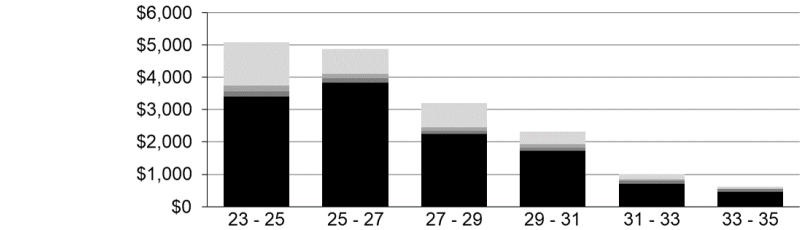
Capital Programs Overview

Highway Improvement

The highway improvement program consists of investments needed to achieve operational objectives, including safety considerations, for moving people and goods on the state highway system and achieve the transportation system policy goals.[1] WSDOT uses improvement program funds for projects that increase highway capacity to move more people, correct highway safety deficiencies, improve the movement of freight goods, and reduce the impact of highway construction projects on the environment.

Highway Improvement Program
10 Year Plan for Biennial Funding
(Dollars in millions) Excludes I5 Program Support



	23 - 25	25 - 27	27 - 29	29 - 31	31 - 33	33 - 35
Environmental Retrofit	1,341.5	763.8	756.6	371.4	154.0	70.0
Economic Initiatives	170.2	144.2	113.2	114.3	55.9	0.0
Safety	157.2	121.3	99.8	93.1	93.5	93.5
Mobility	3,412.3	3,843.3	2,237.9	1,726.6	700.4	449.3

In accordance with state statute, WSDOT must "first assess strategies to enhance the operational efficiency of the existing system before recommending system expansion. Strategies to enhance operational efficiencies include but are not limited to access management, transportation system management, demand management, and high occupancy vehicle facilities." [2] Many of the specific investments in this category of funding are identified directly by the Legislature in the transportation budget.

The Practical Solutions goal from past years has evolved into Resilience. While Practical Solutions remains a large part of how the agency does business day in and day out, the expanded focus now includes addressing the resilience of the state's transportation system. For WSDOT, resilience means the ability to mitigate, prepare for and respond to emergencies; combat climate change; and build a transportation system that provides equitable services, improves multimodal access, and supports Washington's long-term resilience. For highway improvements, this means:

- Focusing on operational efficiency and demand management for multimodal mobility needs.
- Incorporating lower-cost operational efficiency and demand management strategies into final projects.
- Emphasizing transparency and partnerships.

Embedding the Resilience goal into agency business practices recognizes the need for a resilient transportation system to:

- Address climate change and respond to disasters.
- Ensure our transportation system is accessible to everyone; addressing the negative effects of transportation on overburdened neighborhoods.
- Support vibrant local economies.

To implement the Move Ahead Washington revenue package passed by the 2022 Legislature, in the next ten years WSDOT's improvement program will focus on:

- Decarbonizing transportation and expanding multimodal options.
- Removing fish passage barriers.
- Delivering additional projects and programs funded by the legislature, such as Washington's portion of the I-5 Columbia River Bridge.

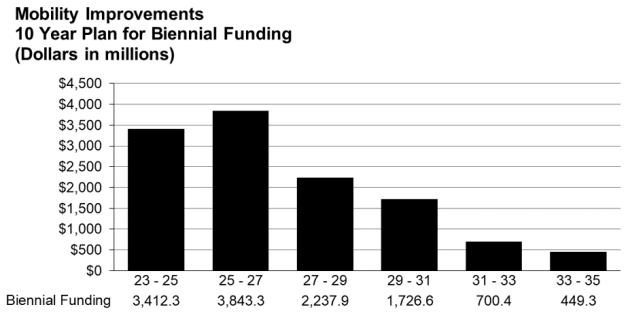
[1] RCW 47.05.030
[2] RCW 47.06.050(c)

Highway Improvement Subprograms			
Mobility	Safety	Economic Vitality	Environmental Retrofit
Subcategories			
Urban	Collision Reduction	Freight & Goods	Storm Runoff
Rural	Collision Prevention	Trunk System Completion	Fish Barrier Removal
Urban Bike Connection		New Safety Rest Area	Noise Reduction
Core HOV Lanes		Scenic Byways	Plant Management
		Bicycle Touring Routes	Chronic Environ. Deficiency
			Wildlife Connectivity

Mobility Improvement (I1) Program

The Mobility Improvement program provides for improved mobility of people and goods on the state highway system, including construction of HOV lanes, urban bicycle connections and other capacity increase and efficiency improvements.

Washington's goal is to "improve the predictable movement of goods and people through Washington state, including congestion relief and improved freight mobility."[3] WSDOT implements this goal by:



- Investing in Complete Streets to make our transportation system work for all of us, strengthen communities, expand options for non-drivers, and make travel more predictable for everyone.
- Providing transportation facilities and services to support the needs of all communities with a focus on equity for populations with specialized needs, those in rural areas, and those who are traditionally underserved.

WSDOT reports its attainment of this goal to the governor and Legislature by measuring the following nine objectives:

3.1 Reduce congestion on urban highways and arterials statewide
3.2 Reduce congestion by making systems more efficient
3.3 Improve traffic flow through tolling operations
3.4 Improve performance of HOV lanes
3.5 Reduce percentage of commuters who travel to work by driving alone
3.6 Increase ridership and increase percentage of on-time trips (for Washington State Ferries)
3.7 Increase ridership and increase percentage of on-time trips (for WSDOT-sponsored Amtrak Cascades train service)
3.8 Increase ridership across the state (on public transit)
3.9 Promote walking and biking to improve public health

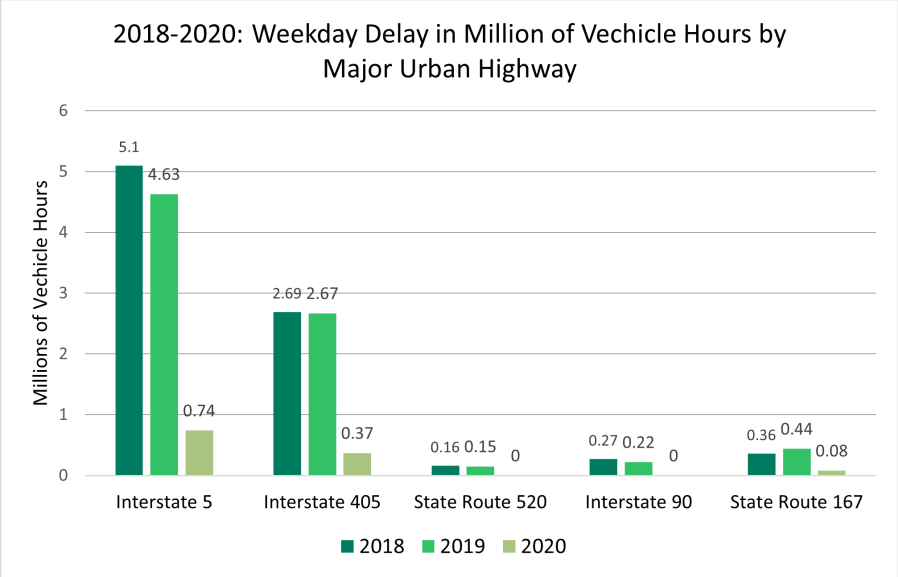
Additional information on the objectives is located in the 2022 Attainment Report

[3] RCW 47.04.280.

WSDOT is currently updating its performance framework for mobility, with an emphasis on measures evaluating accessibility, predictability, and efficiency.

3.1 Reduce congestion on urban highways and arterials statewide
In 2022, the average daily person miles traveled as well as delay in Central Puget Sound increased from 2021 by 2% and 35%, respectively, due to the continued recovery of traffic volume across the state in the wake of COVID-19. Along with the recovery of traffic volume was an increase in delay for 2022, but person miles traveled and delay were still below the pre-pandemic levels.

Vehicle delay on the Interstate 5, I-405, I-90, State Route 520 and SR 167 corridors in the central Puget Sound region increased 35% from 3.6 million hours in 2021 to 4.9 million hours in 2022.



3.2 Reduce congestion by making systems more efficient
Investing in public transportation services, active transportation, and smart technology helps manage demand on transportation systems and improve experience for all travelers. This is especially true when the demand on the transportation system is on the rise due, in part, to an increasing population. Washington has seen a 5.0 percent increase in statewide population from roughly 7.55 million in 2019 to 7.95 million in 2023.

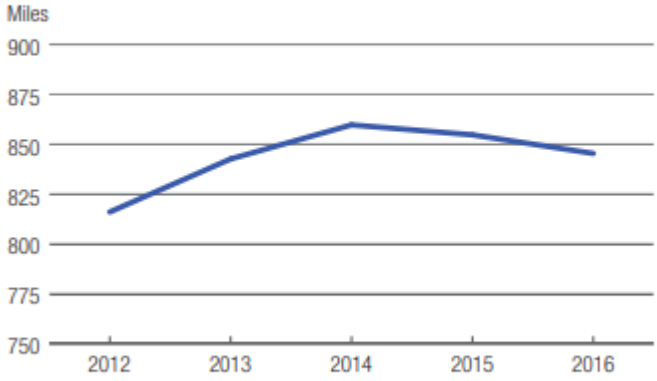
In 2022, Public transit continued to experience low ridership compared to the pre-pandemic period but saw some recovery of ridership. All public transit modes increased compared to the previous year of 2021. In 2020, the total number of public transportation passengers dropped to 110 million from 239.9 million in 2019. This 54.1% reduction in passengers was due to the COVID-19 pandemic.

The total number of public transportation passengers grew to 137.7 million in 2022 from 101.7 million in 2021. This is a 35.4% increase in passenger numbers. Fixed route service made up about 76.4% of total public transportation passenger trips statewide, down from 81.9% in 2021. Additionally, light rail passenger trips have increased 96.6% from 2021 to 25.0 million passenger trips.

