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The Washington State Department of Transportation is proud to present the 2024 Highway System Plan. We know highways are an essential part of our society and affect everyone – both positively and negatively. For this plan – the first update since 2007 – we spent additional time engaging with Washington residents to understand what they wanted from their system in the future. This plan lays out what it takes to have a system that is sound, safe and smart for everyone in Washington.

A sound highway system keeps all roads and bridges open and in operating condition by spending what is necessary on preservation and maintenance. Our trade-dependent economy relies on our existing highway system. There is a cost to inaction on preservation and maintenance – it costs five times as much to rebuild infrastructure compared to doing work in the right place at the right time. While the 2022 Move Ahead Washington transportation funding package made a down payment on preservation, more funding will be needed to get our system back to a state of good repair.

A safe highway system decreases serious injuries and saves lives by providing safer spaces for all users and modes. While even one roadway fatality is too many, it is particularly concerning – and unacceptable – that the state's safety numbers have been moving in the wrong direction in recent years. We need to be thinking in new ways and using all the tools at our disposal to make our highways safer.

A smart highway system gets more out of the system we have, maximizing value from previous investments. Our system has reached a point where we can no longer build ourselves out of congestion, and history shows us congestion relief has costs, including to traveler safety and the environment. It is time to think about another way of doing business by carefully managing and operating the things we have built. A smart system provides more travel options, more equitable outcomes and a healthier environment.

The 2024 Highway System Plan is Washington's roadmap for preserving, maintaining, operating and improving our state highways for the next 20 years. This plan is not the end of the conversation about program-level funding decisions, but rather a place to start.

Sincerely.

Roger Millar, PE, FAICP, Dist. M. ASCE

Secretary of Transportation

Executive summary

Our highway system influences the daily lives of every person who lives in or visits the Evergreen state. Most aspects of living or doing business in Washington state rely on highways. Washingtonians have invested heavily in this system: if we were to build the existing system from scratch today, it would cost more than \$100 billion. It is our responsibility to maintain, operate and improve this important public asset.

There is not enough funding available to adequately fund all the needs of our system. Therefore, the Washington State Department of Transportation recommends – based on broad public engagement – that new revenue for state highways over the next 20 years be dedicated to:

- 1. **First fund operations maintenance, capital preservation and critical programs** such as required fish passage projects and support programs.
- 2. Then for any remaining funds, \$2 should be spent on safety and efficiency strategies for every \$1 spent on highway expansion projects.

Keeping the existing system open depends on two separate programs that work together. Preservation in the capital budget addresses large fixes. Maintenance from the operations budget keeps the roads open in between preservation fixes through more than two dozen separate activities.

This Highway System Plan outlines how we reached these recommendations by covering:

- Chapter 1: Introduction the vision for highways and plan context
- Chapter 2: Scenarios and tradeoffs considered information on different mixes of program funding, the outcomes and what the people of Washington would choose
- Chapter 3: Plan recommendations within limited funding what WSDOT recommends for programmatic funding when there is not enough funding to do everything

State law directs WSDOT to make financially realistic recommendations in the Highway System Plan. That is not just the law, it is also the right thing to do. We know that meeting the vision for resilient highways will take more funding than WSDOT can reasonably expect to be available for highways in the next 20 years. A study by the state Legislature's Joint Transportation Committee reached the same conclusion. As a result, this plan focuses on making recommendations within an ambitious-but-reasonable amount of future funding.

To arrive at these recommendations, we talked with Washington residents across the state about how the system is working for them and what types of investments they would like to see. During this process we were fortunate to hear a wide range of opinions, but even across that variety of perspectives there were clear trends that showed:

- Strong support for preservation and maintenance funding across all regions and demographic groups.
- Preference for **strategies that increase safety and efficiency** for the existing system, while still funding **some highway expansion.**
- The importance of addressing equity by increasing travel choices, improving access to affordable
 housing and creating economic opportunities from highway investments for overburdened and
 vulnerable communities.

Executive Summary 4

Arriving at our recommendation required other work too. We analyzed travel and crash data, used state-of-the-art transportation modeling software to analyze future demands on the system, consulted with industry experts and convened advisory, steering and internal alignment committees. We also examined demographic and socioeconomic trends and anticipated the impacts of technology, climate change and remote work.

This recommendation provides for a resilient state highway system that is:

- SOUND. All bridges and highways remain open and are maintained in working condition.
- SAFE. Fewer crashes by providing safer spaces for all modes.
- SMART.
 - Healthier environment. Removal of fish passage barriers, fewer vehicle miles traveled and decreased greenhouse gas emissions.
 - More equitable outcomes. Agency investments and policy decisions are equitable and inclusive.

Recipe for: Resilient Highways

There is not enough funding to meet all highway needs, therefore WSDOT recommends the following recipe to spend our limited funds.

Serves:

All Washingtonians

Ingredients:

- Baseline funding
- Move Ahead Washington funding
- New revenue

Preparation:

- 1. First fund operations maintenance, capital preservation and critical programs such as required fish passage projects and program support.
- 2. Then for any remaining funds, \$2 should be spent on safety and efficiency strategies for every \$1 spent on highway expansion projects.

Chef's note: Keeping the existing system open depends on two programs that work together. Preservation in the capital budget addresses large fixes. Maintenance from the operations budget keeps the roads open in between preservation fixes through more than two dozen separate activities.

- More walking, bicycling and rolling. Closure of most active transportation gaps on, next to or across highways.
- o **More travel options.** Reduction of commute trips by coordinating with cities, employers and transit to add or support more modes and travel options.
- Smoother transportation operations. More effective handling of crashes, information and lowcost solutions.

The Highway System Plan makes realistic program funding recommendations for 20 years in preservation, maintenance and capacity and operational improvements to the state highway system. It also meets other state and federal requirements.

To implement these recommendations, WSDOT will work closely with partners and communities to request funding, evaluate and select projects, set performance goals and deliver projects.

Executive Summary 5

Table of Contents

Executive summary	
Chapter 1: Introduction	8
The Highway System Plan is one part of Washington's family of plans	9
A bold vision for state highways	9
Washington plans for resilience in the face of transformative change	10
State law directs WSDOT to prioritize preservation and safety	12
The 2024 Highway System Plan focuses on programmatic funding	13
Chapter 2: Scenarios and tradeoffs considered	14
There is not enough funding for the current transportation system	14
What is a reasonable amount of funding?	15
This plan focuses on balancing tradeoffs among highway programs	
WSDOT listened to the community	
WSDOT analyzed different investment scenarios	
What might different futures look like?	
Chapter 3: Plan recommendations within limited funding	
Funding recommendation: the recipe for resilience	
What does the Highway System Plan's recommended future look like?	
We anticipated long-range uncertainties in our recommendations	
How did Move Ahead Washington affect the analysis?	
What could Washington achieve with continued policy shifts?	
How do we make it happen?	
Glossary	
Acknowledgements	
Appendix A: Key enabling legislation for the Highway System Plan	
Appendix B: Equity in the Highway System Plan	
Appendix C: Public comment summary	
Appendix D: Maintenance level of service (LOS)	
Appendix E: Level of service (LOS) standards for Development Impacts Assessment	40
Appendix F: Example projects by WSDOT highway program	41
Appendix G: List of technical reports	
Appendix H: Funding highway preservation and maintenance	45
Appendix I: Maps relevant to the highway system	48
Highways of Statewide Significance map	49
National Highway System map	50
Freight and Goods Transportation System map	51
Marine Highway System map	52

Metropolitan Planning Organizations map	ļ. 5
List of figures and tables	
Figure 1: State highways serve every region of Washington state10)
Figure 2: Vision statement from the Washington Transportation Plan – 2040 and	
Beyond	
Figure 3: Emerging issues and trends12	
Table 1: This plan evaluates ambitious-but-reasonable funding over 20 years16	
Figure 4: Public outreach process for the Highway System PlanPlan17	
Figure 5: WSDOT funding groups and highway programs	
Figure 6: How highway repair funding affects mobility, safety and stewardship20)
Figure 7: A side-by-side comparison of the three final investment scenarios21	_
Figure 8: A comparison of benefits for the three final scenarios)
Figure 9: 2022-2041 Recipe for resilient state highways24	ļ.
Figure 10: Breakdown of the recipe for resilience, Move Ahead Washington and	
baseline funding levels26)
Table 2: Key enabling legislation for the Highway System PlanPlan33	}
Table 3: General definitions for maintenance level of service ranks	3
Figure 11: Examples of highway infrastructure components showing deterioration46)
Table 4: Highway system preservation and deterioration at different levels of funding.	
47	,

Table of Contents 7

2024 Highway System Plan

Chapter 1: Introduction

The Washington State Department of Transportation Highway System Plan is a roadmap for preserving, maintaining, operating and improving state highways for users of all types of transportation. It was developed following state statutes and with input from Washington residents, tribal members, WSDOT leaders and transportation partners. WSDOT develops a separate long-range plan for the marine highways of the Washington State Ferry system. WSDOT also develops plans for other types of transportation, such as freight, rail, aviation, active transportation and public transportation.

Planning for state highways matters:

- Over half of vehicle travel in Washington occurs on state highways.
- People drive cars and ride in vanpools and buses on highways to reach destinations such as jobs, schools, services and recreation.
- Truckers transport goods to market on highways.
- People walk, bicycle, roll and access transit along highways.
- State highways serve as main streets in many communities and support their economies.
- Planning can address the legacy of state transportation "actions of the past, ... which often disproportionately negatively affected low-income communities, minority neighborhoods, and people of color, and the legacy of those actions persist in disparities today." 1

WSDOT is committed to providing safe, reliable and cost-effective transportation options for all travelers.

This updated Highway System Plan supersedes the most recent 2007 edition. From funding approaches to technology, many aspects of our highway system have changed since 2007 and will continue to evolve over the next 20 years. This plan will cover the future vision and trends, the relevant state transportation laws and how tradeoffs are balanced across different programs.² We will cover the planning and community engagement process before covering scenario outcomes and a final recommendation for how to move forward.

All in-text or bulleted lists are not prioritized unless otherwise specified. For descriptions and more information on any transportation terms, please visit the <u>Glossary</u>.

¹ This statement was developed from the American Association of State Highway Transportation Officials (AASHTO) Policy Resolution PR-2-20 which addresses race, equity, diversity and inclusion in transportation planning and decision-making processes. https://transportation.org/policy/wp-content/uploads/sites/56/2023/06/PDF-AASHTO-policy-resolutions-updated-6-13-2023-1.pdf (PDF, 1.65MB).

² More information on WSDOT programs can be found in Appendix F: Example projects by WSDOT highway program.

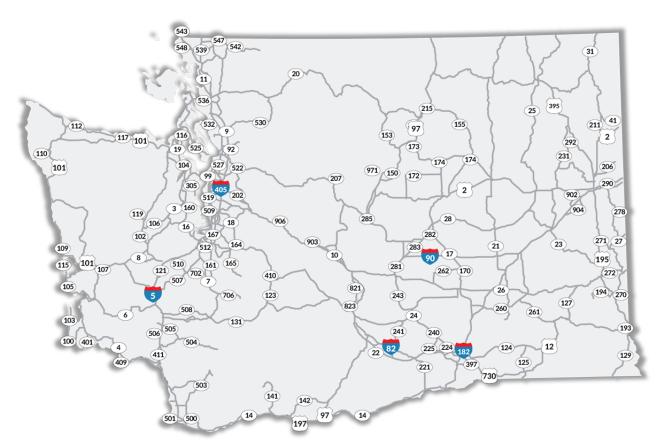


Figure 1: State highways serve every region of Washington state.

THE HIGHWAY SYSTEM PLAN IS ONE PART OF WASHINGTON'S FAMILY OF PLANS

When we talk about the highway system we are talking about Interstates, US Routes and State Routes. Almost every trip connects to other systems, so it is important that the Highway System Plan connects to plans for all modes of transportation.

The Highway System Plan and Ferries Long-Range Plan are the two plans for state-owned facilities. State statute provides direction that the Highway System Plan must be consistent with the vision for transportation in the Multimodal Transportation Plan and reflect public involvement. It also requires the Highway System Plan be consistent with regional transportation planning, high-capacity transportation planning and local comprehensive plans prepared under chapter 36.70A of the Revised Code of Washington. Together, these plans create a consistent vision for our state's transportation system.

A BOLD VISION FOR STATE HIGHWAYS

The Highway System Plan was developed with the support of advisory, steering and internal alignment committees. Members of those committees provided professional expertise and knowledge of industry best practices. Using the visions and goals from the Washington Transportation Plan as a guide, these committees came up with the following aspirational vision statements for the future of state highways:

Financially sustainable. Highway assets will be proactively maintained and preserved to achieve and sustain a state of good repair and operation.

Safe. There will be zero fatal and serious injury crashes on Washington highways.

Equitable. Transportation policies and investments will effectively respond to the needs of historically underserved and overburdened communities, resulting in the equitable improvement of all types of transportation infrastructure and services and the reduction of environmental health disparities.

Integrated. To ensure transportation strategies are integrated across agencies and modes and the system operates seamlessly across boundaries, proposals for new highway investments will be informed by:

- Engagement with the public.
- Consultation with local governments and tribes.
- Prioritization through applicable metropolitan or regional planning processes.
- Coordination with the state ferry system and other transportation service providers.

Multimodal. Pedestrians, bicyclists, ferry users and transit riders of all ages and abilities, as well as motorists and freight transporters, will have improved access along and across highways.

Environmentally sustainable. Transportation policies and investments will result in lower per capita vehicle miles traveled, reduced emissions, improved health, long-term resilience and increased fish habitat.

Washington's transportation system...



safely connects people and communities,



fostering commerce and economic opportunities for all,



operating seamlessly across boundaries and providing travel options



to achieve an environmentally sustainable system.

