support transit's role in emergency response efforts, such as evacuating large numbers of people or transporting those with special needs.

Table D-1: 12 potential Focus Areas with Phase 1 Recommended Actions (continued)

Potential Focus Area L: Respond to New Technology Recommended Actions from Phase 1
Use technology and research to reduce costs and improve and extend the life of infrastructure.
Increase use of technology for all travel modes to reduce fatalities and serious injuries, such as "red light" cameras and roadside-based collision-avoidance or deterrence systems.
Plan for and accommodate the emergence of more energy efficient modes of transportation, such as electric-assisted bicycles and shared ride services, by encouraging collaboration between planning staff across modes and jurisdictions and promoting greater flexibility in the use of transportation funds.
Anticipate, monitor, and plan for changes in technology that affect how people and goods are transported, such as telework, autonomous vehicles, car-sharing, bike-sharing, and mobile device applications that impact travel behavior and choices.
Partner with Federal agencies, private sector and university researchers, and utility companies to develop energy efficient transportation systems that use advanced communication software and manufacturing techniques developed in our state
Continue to develop and implement ITS improvements, such as signal coordination, integrated traveler information, and customized scheduling and trip planner information.
Encourage transportation agencies to make data available to software application developers to develop and improve real time travel and scheduling information. Develop and maintain traveler information for interregional public transportation connections.

Figure D-2: What Focus Areas Should We Emphasize in Phase 2?



Step 2

WSDOT modal and regional planners met on September 22, 2016 and advised the Project Team on the viability of the Focus Areas.

Step 3

- The Project Team consulted with WSDOT internal experts, Advisory Group members, and the Steering Committee and drafted these four proposed Focus Areas:
  - Maintain and Preserve Assets.
  - Manage Growth and Traffic Congestion.
  - Enhance Multimodal Connections and Choices.
  - Align the Funding Structure with the Multimodal Vision.

Step 4

The Steering Committee endorsed the draft Focus Areas and agreed that Scenario Planning exercises would be an appropriate method to test the resiliency of Action Items to accomplish each Focus Area.

Step 5

The Project Team researched methods of Scenario Planning. WSDOT is required by Governor Inslee's Executive Order 14-04 to use scenario analysis during development of Phase 2. Scenario planning is a tool to examine how alternative policies, plans, and programs may affect a community or region. Agencies, companies, and organizations conduct scenario planning exercises to prepare for a range of potential futures because they cannot predict the future, but they can plan for it. Scenario planning provides a framework for thinking about the future in a way that best positions the state to achieve its Vision for transportation. The table below describes common types of Scenario Planning.

Table D-2: Common Types of Scenario Planning

Type of Scenario Planning	Description	Applications
Baseline (Predictive Planning)	Projecting historical trends into the future with the assumption that the future will strongly resemble the past. Answers the question, "Where will we be in 'X' years if the future looks like the past?"	Best applied when key issues and problems are known and understood, or when the future is expected to look a lot like the past. Associated with trend lines and projections of the past into the future. Most effective for near-term plans or slow-growing areas or stable issues.
End State (Normative) Planning	Emphasis is on identifying a "point in time" future, often a preferred future reflecting community values and desires. Answers the questions, "Where do we want to be in 'X' years?" or "What will it take to accomplish 'X'?"	Best used to articulate a preferred future, often in the form of a Vision for the future. This fixed point in time then becomes a target, with plans and investments focused on how to realize that Vision. Best applied as a longer range planning tool.
Exploratory (Contingent) Planning	Identifying critical uncertainties and plausible future scenarios resulting from those uncertainties as a means of minimizing blind spots and creating more resilient policies and investments. Answers the question, "What are the biggest driving forces we're likely to face and how are they likely to affect our ability to meet our goals?"	Best used when the future is uncertain and volatile, and when those uncertainties are highly consequential. Benefits from multiple disciplines with overlapping interests in an issue or outcome. There are no "wrong answers" - value is in the exploration of "what if" questions and the vulnerabilities and opportunities that are revealed. Good for identifying indicators to monitor changing conditions over time and recognize emerging risks and opportunities.

Step 6

The Project Team chose Exploratory Planning, which differs from the types of scenario planning that metropolitan planning organizations (MPOs) use:

- MPOs predict traffic and land use based on outputs from regional travel demand models. MPOs propose recommendations to improve baseline performance conditions and include potential regional investments, assumed distribution of population and employment, and estimated costs. This type of planning is detailed in 23 CFR 450.324[1].
- Exploratory planning does not use model outputs or include investments. It identifies critical uncertainties and then describes plausible, not projected, futures.
- The goal of exploratory planning is to determine necessary actions to accomplish the Vision under whichever scenario comes to pass given an uncertain future.
- Exploratory planning provides a meaningful opportunity for community engagement with key stakeholders.
- Between 2016 and 2040 major disruptions may occur that will affect the demand for travel, the design and construction of infrastructure, and the way that we pay for transportation, among many other things.

Step 7

The Project Team led Scenario Planning exercises to identify plausible futures and propose resilient Action Items with subject matter experts from the following WSDOT Offices/Divisions:

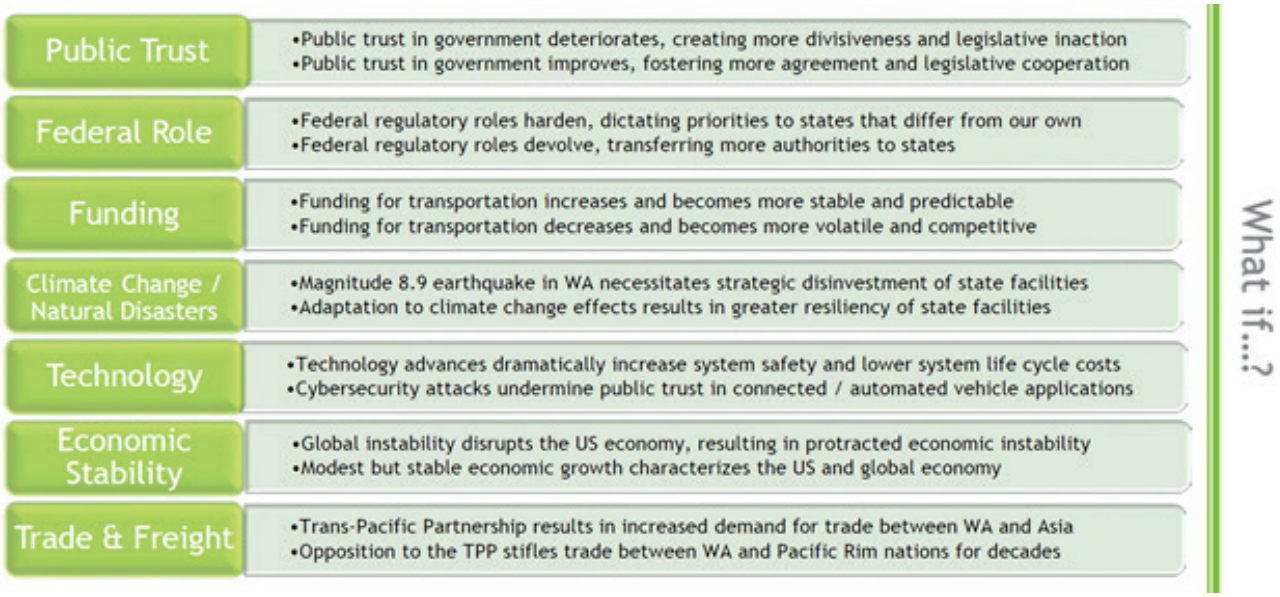
- Bridges and Structures
- Capital Program Development and Management
- Design
- Economic Analysis
- Emergency and Disaster Management and Response
- Environmental Services
- Finance
- Local Programs
- Planning Policy and Partnerships
- Public Transportation
- Strategic Assessment

1 23 CFR 450.324 describes how MPOs can voluntarily conduct Scenario Planning to develop multiple scenarios when developing metropolitan transportation plans. This type of planning relies on regional travel demand models. https://www.ecfr.gov/cgi-bin/text-idx?SID=14271bbb9e850d00c1ec4c549be6a606&mc=true&node=pt23.1.450&rgn=div5#se23.1.450_1324

- Traffic Operations
- Tribal and Regional Coordination

The subject matter experts identified seven uncertainties as candidates for the two critical uncertainties. Figure D-3 shows the seven uncertainties that are likely to affect delivery of Phase 2.

Figure D-3: Description of Seven Uncertainties

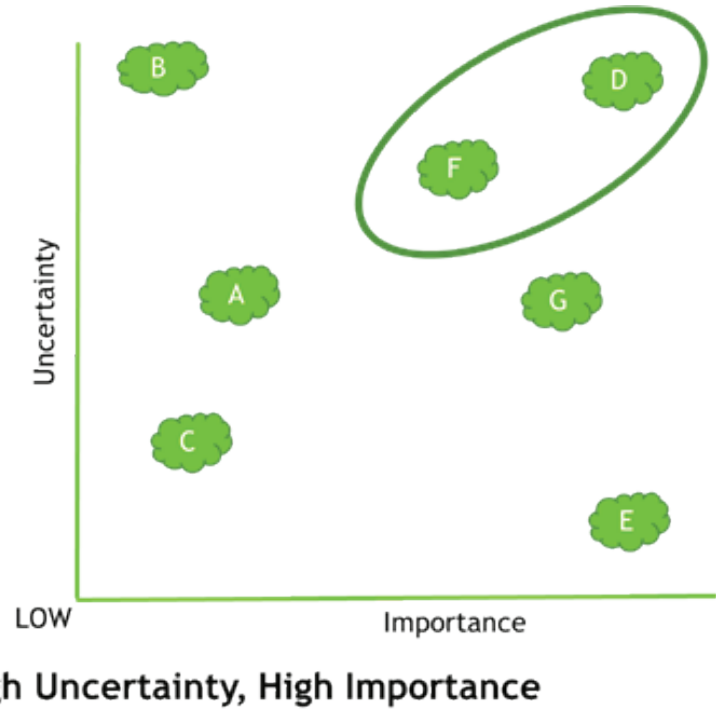


Then the subject matter experts were asked to agree on only two critical uncertainties – the things that keep them up at night. The two critical uncertainties are the two factors with the greatest degree of uncertainty and the most impact on the ability to achieve the Vision.