In addition to bike or walk trips as part of transit use, the percentage of commuters walking or bicycling to work has decreased between 2018 and 2022 (3.7% to 3.1% for walking and 0.9% to 0.6% for bicycling). The actual number of commuters using these modes decreased by 15.6% between 2018 and 2022 from about 168,300 to 142,000. The total number of workers statewide grew by 4.7% during the same period from roughly 3.7 million to 3.8 million.

Vehicle miles avoided due to transit use saw a net increase from 2012 to 2016 in Washington state

2012 through 2016; Vehicle miles avoided in millions



Data source: National Transit Database and WSDOT Office of Strategic Assessment and Performance Analysis.

Note: The graph shows the most recent years for which data is available.

With the completion of the Active Transportation Plan in 2021, WSDOT has identified new performance metrics that will increase system efficiency by facilitating mode shift and access to multimodal connections including transit, ferry, rail, and air. Full baseline data is not yet available. Metrics will incorporate equity check calculations to identify and address needs and issues in communities where past transportation decisions created disproportionate burdens to historically underrepresented, marginalized, or disenfranchised populations, in keeping with the requirements of the HEAL Act and FHWA environmental justice guidance. These equity checks provide information essential to improvement of active transportation and transit in those communities most reliant on these modes.

System efficiency for active transportation is a combination of connectivity and safety performance; corridors that do not provide facilities that reduce crash exposure and connect people to destinations do not support mode shift. The passage of Move Ahead Washington in 2021 may result in additional metrics including Complete Streets improvements on WSDOT Right of Way.

Connectivity metrics: Level of traffic stress on WSDOT-owned infrastructure (linear miles, intersections, and ramp crossings) and miles of facilities.

Safety metrics: Active transportation user serious injuries and fatalities, including separate calculation for crashes involving people 65 years or older; miles of state highway with injury minimization speed limits.

The Active Transportation Plan completed in 2021 includes estimated VMT prevented in 2015 through bicycle miles traveled and pedestrian miles traveled, not including trips to transit, at 3.1 billion vehicle miles traveled, averting 0.42 million metric tons of GHG.

The number of bicyclist fatalities in Washington state decreased by 31.3% between 2018 and 2022, going from 16 to 11. In contrast, the number of pedestrian fatalities increased over that period, rising 32.0% from 103 in 2018 to 136 in 2022. Pedestrian and bicyclist fatalities as a percentage of all traffic fatalities decreased four percentage points between 2018 and 2022, going from 24% to 20%.

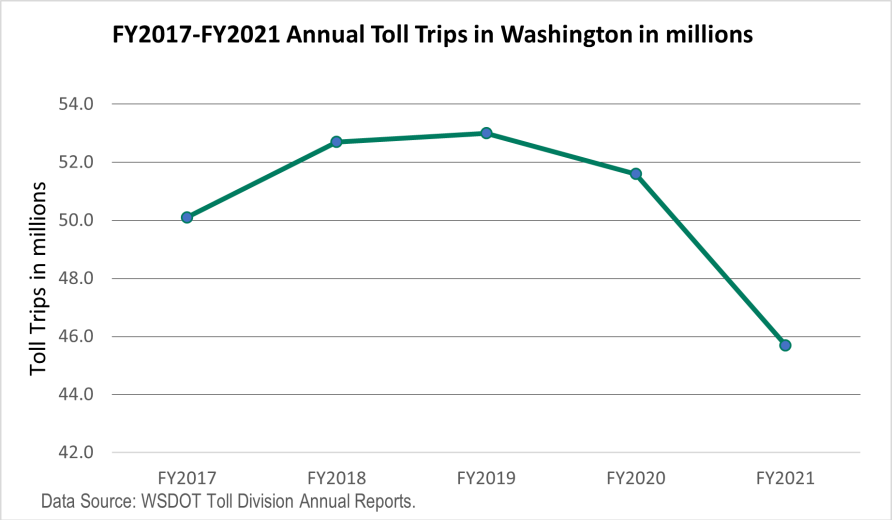
Between 2018 and 2022, the number of bicyclists with serious injuries increased 18.7%, going from 123 to 146. Over the same period, the number of pedestrian serious injuries increased 2.0% from 400 in 2018 to 408 in 2022. Pedestrian and bicyclist serious injuries as a percentage of all traffic serious injuries decreased nine percentage points between 2018 and 2022, going from 27% to 18%.

3.3 Improve traffic flow through tolling operations

Tolling continues to provide benefits to all road users including more reliable options for those who pay to get to their destination and making general purpose lanes less congested.

The number of tolling transactions on state facilities increased 16.2 percent between FY2018 (July 2017 through June 2018) and FY 2023, from 52.7 million to 62.9 million transactions.

WSDOT's toll facilities in FY2023 included the SR 520 bridge between Seattle and Bellevue, the eastbound SR 16 Tacoma Narrows Bridge between Gig Harbor and Tacoma, the SR 167 high occupancy toll (HOT) lanes between Auburn and Renton, the Interstate 405 express toll lanes (ETLs) between Lynnwood and Bellevue, and the SR 99 Tunnel.



3.4 Improve performance of HOV lanes

High occupancy vehicle lanes continue to provide system benefits, moving more people faster and more reliably than adjacent single occupant vehicle lanes, though performance was impacted by the pandemic.

High occupancy vehicle (HOV) lanes are reserved for carpools, vanpools, buses, motorcycles or any vehicle carrying multiple people (2+ or 3+ depending on the facility). The central Puget Sound region freeway network includes a system of HOV lanes designed to provide faster and more reliable travel options. It also enhances the efficient operation of the freeway network by moving more people in fewer vehicles, compared to adjacent general purpose (GP) lanes.

In 2022, average daily person miles traveled increased compared to 2021 due to the ongoing recovery of traffic volume in the wake of COVID-19. However, average daily person miles traveled (PMT) in 2022 were still lower than the pre-pandemic levels. Roughly 6.0 million person miles were traveled on the Central Puget Sound region freeway HOV network on an average weekday, 8.6% more than 2021. More than half (3.3 million person miles) of these HOV person miles were traveled on I-5.

The corridor with the most daily PMT on HOV lanes in 2022 was I-5, at 3.3 million. Average daily PMT on Central Puget Sound area HOV lanes decreased 20.1 percent between 2018 and 2022 from 7.6 million to 6.0 million average daily PMT. The corridor with the greatest decline in PMT on its HOV facilities was I-90, which experienced -209.9 percent decline between 2012 and 2020.

Central Puget Sound Region
2016 and 2020 HOV Average Weekday Person Miles Traveled

Highway	2016	2020	% change
Interstate 5	3,919,150	2,392,267	-63.8%
Interstate 90	530,548	171,198	-209.9%
Interstate 405	2,087,190	956,943	-118.1%
State Route 167	485,942	383,590	-26.7%
State Route 520	667,614	395,377	-68.9%
Total	**7,690,444**	**4,299,375**	**-78.9%**

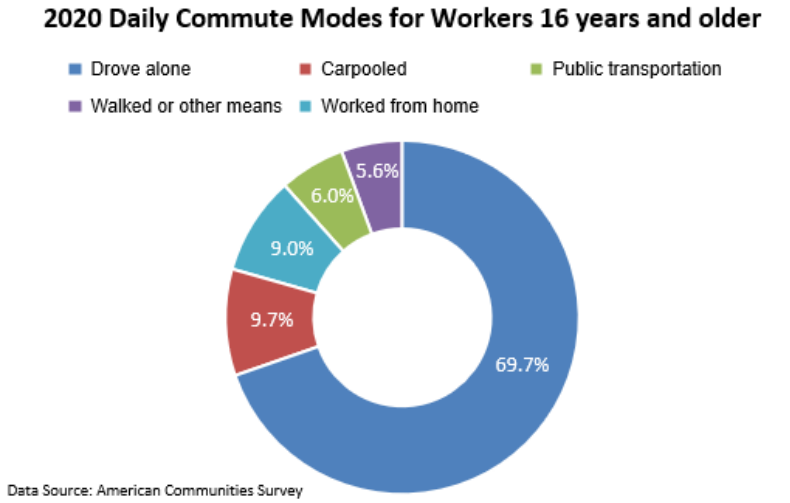
Data Source: WSDOT Miltimodal Mobility Dashboard

3.5 Reduce percentage of commuters who travel to work by driving alone
Reducing commuting by driving alone involves providing more travel options. This happens through:

- Employers encouraging their workers to take the bus, carpool, bicycle, walk, and work from home.
- Supporting cities to implement strategies for transportation-efficient communities.
- WSDOT providing grant support to help transit agencies improve bus service, deliver more service for people with disabilities, and deploy more vanpools for ridesharing.

Of the approximately 3.8 million workers age 16 or older in Washington state in 2022, 62.9 percent, or more than 2.4 million, commuted by driving alone to work in 2022. This represents a decrease of 8.1 percentage points, from 71.0percent in 2018.

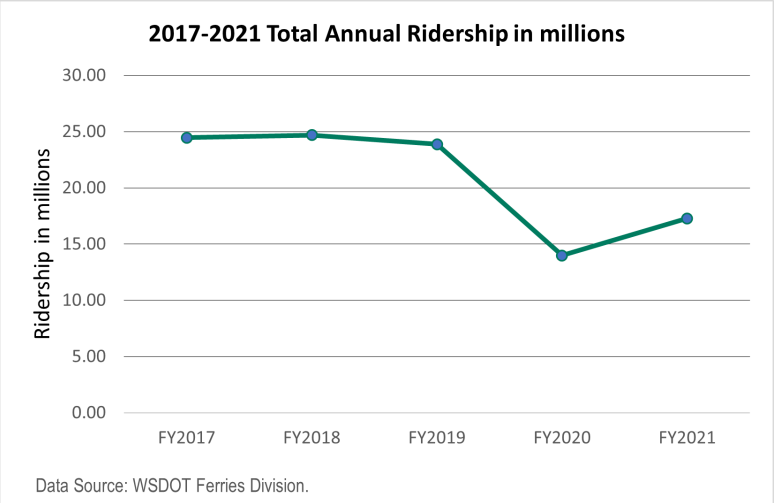
The total number of workers in the state increased about 4.8 percent from 3.7 million in 2018 to 3.8 million in 2022.