Figure 2: Vision statement from the Washington Transportation Plan – 2040 and Beyond.³

Washington plans for resilience in the face of transformative change

While the future is always uncertain, we can reasonably anticipate how emerging issues and trends might affect the Highway System Plan's recommendations. Changes, events, topics and trends might affect the Highway System Plan's recommendations. Changes, events, topics and actions are often outside the control or influence of WSDOT, and often influence the landscape within which transportation decisions are made – we call these "issues and trends."

We asked WSDOT leaders and organizations with an interest in transportation about emerging issues and trends that might affect WSDOT's highway programs in the next 20 years. Even when some of the items listed are outside WSDOT's direct responsibilities, it is still important to be aware of them and consider them when making recommendations. Figure 3, below, summarizes potential factors that could transform transportation.

³ Washington State Transportation Commission, 2019. Washington Transportation Plan: 2040 and Beyond. https://washington Transportation-plan: https://washington Transportation-plan: https://washington Transportation-plan: https://washington-transportation-plan:

Safety



- Increasing serious injuries and fatalities from vehicle crashes.
- Greater use of speed management tools like complete streets, variable speed limits and automated traffic cameras.
- Continued uncertainties surrounding safe autonomous vehicle (AV) interactions with other vehicles, road users and fixed objects.

Technology



- Increasing need to accommodate connected and automated vehicle and drone systems.
- More access to mobility on demand.
- Increasing efficiencies of Cooperative Automated Transportation (CAT) technologies.
- More data and analytical capabilities allow for more detailed analyses.

Equity



- Increasing emphasis on reckoning with the health and environmental justice impacts of highways and reliance on enforcement policies.
- Continuing need to address lack of access to safe biking and walking infrastructure.
- Rapidly increasing number of serious injury and fatal crashes in tribal communities, communities of color and disadvantaged communities.

Multimodal Travel Demand



- Changing commute patterns due to telework.
- Increasing emphasis on making transit, bicycling, walking and rolling safe, affordable, flexible and accessible.
- Changing network evaluation techniques are helping to create better connections across modes.

Economy



- Continuing preservation and maintenance funding shortfalls resulting in more system failures.
- Declining tax revenue due to fuel efficiency, increases in electric vehicles and reduced consumption.
- Increasing personal, financial and societal costs from more vehicular crashes.

Demographics



- Increasing need for non-emergency medical trips.
- Increasing elderly and special needs populations.
- More demand for community services that allow people to age in place.
- Increasing climate change migration.

Environment



- Increasing vulnerability of bridges and roads to climate change, especially in rural areas and tribal reservations.
- Continuing need to address pollution along roads, highways and bridges.
- Increasing use of strategies that reduce per capita vehicle miles traveled and emissions.

Deliveries & Logistics



- More demand for online shopping and related freight infrastructure.
- Increasing use of strategies that separate traffic by vehicle types in heavily congested corridors to improve safety.
- Increasing truck size and weight to reduce the number of trips.
- Increasing curb space management and last mile consolidation.

Green Transportation



- Increasing alternative fuel vehicle sales and supportive policies.
- Increasing need for fueling and charging for alternative fuel vehicles.
- Increasing use of e-bikes and e-scooters expanding the number and diversity of people bicycling and rolling.

Figure 3: Emerging issues and trends.

STATE LAW DIRECTS WSDOT TO PRIORITIZE PRESERVATION AND SAFETY

WSDOT strives to achieve the six statutory policy goals in the text box below, prioritizing preservation and safety as directed by state law.⁴ State statute also directs WSDOT to assess strategies to enhance the operational efficiency of the existing network before recommending system expansion.⁵ WSDOT is working to implement legislative direction through the Healthy Environment for All (HEAL) Act to address environmental justice for overburdened communities and vulnerable populations. For a list of statutory requirements, please refer to Appendix A.

"A primary emphasis for [this plan] is the relief of congestion, the preservation of existing investments and downtowns, ability to attract or accommodate planned population, and employment growth, the improvement of traveler safety, the efficient movement of freight and goods, and the improvement and integration of all transportation modes to create a seamless intermodal transportation system for people and goods." (RCW 47.06.040)

By state law, the Highway System Plan recommends highway program funding levels along with specific and financially realistic improvements to the highway system for the next 20 years. This plan focuses on highway program funding levels. Recommendations for specific highway improvements are a future step as part of program development following the plan recommendations.

Transportation system policy goals (RCW 47.04.280)

- (1) It is the intent of the legislature to establish policy goals for the planning, operation, performance of, and investment in, the state's transportation system. Public investments in transportation should support achievement of these policy goals:
 - (a) Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services, including the state ferry system;
 - (b) Safety: To provide for and improve the safety and security of transportation customers and the transportation system;
 - (c) Stewardship: To continuously improve the quality, effectiveness, resilience, and efficiency of the transportation system;
 - (d) Mobility: To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility;
 - (e) Economic vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy; and
 - (f) Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.
- (2) The powers, duties, and functions of state transportation agencies must be performed in a manner consistent with the policy goals set forth in subsection (1) of this section with preservation and safety being priorities.

⁴ Revised Code of Washington (RCW) 47.04.280 – Transportation system policy goals. https://app.leg.wa.gov/rcw/default.aspx?cite=47.04.280.

⁵ RCW 47.06.050(c) - State-owned facilities component. https://app.leg.wa.gov/RCW/default.aspx?cite=47.06.050.

These statutes serve as a good starting point and there are other important things to consider. First, chronic disinvestment in preservation and maintenance threatens the ability of the highway system to support the state's economy.⁶ Second, traffic fatalities are surging to levels not seen in the past 30 years. Third, reversing the generational harms from past infrastructure projects is a large and complex undertaking that will take many years to accomplish.

It is certain that while visions can generate unlimited needs for investment, there are never unlimited public funds. This means difficult tradeoffs need to be made in any realistic funding recommendation. Funding recommendations made within constraints fall short of aspirational visions in some or all policy goals.

THE 2024 HIGHWAY SYSTEM PLAN FOCUSES ON PROGRAMMATIC FUNDING

This Highway System Plan's recommendations identify common ground among diverse statewide interests on the distribution of funding among different highway programs. Large-scale plans will always leave out or limit details on some important topics. This plan's focus is informing the tough but necessary tradeoffs decision-makers must make within constrained resources to achieve established policies and priorities. The Highway System Plan is only a piece of the policy puzzle.

For example, while the Highway System Plan analyzed the effects of different program funding scenarios on greenhouse gas emissions, changes outside the scope of Highway System Plan would be needed to achieve the state's greenhouse gas emission reduction goals. Strategies like transportation-efficient land use or congestion pricing leverage four to 12 times the reductions that can be achieved through highway funding changes alone. Those types of policy shifts are under careful consideration in the context of other WSDOT planning efforts, like the Carbon Reduction Plan and the agency's Vehicle Miles Traveled Targets Final Report.

⁶ Keeping the existing system open depends on two separate programs that work together. Preservation in the capital budget addresses large fixes. Maintenance from the operations budget keeps the roads open through more than two dozen separate activities.

Chapter 2: Scenarios and tradeoffs considered

THERE IS NOT ENOUGH FUNDING FOR THE CURRENT TRANSPORTATION SYSTEM

Transportation needs exceed every reasonable revenue estimate, though there is no limit to what we could achieve with unlimited funding. Unfortunately highway funding needs exceed every new revenue projection and unlimited funding is simply not realistic. Financially realistic recommendations are made within the larger context of unmet needs on the highway system.

According to the Statewide Transportation Needs Assessment completed in 2020, "[t]here is not enough money to adequately fund the current transportation system." ⁷ The assessment estimated needs between \$61 billion and \$82 billion of new revenue over ten years, just half of the timeframe of the Highway System Plan.⁸

There are also other estimates. While quantifying the total need is beyond the scope of this plan, here are a few examples that help illustrate what it would take to meet the vision of highways in the state:

- Metropolitan and regional transportation plans across the state identify billions of dollars in highway expansion projects. Puget Sound Regional Council, which is the metropolitan planning organization for four of Washington's 39 counties, identified \$37 billion in unfunded needs for state highway expansion projects.⁹
- In 2021 WSDOT estimated the total cost for 20 years of preserving and maintaining our state highways would cost \$32.2 billion. That estimate continues to increase as the system deteriorates.
- The estimated societal cost of crashes is \$18.1 billion annually. 10 Infrastructure is a contributing factor in many collisions, so the amount of funding to address safety-related investments could be tens of billions of dollars over 20 years.
- Not including grant-funded local projects, WSDOT estimated that fully implementing the Active Transportation Plan would cost \$8.4 billion.¹¹
- WSDOT estimated the cost to meet unmet public transportation needs over next 20 years at \$24.9 billion.¹²
- Freight needs have not been fully quantified, but are anticipated to be in the billions.

Simply put, the potential investments Washington could make in highway infrastructure is a very large figure, and this is not even a full accounting.

⁷ Joint Transportation Committee (JTC), 2020. Statewide Transportation Needs Assessment: Phase I Report. https://leg.wa.gov/media/wbylt12h/statewidetransportationneedsfinalphase1.pdf (PDF, 9.3MB).

⁸ JTC, 2020.

⁹ Puget Sound Regional Council, 2022. Regional Transportation Plan Appendix D: Regional Capacity Projects. https://www.psrc.org/media/5938 (PDF,2.3MB).

¹⁰ WSDOT, 2023. State of Transportation presentation. https://wsdot.wa.gov/sites/default/files/2023-01/2023-state-of-transportation.pdf (PDF, 6.7MB).

WSDOT, 2021. Washington State Active Transportation Plan 2020 and Beyond. https://wsdot.wa.gov/sites/default/files/2021-12/ATP-2020-and-Beyond.pdf (PDF, 18.7MB). Includes funding for improvements on highways, bikeways and trails and maintenance and operating support programs.

¹² WSDOT, 2023. Public Transportation Unmet Needs Study. https://wsdot.wa.gov/sites/default/files/2023-10/PT-Report-UnmetNeedsStudy-July2023.pdf (PDF, 1.6MB).

WHAT IS A REASONABLE AMOUNT OF FUNDING?

This edition of the Highway System Plan includes WSDOT's recommendation for how to spend highway funds within constrained funding assumptions. Other plans may consider the total need to achieve various goals. Working within the confines of reasonably expected future revenues helps keep this plan grounded, providing a useful starting point for future budget conversations on what we can realistically accomplish over the next two decades. The ambitious-but-reasonable funding level used in this plan represents an additional \$42.1 billion dollars above the baseline for highway funding allocated for 2022-2041.¹³

Expected future funding scenarios	20-year revenue	20-year debt service	20-year net revenue	20-year funding above baseline
Current law funding	\$48.9 billion	\$11.1 billion	\$37.8 billion	Baseline
New funding #1: Future increases mirror past increases	\$69.3 billion	\$11.1 billion	\$58.2 billion	\$20.4 billion
New funding #2: Ambitious but reasonable	\$91.0 billion	\$11.1 billion	\$79.9 billion	\$42.1 billion

Table 1: This plan evaluates ambitious-but-reasonable funding over 20 years. 14

Both revenue projections and needs estimates change constantly. However, we know that \$42.1 billion in new revenue falls short of even our most conservative estimates of unmet need over the next 20 years. With such a large financial need contrasted with constrained revenue available to address that need, the state must make difficult tradeoff decisions to maximize investments so the system stays open, is resilient and fulfills as many of the user needs as possible.

THIS PLAN FOCUSES ON BALANCING TRADEOFFS AMONG HIGHWAY PROGRAMS

Tradeoffs are inherently difficult decisions to make. Each potential outcome has value, and the decider must balance the benefits and costs. Scenario planning allows us to safely test how these tradeoffs would likely turn out, gaining insights and incorporating that information with the perspectives gained during community engagement.

While it is impossible to know exactly what the future holds, these funding scenarios provide useful reference points for long-range planning. Analysis for 2021-2040 is based on the November 2020 forecast and current debt service. Any new bonds will increase the amount of funds available for project spending in the short term, while the additional debt service will decrease the amount of revenue available in the long run. All figures are in fiscal year 2020 current dollars, not adjusted for inflation.

¹³ For information on Move Ahead Washington, please refer to 'How did Move Ahead Washington affect the analysis?'

¹⁴ WSDOT, 2022. Financial Technical Advisory Group Summary of Findings. Document available by written request to hsp@wsdot.wa.gov.

The Highway System Plan explored different scenarios for future investment in highway programs and evaluated how those scenarios achieved the six legislative policy goals and met public expectations. The planning process investigated questions including:

- What if new highway funding emphasized preservation and maintenance?
- What if it focused on new and bigger highways?
- What if most new funding was dedicated to safety or strategies that increase the operational efficiency of the existing system?

WSDOT analyzed how different investment scenarios would affect outcomes, including:

- How many highways or bridges would close?
- What emission reductions could we expect?
- What are the anticipated safety benefits?

We shared these scenarios and the results with the public and asked for their feedback to better understand their preferences. This approach allowed us to:

- Explore realistic investment choices constrained by reasonable funding assumptions.
- Be transparent about the performance that results from different levels of investment.
- Develop a balanced investment recommendation based on community input and professional expertise.

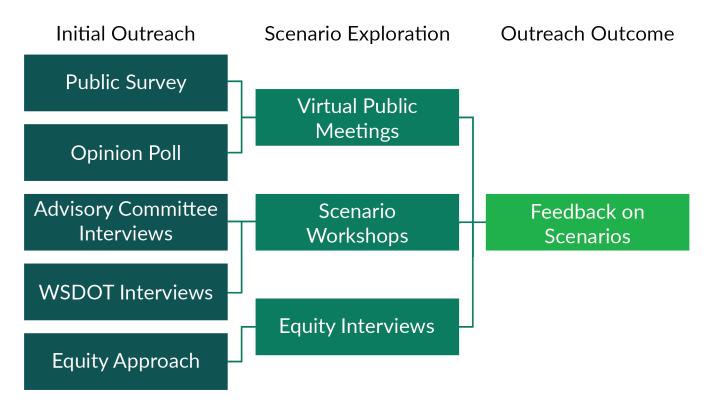


Figure 4: Public outreach process for the Highway System Plan.