The two critical uncertainties were:

- Technological innovations.
- Climate change/natural disasters.

Figure D-4: Illustration of a Critical Uncertainty



Step 8: October 26, 2016 Phase 2 Advisory Group Workshop

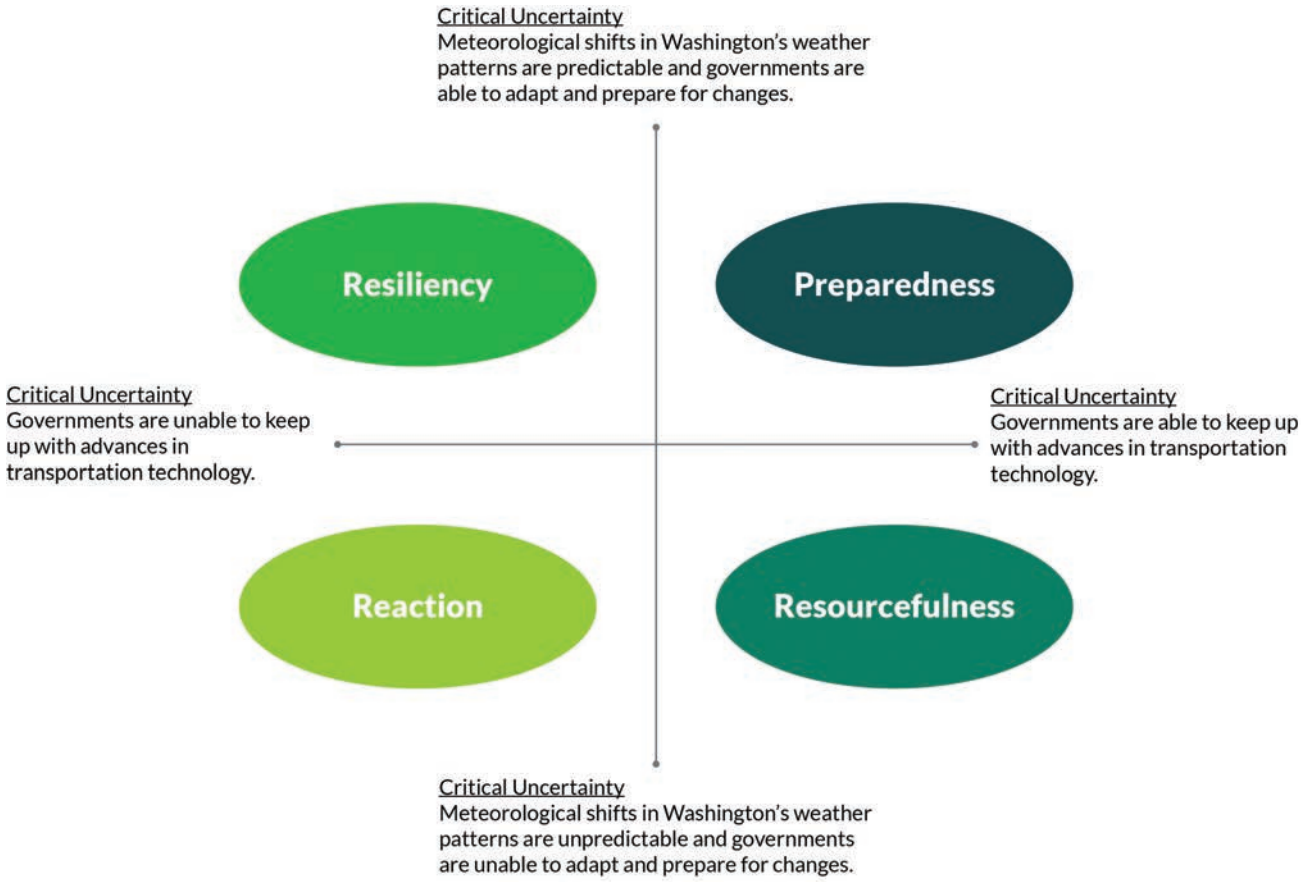
Recap of Breakout Group Exercises

The Advisory Group was divided into four units, each representing a different scenario. Each unit had two primary tasks to accomplish: explore implications associated with its critical uncertainties and identify potential risks or opportunities and any associated strategies for its scenario. This recap provides an overview of the exercise, a brief summary of the results, and some key takeaway messages.

For purposes of this Scenario Planning exercise, the two most critical uncertainties are used to bound development of four distinct but internally consistent scenarios. Prior to the advisory group meeting the WSDOT Technical Team and Steering Committee identified Climate Change/Natural Disasters and Technological Advances as the two factors with the greatest degree of uncertainty and the most impact on the ability to achieve the Vision. These are the two uncertainties used to frame the Advisory Group exercises.

As explained in the workshop background presentation, an optimistic outcome and a pessimistic outcome for each of the two uncertainties intersect in a matrix that defines the parameters for four different scenarios. This is illustrated in Figure D-5. For one uncertainty, Technological Advances, the two endpoints can be summed up as "government keeps up" and "government doesn't." For the second uncertainty, Climate Change/Natural Disasters, the two endpoints can be summed up as "we're lucky" and "we're not." These four endpoints framed the subsequent Advisory Group exercises.

Figure D-5: Critical Scenarios Matrix



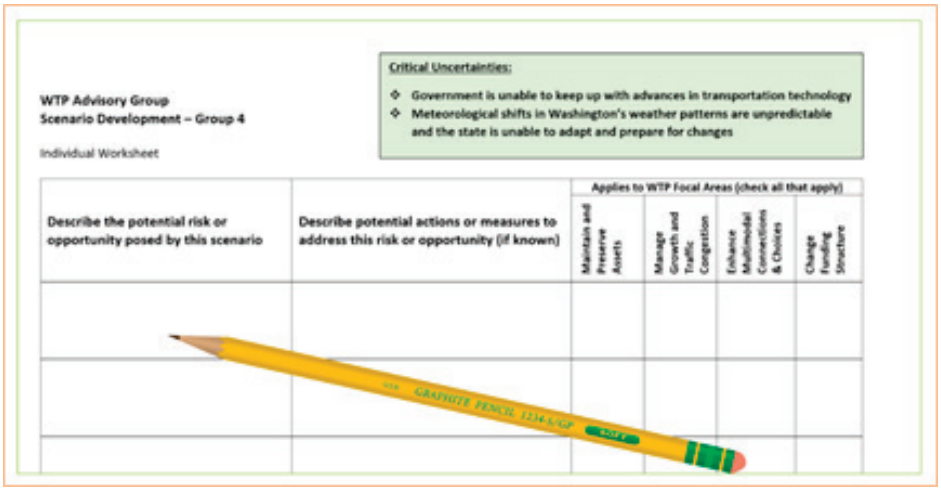
Each of the four units were assigned one quadrant of this matrix to explore in detail. The upper left quadrant was Scenario 1, the upper right quadrant was Scenario 2, the lower right quadrant was Scenario 3, and the lower left quadrant was Scenario 4.

In the first exercise, each unit discussed what kind of future might be described by their two uncertainties. For example, those assigned the upper left quadrant, Scenario 1, discussed what it might be like in the future if the northwest is spared the worst aspects of climate change or natural disasters and is able to adapt and prepare for those changes while at the same time government fails to keep up with rapidly emerging advances in transportation technology. Conversely, those assigned the lower right quadrant, Scenario 3, discussed what the future might be like if government is able to keep up with those rapidly emerging advances in transportation technology but is also faced with increasingly extreme and unpredictable impacts due to climate change or natural disasters.

This discussion served as a warm up to the more substantive scenario development discussion and helped establish a shared understanding of the possible future each group was to describe.

The scenario development exercise began with each person taking a few minutes to write down their early thoughts about likely risks or opportunities posed by their scenario framework. They were asked to identify any strategies they might come up with to address those risks or opportunities. They were also asked whether this applied to any of the four Phase 2 Focus Areas. The intent was to seed the ensuing discussion with some initial ideas to help the conversation get started. Everyone was encouraged to continue adding to their lists throughout the exercise as new ideas came to them, in case the exercise concluded before all ideas were on the table (Figure D-6).

Figure D-6: Scenario Development Exercise



After a few minutes of individual thought, each group discussed their various ideas and began building scenarios framed by their two uncertainties and populated with risks and opportunities that could be associated with that future. In addition to their individual worksheets and flip charts, each table had a plot of its scenario quadrant that also listed the other Phase 2 Focus Areas and the additional uncertainties for reference. They were advised to not limit themselves to discussions only of transportation or to the four focus groups if other issues and ideas emerged.