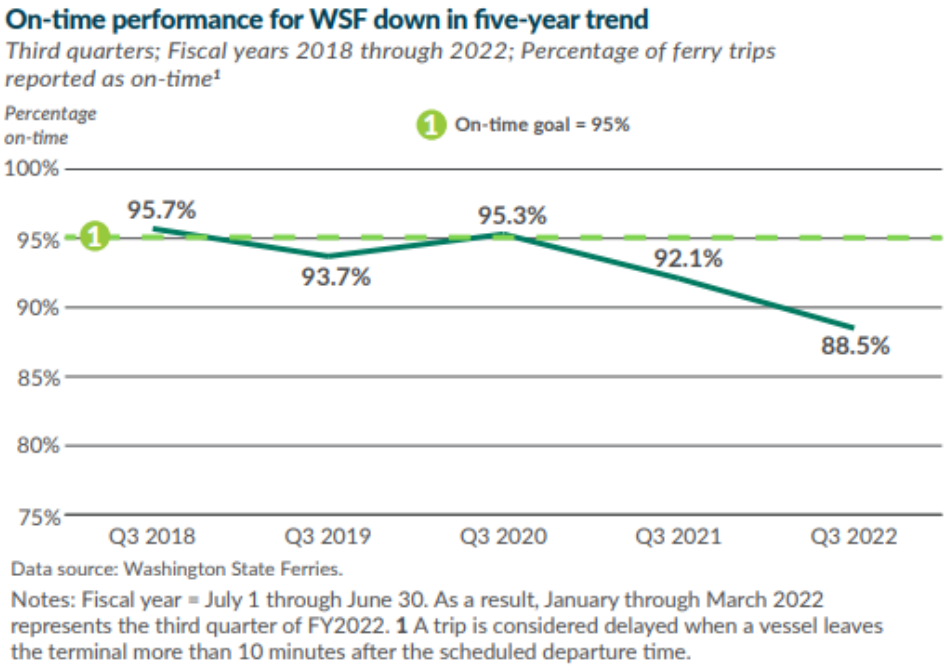
3.6 Increase ridership and increase percentage of on-time trips (for Washington State Ferries)
In 2022, Washington State Ferries ridership was lower than pre-pandemic level. The significant reduction in Washington State Ferries total ridership in 2021 and 2020 resulted from fewer people traveling due to continuing COVID-19 restrictions and health concerns.

From 2018 to 2022, total ridership decreased by 29.6%, from 24.7 million to 17.4 million. Over the same

period, the total number of passengers decreased by 37.0%, the number of walk-on passengers decreased by 52.8%, and the number of vehicles decreased by 20.1%.



On-time performance on the Washington State Ferries system declined substantially between 2018 and 2022. In 2018, on-time performance varied by route from 78.8% on time on the Anacortes/San Juan Domestic route to 97.0% on time on the Point Defiance/Tahlequah route. In 2022, on-time performance varied from 67.0% on time on the Anacortes/San Juan Domestic to 93.3% on time on the Point Defiance/Tahlequah route.

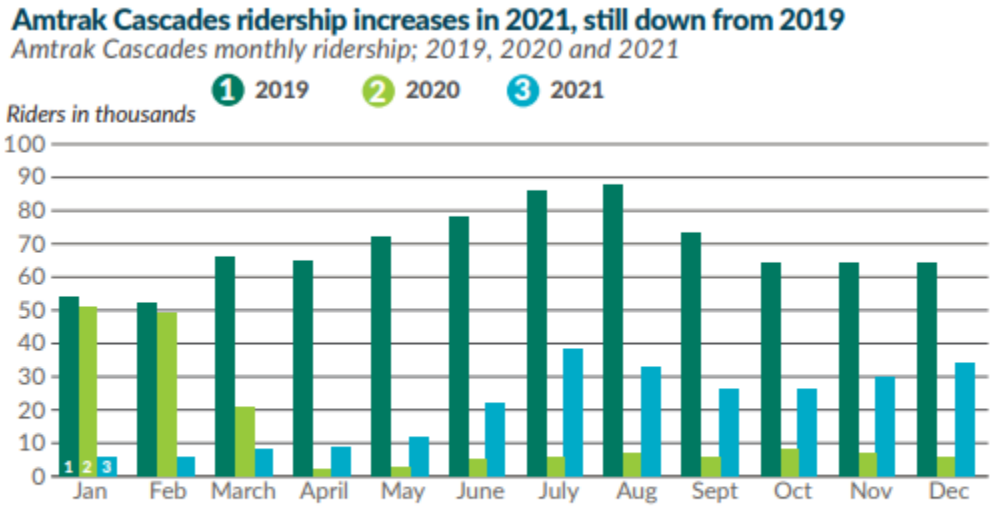


In addition to ridership levels and on-time performance, WSDOT also tracks Ferries' trip reliability, or the number of net missed trips in relation to the number of scheduled trips (if a trip is canceled but then rescheduled, it is not counted in the net missed trip calculation). System-wide trip reliability was 97.9% of its 132,096 scheduled trips in 2022, with 2,775 net missed trips. The Anacortes/San Juan Domestic (96.3%), Edmonds/Kingston (98.1%), Fauntleroy/Vashon/Southworth (98.7%), Mukilteo/Clinton (98.2%),

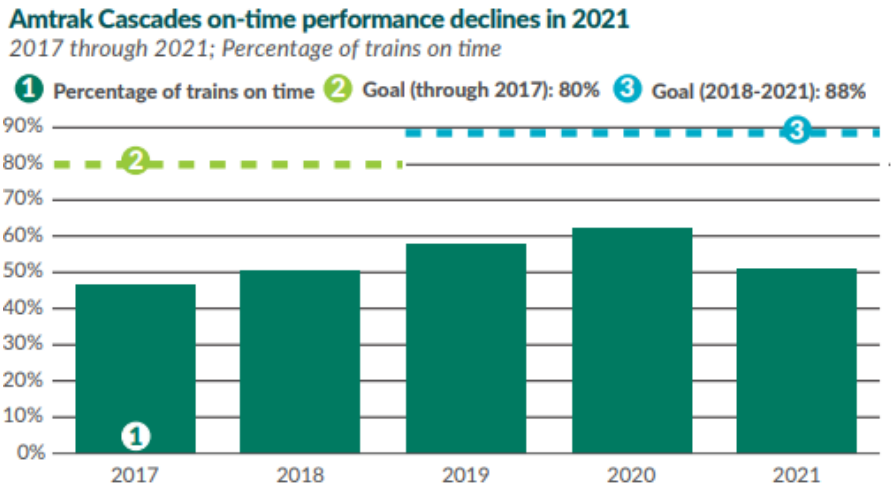
Point Defiance/Tahlequah (98.5%), Port Townsend/Coupeville (94.9%) routes did not meet the annual goal of 99% in 2022.

3.7 Increase ridership and increase percentage of on-time trips (for WSDOT-sponsored Amtrak Cascades train service)
2023 showed significant increases across the Amtrak Cascades corridor as ridership and revenue approached pre-pandemic levels. The March 2023 restoration of the daily roundtrip between Portland, Seattle, and Vancouver, B.C. resulted in a significant increase in service, reconnecting the three busiest stations on the corridor and greatly contributing to the 75% increase in ridership and 87% increase in revenue year-over-year. In December 2023, two new daily roundtrips were added between Portland and Seattle, allowing for expanded travel options with departures and arrivals earlier in the morning and later in the evening.

746,000 people rode Amtrak Cascades trains in 2023. This was a 76.9 percent increase from 172,000 in 2020 but was 9.5 percent lower than the 824,000 riders in 2019, prior to the COVID-19 pandemic.



Washington's Amtrak Cascades trains arrived on time for 55 percent of their trips in 2023, down 7 percentage points from 62 percent in 2020. Amtrak Cascades' on-time performance goal is 88 percent—as contractually negotiated by WSDOT, Amtrak, Sound Transit and BNSF in 2018—but it has not yet been achieved (refer to chart below).



Data source: WSDOT Rail, Freight and Ports Division.

Note: Data is for trains on Washington segments only. In 2017, trains operating on the Vancouver, British Columbia to Seattle and Seattle to Portland, Oregon segments were considered on time if they arrived within 10 minutes of scheduled arrival, while trains operating on the Vancouver, British Columbia to Portland segment were considered on time if they arrived within 15 minutes of scheduled arrival. Beginning in 2018, all trains overseen by WSDOT are considered on time if they arrive within 10 minutes of scheduled arrival.

Amtrak Cascades trains between Portland and Seattle (the portion of the Amtrak Cascades corridor which WSDOT oversees and operates) experienced 1,861 hours of delay, negatively impacting the system's on-time performance in 2023. Although each minute of train delay is separated into one of 25 categories, 45 percent of all delay times were due to three causes:

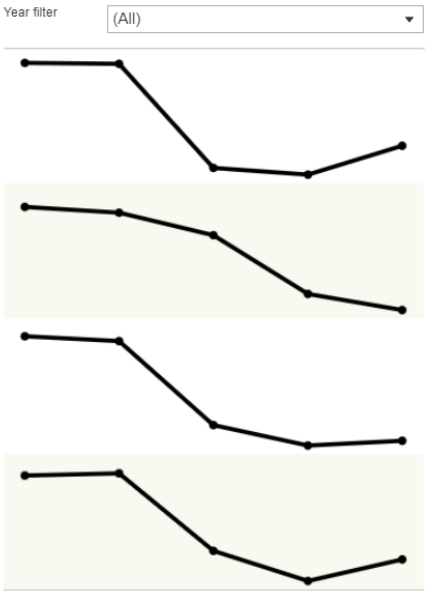
- Freight train interference caused 14.9% (278 hours) of delay.
- Passenger train interference caused 13.9% (259 hours) of delay.
- Slowdowns due to congestion, raised bridges, and weather caused 13.3% (247 hours) of delay

The on-time performance goal of 88 percent is being tracked in accordance with contracts that WSDOT negotiated with BNSF, Amtrak and Sound Transit. The agencies use a shared database system to report delays, assign responsibility, and indicate that corrective actions are required if the goal is not reached.