WSDOT LISTENED TO THE COMMUNITY

Community engagement is an important part of aligning long-range plans to the needs and desires of the public. WSDOT used a number of methods to collect feedback from communities across the state, including a statistically representative survey, virtual open houses, scenario workshops and an online opinion poll. In addition, interviews with overburdened communities and vulnerable populations were used for the first time to improve response rates. Even though Washington is a large and diverse state, there were very clear overall trends in the responses that indicated:¹⁵

- Strong support for preservation and maintenance funding across all regions and demographic groups.
- Preference for strategies that increase safety and efficiency for the existing system, while still funding some highway expansion.
- Importance of addressing equity by increasing travel choices, improving access to affordable
 housing and creating economic opportunities from highway investments for overburdened and
 vulnerable communities.

These transportation investment opinions represent the majority point of view, though we were fortunate to hear ideas from just about every viewpoint imaginable. This shows that the engagement worked well at taking a cross section of our state's population.

No investment recommendation will satisfy everyone. The Highway System Plan's purpose is to provide a recommendation for highway investment that strikes a reasonable balance based on:

- Legislative direction.
- WSDOT's professional duty to steward the transportation system.
- Consistency with federal requirements.
- Alignment with state and regional plans.
- Professional expertise and industry best practices.
- Public input.

The Highway System Plan identifies common ground for state highway investment priorities that make sense for Washington.

WSDOT ANALYZED DIFFERENT INVESTMENT SCENARIOS

WSDOT receives state and federal funding to help accomplish our mission of providing safe, reliable and cost-effective transportation options for all travelers. These funds are distributed to different programs that each work on a specific task, goal or area. During the community engagement process we learned that people generally grouped the highway system programs into the three main categories shown in Figure 5: highway repair, safety and efficiency, and highway expansion. These programs and groups were used for the scenario analysis and to explore how different funding levels might change our future highway system. Ultimately there are two main questions for highway funding:

- Should preservation and maintenance be adequately funded, or partially funded?
- What is the right mix of safety and efficiency strategies and highway expansion strategies?

¹⁵ The full Highway System Plan community engagement survey report can be found here: https://digitalarchives.wa.gov/do/E519FB28F9A64379FDBAA9351E9394BF.pdf.



- **Operations** Maintenance



Safety and Efficiency

- Safety
- **Transportations Operations**
- Walking, Bicycling and Rolling
- Environment
- **Transportation Demand** Management



Highway Expansion

- Mobility
- **Economic Vitality**

Figure 5: WSDOT funding groups and highway programs.

Some programs were non-negotiable and had to be included before considering different investment scenarios. 16 For example, a federal court injunction in 2013 required WSDOT to repair or replace culverts that impede salmon and steelhead migration by 2030. There are also standard agency costs that apply regardless of the chosen investment scenario, including program administration, information technology support and facilities, among others. After those programs, a wide range of possible investment scenarios were carefully vetted with public input and an analysis of performance along with vision and goal alignment. Based on this process, WSDOT considered a final set of three potential highway program investment scenarios.

What is highway repair and operation and why does it matter?

Highway repair and operation (or simply highway repair) includes the capital budget preservation program and operating budget maintenance programs. These two separate programs work together to keep roads open and functional.

Roadway surfaces begin to degrade right after they are paved. Our highways are worn down by heavy vehicles 24 hours a day through heat, rain, ice and snow. Roadways are built in layers much like a cake, and the deepest layer is the strongest. The layers on top protect that base layer and help prevent failures like cracks and potholes. Preservation and maintenance activities keep the top layers in the best possible condition, which extends the life of every roadway layer.

¹⁶ More information on WSDOT programs can be found in a series of technical reports listed in Appendix G.

Based on 2021 analysis, the preservation and maintenance programs are funded at just 40 percent of what is needed to keep the state highway system open and functional. This means that the preservation project backlog generally gets larger each year. Figure 6, below, shows what the potential tradeoffs would look like to a highway user at three different highway repair funding levels. Increasing preservation funding would lower the funding available for other policy goal areas. Falling behind on preservation leads to larger replacement costs in the future and greater maintenance costs while waiting for the preservation to occur.

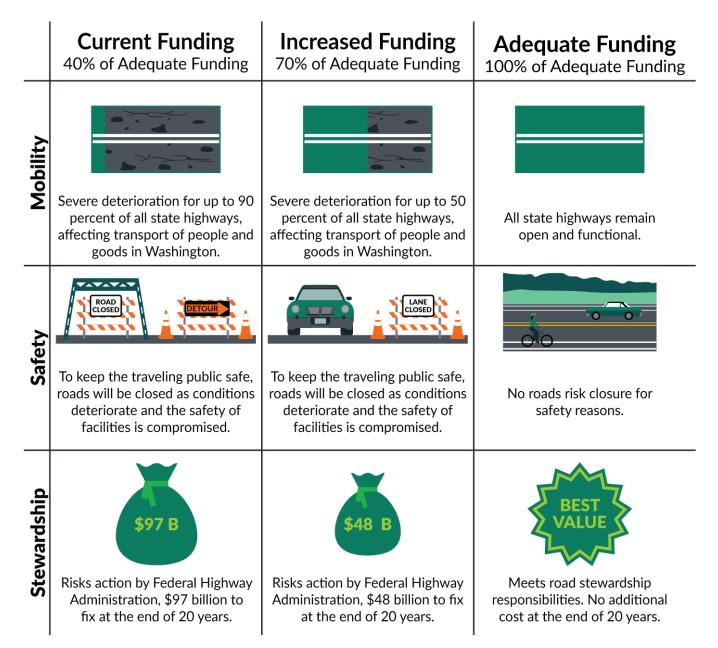


Figure 6: How highway repair funding affects mobility, safety and stewardship.

During community engagement the public overwhelmingly rejected the idea of closing or placing new limits on some bridges and highways in order to spend money on other highway programs. Adequately funding preservation and maintenance activities aligns with the recent prioritization of the preservation policy goal in state statute, WSDOT's strategic plan, the Washington Transportation Plan and transportation industry best practices. It also makes sense from a taxpayer perspective – underfunding preservation and maintenance ends up costing five times more to restore highways to acceptable condition in the future.¹⁷ For all these reasons, each of the final three scenarios analyzed include adequate funding for preserving and maintaining highways in a functional state.

Three scenarios for investing remaining funds

With all three scenarios including adequate funding for preservation and maintenance, WSDOT explored how each one allocated the remaining funds between safety and efficiency strategies and highway expansion strategies. The first scenario was based on the balance preferred by most members of the public during the engagement process: committing two-thirds of the remaining funding to improving the safety and efficiency of the existing system and one-third to highway expansion strategies.

We compared this scenario with a stronger shift to safety and efficiency strategies and with a complete shift to safety and efficiency strategies, as shown in Figure 7. We evaluated the performance of these scenarios using measures aligned with the six state transportation policy goals. For more information on this process, please visit our Highway System Plan website.¹⁸

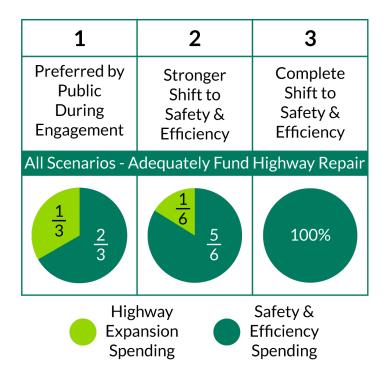
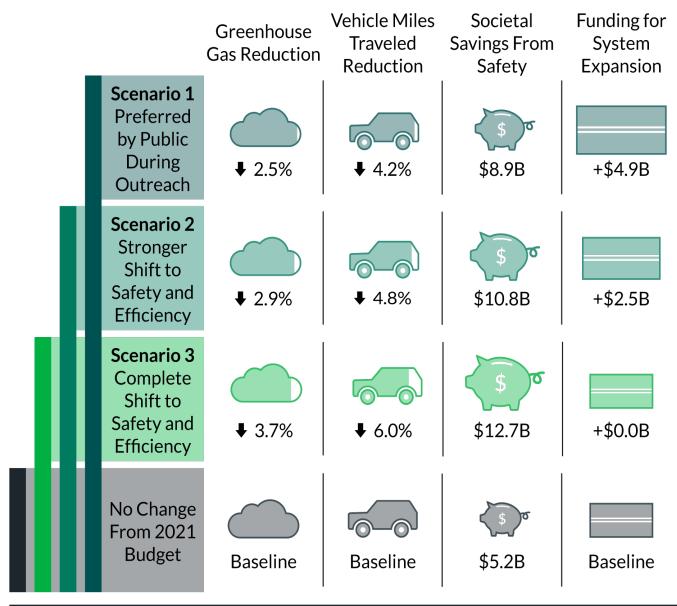


Figure 7: A side-by-side comparison of the three final investment scenarios.

¹⁷ WSDOT Pavement Office.

¹⁸ WSDOT Highway System Plan website. https://wsdot.wa.gov/construction-planning/statewide-plans/highway-system-plan.



All Scenarios Assume Adequate Funding for Preservation

Dollars are in year of expenditure. Differences of +/- \$0.1B may appear due to rounding. Dollars are for long-range planning, and not appropriate for budgeting.

These figures were developed based on the 2021 budget for the purposes of long-range planning. Current estimates based on additional system deterioration and changes to policy are made available through priority programming processes and in the Capital Improvement and Preservation Programs.

New revenue is needed in addition to existing revenue from the baseline plus Move Ahead Washington. These numbers have changed and will continue to change over time. Please refer to WSDOT's budget information for current figures.

Figure 8: A comparison of benefits for the three final scenarios.

WHAT MIGHT DIFFERENT FUTURES LOOK LIKE?

The future of Washington's highway system depends on how we invest new revenue. Using a combination of data sources and analysis tools, we explored how the three different investment scenarios would affect greenhouse gases, vehicle miles traveled, societal safety dividends and available highway system expansion funding. Figure 8, above, shows a comparison of the expected results for the three final scenarios WSDOT analyzed. This edition of the Highway System Plan marks the first time that WSDOT has analyzed the greenhouse gas emissions of transportation investments in a highway system plan. For more details on the scenario analysis process, please refer to the scenario documentation on our Highway System Plan website.

Chapter 3: Plan recommendations within limited funding

FUNDING RECOMMENDATION: THE RECIPE FOR RESILIENCE

WSDOT recommends – based on broad public engagement – that new revenue for state highways be dedicated first to adequately funding operations maintenance, capital preservation and critical programs such as fish passage and program support. Two dollars of any additional funds should be spent on safety and efficiency strategies for every dollar spent on highway expansion projects.

While this recommendation is a significant shift from current methods, it responds to public preferences and is consistent with professional best practices. It provides acceptable performance and emphasizes the legislative priority goals of preservation and safety. This recipe for resilience will provide more positive economic, safety and equity benefits to more Washingtonians statewide, enhanced by the state's new complete streets and environmental justice requirements.²⁰ This approach will include strategic expansion projects that focus on moving people and goods safely and efficiently.

Recipe for: Resilient Highways

There is not enough funding to meet all highway needs, therefore WSDOT recommends the following recipe to spend our limited funds.

Serves:

All Washingtonians

Ingredients:

- Baseline funding
- Move Ahead Washington funding
- New revenue

Preparation:

- 1. First fund operations maintenance, capital preservation and critical programs such as required fish passage projects and program support.
- 2. Then for any remaining funds, \$2 should be spent on safety and efficiency strategies for every \$1 spent on highway expansion projects.

Chef's note: Keeping the existing system open depends on two programs that work together. Preservation in the capital budget addresses large fixes. Maintenance from the operations budget keeps the roads open in between preservation fixes through more than two dozen separate activities.

Figure 9: 2022-2041 Recipe for resilient state highways.

What does the Highway System Plan's recommended future look like?

If this plan's recommendations are realized, our future state highway system will be resilient and:

- **SOUND.** All bridges and highways, critical to supporting Washington's existing economy, remain open and are maintained in working condition a condition that last occurred in 2009.
- **SAFE.** WSDOT decreases serious injuries and saves lives by providing safer spaces for people who walk, bicycle and roll, new guardrails and roundabouts, and intersection improvements. This also results in an \$8.9 billion reduction in the costs to society from crashes over 20 years.
- SMART.
 - Healthier environment. The removal of fish passage barriers required by court injunction are complete. Daily vehicle miles traveled are 3.7 percent lower and greenhouse gas emissions are 2.3 percent lower than the baseline.

¹⁹ Keeping the existing system open depends on two separate programs that work together. Preservation in the capital budget addresses large fixes. Maintenance from the operations budget keeps the roads open through more than two dozen separate activities.

²⁰ Complete streets information is available at: https://wsdot.wa.gov/construction-planning/complete-streets.

- More equitable outcomes. Agency investments and policy decisions are equitable and inclusive, creating outcomes that benefit historically underserved and overburdened communities and reduce environmental health disparities.
- More walking, bicycling and rolling. WSDOT closes most walking, bicycling and rolling gaps along, across and adjacent to state highways identified in the Active Transportation Plan, resulting in safer and more efficient travel.
- o More travel options. Employers increasingly encourage their workers to take the bus, carpool, bicycle, walk and work from home. More cities are given support to implement strategies for transportation-efficient communities. WSDOT-provided grant support helps transit agencies improve bus service, deliver more service for people with disabilities and deploy more vanpools for ridesharing.
- o **Smoother transportation operations.** Crashes are cleared faster, travelers are provided with more information, and other low-cost changes are made that benefit all highway users.