The exercise concluded with a report out from each group describing its scenario and the emerging narrative of that future. Each group summarized some of the key risks and opportunities associated with its scenario and implications for the future of travel and the Phase 2 if those uncertainties come to pass.

Results

This section provides a high level recap of each scenario, recognizing that the narrative for each reflects the group's discussion before analysis by the Project Team. These ideas will provide important content for the four resulting scenarios.

Scenario 1 – Resiliency

- Meteorological shifts in Washington's weather patterns are predictable and governments are able to adapt and prepare for changes.
- Governments are unable to keep up with advances in transportation technology.

Discussion of a future in which government is able to adapt and prepare for climate changes revealed a double-edged sword. On the one hand, better predictability will make it easier for government to prepare and respond to disasters such as wildfires. However, the northwest could also be a refuge for tens of thousands of people fleeing unlivable conditions elsewhere. This could put unexpected pressures not just on transportation and demand for travel services but also on community land use patterns and other government services. Such a future could also herald a change in viable agricultural crops which raises questions as to what changes will be needed for the existing freight system to adequately respond to new demands from the agricultural sector.

Government's inability to keep up with advances in transportation technology poses lots of risk and potential for missed opportunities. As government loses ground in managing evolving system needs the private sector is ready to step in – for a price. Meanwhile the insurance industries are in turmoil, operating in a heavily regulated world that has not kept pace with technological changes already underway. Private sector recruitments of knowledgeable government IT staff further incapacitate government. Disruptions undermine transit as private sector advances generate faster, cheaper travel options. While that can be a good thing, it can also eliminate services for the most vulnerable populations for whom the private sector options are not viable, thus exacerbating unequal access issues. Technological advances in urban areas outpace those in rural, further exacerbating equity concerns.

Scenario 2 – Preparedness

- Meteorological shifts in Washington's weather patterns are predictable and governments are able to adapt and prepare for changes.
- Governments are able to keep up with advances in transportation technology.

Even though this scenario seems to present the best of all worlds, it recognizes that in order to focus on climate change adaptation and keep pace with emerging transportation technologies government has to let go of something else. What is it that is dropped in order to meet these challenges? Difficult choices will have been made, and it is not certain government can provide the same levels of service everywhere at once. This raises questions as to who benefits first, or the most. And are regulations the right vehicle for managing the change in a rapidly evolving world or are incentives more effective? Will the existing regulatory environment hamper government's ability to be nimble and responsive?

Many opportunities are presented in this future. Even as large numbers of climate change refugees flock to Washington State, coordinated land use plans direct most of that growth into cities where alternatives to driving are most viable. In some cases it even enables efficient non-motorized travel where it didn't exist before due to increased densities and mix of uses. Practical design, practical

solutions, practical regulations are key to realizing the promise and minimizing the risk associated with this future. It is also key to earning and keeping the public's trust in a time of great uncertainty and upheaval.

Photo: SCJ Alliance

Scenario 3 – Resourcefulness

- Meteorological shifts in Washington's weather patterns are unpredictable and governments are unable to adapt and prepare for changes
- Governments are able to keep up with advances in transportation technology.

This future was summed up as "it was the best of times; it was the worst of times." The ability to keep up with technological advances is useful in responding to the erratic and extreme climate changes or impacts of natural disasters. If government is able to keep up then it opens a range of opportunities for data sharing, collaboration, and better information for the traveling public. It enables government to adopt earlier some technologies that can increase the cost-effectiveness of its asset management and preservation programs. It will not be able to do this, though, without some modifications to the regulatory environment that are cumbersome and inefficient; some significant streamlining of regulations will be necessary to be as adaptive and responsive as will be needed to harness the technological opportunities.

This will be compounded by the increasing impacts of extreme weather events that can turn the entire state's economy upside down. These changes are likely to have significant ripple effects throughout the economy and thus, government budgets and programs. This reduction in purchasing power will come at the same time as massive system failures occur, leaving government in a weakened position to respond. This could incentivize the use of drones; unmanned aerial vehicles can access locations when roads and highways are destroyed. In short, government's ability to keep up with advances in transportation technology could help minimize the magnitude of impacts likely to result from increasingly unpredictable and extreme weather events or natural disasters.

Scenario 4 – Reaction

- Meteorological shifts in Washington's weather patterns are unpredictable and governments are unable to adapt and prepare for changes
- Governments are unable to keep up with advances in transportation technology.

This scenario reduces the capacity of all levels of government to function effectively, resulting in reduced coordination and communication, a free-for-all in terms of standards, and no common goals as each community struggles to reconcile their own issues and priorities. Government's inability to keep pace with advances in technology means that private sector businesses start calling the shots for the state's transportation system. Unintended consequences of CV/AV deployment result in greater sprawl, undermining local land use plans and making it harder to support transit and active transportation. There are too many players making too many promises; government is as likely to find itself in a bad technology partnership as it is a good one. This fosters growing public distrust of government and dissatisfaction with the system, resulting in wild swings at the voting booth and in public policy.

Meanwhile the increasingly erratic and extreme weather events are playing havoc with the transportation system. A more resilient system would have deployed a wider array of measures to increase system redundancy and ensure greater resiliency but by the time that is apparent, it is too late. An economy in freefall produces an inadequate transportation budget, and difficult choices about where to focus very limited resources result in distinct winners and losers in terms of access. On the upside, the inability of government to respond to challenges pushes greater self-sufficiency among communities as people work together to rebuild their communities and economies.

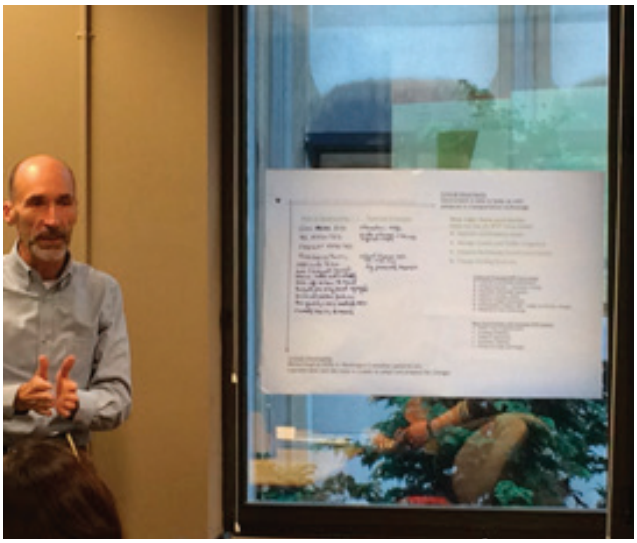


Photo: SCJ Alliance

Major Takeaways

Several meta-themes emerged from the four scenario discussion summaries, ideas that were common to all four scenarios.

- **Equity**. Each of the groups described ways in which inequality could be exacerbated by the uncertainties associated with their scenarios. Each group expressed concerns about how to ensure equity in the distribution of services, the mitigation of impacts, and the access to opportunities posed by its scenario.
- **Regulations**. Governments may be able to use regulatory powers to minimize impacts and address equity. However, regulations can have unintended consequences. In a rapidly changing world regulations can hinder nimble and responsive actions that help the transportation system keep up with rapidly changing conditions.
- **Collaboration**. Among different levels of government or between government and private sectors, collaboration is important for reaching the Vision in each scenario. Opportunities to increase collaboration and coordination were matched by risks associated with decreased collaboration and increased balkanization and the spillover effects on public trust towards government that are possible in some scenarios.
- **Land Use**. Whether depicting a more optimistic or pessimistic future, each scenario describes implications for the way Washington's communities grow and with that, the kind of transportation system needed to support those communities and the travel choices available to people.
- **Adaptability**. The importance of adaptability, of governments being able to respond and be nimble in its decision-making even in the face of uncertainties and rapidly changing situations, this is central to each scenario. Adaptability equates to responsiveness; the more dire the circumstances, the more critical the need for adaptation and a responsive government. It also corresponds to resiliency and reliability, essential characteristics for the state's transportation system in the face of an uncertain future.

Step 9

The Focus Areas and Scenario Planning provide the organizing concepts and broader context for Phase 2, respectively. Using these efforts and the conditions, performance expectations, and needs for the transportation system, the Project Team established a list of Action Items. While WSDOT is the lead agency for Phase 2, these Action Items affect all publicly funded transportation agencies across the state. WSDOT has engaged with the community, particularly with the groups listed as partners, since 2015. The Action Items identify willing partners that will assist WSDOT in implementing policy recommendations to reach the Vision. The Project Team developed Action Items for each Focus Area that are:

- Necessary for accomplishing the Vision.
- Tied to policy recommendations from Phase 1.
- Based on conditions, performance expectations, needs, data collection, and analysis.

Step 10

The project team developed:

- A simple ranking system for each proposed Action Item to show if it is robust across each of the four scenarios as shown in Table D-3. Action Items that were robust under multiple scenarios received priority.
- Up to three Action Items for each Focus Area.
- Background information for each Action Item.
- Steps to accomplish each Action Item.

