WASHINGTON TRANSPORTATION PLAN, PHASE 2—IMPLEMENTATION 2017 - 2040
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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

WSDOT divisions and offices:

- Active Transportation
- Aviation
- Budget and Financial Analysis
- Capital Program Development and Management
- Communications
- Construction
- Development
- Innovative Partnerships
- Local Programs
- Intergovernmental and Tribal Relations
- Maintenance Operations
- Multimodal Planning
- Office of Equal Opportunity
- Public Transportation
- Rail, Freight, and Ports
- Regions
- Strategic Assessment and Performance Analysis
- Traffic Operations
- Washington State Ferries
# CONTENTS

**SECRETARY’S LETTER** .................................................................................................................... ii

**ACKNOWLEDGEMENTS** .................................................................................................................. v

**EXECUTIVE SUMMARY** ................................................................................................................ 1

**CHAPTER 1** ..................................................................................................................................... 5

**CHAPTER 2** .................................................................................................................................... 13

**CHAPTER 3** .................................................................................................................................... 19

**CHAPTER 4** .................................................................................................................................... 37

**CHAPTER 5** .................................................................................................................................... 53

**APPENDICES** ................................................................................................................................. 67

**Appendix A:** Technical Memorandum #1 – Vision, Policies, Goals ....................................................

**Appendix B:** Technical Memorandum #2 – Transportation Funding ...................................................

**Appendix C:** Technical Memorandum #3 – Current And Future Conditions Of The Statewide Transportation System ............................................................................................................

**Appendix D:** Technical Memorandum #4 – Scenario Planning And Focus Areas .................................

**Appendix E:** Outreach Plan And Journal  ............................................................................................

<table>
<thead>
<tr>
<th>Contents</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 1 INTRODUCTION</td>
<td>5</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>5</td>
</tr>
<tr>
<td>Purpose</td>
<td>5</td>
</tr>
<tr>
<td>Plan Organization</td>
<td>5</td>
</tr>
<tr>
<td>Focus Areas</td>
<td>13</td>
</tr>
<tr>
<td>Resiliency Given Uncertainty</td>
<td>16</td>
</tr>
<tr>
<td>Performance Program</td>
<td>17</td>
</tr>
<tr>
<td>Policy Topics Covered In Other Plans</td>
<td>18</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>67</td>
</tr>
<tr>
<td>Appendix A: Technical Memorandum #1 - Vision, Policies, Goals</td>
<td></td>
</tr>
<tr>
<td>Appendix B: Technical Memorandum #2 - Transportation Funding</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>Appendix E: Outreach Plan And Journal</td>
<td></td>
</tr>
</tbody>
</table>
# FIGURES & TABLES

## EXECUTIVE SUMMARY
- Figure ES-1: Phase 2 Action Item Work Plan Tasks ................................................. 2
- Table ES-1: Vision, Focus Areas, and Action Items ................................................ 3

## CHAPTER 1
- Table 1: Phase 2 Purpose Summary ........................................................................ 6
- Figure 1: Transportation Planning Integration ......................................................... 7
- Figure 2: Metropolitan Planning Organizations in Washington ................................ 9
- Figure 3: Regional Transportation Planning Organizations in Washington .......... 10
- Figure 4: Federally Recognized Tribes with Interests in Washington State ............... 11

## CHAPTER 2
- Figure 5: Vision, Focus Areas and Action Items ..................................................... 15

## CHAPTER 3
- Figure 6: State Interest Facilities and Services .................................................... 23
- Figure 7: Adjacent Facilities and Services ............................................................. 26
- Figure 8: State-Owned Facilities and Services ..................................................... 27
- Table 2: 2016 Daily Vehicle Miles Traveled .......................................................... 30

## CHAPTER 4
- Figure 9: Statewide Population Growth ............................................................... 37
- Table 3: Urban Land by County ........................................................................... 39
- Figure 10: Annual Average Transportation Revenue Breakdown by Source (2011-2015) ................................................................. 42
- Figure 11: Gas and Special Fuel Tax Breakdown ................................................. 43
- Table 4: Potential Climate Impacts in Washington ................................................. 45
- Figure 12: Climate Change Vulnerability ............................................................. 46
- Figure 13: What is a Connected Autonomous System? ......................................... 50