WE ANTICIPATED LONG-RANGE UNCERTAINTIES IN OUR RECOMMENDATIONS

The specific dollar estimates in long-range plans change over time and this plan is no different. Current budget information is available through WSDOT's budget website.²¹

Plans are written to explore potential futures and naturally take time to develop. Planners collect data and engage with the community to create vision statements, perform analyses and draft recommendations. Each of these activities is conducted using the best available information at that moment in time. However as recent history has taught us, expectations for the future can rapidly evolve in ways we cannot anticipate.

During the four-year development of the Highway System Plan, we experienced several changes that affect the landscape and context of the plan's recommendations. A global pandemic disrupted traditional workflows, engagement methods, travel patterns and more. Rising inflation and market forces increased project costs. Move Ahead Washington and a new federal transportation package increased transportation funding opportunities. Additional factors that shaped the end dollar amounts of the recommendations include:

- WSDOT analysis revealed that the costs to implement the fish passage barrier removal projects have increased.
- Transportation construction costs are increasing in Washington and nationally due to inflation and market conditions.
- The highway system has continued to deteriorate beyond the highway repairs estimates used in the plan analysis, so more funding will be needed to reach an adequate state of good repair.
- A complete streets requirement was added to all projects over \$500,000. WSDOT estimated
 the cost of implementation to be \$5.3 billion (in 2017 dollars) for state routes in all population
 centers.²²

²¹ Up-to-date budget information is on WSDOT's budget webpage: https://wsdot.wa.gov/construction-planning/funding/wsdot-budget.

Washington State Department of Transportation, 2021. Washington State Active Transportation Plan, 2020 and Beyond. https://wsdot.wa.gov/sites/default/files/2021-12/ATP-2020-and-Beyond.pdf (PDF, 18.6MB).

Such factors and events are unpredictable, feeding a need for more current information for budgeting. Financial figures have changed and will continue to change. The role of the Highway System Plan is to identify broad principles and priorities that serve as the foundation for implementing future plans and projects in line with the plan's overall strategy. The recommendations remain resilient through change, emphasizing funding for critical programs and highway repair first. Once those needs are met remaining funds should be divided between the two other program groups, with two dollars going to safety and efficiency programs for every one dollar spent on highway expansion.



Figure 10: Breakdown of the recipe for resilience, Move Ahead Washington and baseline funding levels.²³

Figure 10 focuses on highway program investment levels. For long-range planning purposes, the remainder of the \$42.1 billion of the ambitious-but-reasonable funding scenario is for critical programs that were not analyzed in depth: required fish passage, support programs and set-aside funding for needs that have not been identified in the plan but may emerge during the next 20 years. For current budget figures, please refer to https://wsdot.wa.gov/construction-planning/funding/wsdot-budget.

HOW DID MOVE AHEAD WASHINGTON AFFECT THE ANALYSIS?

Midway through the planning process, the 2022 Legislature funded Move Ahead Washington. This 16-year, \$17 billion transportation revenue package promised to invest approximately \$11.4 billion in strategies related to state highway programs, including:

- Highway repair. An additional \$1.2 billion for highway preservation and maintenance provided a
 down payment toward keeping the state system open and operational but left a large funding gap
 (over \$17.3 billion) that needs to be addressed in future budgets.
- **Fish passage.** An additional \$2.4 billion supported Washington's obligation to open 90 percent of blocked fish habitat identified in 2013 by 2030.
- Safety and efficiency. An additional \$4.3 billion funded stormwater retrofits and improvements, the reducing rural roadway departures program, traffic mobility and safety services, incident response, low-cost enhancements, transit and demand management. A new complete streets requirement supported safer walking, bicycling, rolling and transit access on funded projects.
- **Highway expansion.** An additional \$3.5 billion funded new highway projects proposed by local communities and provided continued funding for state highway projects.

While Move Ahead Washington improves transportation funding in many areas, there are additional areas of financial need that are the focus of this plan. The investment scenario preferred during community engagement is still achievable when factoring in the funding provided by the Move Ahead Washington package. That scenario necessitates a strong pivot toward investing in highway repair and operations coupled with safety and efficiency, instead of relying on expensive highway expansion strategies to address transportation needs.

WHAT COULD WASHINGTON ACHIEVE WITH CONTINUED POLICY SHIFTS?

There are compelling reasons to pursue change in transportation investment. Past legislative transportation revenue packages responded to demand for larger scale highway expansion investments after many years of more modest and focused spending. However, while highway expansion may seem like the most practical solution, at the system level it is too often an overvalued and less effective strategy than preserving the existing system and making programmatic safety and efficiency investments in more locations statewide.

Transportation contributes to increases in climate disasters such as wildfires and flooding, the number of serious injuries and fatalities on our highways and the environmental burdens on our most vulnerable communities. The \$200 million cost of just one moderate highway expansion could instead allow WSDOT to preserve 1,200 miles of rural highway for the next 20 years. Alternatively, investing the same amount in the safety program could save many lives while avoiding approximately \$800 million in societal crash costs.²⁴

Shifting from the construction of new and bigger highways to investing in preservation, safety and efficiency strategies would provide greater positive economic, safety and equity benefits to more Washingtonians. This is especially true because the state recently adopted complete streets and environmental justice policies directing WSDOT to prioritize safer and more equitable transportation investments. A stronger shift to preservation, safety and efficiency strategies would also modestly reduce transportation-related greenhouse gas emissions. Lowering emissions aligns with Washington's carbon reduction policies and improves air quality for everyone.

²⁴ Societal crash costs include lost household productivity, property damage, workplace costs and productivity loss from congestion delays.

HOW DO WE MAKE IT HAPPEN?

Implementation of the Highway System Plan depends on legislative policy and budget decisions, supportive agency business processes and the alignment of local and regional agency transportation and land use decisions to support safety and transportation efficiency. Washingtonians expect transportation strategies to be coordinated across agencies and facilities, and for services to operate seamlessly across boundaries. The Highway System Plan identifies common ground for funding a resilient state highway system that plays an appropriate role within the larger transportation network, meeting the expectations and priorities of Washington residents and the state and federal requirements. Some implementation pathways for this plan include:

- Budget requests. By statute, the Highway System Plan serves as a basis for the agency's Capital
 Improvement and Preservation Program and two-year biennial budget requests to the Legislature.
 The capital investments recommended in these documents should be consistent with Highway
 System Plan recommendations.
- Project selection. By statute, the plan makes recommendations for specific and financially
 realistic improvements, which are the basis for project plans and budget requests provided to
 the Legislature. Highway System Plan recommendations should inform the weighting and criteria
 used in the performance-based project evaluation model that the Legislature directed WSDOT to
 develop. Consideration will also be first given to projects that enhance operational efficiencies.
- Planning guidance and performance targets. The Highway System Plan guides WSDOT's corridor, subarea and network planning by providing a common language for communicating agency priorities and strategies. Recommended program funding levels guide planning objectives and strategies. Additionally, the expected performance of the recommended scenario should inform agency performance targets and updated level of service standards.
- External communications. The Highway System Plan helps WSDOT facilitate external coordination
 and alignment with other tribal, state, regional and local agencies. With limited funding constraints,
 the Highway System Plan sets the financial, performance and outcome expectations for each type
 of state highway investment.

Glossary

Note: definitions and examples of highway programs can be found in <u>Appendix F: Example projects by WSDOT highway program.</u>

- Active transportation: Using a human-scale and often human-powered means of travel to get from
 one place to another; includes walking, bicycling, using a mobility assistive or adaptive device such
 as a wheelchair or walker, using micromobility devices and using electric-assist devices such as
 e-bikes and e-foot scooters.
- Complete streets: An approach to planning, designing, building, operating and maintaining the transportation system that enables safe and convenient access to destinations for all people, including pedestrians, bicyclists, motorists and public transportation riders.
- Environmental justice: "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities, the equitable distribution of resources and benefits, and eliminating harm." ²⁵
- **Equity:** "Fairness and justice, focused on ensuring everyone has the opportunity to meet their full potential. Equity takes into account disadvantage experienced by groups. Equity is distinct from equality, which refers to everyone having the same treatment without accounting for differing needs or circumstances. Inequity means lack of fairness or justice and describes differences that result from a lack of access to opportunities and resources. Inequities are avoidable and different than disparities, which are differences that do not imply unfairness." ²⁶
- **Fish passage barrier:** A physical obstacle that limits or outright prevents migrating fish from reaching habitat and spawning areas further upstream.
- **Greenhouse gas emissions:** Gases that increase the atmosphere's ability to trap heat.
- **Healthy Environment for All (HEAL) Act:** A bill passed by Washington state in 2021 that directs state agencies to address environmental health disparities.
- Highway Program: A grouping of similar highway tasks or activities for budget and management purposes. More information on highway programs can be found in <u>Appendix F: Example projects</u> by WSDOT highway program.
- **Level of service:** The "minimum standards for how many public facilities or services are required to adequately serve the population." ²⁷
- **Multimodal:** A broad term that defines any mix of modes or transportation systems. All of our state transportation facilities are multimodal in nature. Modes are different ways of traveling, some of which include driving a car, taking a bus, walking and delivering goods by semi-truck.

Glossary 28

²⁵ Revised Code of Washington (RCW) 70A.02.010 – Definitions. https://app.leg.wa.gov/RCW/default.aspx?cite=70A.02.010.

²⁶ Governor's Interagency Council on Health Disparities, 2018. Equity Language Guide. https://ofm.wa.gov/sites/default/files/public/shr/Diversity/SubCommit/EquityLanguageGuide Final.pdf (PDF, 316 KB).

Municipal Research and Services Center of Washington (MRSC), 2024. Comprehensive Planning – Levels of Service. https://mrsc.org/explore-topics/planning/gma/comprehensive-planning#LOS.

- Operating: Three meanings of "operating" are used in the plan. One meaning applies to the condition of infrastructure ("the bridge is operating correctly") and is associated with preservation and maintenance. The second refers to the operation of people and vehicles on the system ("traffic is operating smoothly") and applies to the operations program that makes small investments for safety and mobility of the system. The third meaning is the budget category which is used for day-to-day operations across multiple programs.
- **Preservation and maintenance:** These words appear frequently and hold several meanings in the plan. The preservation policy goal is defined as "[t]o maintain, preserve, and extend the life and utility of prior investments in transportation systems and services, including the state ferry system." ²⁸ The Highway Repair grouping in the Highway System Plan includes the capital budget preservation program and operating budget maintenance program. More information on these two separate programs and their typical activities is located in <u>Appendix F</u>. Preservation and maintenance can also describe the outcomes of investment as in the phrase 'preserving, maintaining, operating and improving state highways.'
- **Scenario planning:** A planning technique that uses a set of different scenarios to test potential future decisions to gauge their effectiveness and interest.
- Societal crash costs: Quantifiable financial costs stemming from vehicle crashes, including lost household productivity, property damage, workplace costs and productivity loss from congestion delays.
- State highway system: All state routes, interstate highways and U.S. highways, including ramps.
 Washington State Ferries are also highways, and their needs are addressed in the Washington State Ferries Long Range Plan.
- **State of good repair:** The condition in which a capital asset is able to operate at a full level of performance.
- **Transit:** This plan uses transit and public transportation interchangeably. In both cases they refer to a service that moves people from one place to another. Transit can also refer specifically to the services provided by a transit agency. Public transportation includes all public services that move people from place to place.
- Transportation Demand Management: A range of strategies that leverage existing transportation infrastructure in ways that enhance mobility and optimize system efficiency. Strategies can include commute trip reduction, telework, High-Occupancy Vehicle (HOV) and High-Occupancy Toll (HOT) lanes and land-use planning and transit-oriented development.
- **Vehicle miles traveled:** A measure of highway system use reflecting the number of miles traveled by motor vehicle over a highway section, route or system.

Glossary 29

²⁸ Revised Code of Washington (RCW) 47.04.280. Transportation System Policy Goals. https://app.leg.wa.gov/rcw/default.aspx?cite=47.04.280.

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Acknowledgements 30

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- Communications
- Environmental Services
- Maintenance Operations
- Multimodal Planning & Data Division
- Public Transportation
- Tribal and Regional Integrated Planning

OTHER

- PRR, Inc.
- Washington State Transportation Center, University of Washington

WSDOT PLANS

- Washington State Active Transportation Plan 2020 and Beyond
- Washington State Ferries 2040 Long Range Plan
- Washington State 2022 Freight System Plan
- 2016 Washington State Public Transportation Plan
- Washington State Scenic and Recreational Highways Strategic Plan, 2010-2030
- 2022 Washington Statewide Human Services Transportation Plan
- Washington Transportation Plan Phase 2 Implementation 2017-2040

Acknowledgements 31

Appendix A: Key enabling legislation for the Highway System Plan

Table 2 highlights important legislation that guides the development of the Highway System Plan (HSP) and is not a comprehensive list of statutory requirements for the Highway System Plan.