Table D-3: Robustness Checklist

Focus Areas	Scenarios			
	Resiliency	Preparedness	Resourcefulness	Reaction
MP1	✓	✓	✓	✓
MP2	?	✓	✓	?
MG1	✓	✓	✓	✓
MG2	✓	✓	✓	✓
MG3	x	✓	✓	x
EC1	x	✓	x	x
EC2	✓	✓	✓	✓
EC3	x	✓	✓	x
FS1	✓	✓	✓	x
FS2	x	✓	x	x
FS3	✓	✓	✓	✓

✓ = Is robust in scenario | ? = Robustness depends on some outcomes in scenario | X = Is not robust in scenario

FOCUS AREA: MAINTAIN AND PRESERVE ASSETS

There is inadequate funding to both maintain and expand the transportation system. Jurisdictions in Washington struggle to upkeep their transportation facilities from increasing demand on their networks due to population growth, increased economic activity, and emergency incidents.

Action Item MP1: Maintain, preserve, and operate assets to meet desired performance on multimodal transportation systems before funding expansion projects.

Background: Various transportation assets around the state are deteriorating to the point where it will be more cost-effective to replace rather than repair them. For example, the ferry fleet continues to age

faster than it is being recapitalized. To successfully reach the Vision, communities need an emphasis on maintenance and preservation programs to extend the life of assets and minimize costs over the life cycle of the system.

Action Steps:

- Identify funding streams from all levels of government that feed into maintenance, preservation, operations, and capacity expansions.
- Work with all parties involved to establish desired performance for multimodal transportation systems.
- Better align funding streams with performance through Practical Solutions to focus on maintenance, preservation, operations, and demand management.

Action Item MP2: Support ways to help jurisdictions, transportation asset owners, and transportation service providers prepare for, respond to, and become resilient to emergencies and disasters.

Background: Emergency and disaster response exercises have revealed gaps to achieving a unified response. All jurisdictions, transportation asset owners, transportation service providers, and emergency responders in Washington must be ready to act in a coordinated manner for safe and timely response to emergencies and disasters.

Action Steps:

- Include planning that will support efforts to address Resilient Washington recommendations and actions.
- Ensure that resource sharing and interagency emergency coordination memorandums of understanding and agreements between local, regional, and state transportation agencies and service providers are complete and up-to-date and that key personnel are aware of their existence and potential uses.
- Assess data about potential transportation needs in the event of an emergency or disaster, identify gaps and opportunities, and recommend improvements.

FOCUS AREA: MANAGE GROWTH AND TRAFFIC CONGESTION

Past practices have led to congestion and inefficiency across the transportation network, and we are on the cusp of significant technological advances. Many communities around Washington state are running out of space to build more roadway capacity. Nevertheless, keeping people and goods moving is critical to Washington's thriving economy and people.

Action Item MG1: Promote transportation-efficient communities by coordinating and providing state agency technical assistance to emphasize the link between land use and transportation at all levels of government, the private sector, and other organizations.

Background: Past practices have led to congestion and inefficiency across the transportation network, and we are on the cusp of significant technological advances. Many communities around Washington State are running out of space to build more roadway capacity. Nevertheless, keeping people and goods moving is critical to Washington's thriving economy and people.

Action Steps:

- Identify resource gaps and explore ways to further encourage adoption of strategies that promote transportation-efficient communities.
- Implement strategies that support efficient development patterns, designs, and access to land use.
- Share data, policy briefs, training materials, best practices, and other resources.
- WSDOT will participate in Ruckelshaus Center growth management studies.

Action Item MG2: Prioritize access for people and goods instead of throughput for vehicles to improve multimodal options, livable communities, and economic vitality for people and businesses.

Background: Commonly used measurement methods for vehicle throughput ignore the number of passengers in vehicles, in active transportation mode share, and value of goods transported. The multimodal transportation system can offer access for people and goods in many ways, often more efficiently. Decision makers need better data and tools to support livable communities and economic vitality for people and businesses.

Action Steps:

- Identify methods, data, and tools to measure access for people and goods.
- Evaluate the application of access measures in different transportation planning and decision-making processes.
- Explore connections between established levels of service and ability for condensed growth.
- Develop, disseminate, and adopt best practices for measuring access for all modes.

Action Item MG3: Research, evaluate, adapt to, and deploy technologies and innovations in all modes; share best practices.

Background: New transportation technologies and innovations frequently affect travel more quickly than government is able to keep up. Governments and transportation innovators need to coordinate efforts more closely in order to smoothly incorporate appropriate advances to the multimodal system.

Action Steps:

- Explore plausible and desired futures.
- Research trends in emerging technologies and innovations.
- Determine related transportation system needs.

- Identify opportunities for technologies and innovations to address these needs.
- Deploy technologies and innovations or execute pilot projects to test them; provide and circulate recommendations to interested parties.

FOCUS AREA: ENHANCE MULTIMODAL CONNECTIONS AND CHOICES

Unreliable travel times and poor connections between different travel modes exist throughout the state and local jurisdictions. There are over 400 agencies and jurisdictions responsible for transportation in Washington. Efficient operation and coordination between these various parties are crucial to providing reliable travel opportunities for all users.

Action Item EC1: Work to achieve better travel time reliability and door to door multimodal connections for people of all backgrounds and abilities through continued application of practical solutions.

Background: Travel times and connections for multiple modes can be unreliable for trips both short and long. From freight and logistics companies scheduling deliveries to commuters deciding how to travel to work and when to leave, predictable movement of people and goods is crucial for a healthy statewide transportation system.

Action Steps:

- Propose metrics to track travel time reliability, network completeness and multimodal connections for all users.
- Develop case studies and best practices for applying Practical Solutions to improve reliability and multimodal connections.
- Create template for reporting the effect on travel time reliability and multimodal connections.
- Disseminate metrics, best practices, and reporting templates for implementation in collaboration with partners.

Action Item EC2: Provide transportation facilities and services to support the needs of all communities, with a focus on equity for populations with specialized needs, those in rural areas, and those who are traditionally underserved.

Background: Jurisdictions, transportation agencies, and service providers around Washington are at different stages of accommodation for users with special transportation needs. An individual living with good access to transportation has more opportunities than someone reliant on limited options, and these connections become more important as the cost of housing in centrally located areas increases. All users need the ability to access and utilize the multimodal transportation network.

Action Steps:

- Document ongoing needs of populations with special transportation needs, those in rural areas, and those who are traditionally underserved.
- Determine ongoing needs of transportation service providers and asset owners to support these populations.
- Establish and document measurable strategies to improve access to goods, services, and opportunities for these populations. For example, examine the jobs/housing balance.
- Track the implementation of strategies to provide facilities and services that support the needs of these populations; share leading practices.

Action Item EC3: Adopt metrics for all modes to align with performance objectives.

Background: Metrics for evaluating investments in multimodal transportation are evolving and have not yet been established in Washington. While community needs and priorities differ, accepted ways of measuring progress toward these priorities can ensure that all jurisdictions are able to achieve their performance objectives.

Action Steps:

- Research evaluation methods, including identification of how investments that affect all modes, regardless of funding source or project scope.
- Establish metrics and evaluation programs.
- Determine steps for adopting metrics into policy documents.
- Recommend, implement, and disseminate evaluation metrics.

FOCUS AREA: ALIGN FUNDING STRUCTURE WITH MULTIMODAL VISION

The current funding structure often prevents jurisdictions from working together to achieve performance objectives.

Action Item FS1: Support funding flexibility to reduce barriers to creating an integrated multimodal system that achieves performance objectives.

Background: Transportation funding is frequently divided up into silos that make investments in the transportation network challenging and create barriers to meeting performance expectations for issues such as travel time reliability, multimodal connections, equity, and modal choice.

Action Steps:

- Identify common circumstances where restrictions exist that prevent use of available funds.
- Document opportunities and risks to providing flexibility in use of these funds.
- Recommend steps to improve funding flexibility with considerations for equity, including seeking legislative authority to optimize the use of public funds where necessary.

Action Item FS2: Work to diversify and strengthen transportation revenue sources to hedge against inflation and economic downturns.

Background: Gas tax revenues are predicted to decrease in the future due to increased fuel efficiency and vehicles powered by alternative fuels. Bond repayments are legally tied to future gas tax revenues, so jurisdictions statewide will need reliable and sustainable revenue sources that do not compromise existing indebtedness.

Action Steps:

- Explore alternative transportation funding strategies.
- Assess how different funding methods impact users, providers, potential transportation revenues, and existing indebtedness.
- Propose funding options that can strengthen and diversity our transportation funding structure.

Action Item FS3: Address the constraints and opportunities for public-private partnership programs.

Background: Public agencies and private sector companies indicate interest in public-private partnerships generally, but few of them currently move forward. With transportation funding continuing to devolve from the federal level to states and local jurisdictions, there may be increased interest in public-private partnerships.

Action Steps:

- Determine constraints and opportunities for public-private partnerships.
- Explore options for funding and financing.
- Develop strategies to overcome or address these constraints to public-private partnerships while safeguarding equitable access to the transportation system.
- Identify areas of opportunity where public-private partnerships can address transportation needs.


Open House Guide

APPENDIX E
OUTREACH PLAN AND JOURNAL

CONTENTS

PURPOSE

Consistent with its Community Engagement Plan, WSDOT developed this specific outreach plan for the Washington Transportation Plan, Phase 2 – Implementation 2017-2040 (Phase 2) to detail who, when, where and how outreach will be conducted.

The agency bases its outreach on the concept that it should take the plan to the community, rather than expect the community to come to WSDOT. This means:

- Outreach is continuous, and not conducted only for a specific time.
- Rather than hold Phase 2-specific meetings, WSDOT will ask to be on the agenda of existing meetings held by stakeholders and partners.
- Outreach will focus the right level of engagement with the right people at the right time in the process.