3.8 Increase ridership across the state (on public transit)
Transit routes statewide have decreased annual ridership from 241.1 million in 2018 to 137.7 million in 2022, a decrease of 42.9%. Although transit service availability, economic activity and employment are typically the largest factors in determining ridership, the sharp decline in ridership in 2020 is due primarily to COVID measures.

Washington State Public Transportation Annual Statistics 2018-2022

	2018	2019	2020*	2021	2022
Passenger trips (in millions)	241.1	239.9	110.0	101.7	137.7
Average daily vanpools	3108	3013	2642	1675	1409
Vanpool ridership (million)	8.8	8.5	3.3	2.0	2.3
Public transportation commuter rate-	7.0%	7.1%	3.5%	2.1%	3.1%



Source: WSDOT Public Transportation, American Community Survey
Note: Passenger trips are the total single passenger trips (or passenger boardings) for a public transportation providers (Commuter Rail, Demand Response, Fixed Route, Light Rail Route Deviated and Vanpool). Note that a passenger trip may not be an individual's full commute. For example, throughout their commute, an individual may transfer from one bus to another, or transfer from one mode to another (e.g., ferry to bus). Regardless of transfer or change in mode, each boarding is counted as a single passenger trip. 2020* Data for [Average Groups in Operation] 2020 may have data quality issues due to data collection methods during the COVID-19 pandemic.

3.9 Promote walking and biking to improve public health

An estimated 15 percent of all trips, 3.9 percent of commute trips, and 1 percent of all miles traveled were made on foot or by bicycle, according to data from the 2022 National Household Travel Survey and 2022 ACS 5-Year Estimates. When ranked against other states, Washington ranks thirteenth for the percent of commuters walking or biking to work. In addition, while not counted as a separate trip, approximately 85 percent of public transportation users in Washington reported walking or bicycling to access transit.

WSDOT works with the Washington State Department of Health to collect information about how students travel to and from school on a daily basis. WSDOT uses the collected information to help plan and prioritize Safe Routes to School investments. WSDOT will be working with DOH to include questions on the biennial Healthy Youth Survey of 6th-12th graders. This will shift the baseline from past reports based on the Washington State Student Travel Survey Report, which identified how students in kindergarten through 8th grade travel to and from school, and specific barriers to walking, biking or riding the school bus.

Since WSDOT uses this information in connection with funding awards for Safe Routes to School it is important to note that a 2020 review of 94 Safe Routes to School program projects found that most projects showed increases in students walking to/from school and 40 projects showed increases in the number of students biking. Some awards in the Pedestrian/Bicyclist Program also serve schools; a 2019

analysis of all SRTS and PBP projects found a 36-44 percent decrease in bicyclist and pedestrian crashes at project sites.[4]

WSDOT launched a school-based bicycle safety education program with funding from Move Ahead Washington. It includes two components: an in-school program from elementary and middle school students and an after-school program for junior and senior high school. In the first full school year of participation the in-school program has been implemented in five large school districts and two Educational Service Districts, reaching a total of 20 districts and 52 schools. The after-school program is being piloted in three communities, offered in collaboration with nonprofit partners. Over 9,100 students have participated in the program, primarily in the elementary/middle school program. Of those, around 21% are brand-new to bicycling. The program includes the opportunity for participating students to receive a bicycle; 1,000 bikes and safety kits are being distributed in the 2023-24 school year. WSDOT will continue to report on program participation as a metric. With continued funding, at full buildout the program is projected to reach 90% of all elementary and middle school students in the state.

Future active transportation metrics

The **Active Transportation Plan** provides performance metrics that will contribute to future mode shift and increases in walking and bicycling. Full baseline data are not yet available. Metrics reported here in future will include:

Opportunity metrics: Miles of ADA-accessible active transportation facilities, elimination of disparities for locations with higher proportions of BIPOC or low-income people, prevention of GHG emissions through increases in walking/biking, increases in agency grants to communities defined as overburdened.

Participation metrics: Share of walking/biking trips, access to modal connections, walk-on/bike-on ferry trips, children walking/biking to school, adult physical activity levels.

Partnership metrics: Updated inventory of local, regional, and tribal active transportation plans; additional metrics to be identified in future that support expanded active transportation use.

Safety metrics: Reductions in serious and fatal crashes involving vulnerable road users.

Connectivity metrics: Total miles of facilities for bicycling and walking on WSDOT right of way or other connections identified as parallel local facilities; quality of connections as measured by level of traffic stress with the goal of LTS 1 or 2 as suitable for most people.

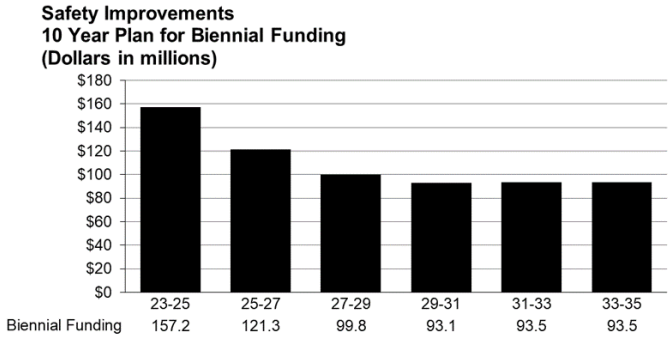
[4] Pedestrian/Bicyclist and Safe Routes to School Programs: Status report and recommendations for change. WSDOT Active Transportation Division report to the legislature, Dec. 1, 2021.

Safety Improvements (I2) Program

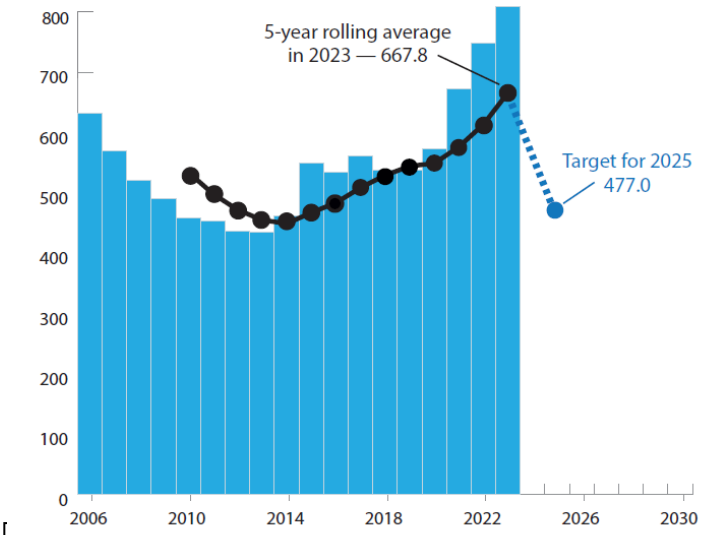
WSDOT makes investments to reduce the potential for fatal and serious crashes for all modes using the highway system.

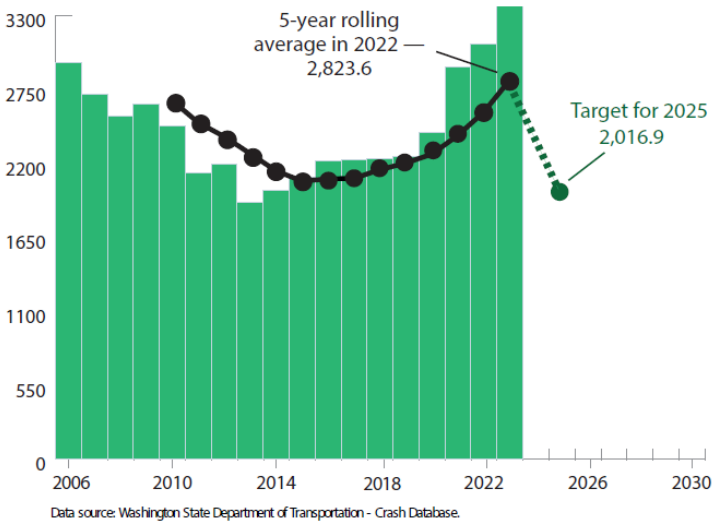
WSDOT approaches the safety program with a dual approach: 1) The Collision Prevention subprogram that proactively addresses locations with proven low-cost countermeasures, and 2) The Collision Reduction subprogram that responds to locations where expected crashes can be reduced with targeted countermeasures. Within the safety program, WSDOT selects countermeasures by identifying the contributing factors to crashes and by prioritizing investments at locations where returns are expected based on the cost effectiveness of the project in terms of safety performance. WSDOT's safety program is directed towards all state-owned transportation facilities outside of large cities and for the modes using the highway system. The focus of the program is the reduction of fatalities and serious injuries; and to assist local communities in identifying effective solutions to transportation safety performance needs.

Most projects within WSDOT Capital Program have elements of safety performance included in them. For example, for mobility projects alternatives analysis consider safety performance as well.



Fatalities (2006-2030)





Unfunded Priority - Safety (10-year need $2.375 billion)
Crashes on Washington roadways have escalated to the highest levels since 1990, with 810 fatalities and 2,875 serious injuries in 2023. Without significant intervention, fatal and serious crashes will continue to rise. Washington state can mitigate this crisis by directing more resources for safety to state highways in population centers, rural areas and in work zones. A $475 million biennial investment would provide:

- $300 million per biennium for regional safety would help cities and WSDOT partner to transform outdated state highways running through population centers where fatal crashes are more than double the state average. Funding would provide for reduced vehicle speeds, safe access to, from and along the road, eliminate active transportation system gaps, improve active transportation crossing opportunities and enhance intermodal connections around public transportation and schools.
- $150 million per biennium in rural safety would help counties and WSDOT implement proven safety countermeasures like installing new guardrail/barriers, speed management, enhanced striping and delineation, and intersection improvements.
- $25 million per biennium for work zone safety program enhancements for workers and travelers that advances work zone safety through technological innovation and enhanced enforcement efforts.