Regulation	Summary		
Revised Code of Washington (RCW) 47.06.040 – Statewide multimodal transportation plan	The Highway System Plan will be consistent with other state, regional, and local transportation plans, reflect public involvement and address a range of primary emphasis areas.		
RCW 47.06.050 (1) – State-owned facilities component (full text provided below)	The Highway System Plan identifies program and financing needs and recommends specific and financially realistic improvements to preserve the structural integrity of the state highway system, ensure acceptable operating conditions, and provide for enhanced access to scenic, recreational and cultural resources. Directs WSDOT to assess strategies to improve operational efficiency prior to recommending capacity expansion.		
RCW 47.06.050 (1) – State-owned facilities component (full text provided below)	The Highway System Plan identifies program and financing needs and recommends specific and financially realistic improvements to preserve the structural integrity of the state highway system, ensure acceptable operating conditions, and provide for enhanced access to scenic, recreational and cultural resources. Directs WSDOT to assess strategies to improve operational efficiency prior to recommending capacity expansion.		
RCW 70A.02 - Environmental justice	WSDOT will reduce environmental and health disparities through transportation policies, plans, programs, practices and projects.		
RCW 47.01.078 (5) – Transportation sytem policy goals—Duties	WSDOT will consider efficiency tools, including high occupancy vehicle and high occupancy toll lanes, corridor-specific and systemwide pricing strategies, active traffic management, commute trip reduction and other demand management tools.		

Table 2: Key enabling legislation for the Highway System Plan.

RCW 47.06.050 (1) - STATE-OWNED FACILITIES COMPONENT

The state-owned facilities component of the statewide multimodal transportation plan shall consist of:

- (1) The state highway system plan, which identifies program and financing needs and recommends specific and financially realistic improvements to preserve the structural integrity of the state highway system, ensure acceptable operating conditions, and provide for enhanced access to scenic, recreational, and cultural resources. The state highway system plan shall contain the following elements:
 - (a) A system preservation element, which shall establish structural preservation objectives for the state highway system including bridges, identify current and future structural deficiencies based upon analysis of current conditions and projected future deterioration, and recommend program funding levels and specific actions necessary to preserve the structural integrity of the state highway system consistent with adopted objectives. Lowest life cycle cost methodologies must be used in developing a pavement management system. This element shall serve as the basis for the preservation component of the six-year highway program and the two-year biennial budget request to the legislature;
 - (b) A highway maintenance element, establishing service levels for highway maintenance on stateowned highways. The highway maintenance element must include an estimate of costs for achieving those service levels over twenty years. This element will serve as the basis for the maintenance component of the six-year highway program and the two-year biennial budget request to the legislature;
 - (c) A capacity and operational improvement element, which shall establish operational objectives, including safety considerations, for moving people and goods on the state highway system, identify current and future capacity, operational, and safety deficiencies, and recommend program funding levels and specific improvements and strategies necessary to achieve the operational objectives. In developing capacity and operational improvement plans the department shall first assess strategies to enhance the operational efficiency of the existing system before recommending system expansion. Strategies to enhance the operational efficiencies include but are not limited to access management, transportation system management, demand management, and high occupancy vehicle facilities. The capacity and operational improvement element must conform to the state implementation plan for air quality and be consistent with regional transportation plans adopted under chapter 47.80 RCW, and shall serve as the basis for the capacity and operational improvement portions of the six-year highway program and the two-year biennial budget request to the legislature;
 - (d) A scenic and recreational highways element, which shall identify and recommend designation of scenic and recreational highways, provide for enhanced access to scenic, recreational, and cultural resources associated with designated routes, and recommend a variety of management strategies to protect, preserve, and enhance these resources. The department, affected counties, cities, and towns, regional transportation planning organizations, and other state or federal agencies shall jointly develop this element;
 - (e) A paths and trails element, which shall identify the needs of nonmotorized transportation modes on the state transportation systems and provide the basis for the investment of state transportation funds in paths and trails, including funding provided under chapter 47.30 RCW.

Appendix B: Equity in the Highway System Plan

WSDOT is committed to providing a multimodal transportation system that serves all Washingtonians by actively improving our agency's policies and practices.²⁹ The Highway System Plan addresses equity in several different ways.³⁰ Most importantly, the planning process for the Highway System Plan began with listening to people's transportation concerns and desires. For the Highway System Plan, four populations of focus were identified: communities of color, populations with limited English proficiency, low-income populations and people with disabilities.

Using a series of engagement methods, we were able to capture a diverse range of opinions from across the state. However, even after numerous rounds and methods of community engagement were completed, there were still some demographic groups that remained underrepresented when compared to the statewide population average. These groups included people with annual incomes below \$25,000, people identifying as female, people of color, people with limited English proficiency and people between the ages of 18 and 34.

WSDOT staff developed another series of targeted engagement to improve response rates from these groups and improve the overall results and analysis. WSDOT's Office of Equity and Civil Rights and WSDOT region planning offices suggested meeting these groups at community spaces and gatherings instead of inviting them to WSDOT meetings or events. New changes to statewide legal guidance also allowed us to compensate members of the public for their time spent sharing their perspectives and lived experiences. Project staff worked with a range of community-based organizations to organize intercept interview opportunities and focus group discussions.

Across 11 engagement events targeting feedback from these underserved groups, we saw very representative participation. Translation support allowed over 25 percent of participants to give feedback in Spanish. We were fortunate to hear perspectives from all of the groups we targeted as well as every other demographic group. Key themes we heard during these events centered around the importance of supporting all modes, especially active and public transportation and preserving and maintaining the system, with each of these modes supporting safety as well.

The Highway System Plan also addresses equity through its recommendations. All the concerns that we heard from the initially underrepresented groups were included in this plan's set of sound, safe and smart recommendations. A sound system that preserves and maintains pavements will keep roads and bridges open, preserving access and mobility. This means users of all modes can reach the homes, jobs, goods and services that they need without taking long detours. A safe system will include safer spaces for all modes, reducing the number and severity of crashes. A smart system will provide cleaner air, equitable and inclusive transportation investments and policies, more active transportation infrastructure, more public transit and speedier crash clearance, among other benefits.

²⁹ WSDOT Secretary's Executive Order Number E 1119.00, 2021. https://wsdot.wa.gov/sites/default/files/2021-11/ Anti-Racism-Policy-DEI-Planning-E119.pdf (PDF, 270 KB).

³⁰ Equity is defined as "[f]airness and justice, focused on ensuring everyone has the opportunity to meet their full potential. Equity takes into account disadvantage experienced by groups. Equity is distinct from equality, which refers to everyone having the same treatment without accounting for differing needs or circumstances. Inequity means lack of fairness or justice and describes differences that result from a lack of access to opportunities and resources. Inequities are avoidable and different than disparities, which are differences that do not imply unfairness." Governor's Interagency Council on Health Disparities, 2018. Equity Language Guide. https://ofm.wa.gov/sites/default/files/public/shr/Diversity/SubCommit/EquityLanguageGuide_Final.pdf (PDF, 316 KB).

Equity was woven throughout the Highway System Plan document and process, even as the plan neared completion. The public draft review period provided one last opportunity for everyone to comment on the draft plan before the document was finalized. This review period lasted from November to mid-December 2023. During that time WSDOT engaged directly with many communities, partners, tribes and individuals and listened to their perspectives.

More information about the equity analysis that went into the 2024 Highway System Plan can be found in the Highway System Plan's Approach to Equity document.³¹ Additional information on that analysis, including a series of maps, can be found in the supporting documentation provided in the technical report titled "Equity Analysis." Information on how WSDOT is applying the principles of environmental justice to transportation activities and decision making can be found in the Environmental Justice Implementation Plan.³²

WSDOT, 2021. The Highway System Plan's Approach to Equity. https://wsdot.wa.gov/sites/default/files/2021-07/ HSP-Equity-approach.pdf (PDF, 879 KB.

WSDOT, 2023. Environmental Justice Implementation Plan. https://wsdot.wa.gov/sites/default/files/2023-07/ WSDOT_Environmental_Justice_%20Implementation_Plan.pdf (PDF, 1.7 MB).

Appendix C: Public comment summary

Public comment for the Draft Highway System Plan was open from November 1 to December 18, 2023. The purpose of the public comment period provided an opportunity for members of the public, transportation officials and organizations to contribute feedback on the plan. The comment period also maintained WSDOT's commitment to cooperation and coordination with metropolitan, non-metropolitan and tribal partners. WSDOT considered these comments when creating the final plan to assure the plan communicated concepts well and reflected the needs and desires of residents. During the comment period, WSDOT presented the plan to the public in a virtual public meeting and at meetings for some regional planning organizations. These presentations provided more opportunities to share input on the draft plan.

During the comment period, the team received 153 written responses. These comments confirmed and reflected the feedback heard throughout the plan's development.

Findings and themes from public comment:

- Some confirmed the pattern of investment preferences heard throughout the plan's development.
- Interest expressed in seeing more total investment than the draft plan recommended.
- Support of increased investment in maintenance and preservation and no comments were against additional funding for these programs.
- Support of either increased investments in safety and efficiency or capacity expansion reflected the balance of opinions shared in previous community engagement processes.
- Some suggested changes to improve the clarity of the final plan.

WSDOT made several changes to the final Highway System Plan in response to the feedback on the public draft. These changes address public concerns, increase the clarity of the plan and include adding parts that were incomplete when the draft plan was released.

Notable changes include:

- Clarified that future funding is unknown and that this plan is about recommendations for funding when there is not enough funding to meet all highway needs. Other efforts have been focused on quantifying total needs.
- Added a glossary, acknowledgements and greatly expanded appendices.
- Removed land use and state highway planning appendix. The expanded discussion of the
 relationship between land use and transportation is critical and will be covered in a separate
 document.

Appendix D: Maintenance level of service (LOS)

Maintenance level of service (LOS) is a performance measure for the service level of WSDOT assets. This differs from vehicle-based level of service, which measures roadway performance. The Maintenance Accountability Process, or MAP, is a comprehensive planning, measuring and managing process that provides a means for communicating to key customers the impacts of policy and budget decisions on program service delivery.³³ This process ranks maintenance LOS using a scale from "A" through "F." The general definition of each LOS is as follows:

LOS Rank	Definition
А	This is a very high service level in which the roadway and associated features are in excellent condition. All systems are operational, and users experience no delays.
В	This is a high maintenance service level in which the roadway and associated features are in good condition. All systems are operational. Users may experience occasional delays.
С	This is a medium maintenance service level in which the roadway and associated features are in fair condition. Systems may occasionally be inoperable and not available to users. Short term delays may be experienced when repairs are being made but would not be excessive.
D	This is a low maintenance service level in which the roadway and associated features are in generally poor condition. Systems failures occur because it is impossible to react in a timely manner to all problems. Occasionally delays may be significant.
F	This is a very low service level in which the roadway and associated features are in poor and failing condition. A backlog of systems failures would occur because it is impossible to react promptly to all problems. Significant delays occur regularly.

Table 3: General definitions for maintenance level of service ranks.

These outcome-based performance measures are made up of a condition indicator (deficiency or condition to be measured), outcome measure (unit of measure) and thresholds for the five service levels for each MAP activity. A threshold is the range of allowable deficiencies or conditions for each service level.

The LOS grade targets, by MAP activity, are determined by statewide Maintenance staff utilizing both funding and legislative guidance to provide the appropriate emphasis.³⁴ The average grade across the activity levels is currently a "C" and the 2024 Highway System Plan's "Recipe for Resilience" recommends the average target to be a "B."

Washington State Department of Transportation, 2022. Maintenance Accountability Process - Chapter 5 - Service Levels. https://wsdot.wa.gov/sites/default/files/2022-03/2022-MAP-Manual.pdf (PDF, 4.6 MB).

³⁴ Washington State Department of Transportation, 2023. Maintenance Manual (M51-01.13). https://www.wsdot. wa.gov/publications/manuals/fulltext/M51-01/Maintenance.pdf (PDF, 9.8 MB).

The detailed definition of each LOS is as follows:

Service Level A (Best)

This is a very high service level in which the roadway and associated features are in excellent condition. All systems are operational, and users experience no delays.

At this maintenance service level very few deficiencies are present and the overall appearance is pleasing. Preventive maintenance is practiced in all maintenance activities resulting in overall low lifecycle costs and pleasing appearance. Routine activities take place on a regular basis, requiring minimal corrective maintenance activities.

SERVICE LEVEL B

This is a high maintenance service level in which the roadway and associated features are in good condition. All systems are operational. Users may experience occasional delays.

At this maintenance service level, very few deficiencies are present in safety and investment protection activities, but moderate deficiencies exist in all other areas. Preventive maintenance is practiced for safety-related work, but is deferred in other areas, resulting in additional routine and corrective maintenance measures. Corrective maintenance of all elements is handled in a timely manner. Life-cycle costs for maintenance activities are generally low.

SERVICE LEVEL C

This is a medium maintenance service level in which the roadway and associated features are in fair condition. Systems may occasionally be inoperable and not available to users. Short-term delays may be experienced when repairs are being made but would not be excessive.

At this maintenance service level, very few deficiencies are present in safety related activities, but moderate deficiencies exist for investment protection activities and significant aesthetic related deficiencies. Preventive maintenance is deferred for most activities except safety-critical work. More emphasis is placed on routine maintenance activities, and corrective maintenance occurs as necessary. A backlog of deficiencies begins to build up that will have to be dealt with eventually, at a higher cost. Some roadway structural problems begin to appear due to the long-term deterioration of the system. There is a noticeable decrease in appearance.

SERVICE LEVEL D

This is a low maintenance service level in which the roadway and associated features are kept in generally poor condition. Systems failures occur regularly because it is impossible to react in a timely manner to all problems. Occasionally, delays may be significant.

At this maintenance service level, moderate deficiencies are present in safety related activities, and significant deficiencies exist for all other activities. Little preventive maintenance is accomplished. Maintenance has become very reactionary and places emphasis on correcting problems as they occur. A significant backlog of deficiencies will begin to build up that will have to be dealt with eventually, at a much higher cost. Safety problems begin to appear that increase risk and liability, and significant roadway structural deficiencies exist that accelerate the long-term deterioration of the system. The overall appearance is very poor.

SERVICE LEVEL F (WORST)

This is a very low service level in which the roadway and associated features are kept in poor and failing condition. A backlog of systems failures would occur because it is impossible to react in a timely manner to all problems. Significant delays occur on a regular basis.