BACKGROUND

The Washington Transportation Plan (WTP) establishes a 20-year Vision for the development of the statewide transportation system. The WTP is based on the six transportation system policy goals established by the Legislature: preservation, safety, mobility, environment, stewardship, and economic vitality (RCW 47.04.280). WSDOT and the Washington State Transportation Commission are completing the WTP update in two phases.

- **Phase 1 – Policy** (Phase 1) is the update to the WTP 2030 that provides policy guidance and recommendations for all transportation modes. Phase 1 is based on the six transportation policy goals established by the Legislature: preservation, safety, mobility, environment, stewardship, and economic vitality (RCW 47.04.280[1]). The Washington State Transportation Commission led and adopted it as the WTP 2035, and delivered it to the governor and the Legislature in January 2015.
- **Phase 2 – Implementation** (Phase 2) is an update to the 2007-2026 WTP that meets the federal and state requirements for the long-range statewide transportation plan. It implements policy recommendations from Phase 1 for the state's multimodal transportation system. This system includes public roads, ferries, public transportation, aviation, freight and passenger rail, ports, and active transportation. Implementation of the WTP is a statewide responsibility led by WSDOT but completed with cooperation from metropolitan planning organizations (MPOs), regional transportation planning organizations (RTPOs), transit agencies, tribal governments, ports, advocacy groups, government agencies, and communities in order to achieve the plan's Vision.

Phase 1 and Phase 2 have a joint webpage at https://washtransplan.com/.

1 http://apps.leg.wa.gov/RCW/default.aspx?cite=47.04.280

GOALS AND OBJECTIVES

Federal and state laws established the goals for transportation in RCW 47.04.280[2], 23 USC Sec 135[3], and 23 USC Sec 150[4].

OUTREACH STRATEGIES

WSDOT:

- Provided opportunities to get involved early, often, and continuously during the decision-making process.
- Minimized surprises by actively engaging with the community.
- Promoted the use of internet and web-based resources as the primary source of information.
- Documented community input and concerns in a central, easily retrievable location for review and consideration.
- Provided the community with the outcomes resulting from their input.

Who is "the community?"

- **Steering Committee**: The Steering Committee from Phase 1 agreed to remain during Phase 2. This committee includes one representative from each of the following: WSDOT, the Washington State Transportation Commission, and Regional Transportation Planning Organizations. The role of the Steering Committee is to solicit advice from the Advisory Group and to provide WSDOT with recommendations on the plan's process and content.
- **Advisory Group**: The Advisory Group from Phase 1 agreed to remain during Phase 2. Its role is to represent its particular constituency, offer advice to the Steering Committee, and review and provide comments on the plan's products.
- **Washington State Agencies**: Transportation Commission, Department of Commerce, Department of Ecology, Department of Health, Freight Mobility Strategic Investment Board, Governor's Office, Office of Financial Management, State Patrol, Department of Licensing, Traffic Safety Commission, and County Road Administration Board.
- **Adjacent States/Provinces**: Oregon Department of Transportation, Idaho Department of Transportation, B.C. Ministry of Transportation.
- **Federal Agencies**: Federal Highway Administration, Federal Transit Administration, U.S. Forest Service, National Park Service, Bureau of Land Management, Army Corps of Engineers, and U.S. Fish and Wildlife Service.

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2 http://apps.leg.wa.gov/RCW/default.aspx?cite=47.04.280

3 http://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim)%20OR%20(granuleid:USC-prelim-title23-section135)&f=treesort&edition=prelim&num=0&jumpTo=true

4 http://uscode.house.gov/view.xhtml?req=(title:23%20section:150%20edition:prelim)%20OR%20(granuleid:USC-prelim-title23-section150)&f=treesort&edition=prelim&num=0&jumpTo=true

- **Advocacy Groups**: Association of Washington Business, Association of Washington Cities, Futurewise, Washington Roundtable, Washington State Transit Association, Transportation Choices, Washington Public Ports Association, and Washington State Association of Counties
- **Traditionally Underserved Populations**: Full listing beginning on page E6.
- **Federal and State Recognized Tribes**: Confederated Tribes of the Chehalis Reservation, Confederated Tribes of the Colville Reservation, Confederated Tribes and Bands of the Yakama Nation, Cowlitz Indian Tribe, Hoh Indian Tribe, Jamestown S'Klallam Tribe, Kalispel Tribe of Indians, Lower Elwha Klallam Tribe, Lummi Nation, Makah Tribe, Muckleshoot Indian Tribe, Nisqually Indian Tribe, Nooksack Indian Tribe, Port Gamble S'Klallam Tribe, Puyallup Tribe of Indians, Quileute Nation, Quinault Indian Nation, Samish Indian Nation, Sauk-Suiattle Indian Tribe, Shoalwater Bay Indian Tribe, Skokomish Indian Tribe, Snoqualmie Indian Tribe, Spokane Tribe of Indians, Squaxin Island Tribe, Stillaguamish Tribe of Indians, Suquamish Tribe, Swinomish Indian Tribal Community, Tulalip Tribes, and Upper Skagit Indian Tribe.
- **Regional Transportation Planning Organizations (RTPOs)**: Benton-Franklin COG, Chelan-Douglas Transportation Council, Northeast Washington RTPO, Palouse RTPO, Peninsula RTPO, Puget Sound Regional Council, Quad-County RTPO, Skagit/Island RTPO, Southwest Washington Regional Transportation Council, Southwest Washington RTPO, Spokane Regional Transportation Council, Thurston Regional Planning Council, Walla Walla Valley Sub-RTPO, Whatcom Council of Governments, and Yakima Valley Conference of Governments.
- **Metropolitan Planning Organizations (MPOs)**: Benton-Franklin COG, Chelan-Douglas Transportation Council, Cowlitz-Wahkiakum Council of Governments, Lewis Clark Valley MPO, Puget Sound Regional Council, Thurston Regional Planning Council, Skagit MPO, Southwest Washington Regional Transportation Council, Spokane Regional Transportation Council, Whatcom Council of Governments, Walla Walla Valley MPO, and Yakima Valley Conference of Governments.
- **Others**: Transit providers, intercity bus providers, community leaders, local elected officials, Legislators and legislative staff, city and county planners and transportation departments.

Tools and methods

Surveys

In 2015, WSDOT and the Transportation Commission developed and conducted one survey to present information and gather input using the web-based Voice of Washington State (VOWS)[5] survey panel. The panel includes at least 30,000 people from across the state. Additional surveys will be dependent on funding.

Meetings

WSDOT requested time on the agenda of regular meetings conducted by MPOs, RTPOs, tribal transportation planning organizations, transit agencies, chambers of commerce, ports, etc.

5 http://voiceofwashingtonsurvey.org/

Website

The WTP website contained:

- Links to other information.
- The Phase 2 Public Review Draft for a minimum 45 calendar-day comment period.

Intra-agency outreach

The Project Team reached out to other WSDOT staff by:

- Creating lists of technical experts. Experts will review the technical memorandums for consistency with WSDOT policies and plans, and offer comments and suggest edits. They will also serve as a local source of information and answer questions from other WSDOT staff and external partners.
    - Staff will be invited to discuss the topic of WSDOT's efforts to reduce greenhouse gas emissions. This meeting includes representatives of Public Transportation, Strategic Assessment, and Multimodal Transportation.
    - Staff will be invited to a pre-Scenario Planning workshop to identify constraints, uncertainties, and possibilities for could impact transportation. This meeting includes representatives from Traffic, Bridge Office, Capital Program Development and Management, Environmental Services, Local Programs, Finance, Design, Strategic Assessment, and Emergency Management.
- Presenting progress reports and answer questions at monthly Urban, Regional, and Modal Planning Manager Meetings.

Some of the anticipated themes include:

- Performance of the transportation system from a multimodal perspective.
- Connectivity with other modes: Phase 2 will address the importance of multimodal connectivity and the interdependence of the modal parts to the system as a whole.
- Consistencies with other plans and planning efforts: WSDOT staff will review documents and processes to ensure consistency with the planning efforts of MPOs, RTPOs, the Tribal Transportation Planning Organization (TTPO), and WSDOT.

External outreach

WSDOT involved the external community:

- By building on earlier outreach efforts from Phase 1.
- Through the Steering Committee and Advisory Group.
- Through interviews and regular e-mail and phone communications.
- Through regularly scheduled meetings conducted by WSDOT and external partners, such as RTPOs, MPOs, transit agencies, and the TTPO.

- Through WSDOT's website[6], which will include links to Phase 2, presentations, additional information, requests for briefings, and workshop reports.
- Through presentations, briefings, and answering questions as requested.

How did WSDOT consult with tribes?
Based on the Centennial Accord, WSDOT's Executive Order E 1025.01 reaffirms WSDOT's commitment to provide consistent and equitable standards for working with the various tribes across the state. In 2011, WSDOT and tribal governments developed the WSDOT Tribal Communication and Consultation Protocols for Statewide Policy Issues. This protocol details how planners and tribes will consult with each other.

WSDOT continued to follow this protocol during development of this plan by:

- Including a tribal representative on the Phase 2 Advisory Group.
- Sending letters to each tribe, inviting them to participate in planning efforts.
- Presenting plan updates and answering questions at future Tribal Transportation Planning Organization meetings.
- Answering questions and providing contact information at the ATNI Northwest Tribal Transportation Symposium.
- Distributing the draft plan to tribes for a 45-day comment period. The email was sent on September 22, 2017.
- Sending a hard-copy letter to tribal chairs alerting them to the availability of Phase 2 for comment as back-up to the emails. The hard copy letters were sent on October 3, 2017.