These investments would not only align with Washington's Target Zero safety priorities but also bolster efforts to modernize and transform highways into safer, more inclusive spaces for all road users.

Approach
Both national and WSDOT analysis indicate that taking systemic, preventive approach to safety investments is the most effective approach to achieve WSDOT's role in Target Zero. Based on this analysis, WSDOT recommends budget targets at 30% for Collision Reduction and 70% for Collision Prevention. There may be some difference between the percentage of programmed projects and the targets due to the amount of Collision Prevention countermeasures being delivered with other projects, and the number of projects identified through the Collision Reduction processes.

Washington's Strategic Highway Safety Plan: Target Zero
The Washington State Department of Transportation, together with its partners developed a strategic highway safety plan (SHSP) called "Target Zero" (http://www.targetzero.com). The goal of Washington's plan is to achieve zero fatal and serious injury crashes for all roadways in Washington State by 2030. The plan creates a shared safety vision and culture that recognizes the urgency of fatal and serious crash reduction and the necessity to work together to achieve the state's mutual safety goal.

The Target Zero plan uses data analysis to identify and prioritize leading crash contributing factors and types. Each priority has associated strategies in education, enforcement, engineering, emergency services, and evaluation (e.g., the 5Es). The highest priorities in Target Zero, Priority 1 items, include those factors occurring in at least 30% of total fatalities or serious injuries. The following crashes are included as Priority 1 items: Impairment involved, speeding involved, young driver (16-25) involved, lane departure and intersection related crashes. The first three factors are addressed primarily by enforcement and education. WSDOT's focus on engineering solutions leads us to concentrate on the lane departure and intersection related crashes.

WSDOT adopted Target Zero's emphasis areas for the update of the WSDOT Capital Safety Investment Plan. WSDOT evaluates the Target Zero emphasis areas to identify potential infrastructure countermeasures that, when selected, lead to the program of projects that may return the greatest benefit

in terms of fatal and serious crash reduction within available budget levels. WSDOT in its role with infrastructure (engineering) is only part of the safety equation. WSDOT and the Target Zero community recognize that to achieve the Target Zero vision, the public will need to embrace a culture of good driving and take action to reduce risky user behaviors that contribute to fatal and serious crashes on all roads.

WSDOT implements proactive methodologies to identify locations, intersections, and corridors that intend to address the contributing factors or crash types with specific countermeasures. These locations are ranked based on the potential to reduce fatal and serious injury crashes as defined by the contributing circumstance or crash type being addressed. WSDOT scopes safety improvement projects that are cost effective and efficient.

The following is a list of network-wide collision prevention focus areas and countermeasures currently being implemented by WSDOT:

- **Intersection Systemic Safety** (at angle/high speed crashes), with countermeasures such as modifying the channelization or intersection control type
- **Lane Departure**, with countermeasures such as rumble strips
- **Roadside Safety Hardware**, with countermeasures such as mitigating redirectional landforms, replacing Breakaway Cable Terminals on Interstates facilities, and replacing deteriorated guardrails
- **Corridors,** with site-specific countermeasures to address collision patterns
- **Vulnerable Users**, with countermeasures such as addressing pedestrian, bicycle and motorcycle safety elements

Complete Streets
Complete Streets is 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 transit riders.

In the 2022 legislative session, the Washington State Legislature passed an amendment to RCW 47.24 as part of the Move Ahead Washington package. It directs that, “in order to improve the safety, mobility, and accessibility of state highways, it is the intent of the legislature that the department must incorporate the principles of complete streets with facilities that provide street access with all users in mind, including pedestrians, bicyclists, and public transportation users” for “state transportation projects starting design on or after July 1, 2022, and that are $500,000 or more.”

Chapter 4 of the Active Transportation Plan identifies approximately $5.3 billion dollars in infrastructure active transportation gaps on the state highway system. Because there is a need to resurface pavements approximately every 12-20 years (depending on the pavement and area of the state), this means that Complete Streets direction is a $5.3 billion dollar planning level estimate, not including any inflation. Moreover, Complete Streets is identified within the Safe Systems Chapter of Target Zero in 2019, prior to this mandate. Therefore, while the funding for the I2 Safety program did not change with the 2024 transportation budget, the Complete Streets mandate adds $5.3 billion of required scope to be delivered within the existing Highway Construction budget over 16 years, primarily in conjunction with Preservation projects since they will drive the timing of projects throughout the state highway system.

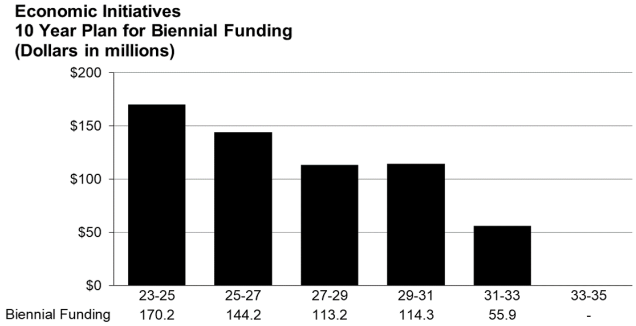
Railway-Highway Crossing Safety Program
Title 23 of United States Code (USC) Section 130 provides funding to States annually for the reduction of potential crashes at railway-highway crossings. The focus of the WSDOT Railway-Highway Crossing program continues to be primarily upgrading warning devices and upgrading crossing locations from passive to active, with occasional grade crossing elimination projects. The focus area from 2012 through 2018 was state highway crossing locations. Since 2019 the main focus has become primarily local road crossing locations.

The projects are selected based on a prioritized structure that is created using a risk-based approach.

The risk is based on the potential for crashes, state highway crossings hazard, or risk matrix that ranks projects based on the risk of a highway railway crossing crash. WSDOT follows the methodology prescribed by federal laws which bases improvements on diagnostic review and recommendations. The diagnostic team includes WSDOT, the applicable railroad, FHWA, and the Utilities and Transportation Commission. WSDOT uses a mix of federal and state crossing inventories and independently verifies data at each location that competes for funding.

Economic Initiatives (I3) Program

The Economic Initiatives Program provides for economic improvement to the state highway system including completion of the four lane trunk system, upgrade of pavements to all weather road status, construction of new rest areas, replacement of bridges with inadequate vertical clearance, widening of highway shoulders to provide bicycle touring routes and scenic highway improvements.



Washington's economic vitality goal is "to promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy." [1] Transportation investments affect the economy in many ways: attracting development, increasing property values, creating jobs, connecting people to needs, reducing travel costs, improving freight access and reliability, reducing energy use, and more.

Recognizing that the state of the practice in evaluating transportation-related economic vitality performance is limited, WSDOT currently reports its attainment of this goal to the governor and Legislature by measuring the following objectives:

6.1 Create and sustain jobs through investments in transportation.
6.2 Enhance transportation systems to facilitate movement of freight

Additional information on the objectives is located in the 2022 Attainment Report.

WSDOT is currently updating its performance framework for economic vitality, with an emphasis on measures that evaluate quality of life and business growth and diversity.

6.1 Create and sustain jobs through investments in transportation

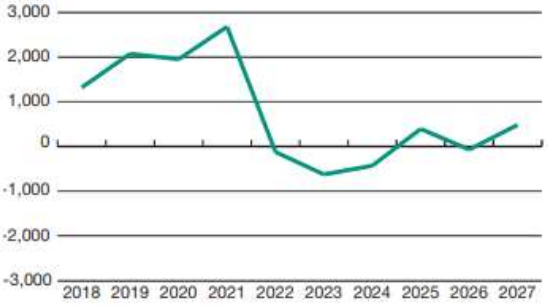
Due to the uncertainty created by the pandemic, updated projections of WSDOT capital expenditures (and the jobs that would be created by them) are not currently available. WSDOT's capital expenditures were projected to create about 1,320 jobs in 2018. Job growth due to WSDOT capital expenditures was projected to peak in 2021, with approximately 2,680 jobs expected to be created. These projections account for projects that are funded by all legislative packages prior to the Move Ahead Washington revenue package. The declining employment levels projected following 2021 represent the completion of the Nickel, Transportation Partnership Account and Connecting Washington funding packages, and do not include job growth associated with the Move Ahead Washington revenue package.

Based on a 10-year average from 2018 through 2027, over half (59.3%) of the projected job growth is anticipated to be a result of highway expenditures. Expenditures on ferries are expected to provide the next-largest job growth with 29.0%, followed by rail expenditures (6.7%) and facilities expenditures (5.0%).

[1] RCW 47.04.280.

Jobs created from WSDOT capital expenditures projected to peak in 2021

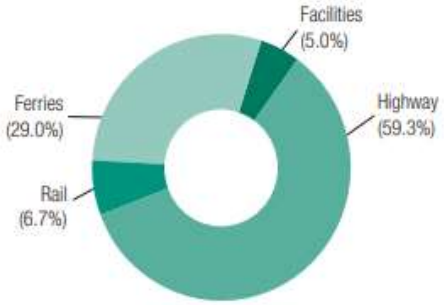
2018 through 2027; Projected change in job numbers



Data source: WSDOT Office of Budget and Financial Analysis.
Note: Includes effects due to tax increases in the Connecting Washington funding package, which are projected to continue after construction is complete.

Over half of projected job growth is due to highway expenditures

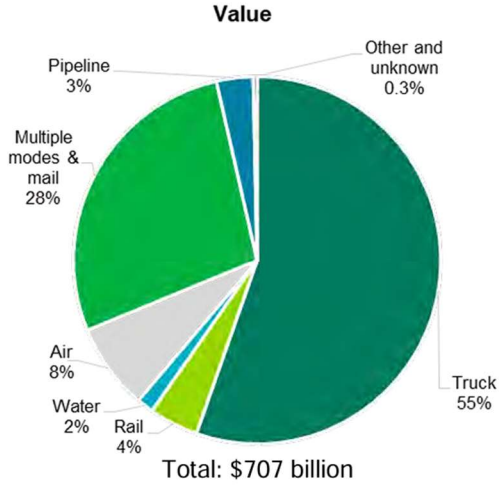
By type of expenditure; Ten year average 2018 through 2027



Data source: WSDOT Office of Budget and Financial Analysis.