## CHAPTER 5
- Figure 14: Reaching the Vision: Focus Areas and Action Items .......................... 54
- Figure 15: Critical Scenarios Matrix ................................................................... 56
- Table 5: Robustness Checklist ............................................................................ 63
- Figure 16: Phase 2 Action Item Work Plan Tasks ................................................. 64

## APPENDICES
- See individual appendix documents for lists of appendix figures and tables.

viii
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;
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](http://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

<table>
<thead>
<tr>
<th>Maintain And Preserve Assets</th>
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#### ACTION ITEMS

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<td>Maintain, preserve, and operate assets and manage demand to meet desired performance on multimodal transportation systems before funding expansion projects</td>
<td>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</td>
<td>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</td>
<td>Support funding flexibility to reduce barriers to creating an integrated multimodal system that achieves performance objectives</td>
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<td>Support ways to help jurisdictions, transportation asset owners, and transportation service providers prepare for, respond to, and become resilient to emergencies and disasters</td>
<td>Prioritize access for people and goods instead of throughput for vehicles to improve multimodal options, livable communities, and economic vitality for people and businesses</td>
<td>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</td>
<td>Work to diversify and strengthen transportation revenue sources to hedge against inflation and economic downturns</td>
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<td>Research, evaluate, adapt to, and deploy technologies and innovations in all modes; share best practices</td>
<td>Adopt metrics for all modes to align with performance objectives</td>
<td>Address the constraints and opportunities for public-private partnership programs</td>
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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

<table>
<thead>
<tr>
<th>Phase 2 will:</th>
<th>Phase 2 will NOT:</th>
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<tr>
<td>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).</td>
<td>Identify local transportation priorities.</td>
</tr>
<tr>
<td>Describe the state’s existing performance program (see page 17).</td>
<td>Propose new Moving Ahead for Progress in the 21st Century Act (MAP-21) performance measures or targets.</td>
</tr>
<tr>
<td>Propose Action Items for each Focus Area for WSDOT and partners to work on after plan adoption (detailed in Chapter 5).</td>
<td>Contain a project list or financial plan.</td>
</tr>
<tr>
<td>Reach out to advocacy groups, non-transportation agencies, business interests, and the public with opportunities to participate.</td>
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</tr>
<tr>
<td>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.</td>
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**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.

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.
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
Chapter 2 | What Are We Trying to Achieve?

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.
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

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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. 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.

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 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.

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) 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
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). 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 and WSDOT’s MAP-21 webpages.

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. 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) 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. WSDOT and partners engage the public on specific projects during many stages, including environmental review.

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/
12 http://www.ecy.wa.gov/programs/sea/sepa/e-review.html
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.
• 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. 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\textsuperscript{13}: 51 centerline miles.

\textsuperscript{13} Mapping note: Due to scale, these roads are not shown in Figure 6.
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 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) 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.

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

- 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.
- Obtaining adequate and sustainable funding sources.

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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
Helping to manage traffic more efficiently at the local trip level
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. 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), 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 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:

Giving people more options for long distance work or personal travel.
Improving safety and emergency services.
Enabling commerce through the transport of goods and delivery of services.
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. “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.

Source: https://www.faa.gov/
http://app.leg.wa.gov/rcw/default.aspx?cite=47.68
http://www.wsdot.wa.gov/aviation/Planning/wasp.htm
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

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Centerline Miles</th>
<th>Daily Vehicle Miles Traveled (Thousands)</th>
<th>Annual Vehicle Miles Traveled (Thousands)</th>
<th>Percent of Vehicle Miles Traveled</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Total</td>
<td>7,056 (763)</td>
<td>8.8% (0.9%)</td>
<td>93,773 (46,132)</td>
<td>56.2% (27.7%)</td>
</tr>
<tr>
<td>City</td>
<td>17,028</td>
<td>21.2%</td>
<td>43,878</td>
<td>16,015,000</td>
</tr>
<tr>
<td>County</td>
<td>39,226</td>
<td>48.8%</td>
<td>26,672</td>
<td>9,735,000</td>
</tr>
<tr>
<td>Other</td>
<td>17,082</td>
<td>21.2%</td>
<td>2,392</td>
<td>873,000</td>
</tr>
<tr>
<td>Total</td>
<td>80,392</td>
<td>100%</td>
<td>166,715</td>
<td>60,851,000</td>
</tr>
</tbody>
</table>

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, 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:

- [MP] Reducing service disruptions due to landslides.
- [MG] Developing national standards for equipment.