How did WSDOT consult with non-metropolitan local officials and federal land management agencies?
As per federal rule, WSDOT is required to develop formal documented processes that describe how the agency consults with non-metropolitan local officials and with federal land management agencies. The formula process was finalized on February 17, 2016 and is on the WTP website[7].

WSDOT sent an email notification of the draft public review comment period to regional/metropolitan planning organization directors on September 22, 2017. Email notifications to Western Federal Lands Highway, U.S. Forest Service, Army Corps of Engineers, Bureau of Land Management, U.S. Park Service, and U.S. Fish and Wildlife Service were sent on October 9, 2017.

6 www.wsdot.wa.gov/planning/wtp/
7 https://washtransplan.com/

How did WSDOT ensure compliance with Title VI and other nondiscrimination requirements?

WSDOT is required by 23 CFR 450.210 (a) to have a "process for seeking and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services" and to ensure that public involvement processes "provide full and open access to all interested parties." The agency's Community Engagement Plan[8] meets this requirement.

WSDOT met with FHWA and FTA at the onset of the Phase 2 effort to discuss and determine appropriate methodologies to accomplish this requirement. WSDOT also consulted with the Office of Equal Opportunity (OEO) to discuss how Phase 2 may affect protected groups and how those groups may be engaged during the plan's development. OEO suggested that the agency send an email notice of Phase 2 to a list of advocacy groups.

For Phase 2, WSDOT:

- Provided the Title VI notice to the public and the Americans with Disabilities Act notice to the public in English and Spanish.
- Reached out to underserved populations through known advocacy groups. The groups will be asked how WSDOT can best reach their constituency.

Internal coordination

The outreach strategies and distribution list have been shared with and reviewed by the following WSDOT staff: Bill Bennion (Multimodal Planning Division Communicator), Larry Watkinson (WSDOT's Title VI/ADA Compliance Manager) and Oscar Cerda (WSDOT Title VI Coordinator). The strategies and list have also been shared with staff from FHWA's Washington Division and FTA's Region 10.

Definitions (sourced from FHWA)

- **Traditionally underserved** refers to individuals from minority and low-income groups. It is a phrase utilized by FHWA that combines the requirements from:
  - Title VI to not discriminate on the grounds of race, color, or national origin.
  - Presidential Executive Order on Environmental Justice to not disproportionately impact minority or low-income populations.
  - **Minority**:
    - Black
    - Hispanic (Mexican, Puerto Rican, Cuban, Central American, or South American)
    - Asian American (from Far East, Southeast Asia, India, or Pacific Islands
    - American Indian and Alaskan Native

8 https://www.wsdot.wa.gov/planning/default.htm

- **Low-income**: A household income at or below the Department of Health and Human Services poverty guidelines of $24,250 for a family of four (2015).
- **Low-income population**: Any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy, or activity.

Advocacy Groups

E-mail was the primary contact method due to its widespread availability, and time and funding constraints. In order to reach out to underserved populations within Washington state, the Project Team contacted the following groups and invite them to participate.

- Minority Bar Associations:
  - Asian Bar Association of Washington
  - Filipino Lawyers of Washington
  - LBT Bar Association
  - Korean American Bar Association
  - Loren Miller Bar Association (LMBA)
  - Middle Eastern Legal Association of Washington (MELAW)
  - Mother Attorneys Mentoring Association of Seattle (MAMAS)
  - Northwest Indian Bar Association (NIBA)
  - Pierce County Minority Bar Association (PCMBA)
  - South Asian Bar Association of Washington (SABAW)
  - The Cardozo Society
  - Vietnamese American Bar Association of Washington (VABAW)
  - Washington Attorneys with Disabilities Association
  - Washington Women Lawyers (WWL)
- African American Chamber of Commerce of the Pacific Northwest
- Brain Injury Alliance of Washington
- Casa Latina, Seattle
- Cascade Bicycle Club
- Children's Alliance Seattle
- Department of Social & Health Services
- Disability Rights Washington

- Disabled American Veterans - Washington State Chapters
- El Centro de la Raza, Seattle
- Federally recognized Indian tribes
- Feet First
- Goodwill Industries - Olympics and Rainier Region
- Governor's Committee on Disability Issues and Employment
- Hearing Loss Association of America, Washington State
- Hispanic Chambers of Commerce
- Inspire Development Centers
- Latino Civic Alliance
- Lighthouse for the Blind
- National Alliance on Mental Illness - Washington
- Northwest ADA Center
- Northwest Justice Project
- NW Communities Education Center, Granger
- People First of Washington
- People for People, Yakima
- Radio KDNA (91.9 FM)
- Regional Service Centers of the Deaf and Hard of Hearing
- SeaMar Community and Migrant Health Centers
- Seattle Commission for People with Disabilities
- Self Advocates in Leadership (SAIL)
- Spinal Cord Injury Association of Washington
- State Council on Aging
- State Independent Living Council
- Tacoma Area Coalition of Individuals with Disabilities
- Tú Decides (You Decide) a Bilingual Newspaper, Kennewick
- Washington Bikes
- Washington Chapter of the National Federation of the Blind
- Washington Commission on Hispanic Affairs
- Washington Council of the Blind

- Washington State Association of Community and Migrant Health Centers
- Washington State Commission on African American Affairs
- Washington State Commission on Asian Pacific American Affairs
- Washington State Developmental Disabilities Council
- Washington State Independent Living Council's list of Independent Living (IL) Centers
- Washington State School for the Blind
- WA Latino/a Educational Achievement Project
- Yakima Valley Farmworkers Clinic
- Puget Sound Sage
- OneAmerica

The Phase 2 outreach effort was consistent with WSDOT's Community Engagement Plan (CEP). As part of this outreach effort, the groups listed above were asked to:

- Forward the information on to their members.
- Suggest the most effective way(s) to reach out to their members.
- Define if there is a preferred format or formats for presenting information to their members.
    - WSDOT will keep a record of all outreach efforts, as well as a record of all feedback provided by individuals and groups contacted and response to feedback.

Meetings

WSDOT requested time on the agenda on these regularly-scheduled meetings to discuss Phase 2. The public is invited to these regular meetings. Dates and times are subject to change. The Phase 2 website has updated information.

Media Outreach Details

On September 22, 2017 WSDOT released this statewide press release:

> **Public comments wanted on the draft Washington Transportation Plan**
>
> Friday, September 22, 2017 - 08:58
>
> Richard Warren, planning studies manager, 206-464-1261
>
> **WSDOT seeking input on 20-year plan by Nov. 6**
>
> OLYMPIA – Washingtonians have an opportunity to provide input into the future of the state's transportation system through the Washington Transportation Plan, Phase 2 – Implementation. The plan establishes how the state can prepare itself for an uncertain future in the face of climate change and advances in technology.

The Washington State Department of Transportation is seeking public comments on the plan from now through Nov. 6, 2017.

The plan builds on WTP Phase 1, which established a 20-year Vision for the statewide multimodal transportation system. Phase 1 highlighted emerging trends and challenges facing the state's transportation system and developed recommendations for meeting those challenges.

WTP Phase 2 implements recommendations from Phase 1 through four Focus Areas and 11 Action Items to achieve the 20-year Vision established in Phase 1. It also establishes how the state can prepare itself for four plausible, but uncertain futures regarding climate change and technology and their potential impacts on the statewide transportation system. Through its proposed recommendations, Phase 2 will guide decision makers on major issues facing the statewide transportation system.

How to comment on the plan

The comment period closes on Nov. 6, 2017. Copies of the plan and a comment form for submitting feedback are available:

Online: https://washtransplan.com/

By telephone request: 206-464-1261

By written request: Washington State Department of Transportation, Multimodal Planning Division, 401 Second Ave., Suite 300, Seattle, WA 98104

Email Notices

On September 22, 2017 WSDOT sent the statewide press release to subscribers of GovDelivery bulletins titled Active Transportation News Updates, Aviation News, Public Transportation, State Rail and Marine News, WSF Weekly Update, and Washington Transportation Plan (WTP). The total number of emails was 11, 889. It was delivered to 11,755 (99 percent) of the total.

On September 22, 2017, WSDOT sent an email notice to the Steering Committee, Advisory Group, Metropolitan/Regional Transportation Planning Directors, Tribal Transportation Planning Organizations, WSDOT modal/region planners, and WSDOT technical experts.

On October 9, 2017, WSDOT sent an email notice to the Oregon Department of Transportation planning department.

Themes from Outreach

- There were 588 comments received during the public comment period.
- The major themes of the comments are:
  - There is inadequate funding for preservation and maintenance.
  - Traffic congestion is a problem in suburban and urban areas.

- Safety is a concern for drivers, pedestrians, and bicyclists on, across, and adjacent to rural two-lane highways.
- Coordination would be improved if all jurisdictions made public their twenty year financially constrained project list.