6.2 Enhance transportation systems to facilitate movement of freight

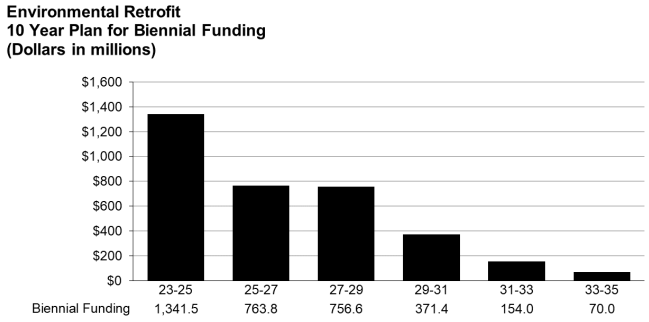
Washington state's total imports and exports transported by any mode in 2022 were valued at $134.9 billion, a 16.8% increase from $115.5 billion in 2021. According to the U.S. Census Bureau, Washington was the 13th most trade-dependent state in the country per capita in 2022. Until 2019, it had been among the top 10 most trade-dependent states every year since 2008. The primary reason for this change was declining trade with China, which followed the imposition of tariffs on imports from China by the United States and the subsequent imposition of tariffs on American goods (such as corn, fruit, wheat and cut lumber) by China. According to the Federal Highway Administration's Freight Analysis Framework Version 5 (FAF5) for 2022, the majority (55%) of freight in Washington state is moved by truck. With such a large portion of the Washington state freight movement relying on the existing state highway system, preservation and maintenance activities are critical to Washington's continued economic success.



Environmental Retrofit (I4) Program

Enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.

Environmental Retrofit projects reduce or eliminate environmental impacts of existing highway systems to meet environmental requirements that have emerged since the highways were built.



Unfunded Critical Priority – Fish Passage ($5 billion)
In March 2013, a federal court mandated WSDOT fix numerous fish barrier culverts in a specified area, upheld by a U.S. Supreme Court decision in June 2018 leading to a permanent injunction. About 1,000 culverts under state highways are affected. By June 2024, 146 barriers have been corrected, improving access to 50% of blocked habitat. To comply with the injunction requirement of restoring 90% potential habitat, around 300 more barriers need correction which requires $3.5 billion, along with addressing 75 newly identified barriers needing $500 million. Additionally, $1 billion is needed for structurally failing culverts. There's a long-term need for more funding to address deferred culverts to open the remaining 10% of blocked habitat and newly identified barriers, including those at the end of their useful life.

Environmental Retrofit Program Categories

1. **Fish Barriers**
   Since 1991, the Washington State Department of Transportation (WSDOT) has worked with the Washington Department of Fish and Wildlife (WDFW) on a comprehensive program to eliminate fish passage barriers along Washington State highways. Statewide there are 4,037 fish bearing highway crossings and 2,070 are fish passage barriers, including 2,040 culverts. 1,531 of these barriers block a significant amount of upstream habitat (> 200 meters).

   WSDOT identifies and corrects fish passage barriers using three strategies: 1) combining the barrier removal with highway projects when the barrier is within the projects limits and a Hydraulic Project Approval (HPA) is required for a culvert, 2) using dedicated Environmental Retrofit budget funds for the highest priority culverts listed in the Fish Barrier Removal Plan, and 3) repairing failing culverts as they are identified.

   Of the culverts addressed, the priorities are primarily based on the highest benefit-cost, but also consider input from tribes and opportunities to partner with others. Benefit-cost, in this case, is defined as the length of fish habitat opened up that yield the greatest potential for fish production for specific species versus the cost of the barrier removal.

   Major Cost Drivers for Delivering Fish Barriers
   - Structure size - Structure size must meet stream simulation requirements, carry required traffic, and provide for public safety (projects require guardrail, striping, signing, barrier). Stream simulation requires an opening that accommodates the 100-year storm without increasing velocities.
   - Altered systems (common in urbanized areas) - Stream simulation works best on streams that have not been moved or altered by urbanization. Extra work is required to construct a structure that meets stream simulation requirements in altered stream environments.

- Traffic management - WSDOT strives to use detours - typically detours require agreement with the city or county. WSDOT must repair any damage due to the detour. When a detour is not available, we use short-term closures. These take significant coordination with communities.
- Seismic - Spans over 20' are considered bridges by federal definition and must meet seismic design requirements. Many barriers are located in areas of poor soils that require larger or deeper foundations to meet seismic requirements.
- Timing - Seasonal nature of the work impacts available resources (precast facilities, construction resources, cranes, etc.).
- Depth of fill - Site characteristics including depth of fill over culvert and excavation required to remove old structure and place new larger structure.
- Utilities – Many of the culvert locations have utilities that are in conflict with the new structures and require relocation. This requires coordination with utility companies and in many cases, the utilities must be moved prior to culvert replacement to shorten construction duration.
- Coordination - Coordinate with other parties including private property owners (purchase, temporary easements).

More information can be found at the WSDOT fish passage page Improving fish passage | WSDOT (wa.gov).

2. **Chronic Environmental Deficiency**
Chronic Environmental Deficiencies are locations on the highway system where recent, frequent and repetitive maintenance repairs to the highway impact fish and fish habitat. Repetitive maintenance is considered "chronic" when three or more repairs are necessary within a 10-year period. The process for selecting and prioritizing Chronic Environmental Deficiencies on the highway system is a collaborative process between engineering, biological, construction, maintenance, and policy disciplines that evaluate the benefit-cost for a specific site. This process can be complex due to the dynamic nature of the physical site (e.g., changing hydraulic and/or unstable geological conditions), and the delicate nature of fish and fish habitat. Benefits are based on the reduced cost of repetitive maintenance and emergency repairs, ongoing disturbance of the fish habitat, and quality of fish habitat recovered compared to the overall project cost.

3. **Plant Management**
This program category ensures the continued success of constructed wetlands and other environmental mitigation sites funded by the Highway Construction Program. In the past, individual projects were kept open years after the construction date to pay for plant management or other work required by permit. The problem with this was that projects never appeared to be completed as they kept expending funds for an extended period of time. This category covers funding to satisfy the plant establishment and other permit requirements of various agencies. It covers the work needed after the contractor's one-year warranty on plant establishment is met - typically one year after planting.

Activities for managing environmental mitigation sites that reach the end of the one-year warranty period and still have not reached the point of being considered established include:

1. Site Monitoring - covers inspection and record-keeping by biologists and other environmental and regulatory specialists to track the success or failure rate of the constructed mitigation measures. These include:
    a. Fish passage structures required by Hydraulic Permit Approval (HPA).
    b. Wetland plant establishment.

c. Chronic environmental remediation such as stream bank stabilization.
d. Wildlife connectivity crossings.
e. Stormwater bio-treatment sites.

2. Routine site-management - these are the normal and expected activities that are expected to occur on most sites to keep them in compliance with permit conditions and project success standards. These include:
    a. Weed control.
    b. Minor replanting of vegetation.
    c. Fence repair.
    d. Litter and trash pick-up and removal.

3. On-site Remediation - these activities are initiated when projects have fallen out of compliance with permit conditions and project success standards. These include:
    a. Re-grading.
    b. Major replanting of vegetation.
    c. Installation of temporary irrigation system.
    d. Installation of fencing.

4. Major Remediation—this category is established for the rare instances when a mitigation site is a catastrophic failure, and it becomes necessary to completely design or redesign and construct or reconstruct the mitigation site to meet permit requirements. These include:

    a. Site reconnaissance and negotiation with agencies.
    b. Property acquisition.
    c. Site construction.

Initial mitigation activities, such as plantings, are not included in Management of Environmental Mitigation Sites. Once mitigation sites are considered established, the Maintenance Program assumes routine maintenance duties.

4. Stormwater Runoff

Many highways were built prior to stormwater regulations and have no (or substandard) runoff treatment or flow control facilities associated with them. Regulations requiring that highway runoff be treated to remove pollutants and control peak flows took effect for WSDOT in 1991. As construction of most of Washington's highways predate such regulations, the water running off these highways is not treated. This lack of treatment results in large amounts of dirty stormwater discharging from the highway system at thousands of outfalls. The water from these outfalls potentially degrades receiving water bodies used for drinking, recreation, fish habitat, and other beneficial uses.

Move Ahead Washington included $500 million for stormwater retrofit over the next 16 years. As of the 2024 enacted budget, most of this has been placed in 2030 and beyond. WSDOT plans to continue to deliver a Practical Solutions approach, integrate research when available on 6PPD and 6PPD-Quinone, and partner to treat stormwater systems.

WSDOT is implementing the Practical Solutions approach to achieve the most cost-effective water quality benefits. This approach differs from the traditional approach in that it does not require all projects to meet full Highway Runoff Manual (HRM) BMP design standards. A very generalize comparison estimates that the traditional approach cost per site is $3 million (with real estate costs dominating the project costs due to the amount of area needed to meet the full standards). The Practical solutions cost per site is roughly $300K.

It is also important to mention that WSDOT is implementing its approach to stormwater retrofit in conjunction with its fish passage program. For all fish passage projects, even those not required by injunction, WSDOT completes a stormwater retrofit assessment to evaluate opportunities to cost-effectively construct stormwater facilities.

Recent research from the University of Washington and Washington State University indicates a link between 6PPD, a chemical used in the production of car tires, and acute mortality events in returning coho salmon. 6PPD is a chemical additive used in car tires to prevent damage to tire rubber from ozone. Normal vehicle use creates small tire particles, which can be carried by run off into nearby receiving waters. 6PPD-quinone is a byproduct, produced as the particles of the tire and 6PPD degrade. Preliminary research indicates that 6PPD-quinone is highly toxic to spawning coho salmon. Several acute toxicity events affecting returning salmon are tied to 6PPD-quinone exposure. WSDOT will continue to monitor and respond appropriately to this evolving issue as more science and best management practices become available.