According to the [2013-2035 Washington State Rail Plan](http://www.wsdot.wa.gov/Rail/Plans.htm), 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:

- [EC] Address first and last mile of freight connectivity.
- [MG] Fund strategic grade-separated crossings.
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.

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.

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.

WSF owns and operates auto-passenger ferries and 20 terminals, and offers 10 routes across the Salish Sea.
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.**
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 program is mandated by RCW 36.70A.215. 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. 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.

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**

<table>
<thead>
<tr>
<th>County</th>
<th>Percent Urban Land</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Asotin</td>
<td>0-5</td>
</tr>
<tr>
<td>Benton</td>
<td>0-5</td>
</tr>
<tr>
<td>Franklin</td>
<td>0-5</td>
</tr>
<tr>
<td>King</td>
<td>10-20</td>
</tr>
<tr>
<td>Kitsap</td>
<td>20-40</td>
</tr>
<tr>
<td>Pierce</td>
<td>10-20</td>
</tr>
<tr>
<td>Skagit</td>
<td>0-5</td>
</tr>
<tr>
<td>Snohomish</td>
<td>10-20</td>
</tr>
<tr>
<td>Spokane</td>
<td>10-20</td>
</tr>
<tr>
<td>Thurston</td>
<td>10-20</td>
</tr>
<tr>
<td>Walla Walla</td>
<td>0-5</td>
</tr>
<tr>
<td>Whatcom</td>
<td>0-5</td>
</tr>
</tbody>
</table>


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 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.
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\textsuperscript{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 \url{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 \textit{Washington State Data Book}\textsuperscript{27}.

The \textit{Washington State Legislative Evaluation and Accountability Program (LEAP) Committee}\textsuperscript{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 \url{http://leap.leg.wa.gov/}.

For more information see, Appendix B, the \textit{Joint Transportation Committee Transportation Resource Manual}\textsuperscript{29}

\section*{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\textsuperscript{30}:

\begin{table}[h]
\caption{Projected Changes and Impacts due to Climate Change} \label{table:climate-change}
\begin{tabular}{|c|c|}
\hline
\textbf{Category} & \textbf{Impact} \\
\hline
Health & Increased heat-related deaths \\
\hline
Ecosystem & Changes in species distribution \\
\hline
Economy & Increased costs of adaptation \\
\hline

\end{tabular}
\end{table}

\textsuperscript{26} \url{http://app.leg.wa.gov/RCW/default.aspx?cite=43.09}
\textsuperscript{27} \url{https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-state-data-book}
\textsuperscript{28} \url{http://leap.leg.wa.gov/}
\textsuperscript{29} \url{http://leg.wa.gov/JTC/trm/Pages/TRM2017.aspx}
\textsuperscript{30} "Guidance for Considering Impacts of Climate Change in WSDOT Plans," \url{http://www.wsdot.wa.gov/sites/default/files/2017/07/24/GuidanceDoc-ConsideringClimateChangeInWSDOTPlans.pdf}
Table 4: Potential Climate Impacts in Washington

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

### 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) 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.

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• 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 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 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.

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

Governor Inslee’s strategic framework for Washington (Results Washington35) 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 202036.

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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 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.
- 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 has 22 diesel hybrid buses 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.

37 http://www.wsdot.wa.gov/Funding/Partners/EVIB
38 https://www.soundtransit.org
40 https://www.wsdot.wa.gov/Choices/TDMQnA.htm
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.

**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.

**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.

**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.
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

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.

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

**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.

**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.
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**

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>Resiliency</th>
<th>Preparedness</th>
<th>Resourcefulness</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MP2</td>
<td>?</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>MG1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MG2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MG3</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>EC1</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>EC2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>EC3</td>
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<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>FS1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>FS2</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>FS3</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ = 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.
APPENDICES

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

APPENDIX B
TECHNICAL MEMORANDUM #2 – TRANSPORTATION FUNDING

APPENDIX C
TECHNICAL MEMORANDUM #3 – CURRENT AND FUTURE CONDITIONS OF THE STATEWIDE TRANSPORTATION SYSTEM

APPENDIX D
TECHNICAL MEMORANDUM #4 – SCENARIO PLANNING AND FOCUS AREAS

APPENDIX E
OUTREACH PLAN AND JOURNAL