Table E-1: Record of Outreach

Steering Committee and Advisory Group

	Date	Event	Purpose
1	October 20, 2015	Steering Committee meeting	Approved Advisory Group members; commented on WSDOT's next presentation to Transportation Commission
2	February 23, 2016	Steering Committee meeting	Received feedback on work products
3	June 22, 2016	Advisory Group meeting	Kick-off meeting discussed roles and responsibilities, voted on Focus Areas
4	July 19, 2016	Steering Committee meeting	Discussed Focus Areas from Advisory Group meeting, approved topics for next Advisory Group meeting.
5	August 11, 2016	Advisory Group Meeting debrief	PSG met with Washington Roundtable to discuss the advisory group and Focus Areas. Roundtable agreed with group on Focus Areas.
6	October 6, 2016	Steering Committee meeting	Feedback: Agree on Focus Areas and uncertainties for Advisory Group Scenario Planning exercise
7	October 26, 2016	Advisory Group meeting	Scenario Planning exercise to develop four scenarios to frame recommendations and Action Items
8	November 29, 2016	Steering Committee meeting	Discussed Scenario Planning results
9	February 3, 2017	Steering Committee meeting	Reviewed materials for 2/28 Coordinating Committee meeting and approved Adv. Group Agenda
10	February 14, 2017	Advisory Group meeting	Endorsed Action Item process

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
11	March 3, 2017	Steering Committee meeting	Endorse Action Item process
12	March 14, 2017	Advisory Group meeting	Recommended Action Items
13	April 6, 2017	Advisory Group meeting	Reviewed Action Items
14	April 17, 2017	Steering Committee phone call	Debrief members unable to attend Adv. Group meeting
15	April 27, 2017	Steering Committee	Recommended changes to Focus Area and Action Item language
16	November 30, 2017	Advisory Group Meeting	Review significant themes and comments on draft plan; Recommend that Steering Committee endorses final plan
17	November 30, 2017	Steering Committee Meeting	Endorse response to significant comments
18	December 8, 2017	Steering Committee Meeting	Approve outline for the Action Item work plan; Endorse moving plan to WSDOT Secretary

Internal Coordination

	Date	Event	Purpose
	Date	Event	Purpose
1	April 27, 2015	Meet with WSDOT Tribal Liaison	Discussed Tribal Consultation Protocols for upcoming Highway System Plan
2	May 13, 2015	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2
3	July 9, 2015	Aviation System Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2
4	September 30, 2015	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2; finalized outreach information
5	October 7, 2015	Meet with Rail Division	Discussed how rail will be integrated into Phase 2
6	November 9, 2015	Modal Planners meeting	Discussed how modes will be integrated into Phase 2
7	November 20, 2015	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2; finalized outreach information
8	December 10, 2015	Aviation System Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
9	January 28, 2016	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2; finalized outreach information
10	February 4, 2016	Public Transportation Plan Early Action Workshop	Refined early actions for guardianship goal
11	February 23, 2016	Aviation System Plan Modal meeting	Discussed how to describe modal connections in Aviation System Plan
12	February 24, 2016	Public Transportation Plan Advisory Committee	Reviewed comments on draft public transportation plan
13	March 23, 2016	Aviation System Plan Advisory Committee	Reviewed draft recommendations
14	August 1, 2016	Examine GreenSTEP tool	PSG and Tolling discussed sketch planning tools
15	August 15-17, 2016	TRB Scenario Planning Training/ Conference	MMPD attended this training and learned how to conduct and use scenarios.
16	August 22, 2016	Internal meeting/conference call to discuss how WTP will look as a webpage	Discussed look and content of WTP webpage with Communicators (Jeremy Bertrand, Shirley Weisberg, Gayla Reese Walsh, Bill Bennion), GIS (Alan Smith and Julie Jackson), modes (Evan Olsen and Stan Suchan), and PSG.
17	August 30, 2016	Internal meeting/conference call with modes and Capital Program Development and Management Office staff	Preparation for Tribal State Transportation Conference
18	September 7, 2016	Phone call with Faris Al-Memar, Jeremy Jewkes, Michael Williams, Ken Burgstahler, Roxanne Bash, Erica Simmons, and Kathy Murray	Preparation for Corridor Sketch update at next CLRTP Core Team meeting
19	September 9, 2016	Internal meeting/conference call with Seth Stark, Mark Finch, Todd Lamphere, Richard Warren, Justin Resnick, Kathy Murray, and Karin Landsberg	Feedback: Discussed how the WTP should describe GHG and VMT reductions
20	September 15, 2016	Internal Practical Solutions Working Group	Status update of WTP Phase 2 and received feedback on process
21	September 22, 2016	Scenario Planning with Internal Working Group	Feedback: Refined the uncertainties for the Advisory Group Scenario Planning exercise

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
22	October 11, 2016	Washington State Aviation System Plan Advisory Committee meeting	Comment on Aviation System Plan and make connections for Phase 2 outreach
23	October 17, 2016	Briefing to WSDOT Deputy Secretary	Inform and solicit feedback
24	December 3, 2016	Modal Planners meeting	Proposed recommendations and Action Items
25	January 18, 2017	WSDOT Internal Experts Workshop	Selected recommendations for proposed Action Items
26	January 27, 2017	Washington State Aviation System Plan Advisory Committee meeting	Reviewed draft public review
27	February 2, 2017	WTP Overview to new Office of Equal Opportunity staff	Kathy Murray presented overview of WSDOT Planning and WTP to new OEO staff
28	February 6, 2017	Phone call with Freight staff	Technical Memo #3
29	February 14, 2017	Phone call with Freight staff	Discussed Freight Plan and WTP
30	February 21, 2017	Planning Managers meeting	WTP update
31	March 2, 2017	Meeting with Environmental Services Office	Discuss how WTP will address EJ
32	March 2, 2017	Meeting with Freight staff	Review comments on Tech Memo #3
33	March 8, 2017	Practical Solutions Working Group	WTP update and review Action Item process
34	April 18, 2017	Freight Working Group	WTP update and how freight is integrated
35	April 20, 2017	Planning Managers Meeting	WTP update and outreach strategies
36	June 5, 2017	Bi-Weekly	Present update and Action Items
37	June 15, 2017	Practical Solutions Roundtable	Present update and Action Items
38	June 23, 2017	Secretary Millar briefing	Present update and Action Items
39	July 19, 2017	Planning Managers	Update
40	August 17, 2017	Planning Managers	Update

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
41	September 13, 2017	Ferry System Plan Technical Advisory Group	Assist WSF with how ferry system plan can be consistent with Phase 2
42	September 21, 2017	Ferry System Plan Technical Advisory Group	Assist WSF with how ferry system plan can be consistent with Phase 2

External Coordination

	Date	Event	Purpose
1	January 22, 2015	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Shared information with federal land management agencies and Oregon DOT
2	February 11, 2015	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Shared information with federal land management agencies and Oregon DOT
3	March 5, 2015	Check-in with Washington State Transportation Commission staff	Prepared for Steering Committee and next Commission meeting
4	March 10, 2015	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed planning requirements
5	March 12, 2015	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Shared information with federal land management agencies and Oregon DOT
6	April 2, 2015	Check-in with Washington State Transportation Commission staff	Discussed status of WSDOT modal plan
7	May 7, 2015	Check-in with Washington State Transportation Commission staff	Discussed WSDOT's use of Voice of Washington State Survey Panel
8	May 13, 2015	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2
9	June 11-22, 2015	Voice of Washington State Survey opens	Asked survey panel what Phase 2 should focus on
10	September 3, 2015	Check-in with Washington State Transportation Commission staff	Finalized list of Phase 2 Advisory Group members and discussed presentation at Commission meeting
11	September 14, 2015	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed strategies for reaching underserved populations
12	September 24, 2015	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Shared Information with federal land management agencies and Oregon DOT

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
13	October 15, 2015	Meet with FHWA and Local Programs	Reviewed WSDOT's draft process for consulting with non-metropolitan local officials
14	November 5, 2015	Check-in with Washington State Transportation Commission staff	Prepared for Steering Committee meeting
15	November 9, 2015	Check-in with Federal Highway Administration and Federal Transit Administration staff	Received comments on draft non-metropolitan, tribal, and federal land management agencies consultation process
16	December 3, 2015	Check-in with Washington State Transportation Commission staff	Discussed logistics for Advisory Group meetings and webpage
17	December 14, 2015	Process out for comment	WSDOT's document that describes processes for consulting with non-metropolitan local officials, tribes, and federal land management agencies (23 CFR 450.210 b and c) out for 60 day review
18	January 7, 2016	Check-in with Washington State Transportation Commission staff	Coordinated upcoming outreach activities
19	January 11, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	No comments from FHWA or FTA on non-metropolitan process
20	January 21, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Shared information with federal land management agencies and Oregon DOT
21	January 28, 2016	Public Transportation Plan Advisory Committee	Represented WSDOT statewide planning and ensured integration with Phase 2; finalized outreach information
22	February 4, 2016	Check-in with Washington State Transportation Commission staff	Commented on draft Public Transportation Plan
23	February 4, 2016	Public Transportation Plan Early Action Workshop	Refined early actions for guardianship goal
24	February 8, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed comments on non-metropolitan process (none were received) and NPRM progress