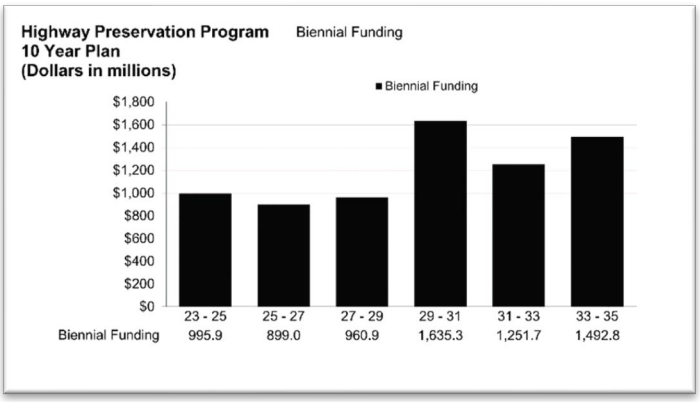
5. **Noise Reduction**
   This category provides for retrofits to reduce noise impacts associated with previously constructed projects. The impact of traffic noise on neighborhoods throughout the state was not considered before May 1976, when federal noise regulations were adopted. WSDOT has developed a prioritized retrofit program to construct noise barriers at high-noise locations as funding becomes available. The program improves livability at locations where traffic noise exceeds certain levels and negatively impacts residential areas and other noise-sensitive areas such as schools and parks. Highways built, widened, or realigned since 1976 are typically not included in this program since they are required to provide mitigation at the time they are built—if reasonable and feasible to do so and desired by the adjacent property owners.

6. **Wildlife Connectivity**
   WSDOT annually records about 3,000 vehicle collisions with deer and elk on state highways. This program category is for stand-alone projects that accommodate wildlife movement and address animal/car collisions at specific high collision locations. Projects may enlarge stream crossing structures, construct wildlife crossing structures, install animal detection and warning systems, or add fencing.

Highways Capital Program

The Highways component of WSDOT's Capital Program provides for improvements to, and preservation of, the state highway system.

Projects in the preservation program are intended to preserve roadway pavements at lowest life cycle cost, replace and rehabilitate bridges and other structures, preserve other facilities such as weigh stations and rest areas, and replace electrical and drainage systems that have reached the end of their serviceable life. Highways improvements include projects to reduce delay and to improve safety on the highway system.



Highway Preservation

Highway preservation projects consist of targeted investments to preserve the structural integrity of the state highway system. Preservation projects, while focused on extending the service life of existing assets, also include low-cost spot improvements to the system that improve traffic flow or make the highway environment safer for the traveling public.

Highway Preservation Subprograms: Roadway Preservation	Structures Preservation	Other Facilities
Subcategories		
Paving	Structures Preservation	Rest Area Preservation
	Catastrophic Reduction	Unstable Slopes
		Weigh Stations
		Major Drainage/Electrical Systems

Preservation – Critical Unfunded Priority (10-year need $3 billion)

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 preservation have put the health of our existing system in jeopardy and has impacted our ability to achieve all policy goals including safety.

Pavement and bridges across the state are showing the ramifications of underfunding for the last 20 years. Spare service life from investment in the 1990s is gone. Current investment in preservation is 40 percent of what is needed to preserve our assets in a state of good repair. As a result, the traveling public is noticing system deterioration in the form of unplanned emergency work most recently on the Tacoma Narrows Bridge, reduced speed limits on highways to name just a few public facing ramifications of underfunding. The condition of highways today mean increased funding won't result in functional roadways immediately. It will take time to address the preservation backlog for the significant parts of the system that have deteriorated. Highways are just part of the WSDOT assets facing preservation deficiencies. Other assets include multimodal assets like public transportation and rail, intra-agency assets like our aging facilities and fleet.

Addressing our vast preservation needs requires a steady approach. Our preferred strategy would build up investment over 30 years toward a fully funded state of good repair. The first step in this investment strategy requires an additional $500-600 million in the first biennium, steadily increasing investment in future biennia. The first 10-year investment would be an additional $2 to $3 billion in preservation funding.

2023-25 Emergent Work – So Far

The following list are occurrences of emergency activities in respond to asset failures. Many of these activities just stabilize the situation, and much costlier activities are required to address the failure long-term.

- US 12/Schrader Ln 2023 - Emergency Project
- SR 506/1.5 Miles N of Frontage Rd to I-5 - Emergency Bridge Repair NB
- I-90 Et al/Four Lakes to Salnave Vic - Gray Fire Safety Restoration
- SR 112/W Rasmussen Creek - Emergency Project
- US 2/Coulee Meadows Rd West - Emergency Repair
- SR 28 Trinidad Hill Emergency Repair
- SR 20/Sourdough Wildfire - Replace Damaged Wire Mesh Slope Protection
- SR 503 Spur/Unnamed Trib to Dog Creek - Emergency Temporary Culvert
- SR 504/Spirit Lake Outlet Br - Emergency Replacement
- SR 112/Pysht River - Emergency Repairs
- I-5/Strander Blvd Vic to I-405 Vic-Emergency PCCP Replacement
- I-82/2 Miles E of Donald Rd - Emergency Culvert Replacement
- US 97/Liberty - Emergency Slope Repair
- SR 112/W Jansen Creek - Emergency Project
- SR 25/2 Miles N of Hunters - Emergency Culvert Replacement
- Vantage Bridge lane closures for emergency deck/pothole repairs (Jan. 2024)
- Second Vantage Bridge lane closures for emergency deck/pothole repairs (Feb. 2024)
- Emergency Ship Canal Bridge pothole repairs (Jan. 2024)
- SR 16/TNB (old bridge) emergency lane closures that caused backups all the way to I-5 (Feb. 2024)
- I-90 East Channel Bridge at Mercer Island lane closure for expansion joint failure - extended to include opening HOV to all traffic for an extended period of time to alleviate traffic volumes, re-striping and a project in 2025.
- I-5 lane closures at Southcenter due to failing concrete panels and recent weather. (Feb. 2024)
- SR 16/TNB (old bridge) emergency lane closures that caused backups all the way to I-5 (May 2024)
- SR 165 Carbon River Bridge Alternate Route
- Snow Creek Culvert Failure Stabilization
- Lakehurst Culvert Failure Stabilization

Complete Streets and Highways Preservation

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as part of the Move Ahead Washington package. It directs that, “in order to improve the safety, mobility, and accessibility of state highways, it is the intent of the legislature that the department must incorporate the principles of complete streets with facilities that provide street access with all users in mind, including pedestrians, bicyclists, and public transportation users” for “state transportation projects starting design on or after July 1, 2022, and that are $500,000 or more.”

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This mandate is likely to be primarily in the P1 sub-program, but there may be changes to bridge preservation decisions as well. Overall, Preservation projects will be more holistic in nature and ensure the needs in the vicinity of the project are met in the most practical, but safe and fair, approach possible.

Pavement Preservation (P1) Program

The objective of this program is to preserve pavements at the lowest life cycle cost, in compliance with RCW 47.05. WSDOT has a long history of taking an asset management approach to pavement preservation. If a rehabilitation project is done too early, pavement life is wasted. If done too late, pavement failures occur, requiring additional costly repairs.

Pavement Preservation Overview

WSDOT categorizes its pavement inventory based on three primary surface types: chip seal, asphalt, and concrete. The pavement type selected varies based on its ability to cost-effectively meet performance under anticipated traffic volumes, the number of trucks, underlying foundation materials, and regional climate conditions.

The table at right shows the average serviceable life and cost of these pavement types. A simple annual cost can be calculated by dividing the cost by the life. The annual costs can then be compared for a cost-effectiveness analysis. Low- to mid-volume roads are often most cost-effectively managed with chip seal, while mid- to high-volume roads lend themselves to asphalt. Concrete is most cost-effective in high-volume and special cases, such as mountain passes or urban corridors

Pavement Type	*Average Life (Time Between Treatments Needed)*	*Average Primary Treatment Cost per Lane-Mile*	Simple Annual Cost per Lane-Mile
Chip Seal	7	$45,000	$6,429
Asphalt	15	$225,000	$15,000
Concrete	50	$2,500,000	$50,000

A reasonable estimate of annual average pavement preservation need, a key part of Life Cycle Planning, can be calculated using the average life, the number of lane-miles by primary surface type of the state highway system, and average treatment cost.

The annual average need estimate can be reduced by accounting for the effects of cost-effective strategies being implemented by WSDOT. First, it can be reasonably estimated that the maintenance applied under the Strategic Preservation initiative extends the life of chip seal and asphalt roads by two years, at a cost of $2,500 to $5,000 per lane mile. Second, WSDOT's chip seal conversion program is expected to convert at least 1,500 more lane-miles. Third, using triage to extend the life of concrete extends its service life by 15 years. Finally, using crack, seat and overlay (CSOL) instead of concrete reconstruction is expected for approximately 260 lane miles over the next 10 years. Taking all of these into account the annual average need is $244 million per year, a savings of $51 million per year.

Treatment Type	*Average Life*	*Average Cost*	*Applicable Lane Miles*	*Annual Average Need (in Millions)*
Chip Seal with Maintenance	**9**	**$47,500**	**7,580**	**$40**
Asphalt with Maintenance	**17**	**$230,000**	**8,570**	**$116**
Concrete with Triage	**65**	**$2,900,000**	**1,820**	**$81**
Triage then CSOL	**65**	**$1,810,000**	**260**	**$7**
Total				**$244**

Asset Management Approach to Pavement Preservation

WSDOT takes an asset management approach to pavement preservation by emphasizing the coordination between maintenance and capital preservation, with the following goals in mind: Extend roadway surfacing service life, maintain serviceable roadway surface, minimize reactive preservation needs, and integrate and support Capital Preservation Projects.