At this maintenance service level, significant deficiencies are present in all maintenance activities. The overall appearance is not aesthetically pleasing. Preventive maintenance is not practiced for any maintenance activities. Maintenance is totally reactive, and places emphasis on correcting problems after they occur. Significant backlogs of maintenance deficiencies exist. Excessive safety problems occur. Road conditions are such that maintenance treatments are not enough to correct the deficiencies that exist, necessitating additional high-cost remedial construction preservation projects in the future. Overall maintenance operations are at their highest life-cycle costs.

For further detail on how each level of service ranking is defined for each maintenance activity level, refer to the Feb. 2022 Maintenance Accountability Process Manual (PDF, 4.6 MB).

Appendix E: Level of service (LOS) standards for Development Impacts Assessment

The following text describes the current level of service (LOS) standards. WSDOT is currently exploring new LOS standards. The standards below remain in effect until new standards are formally adopted.

The State Environmental Policy Act (SEPA) requires local jurisdictions to assess and mitigate, when reasonable and proportionate, the impacts of new development projects, including impacts to traffic. Together, local jurisdictions and WSDOT agree on an acceptable level of service (LOS). A particular development could cause traffic impacts to a highway segment or an intersection to fall below the LOS thresholds.³⁵ The LOS thresholds are defined as:

For Highways of Statewide Significance (HSS) including the ramp intersections, the LOS is set by WSDOT (RCW 47.06.140):³⁶

Urban Areas: LOS "D"Rural Areas: LOS "C"

For Regionally Significant State Highways (non-HSS):

 The LOS thresholds adopted by the local MPO/RTPO shall apply. In the absence of an adopted LOS threshold, the LOS for HSS shall apply. Where there is a specific inter-local agreement with WSDOT, the applicable LOS threshold levels are established by the agreement.

When a development affects a segment or intersection where the LOS is already below the applicable threshold, the pre-development LOS will be used instead of the otherwise applicable deficiency level.

When a development would degrade the facility's LOS below the applicable threshold, the facility would be considered deficient to support the development, and WSDOT and its partners would seek reasonable and proportionate mitigation of traffic impacts.

Mitigation can take the form of development constraints (for example, the appropriate placement of highway access points or phasing of the development), development constructed transportation improvements, financial contribution or right of way dedication. Details on these and other mitigation strategies are contained in the WSDOT Design Manual.

Level of service definition (2007): A qualitative measure that incorporates the collective factors of speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs provided by a highway facility under a particular volume condition. Traffic operational characteristics: LOS A: A condition of free flow in which there is little or no restriction on speed or maneuverability caused by the presence of other vehicles. LOS B: A condition of stable flow in which operating speed is beginning to be restricted by other traffic. LOS C: A condition of stable flow in which the volume and density levels are beginning to restrict drivers in their freedom to select speed, change lanes, or pass. LOS D: A condition approaching unstable flow in which tolerable average operating speeds are maintained but are subject to sudden variations. LOS E: A condition of unstable flow in which operating speeds are lower with some momentary stoppages. The upper limit of this LOS is the capacity of the facility. LOS F: A condition of forced flow in which speed and rate of flow are low with frequent stoppages occurring for short or long periods of time; with density continuing to increase causing the highway to act as a storage area.

For counties consisting of islands whose only connection to the mainland are state highways or ferry routes (Island County), the level of service standards for state highways and ferry route capacity must be a factor in meeting the concurrency requirements. In Island County, the LOS has been set at Urban Areas: LOS "E" and Rural Areas: LOS "D". This is a Growth Management Act based requirement not a SEPA requirement per RCW 36.70A.070(6)(a)(iii)(C).

Appendix F: Example projects by WSDOT highway program

WSDOT receives direction and funding for a variety of transportation activities. These funds are budgeted into WSDOT programs that fund certain tasks and projects. In turn, accomplishing those tasks and projects improve the transportation system in one or more of the six transportation policy goal areas.

In the 2024 Highway System Plan, WSDOT's highway programs were placed into three groups based on how public survey respondents tended to think about them. These same groupings are referenced in the Highway System Plan's funding recommendation: First fund preservation, maintenance and critical programs such as required fish passage projects and support programs. Then for any remaining funds, \$2 should be spent on safety and efficiency strategies for every \$1 spent on highway expansion projects.

Here is the list of program groups and associated programs, followed by short descriptions of typical activities for each one:

- Critical programs
- Highway Repair
 - Preservation
 - o Maintenance (including infrastructure operations)
- Safety and Efficiency
 - Safety
 - Environmental Retrofit
 - Transportation Operations
 - Walking, Bicycling and Rolling (Active Transportation)
 - o Transportation Demand Management
- Highway Expansion
 - Mobility
 - Economic Vitality

CRITICAL PROGRAMS

Several types of activities were considered non-negotiable requirements. These activities were prioritized ahead of any tradeoff analysis conducted for the plan. Fish passage project delivery addresses certain culverts for improved habitat connectivity by 2030, as required by a federal injunction. WSDOT support programs such as human resources, facilities and technology services, among others, are required for other programs to function as intended. And finally, a planning-level set-aside was also added as a financial buffer for unanticipated needs not yet identified that are likely to occur in the next 20 years.

HIGHWAY REPAIR AND OPERATIONS

The Highway Repair and Operations (or simply Highway Repair) grouping consists of efforts that aim to keep the existing system working. This includes the Preservation program in the capital budget and the Maintenance program in the operating budget.

Preservation

The Preservation program includes capital projects that maintain the structural integrity of the existing highway system, including roadway pavements, safety features, bridges and other structures or facilities.

- Pavement preservation projects include resurfacing treatments such as grinds and overlays, chip seals, crack seals, crack filling, fog seals and slurry seals.
- Bridge preservation projects include bridge painting, coating and sealing, deck rehabilitation; and replacement of existing deficient bridges.
- "Other" preservation projects cover all other highway assets, such as retaining walls, earthwork, signing, illumination, ramp meters and cameras.

Maintenance

The Maintenance program includes preventative maintenance, repairs and operations. There are more than two dozen activities, including work such as clearing snow and ice, emergent maintenance, repairs, minor preservation, infrastructure operations, replacing damaged guardrail, fixing potholes and responding to emergency road closures.

SAFETY AND EFFICIENCY

Safety

The Safety program is a subprogram of the larger Improvement program. The goal of the safety program is to deliver projects that reduce the risk of fatal and serious injury crashes as well as the risk of any type of crash. Along with safety plans, studies and analyses, the Safety program funds engineering countermeasures or improvements at specific intersections, locations or along corridors to address identified locations or crash types.

Environmental Retrofit

The Environmental Retrofit program is a subprogram of the larger Improvement program. This subprogram seeks to reduce the environmental damage from the highway system, such as stormwater retrofits, fish barrier removals, wildlife connectivity bridges and underpasses, noise walls, air quality improvement projects and Chronic Environmental Deficiency site remediation.

Transportation Operations

The Transportation Operations program includes a wide range of projects and activities that support better efficiency with the infrastructure that we currently have. Examples include running Traffic Management Centers that coordinate and control traffic flow, developing and deploying Intelligent Transportation System devices that gather and share travel data, adjusting traffic signal timing and intersection configurations and operating incident response trucks to keep traffic flowing. Operations also provides traveler information and emergency services that help keep highways open and moving smoothly and safely. The WSDOT Chart of Accounts refers to this program as Traffic Operations.

Transportation Demand Management

The Transportation Demand Management covers a broad suite of techniques, and for the purposes of this document refers specifically to WSDOT's Public Transportation program. Funding in this program goes towards projects that improve the available travel options that people have to get around. This includes providing support services to employers for developing programs that reduce the number of commute trips for their employees, improving access to shared transportation modes, and providing grants to transit providers that serve commuters, people with disabilities and tribal nations.

Walking, Bicycling and Rolling (Active Transportation)

This plan refers to the work detailed in WSDOT's Active Transportation Plan as the program for walking, bicycling and rolling since there is no formal funded program for state highways. Active Transportation includes projects like bike lanes, shared use paths, bridges for active transportation and wayfinding signage. It also includes modal connections that improve links between different forms of transportation, separated paths, sidewalks and pedestrian crossings. Active Transportation projects are being implemented in conjunction with complete streets requirements.

HIGHWAY EXPANSION

Mobility

Projects funded in the Mobility subcategory aim to improve the movement of both people and goods, including construction of high-occupancy vehicle (HOV) lanes and other capacity improvements.

Economic Vitality

Economic Vitality improvements to the state highway system including widening highways, adding interchanges and passing lanes, upgrading pavements, constructing new rest areas, replacing bridges with inadequate vertical clearance and scenic highway improvements.

COMPLEMENTARY EFFORTS AND LINKS BETWEEN PROGRAMS

Projects and programs accomplish many things. The descriptions above do not detail every consideration within or interaction between each program. There are many laws, regulations and other requirements that detail what any specific project or activity does. Here are a couple examples:

- All projects meet environmental requirements.
- State transportation projects over \$500,000 in population centers address the complete streets requirements.
- Community engagement can identify local needs.
- Preservation and Maintenance are closely linked. Underfunding either one places additional burdens on the other.

Not all WSDOT programs are related to the state highway system. The programs detailed here align with WSDOT's internal chart of accounts unless otherwise noted.

Appendix G: List of technical reports

During the development of the 2024 Highway System Plan a series of supporting technical reports were prepared to explore certain topics in further detail. The documents in the following list can be made available by request to hsp@wsdot.wa.gov.

- Scenario Documentation for the Highway System Plan and Modeling Report
- Financial Technical Advisory Group Summary of Findings
- Community Engagement Summary
- The Highway System Plan's Approach to Equity
- Equity Analysis for the Highway System Plan
- Level of Service report

In addition to these technical reports, WSDOT commissioned the University of Washington's Washington State Transportation Center to conduct a statistically valid survey for the Highway System Plan.³⁷ This survey explored the transportation investment priorities of Washingtonians. The accompanying report supports the Community Engagement Summary listed above.

³⁷ Brown, R., et al., 2022. Community Engagement Support for the Highway System Plan Update. University of Washington, Washington State Transportation Center https://depts.washington.edu/trac/bulkdisk/pdf/911.1.pdf (PDF, 5.41 MB).

Appendix H: Funding highway preservation and maintenance

The state's transportation infrastructure is the very backbone of our state's economy and way of life. New projects aim to meet growing demands, but decades of underfunding maintenance and preservation has put the health of our existing system in jeopardy and impacted WSDOT's ability to achieve the state's transportation policy goals, including safety. The problem is unambiguous – **functional highways and bridges require an annual investment of \$1.19 billion in preservation**, plus adequate maintenance funding.³⁸ Legislative investment in highway preservation in 2023 is \$265 million per year. Although WSDOT is a leader in asset management systems, receiving national awards from 2014 to 2022, efficient management cannot hide the results of severe underinvestment.

DECADES OF UNDERFUNDING MEANS UNAVOIDABLE PROBLEMS

Pavement and bridges across the state are showing the results of underfunding. Spare service life from investment in the 1990s is gone. Washington residents are already observing deteriorating conditions, especially on rural and low-speed highways, and it will get worse. The state of highways today mean increased funding will not result in functional roadways immediately. It will take time to preserve the parts of the system that deteriorated. Underfunding preservation also places severe burdens on the maintenance program.

Figure 11: Examples of highway infrastructure components showing deterioration.







Left to right, SR 522 South of NE 130th St near Lake City, Stillaguamish River Bridge on I-5 South near Arlington, I-90 near Lake Easton.

³⁸ Based on analysis for WSDOT's 2024 State of Transportation address. This figure includes implementing complete streets.

How might less than adequate funding impact the highway system?

Investing enough to keep state highways functional is the best way to avoid difficult tradeoffs. But if adequate funding levels are not possible right now, what percent of the highway system might deteriorate at different levels of funding?

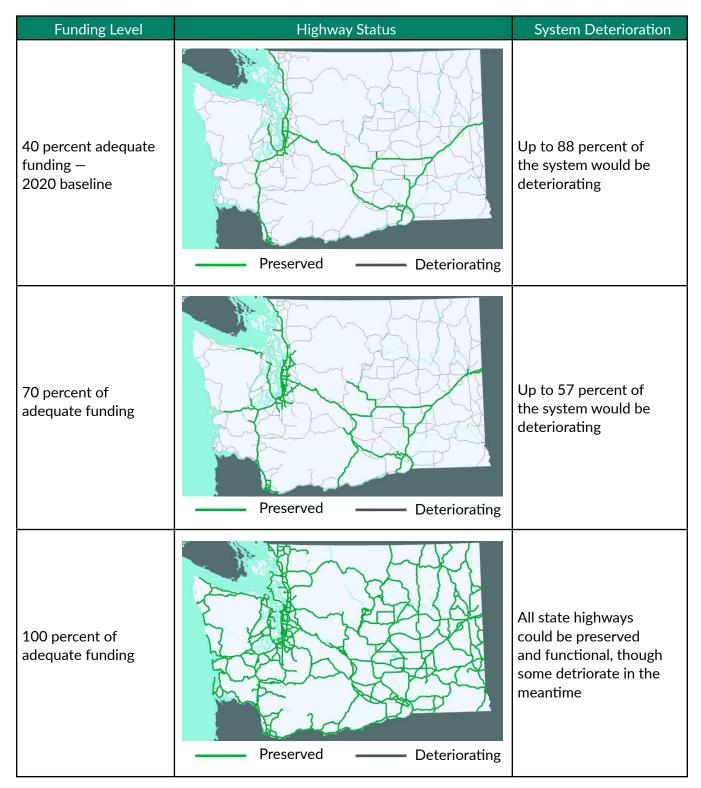


Table 4: Highway system preservation and deterioration at different levels of funding.