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
25	February 19, 2016	Final process for consulting with non-metropolitan local officials, tribes, and federal land management agencies e-mailed to MPOs, RTPOs, Regions, FHWA, FTA, and WSDOT Tribal Liaison	Information sharing and compliance with 23 CFR 450.210.
26	February 22, 2016	Final process for consulting with non-metropolitan local officials, tribes, and federal land management agencies posted to website	Information sharing
27	March 3, 2016	Check-in with Washington State Transportation Commission staff	Discussed modal plans and next commission meeting topics
28	March 10, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Reviewed draft work products
29	April 4, 2016	Check-in with Washington State Transportation Commission staff	Discussed comments on public transportation plan
30	April 19-20, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Workshop	Reviewed and commented on draft plan. Shared information on WSDOT plans
31	May 9, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed proposed rules for statewide planning
32	May 16, 2016	Check-in with Washington State Transportation Commission staff	Prepared for Advisory Group meeting
33	June 2, 2016	Check-in with Washington State Transportation Commission staff	Information sharing
34	June 7, 2016	Walkable Washington meeting	Justin Resnick attended to learn about pedestrian issues
35	June 13, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed new planning rule and that since we don't have all rules for performance measure, Phase 2 will still comply with SAFETEA-LU
36	June 16, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Discussed place-based collaboration chapter

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
37	June 23, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting follow-up phone call	Provided detailed information on Place-based collaboration chapter
38	August 18, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Received input on the PowerPoint for August MPO/RTPO/WSDOT Coordinating Committee meeting. Discuss next Word product.
39	August 24, 2016	Phone call with Fehr & Peers	MMPD and Fehr & Peers staff discussed use of Trendlab for WTP. Decided against use of it at this time.
40	September 22, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Inform: Faris Al-Memar presented update on the Corridor Sketch Initiative.
41	October 6, 2016	Check-in with Washington State Transportation Commission staff	Information sharing
42	October 13, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	Information sharing and invite to Advisory Group Scenario Planning exercise
43	November 22, 2016	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Reviewed Action Items and performance metrics
44	December 12, 2016	Check-in with Federal Highway Administration and Federal Transit Administration staff	Discussed Scenario Planning exercise
45	January 24, 2017	Check-in with Washington State Transportation Commission staff	Discussed recommendations for Action Items
46	January 26, 2017	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Presented safety chapter edits
47	January 31, 2017	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting - Safety Chapter discussion	Phone call with WSDOT (planner and traffic) and ODOT (planner) to discuss safety edits to CLRTP
48	April 20, 2017	Pacific Northwest Collaborative Long Range Transportation Plan Core Team Meeting	Comment on resource chapter and preview Action Items
49	May 4, 2017	Check-in with Washington State Transportation Commission staff	Reviewed presentation key points for May WSTC meeting

Table E-1: Record of Outreach (continued)

Presentations at Public Meetings

	Date	Event	Purpose
1	March 16, 2015	Senate Transportation Committee - Olympia	Amy Scarton presented Phase 2 and answered questions
2	March 18, 2015	Washington State Transportation Commission – Olympia	Kerri Woehler and Richard Warren described transition from Phase 1 to Phase 2 and answered questions
3	May 19, 2015	Washington State Transportation Commission- Olympia	Brian Lagerberg described progress of Public Transportation Plan
4	August 25, 2015	Public Transportation Conference and Expo – Vancouver	Richard Warren presented panel discussion of Phase 2 and how it integrates public transportation
5	October 21, 2015	Washington State Transportation Commission - Olympia	Kerri Woehler described Phase 2 and answered questions
6	January 26, 2016	Washington State Transit Association Board – Lacey	Kerri Woehler presented Phase 2 and answered questions
7	February 17, 2016	Washington State Transportation Commission – Olympia	Kerri Woehler gave Phase 2 status update and answered questions. Comments were that it wasn't clear this was a multimodal plan that includes waterborne transportation.
8	May 2, 2016	Washington State Ridesharing Organization Conference -Tacoma	Richard Warren presented and Justin Resnick tested Phase 2 Focus Area activity to prepare for Advisory Group
9	August 23, 2016	Metropolitan Planning Organizations/Regional Transportation Planning Organizations/WSDOT Coordinating Committee – Seattle	PSG arranged for Roxanne Bash (FHWA) to present CLRTP. MPOs have since requested meeting invites.
10	September 20, 2016	2016 Public Transportation Conference - Wenatchee	Inform: Presentation on how WTP Phase 2 will engage communities
11	September 29, 2016	2016 Tribal State Conference - Suquamish	Inform and feedback: Panel of WSDOT planners from modes, Asset Management, and WTP to discuss Tribal planners' key issues
12	October 18, 2016	Washington State Transportation Commission – Olympia	Phase 2 update

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
13	October 27, 2016	Washington State Community Airports Association Conference - Leavenworth	Inform: Presentation on how WSDOT will engage communities in Phase 2
14	November 15, 2016	Metropolitan Planning Organizations/Regional Transportation Planning Organizations/WSDOT Coordinating Committee - Seattle	WTP process to get involved
15	February 28, 2017	Metropolitan Planning Organizations/Regional Transportation Planning Organizations/WSDOT Coordinating Committee – Seattle	Discuss how Phase 2 will address greenhouse gas emissions and Scenario Planning
16	May 10, 2017	Washington Indian Transportation Policy Advisory Committee - Olympia	Phase 2 update
17	May 16, 2017	Washington State Transportation Commission - Olympia	Phase 2 update
18	June 1, 2017	Quad County Regional Transportation Planning Organization – Ephrata	Joint Presentation of Phase 2 and State Freight Plan
19	June 7, 2017	Tribal Transportation Planning Organization – Toppenish	Joint Presentation of Phase 2 and State Freight Plan
20	June 14, 2017	Thurston Regional Planning Council – Olympia	Joint Presentation of Phase 2 and State Freight Plan
21	July 11, 2017	Palouse Regional Transportation Planning Organization - Pomeroy	Joint Presentation of Phase 2 and State Freight Plan
22	July 12, 2017	Whatcom Council of Governments - Bellingham	Joint Presentation of Phase 2 and State Freight Plan
23	July 13, 2017	Benton-Franklin Council of Governments - Pasco	Joint Presentation of Phase 2 and State Freight Plan
24	July 13, 2017	Spokane Regional Transportation Council – Spokane	Joint Presentation of Phase 2 and State Freight Plan
25	July 17, 2017	Yakima Valley Conference of Governments - Yakima	Joint Presentation of Phase 2 and State Freight Plan

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
26	July 19, 2017	Skagit Council of Governments - Burlington	Joint Presentation of Phase 2 and State Freight Plan
27	July 20, 2017	Pierce County Regional Council Tacoma –	Joint Presentation of Phase 2 and State Freight Plan
28	July 26, 2017	Northeast Washington Regional Transportation Planning Organization - Colville	Joint Presentation of Phase 2 and State Freight Plan
29	July 26, 2017	Island Regional Transportation Planning Organization – Coupeville	Joint Presentation of Phase 2 and State Freight Plan
30	July 27, 2017	Cowlitz-Wahkiakum Council of Governments – Kelso	Joint Presentation of Phase 2 and State Freight Plan
31	August 2, 2017	Walla Walla Valley Metropolitan Planning Organization – Walla Walla	Joint Presentation of Phase 2 and State Freight Plan
32	August 8, 2017	Public Transportation Conference – Everett	Inform: Presentation on how WTP Phase 2 will engage communities
33	August 10, 2017	Chelan-Douglas Transportation Council – Wenatchee	Joint Presentation of Phase 2 and State Freight Plan
34	August 16, 2017	Washington Good Roads Association – Kennewick	Joint Presentation of Phase 2 and State Freight Plan
35	August 18, 2017	Southwest Washington Regional Transportation Council Transportation Advisory Committee– Vancouver	Joint Presentation of Phase 2 and State Freight Plan
36	September 5, 2017	Southwest Washington Regional Transportation Council Transportation Policy Board– Vancouver	Joint Presentation of Phase 2 and State Freight Plan
37	September 7, 2017	Kitsap Regional Coordinating Council - Bremerton	Joint Presentation of Phase 2 and State Freight Plan
38	September 8, 2017	Eastside Transportation Partnership- Bellevue	Joint Presentation of Phase 2 and State Freight Plan
39	September 11, 2017	Okanogan County - Omak	Joint Presentation of Phase 2 and State Freight Plan
40	September 12, 2017	Tribal Transportation Planning Organization – Nisqually	Joint Presentation of Phase 2 and State Freight Plan
41	September 19, 2017	South County (King) Area Transportation Board – SeaTac	Joint Presentation of Phase 2 and State Freight Plan

Table E-1: Record of Outreach (continued)

	Date	Event	Purpose
42	September 22, 2017	Peninsula Regional Transportation Planning Organization – Port Townsend	Joint Presentation of Phase 2 and State Freight Plan
43	September 26, 2017	Port of Tacoma, Tide flats Strategic Transportation Planning Roundtable- Tacoma	Joint Presentation of Phase 2 and State Freight Plan
44	September 29, 2017	Interview with KOHO 101 Radio, Wenatchee	Inform: Details on Phase 2 Public Comment Period and Process
45	October 6, 2017	King County – Seashore	Inform: Details on Phase 2 Public Comment Period and Process
46	October 10, 2017	Interview with KPQ Radio Station	Inform: Details on Phase 2 Public Comment Period and Process
47	October 11, 2017	Briefing at Association of Washington Business – Olympia	Inform: Details on Phase 2 Public Comment Period and Process
48	October 12, 2017	Puget Sound Regional Council, Transportation Policy Board - Seattle	Joint Presentation of Phase 2 and State Freight Plan
49	October 17, 2017	Briefing at Commute Seattle	Inform: Details on Phase 2 Public Comment Period and Process
50	October 17, 2017	Washington State Transportation Commission Meeting	Update on Phase 2