Key notes:

- **Deteriorating highways** are experienced in the form of failing pavement, potholes, speed reductions, weight restrictions and short and long-term closures. This analysis assumes some highways are preserved at lowest lifecycle cost, while others are not preserved at all. Preserving at the lowest lifecycle cost is the least expensive approach. Other approaches, such as fixing assets starting with the worst first, are possible but more expensive in both the short- and long-term.
- Prioritization cannot fix gaps in funding. The maps above depict prioritizing the most highly
 traveled routes for preservation. Other prioritization approaches are possible, but do not change
 the core issue that there is not enough funding to preserve the entire system. Choosing which
 highways are allowed to fail is a policy matter with equity implications outside the scope of this
 analysis.
- Waiting makes it cost more. WSDOT estimates it will cost five times more to return a failed highway to a functional state than preserving it before it fails.

Balancing transportation funding priorities

There are always competing demands for transportation funding. In statute, the Washington State Legislature prioritizes the achievement of the preservation and safety policy goals above stewardship, mobility, economic vitality and environment. This is consistent with the strong support for both preservation and maintenance funding shared across all regions in the state and all demographic groups in a statistically representative survey conducted during the development of the Highway System Plan. Prioritizing preservation and maintenance also aligns with WSDOT's Strategic Plan, the policies recommended in the Washington Transportation Plan and transportation industry best practices.

The down payment made by the Legislature with the 2015 Connecting Washington funding package was a step in the right direction along with the commitment to do more related to maintenance and preservation as part of the 2022 Move Ahead Washington transportation package. Washington's transportation system needs an effective balance of capital delivery and preservation and maintenance. Our economic future is dependent on both, not one or the other.

For more information

Additional information about preserving the state transportation system, including a broader accounting of asset management needs beyond the highway system are available in WSDOT's <u>Capital Improvement and Preservation Program</u>, <u>Transportation Asset Management Plan</u>, <u>Gray Notebook</u> and the <u>Statewide</u> <u>Transportation Improvement Program</u>.

Appendix I: Maps relevant to the highway system

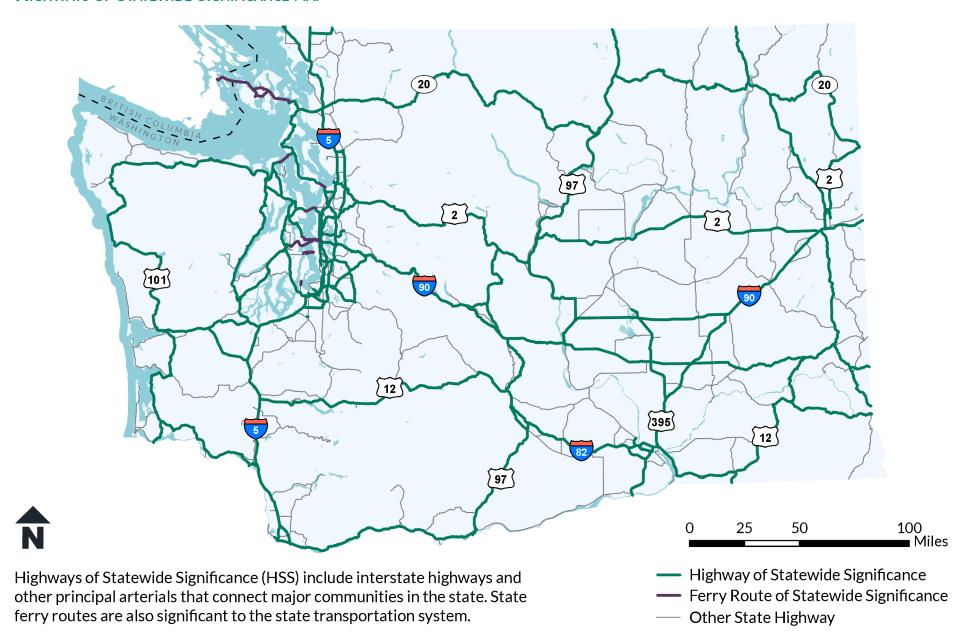
List of maps on the following pages:

- Highways of statewide significance map
- National Highway System map
- Freight and Goods Transportation System map
- Marine highway system map
- Metropolitan Planning Organizations map
- Regional Transportation Planning Organizations map
- WSDOT regions map

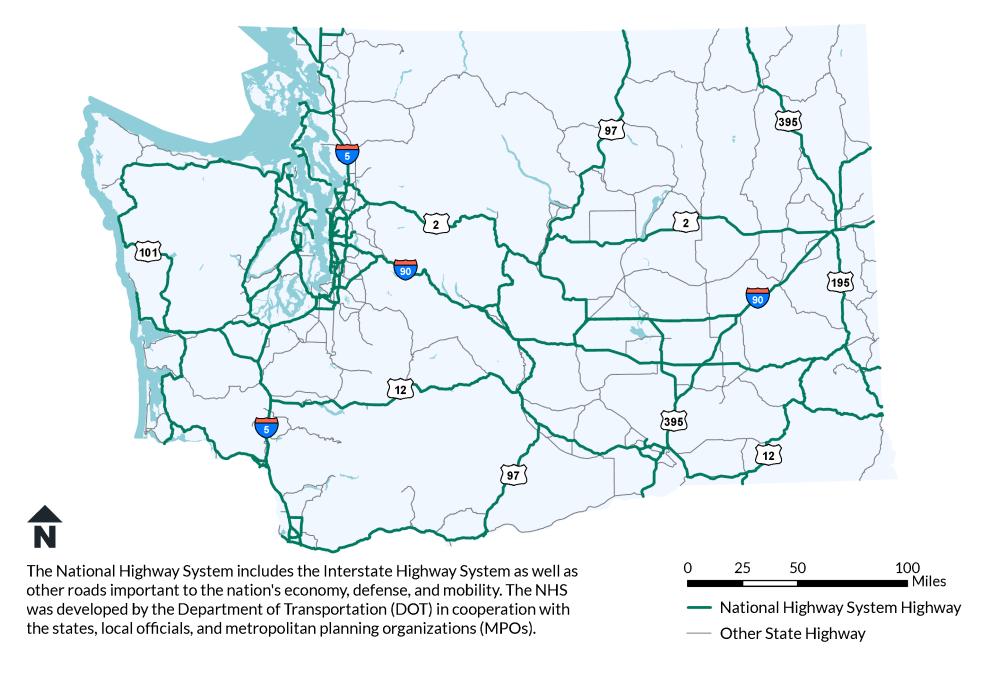
The maps in this plan were created from the following data sources using ArcGIS Pro version 3.1.1 software under license by Esri:

- Cadastral Framework of Washington State, County Boundaries, Washington State Department of Natural Resources, 2007
- Cadastral Framework of Washington State, State Boundary Washington State Department of Natural Resources, 2007
- Ferry Routes of Washington State, WSDOT, 2020
- Freight and Goods Transportation System of Washington, WSDOT, 2021
- Major Shorelines of Washington State, WSDOT, 1995
- Regions of the Washington State Department of Transportation at 1:500,000, WSDOT, 2018
- Roadway Highway Statewide Significance, WSDOT, 2013
- Roadway National Highway System, WSDOT, 2010
- Major Water Bodies, National Hydrography Dataset, USGS, 2019
- State Routes of Washington State 1:500,000, WSDOT, 2022
- Transportation Planning Organizations of Washington State, WSDOT, 2020
- Urban Areas National Geodatabase, United States Census Bureau, 2021

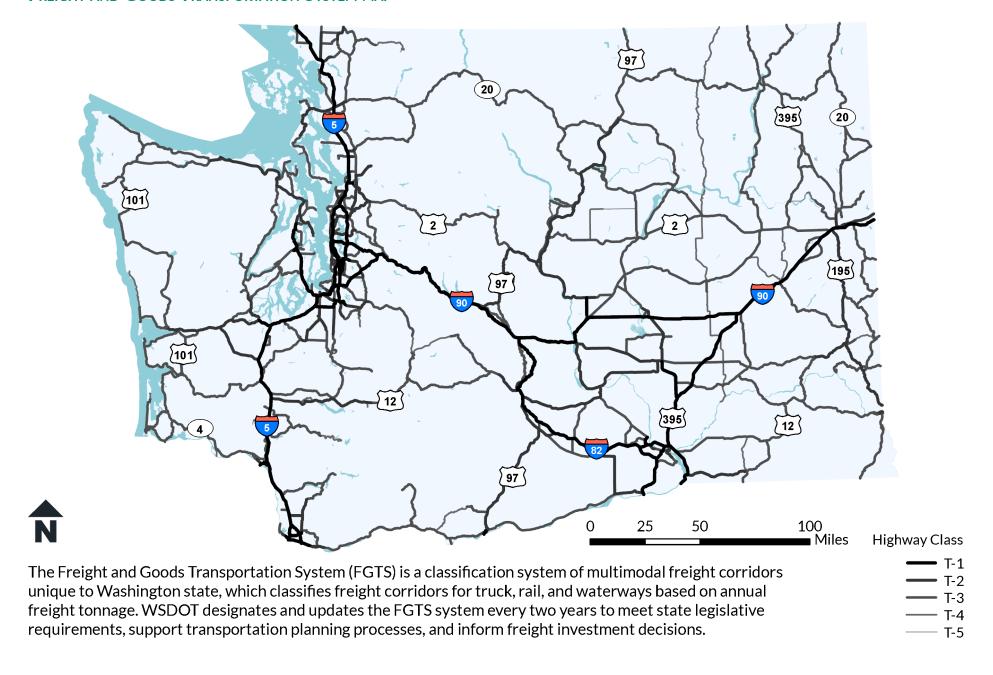
HIGHWAYS OF STATEWIDE SIGNIFICANCE MAP



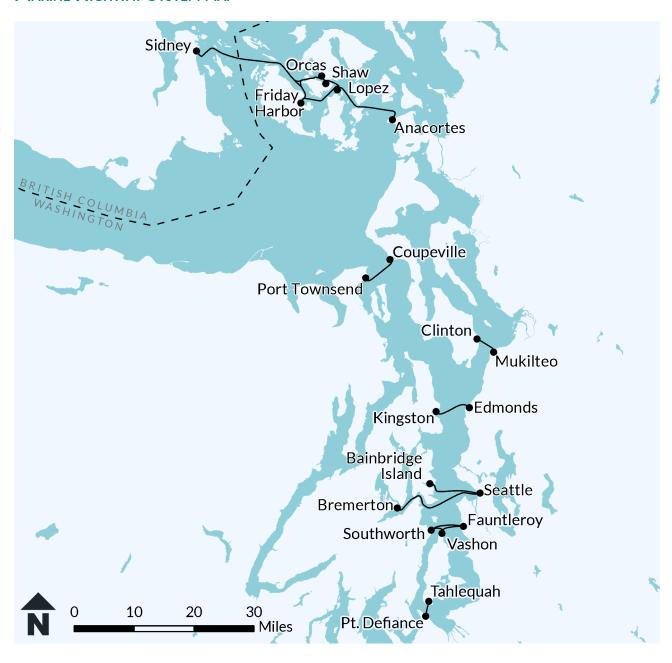
NATIONAL HIGHWAY SYSTEM MAP



FREIGHT AND GOODS TRANSPORTATION SYSTEM MAP



MARINE HIGHWAY SYSTEM MAP

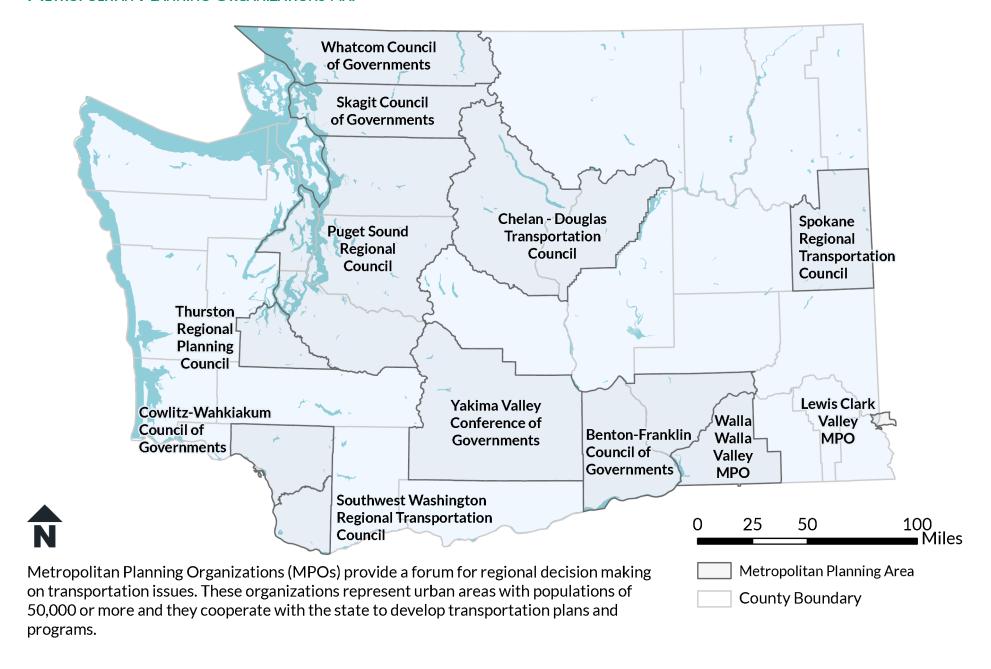




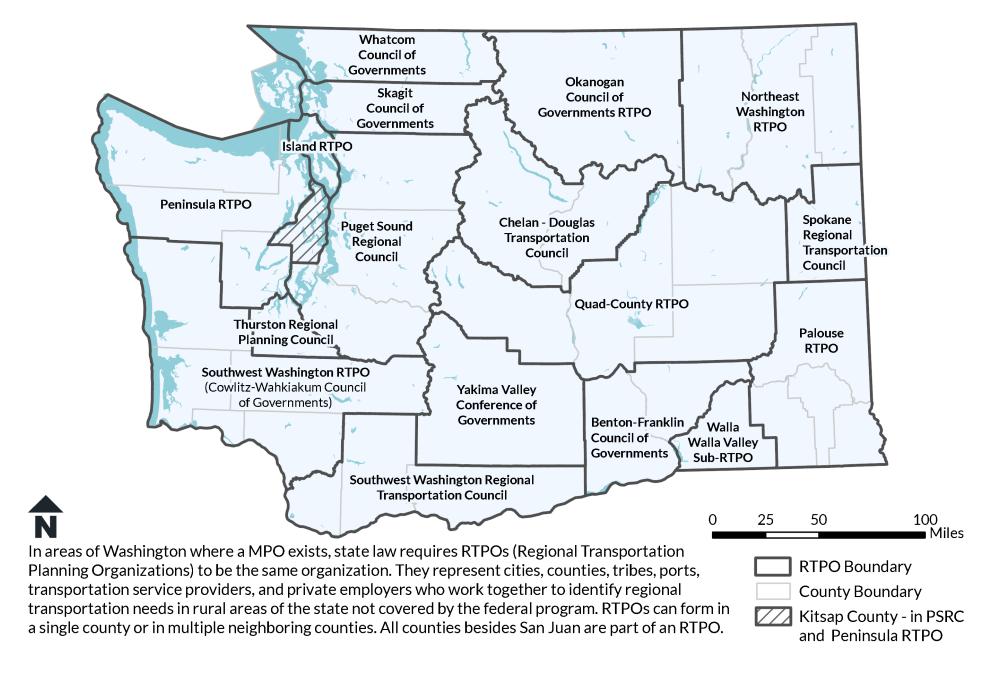
- Ferry Terminal
- Ferry Route

The Washington State Ferries (WSF) system is an essential part of Washington's highway system, linking communities on both sides of Puget Sound with the San Juan Islands and internationally to Sidney, British Columbia. Every day, WSF ferries carry commuters, recreational travelers, and commercial vehicles safely across Pacific Northwest waters. The ferry system brings economic opportunities through tourism and trade, and provides a critical lifeline to island residents who need medical services on the mainland. For more information, see the Washington State Ferries Long Range Plan.

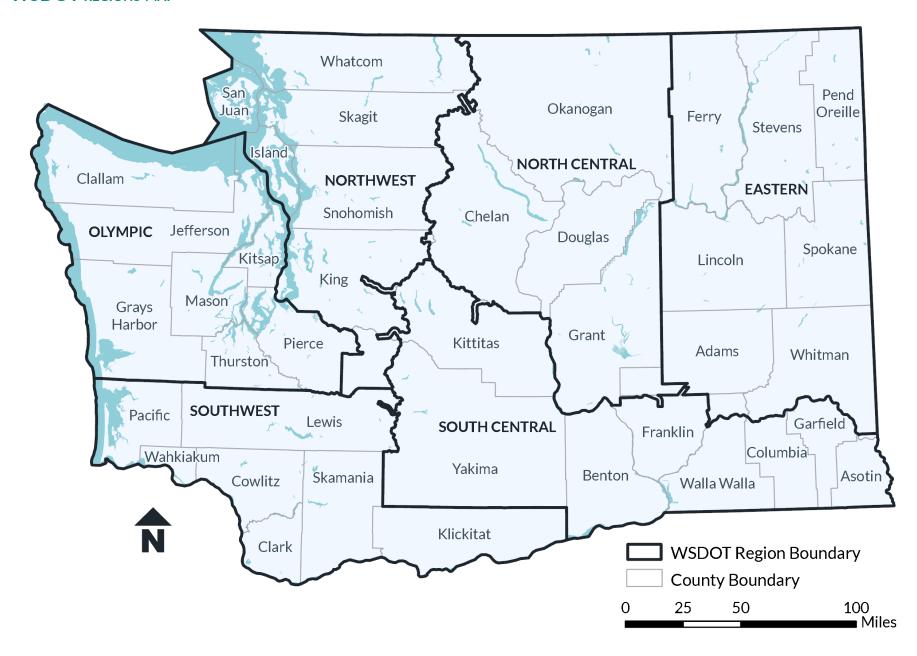
METROPOLITAN PLANNING ORGANIZATIONS MAP



REGIONAL TRANSPORTATION PLANNING ORGANIZATIONS MAP



WSDOT REGIONS MAP



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(中文 - Chinese)

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(tiếng Việt-Vietnamese)

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(русский-Russian)

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(Arabic - اَلْعَرَبِيَّةُ خدمات الترجمة

إذا كنت تجد صعوبة في فهم اللغة الإنجليزية، فيمكنك طلب خدمات المساعدة اللغوية مجاناً عن طريق الاتصال بالرقم hsp@wsdot.wa.gov؛ أو مراسلتنا عبر البريد الإلكتروني 6371-704-360

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Title VI notices and Americans with Disabilities Act (ADA) information

English

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Español

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Información de la Ley sobre Estadounidenses con Discapacidades (ADA, por sus siglas en inglés)

Este material puede estar disponible en un formato alternativo al enviar un correo electrónico a la Oficina de Equidad y Derechos Civiles a <u>wsdotada@wsdot.wa.gov</u> o llamando a la línea sin cargo 855-362-4ADA(4232). Personas sordas o con discapacidad auditiva pueden solicitar la misma información llamando al Washington State Relay al 711.

한국어-Korean

제 6 조 관련 공지사항

워싱턴 주 교통부(WSDOT)는 1964 년 민권법 타이틀 VI 규정에 따라, 누구도 인종, 피부색 또는 출신 국가를 근거로 본 부서의 모든 프로그램 및 활동에 대한 참여가 배제되거나 혜택이 거부되거나, 또는 달리 차별받지 않도록 하는 것을 정책으로 하고 있습니다. 타이틀 VI 에 따른 그/그녀에 대한 보호 조항이 위반되었다고 생각된다면 누구든지 WSDOT 의 평등 및 민권 사무국(OECR)에 민원을 제기할 수 있습니다. 타이틀 VI 에 따른 민원 처리 절차에 관한 보다 자세한 정보 및/또는 본 부서의 차별금지 의무에 관한 정보를 원하신다면, (360) 705-7090 으로 OECR 의 타이틀 VI 담당자에게 연락해주십시오.

미국 장애인법(ADA) 정보

본 자료는 또한 평등 및 민권 사무국에 이메일 <u>wsdotada@wsdot.wa.gov</u> 을 보내시거나 무료 전화 855-362-4ADA(4232)로 연락하셔서 대체 형식으로 받아보실 수 있습니다. 청각장애인은 워싱턴주 중계 711 로 전화하여 요청하실 수 있습니다.

русский-Russian

Раздел VI Общественное заявление

Политика Департамента транспорта штата Вашингтон (WSDOT) заключается в том, чтобы исключить любые случаи дискриминации по признаку расы, цвета кожи или национального происхождения, как это предусмотрено Разделом VI Закона о гражданских правах 1964 года, а также случаи недопущения участия, лишения льгот или другие формы дискриминации в рамках любой из своих программ и мероприятий. Любое лицо, которое считает, что его средства защиты в рамках раздела VI были нарушены, может подать жалобу в Ведомство по вопросам равенства и гражданских прав WSDOT (OECR). Для дополнительной информации о процедуре подачи жалобы на несоблюдение требований раздела VI, а также получения информации о наших обязательствах по борьбе с дискриминацией, пожалуйста, свяжитесь с координатором OECR по разделу VI по телефону (360) 705-7090.

Закон США о защите прав граждан с ограниченными возможностями (ADA)

Эту информацию можно получить в альтернативном формате, отправив электронное письмо в Ведомство по вопросам равенства и гражданских прав по адресу wsdotada@wsdot.wa.gov или позвонив по бесплатному телефону 855-362-4ADA(4232). Глухие и слабослышащие лица могут сделать запрос, позвонив в специальную диспетчерскую службу штата Вашингтон по номеру 711.

tiếng Việt-Vietnamese

Thông báo Khoản VI dành cho công chúng

Chính sách của Sở Giao Thông Vận Tải Tiểu Bang Washington (WSDOT) là bảo đảm không để cho ai bị loại khỏi sự tham gia, bị từ khước quyền lợi, hoặc bị kỳ thị trong bất cứ chương trình hay hoạt động nào vì lý do chủng tộc, màu da, hoặc nguồn gốc quốc gia, theo như quy định trong Mục VI của Đạo Luật Dân Quyền năm 1964. Bất cứ ai tin rằng quyền bảo vệ trong Mục VI của họ bị vi phạm, đều có thể nộp đơn khiếu nại cho Văn Phòng Bảo Vệ Dân Quyền và Bình Đẳng (OECR) của WSDOT. Muốn biết thêm chi tiết liên quan đến thủ tục khiếu nại Mục VI và/hoặc chi tiết liên quan đến trách nhiệm không kỳ thị của chúng tôi, xin liên lạc với Phối Trí Viên Mục VI của OECR số (360) 705-7090.

Thông tin về Đạo luật Người Mỹ tàn tật (Americans with Disabilities Act, ADA)

Tài liệu này có thể thực hiện bằng một hình thức khác bằng cách email cho Văn Phòng Bảo Vệ Dân Quyền và Bình Đẳng <u>wsdotada@wsdot.wa.gov</u> hoặc gọi điện thoại miễn phí số, 855-362-4ADA(4232). Người điếc hoặc khiếm thính có thể yêu cầu bằng cách gọi cho Dịch vụ Tiếp âm Tiểu bang Washington theo số 711.

Arabic - العَرَبيّة

العنوان 6 إشعار للجمهور

في ضمان عدم استبعاد أي شخص، على أساس العرق أو اللون أو WSDOTتتمثل سياسة وزارة النقل في ولاية واشنطن الأصل القومي من المشاركة في أي من برامجها وأنشطتها أو الحرمان من الفوائد المتاحة بموجبها أو التعرض للتمييز فيها بخلاف ذلك، كما هو منصوص عليه في الباب السادس من قانون الحقوق المدنية لعام 1964. ويمكن لأي شخص يعتقد أنه تم OECR المحتول التهاك حقوقه التي يكفلها الباب السادس تقديم شكوى إلى مكتب المساواة والحقوق المدنية ولاية واشنطن. للحصول على معلومات إضافية بشأن إجراءات الشكاوى و/أو بشأن التزاماتنا بعدم التمييز بموجب الباب ولاية والحقوق المدنية على الرقم 705-709 (360) السادس، يرجى الاتصال بمنسق الباب السادس في مكتب المساواة والحقوق المدنية على الرقم

معلومات قانون الأمريكيين ذوي الإعاقة (ADA)

يمكن توفير هذه المواد في تنسيق بديل عن طريق إرسال رسالة بريد إلكتروني إلى مكتب المساواة والحقوق المدنية على . يمكن . wsdotada@wsdot.wa.gov على الرقم

.711

中文 - Chinese

《权利法案》Title VI 公告

< 華盛頓州交通部(WSDOT)政策規定,按照《1964年民權法案》第六篇規定,確保無人因種族、膚色或國籍而被排除在 WSDOT 任何計畫和活動之外,被剝奪相關權益或以其他方式遭到歧視。如任何人認為其第六篇保護權益遭到侵犯,則可向 WSDOT 的公平和民權辦公室(OECR)提交投訴。如需關於第六篇投訴程式的更多資訊和/或關於我們非歧視義務的資訊,請聯絡 OECR 的第六篇協調員,電話 (360) 705-7090。

《美国残疾人法案》(ADA)信息

可向公平和民權辦公室發送電子郵件 <u>wsdotada@wsdot.wa.gov</u> 或撥打免費電話 855-362-4ADA(4232),以其他格式獲取此資料。听力丧失或听觉障碍人士可拨打 711 联系 Washington 州转接站。

Af-soomaaliga – Somali

Ciwaanka VI Ogeysiiska Dadweynaha

Waa siyaasada Waaxda Gaadiidka Gobolka Washington (WSDOT) in la xaqiijiyo in aan qofna, ayadoo la cuskanaayo sababo la xariira isir, midab, ama wadanku kasoo jeedo, sida ku qoran Title VI (Qodobka VI) ee Sharciga Xaquuqda Madaniga ah ah oo soo baxay 1964, laga saarin ka qaybgalka, loo diidin faa'iidooyinka, ama si kale loogu takoorin barnaamijyadeeda iyo shaqooyinkeeda. Qof kasta oo aaminsan in difaaciisa Title VI la jebiyay, ayaa cabasho u gudbin kara Xafiiska Sinaanta iyo Xaquuqda Madaniga ah (OECR) ee WSDOT. Si aad u hesho xog dheeraad ah oo ku saabsan hanaannada cabashada Title VI iyo/ama xogta la xariirta waajibaadkeena ka caagan takoorka, fadlan la xariir Iskuduwaha Title VI ee OECR oo aad ka wacayso (360) 705-7090.

Macluumaadka Xeerka Naafada Marykanka (ADA)

Agabkaan ayaad ku heli kartaa qaab kale adoo iimeel u diraaya Xafiiska Sinaanta iyo Xaquuqda Madaniga ah oo aad ka helayso <u>wsdotada@wsdot.wa.gov</u> ama adoo wacaaya laynka bilaashka ah, 855-362-4ADA(4232). Dadka naafada maqalka ama maqalku ku adag yahay waxay ku codsan karaan wicitaanka Adeega Gudbinta Gobolka Washington 711.