Pavement treatments can be divided into three categories: maintenance, rehabilitation and reconstruction. Maintenance treatments are inexpensive but only last a short period of time. Pavement

rehabilitation (which includes resurfacing asphalt and chip seal pavements) is more expensive, but last for a longer amount of time. The most expensive treatment is reconstruction. To evaluate all of these treatments on a cost-effective basis, WSDOT considers both the expense of construction and the number of years of service it provides when determining the annual cost.

There are four primary cost-effective strategies WSDOT implements including:

1. Convert asphalt surfaces to chip seal. The life cycle annual cost for a chip seal surfaced pavement is approximately one-third the cost of an asphalt surface.
2. Implement practical design as our performance-based approach that looks for lower cost solutions in order to meet specific performance criteria. For example, instead of paving roadways “shoulder to shoulder”, only the general through traffic lanes in need are resurfaced. This often means that shoulders, turn lanes, medians and outside lanes are only resurfaced as needed. However, since WSDOT has used this strategy during the last fifteen years, many places are now due for shoulder, turn lane and median paving.
3. Implement a strategic pavement maintenance approach that emphasizes performing maintenance treatments at the appropriate time (before rehabilitation is needed) to extend pavement life and results in lower annual cost. In August 2014, WSDOT implemented a policy that no pavement rehabilitation should take place without first using strategic maintenance to extend pavement life.
4. Prioritize cost effective projects. WSDOT’s prioritization process avoids reconstruction, emphasizes lower annual cost, and takes into consideration traffic volume.

Bridge Preservation Program (P2)

The bridge preservation program addresses the overall risk-based preservation of bridges and structures on the state highway system using an asset management approach. Sub-categories of work include a variety of rehabilitation and risk reduction items such as: 3rd party damage repair, special element repair (expansion joints, Floating Bridge Anchor Cable replacement, etc.), movable bridge repair, concrete bridge deck repair and overlay, steel bridge painting, scour mitigation, seismic strengthening, total bridge replacement and rehabilitation and miscellaneous structures (Bridges < 20ft in length /Tunnels / Sign Bridges / High Mast Luminaires).

WSDOT Bridge Structure Types

WSDOT bridges are constructed using three primary materials: concrete, steel, or timber. Over the past ten years, seven out of ten bridges built have been pre-stressed or post tensioned concrete structures. For all bridge structures, WSDOT maximizes life with a combination of cost-effective actions such as repairs and rehabilitation, steel bridge painting, concrete deck rehabilitation, and bridge replacement.

Bridge Preservation Strategies:

The bridge preservation program uses specific strategies to preserve the state's bridges and miscellaneous structures and maximize their remaining service life. Funds are allocated for these strategies based on priorities recommended by WSDOT's Bridge and Structure's office.

3rd Party Bridge Damage Repair

Bridges on state highways are frequently damaged by truck impacts. The damage can result in bridge span collapse (I-5 Skagit River Bridge in 2012) or closure of a bridge (I-5 Chamber Way Bridge, SR410 White River Bridge and I-5 Koontz Road over I-5) or lane restrictions. One of the most common issues is the damage of prestress concrete girders damaged by over-height truck impacts. These repairs are normally addressed with Emergency Relief (ER) federal funding if the repair costs meet the ER funding threshold. One of these bridges (I-5 Koontz Rd Overcrossing) has been closed, since the initial damage due to the severity of the damage.

Border Bridges

Washington shares the responsibility for preserving, maintaining and operating nine bridges with Oregon and one bridge with Idaho. Both states make the future preservation of these bridges a top priority in their bridge programs. The upcoming projects include the completion of painting the US101 Columbia River bridge in Astoria, replacing a movable bridge Trunnion on the I-5 Columbia River bridge near Vancouver and Portland.

Bridge Scour Mitigation

Bridge foundations experience "Scour" when high volumes of water remove soil from bridge foundations. Scour is the leading cause of bridge failures in Washington State and nationwide. WSDOT evaluates bridge over water for risk of future scour.

Bridge Repair

Specific bridge elements requiring repair that are beyond what WSDOT Region Maintenance can address (due to complexity and funding) are prioritized for replacement or repair in this category. Examples include deteriorated concrete columns, anchor cables on floating bridges, timber and steel deck replacements and large steel expansion joints.

Movable Bridge Repair

There are sixteen movable bridges on the State system that allow marine traffic to pass under a bridge on the waterway. Three of these movable bridges are also border bridges.

Steel Bridge Painting

Steel bridge elements need periodic painting to protect against corrosion in order to maintain their structural integrity. Currently, there are 102 bridges identified as past due or due for painting.

Concrete Bridge Deck Preservation

The majority of WSDOT managed bridges have reinforced concrete bridge decks. Corrosive substances

used for winter de-icing can deteriorate the steel reinforcing bars in the deck resulting in spalls and deterioration in the concrete. Decks with over 2% of the deck area previously patched by maintenance or currently delaminated are prioritized to be repaired and overlaid. Currently, there are 86 concrete bridge decks that are past due or due for rehabilitation with an estimated cost of $124.9 million.

Bridge Replacement or Rehabilitation
WSDOT owns 315 bridges 80 years old and older as of June 2023. WSDOT is currently focusing on bridges classified in "POOR" condition. Functionally obsolete bridges have a lower priority. There are 213 bridges on the inventory which are classed in "POOR" condition.

WSDOT projections indicated there were 216 bridges (with approximately 6.3 million square feet of deck area) that need to be replaced or rehabilitated over the next decade.

Bridge Seismic Strengthening
Washington State is in a Region that is vulnerable to earthquakes. Bridges prior to the mid to late 1980's were not designed to current seismic standards and need seismic retrofits.

Miscellaneous Structures
The smallest category in the bridge preservation program, this group includes sign support structures, tunnels, and bridges under 20 feet long.

Ten Year Needs
One of the recommendations from JLARC Report 19-07, Follow-Up on WSDOT's Long-Term Estimates of Bridge Preservation Needs, was that "WSDOT and OFM should develop and implement a plan to communicate long-term bridge preservation needs accurately, reliably, and transparently." WSDOT and OFM have agreed to use the agency budget request and supporting documentation in the CIPP to communicate long-term bridge preservation needs.

The table below shows the large gap between the available budget and needed preservation.

Program	23-25 Thru 31-33 Budget*	23-25 Thru 31-33 Needs	Gap
Bridge	$1,980 million	$3,865 - $4,350 million	($1,885 - $2,370) million

*Budget includes assumptions about additional dollars from general Highway Preservation budget items related to Connecting Washington and Move Ahead Washington not specifically in P2.

Other Highway Facilities (P3) Preservation Program

This sub-program addresses five different categories:

1. **Safety Rest Areas Preservation**
   WSDOT owns 47 safety rest area facilities within the State Highway System that provide opportunities for highway users to stop, rest, and rejuvenate in an effort to reduce fatigue-related traffic collisions. This program replaces or rehabilitates facility assets in the following priority groups: water systems, sewer systems, buildings and structures, parking facilities, and grounds.

2. **Major Drainage System Rehabilitation**
   Major drainage rehabilitation includes the replacement or refurbishment of stormwater drainage systems including catch basins, culverts, detention/retention basins, and ditches.

3. **Highway Slopes and Embankments**
   WSDOT has identified over 3,100 unstable slopes that have the potential to adversely affect highway travel. An Unstable Slope Management System is used to track and rate unstable slopes and then to identify potential projects. Projects are prioritized based on risk assessments and validated using a simple benefit-cost analysis. WSDOT prioritizes and programs remediation for unstable slopes that have a numerical rating of 300 or greater along interstate highways, principal arterials, and other highway facilities with traffic volumes of 1,000 vehicles a day or greater, and a benefit-cost ratio of 1.0 or greater. A slope that qualifies for stabilization receives a comprehensive (i.e., 20-year design life) treatment.

4. **Major Electrical System Rehabilitation**
   Major electrical systems are critical for lighting roadways and tunnels, powering traffic control devices, cameras and traveler information systems, and collecting data. WSDOT's major electrical inventory is used to track equipment age, time spent maintaining the system, and the cost of system maintenance. Projects in this category are established when maintaining an old system becomes financially less efficient than major rehabilitation or replacement.

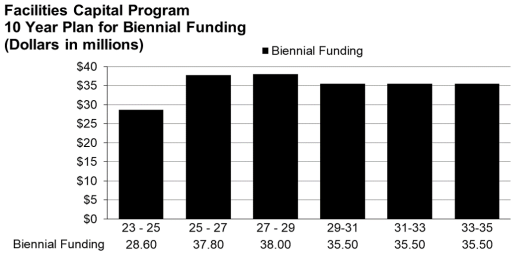
5. **Basic Safety Features**
   Existing safety features, such as signing, guardrail and rumble strips, are preserved according to functional assessment and lowest life cycle cost assessments. This work may be delivered with pavement preservation projects or as separate standalone projects.

6. **Pedestrian Accessibility (ADA)**
   The Americans with Disabilities Act (ADA) defines WSDOTs obligation to ensure that the public rights of way are accessible to people with disabilities. Projects in this category remove any existing barriers, and upgrades assets (such as curb ramps and pedestrian signals) to be compliant with both federal ADA obligations and the WSDOT ADA Transition Plan. WSDOT relies upon partnerships with and input from the disabled community and other stakeholders, including cities, counties and transit districts, who share a common interest with WSDOT in addressing ADA needs.

7. **Weigh Stations Replacement and Preservation**
   Weigh stations are the primary infrastructure that supports the Commercial Vehicle Enforcement Systems (CVES), a joint undertaking of the Washington State Department of Transportation (WSDOT) and the Washington State Patrol (WSP). The goal of CVES is to provide safe highway operations, protect basic highway infrastructure (pavement and bridges), and promote the economic vitality of freight movement in the state. This program provides all sites, facilities, and utilities to accommodate the Washington State Patrol's equipment. It purchases right-of-way, constructs on and off ramps, installs signs and lighting systems, and design/constructs scale houses. WSDOT and WSP completed the CVES Strategic Plan in August 2017. The projects included are part of the Infrastructure Action Program. The strategic plan is undergoing its first revision during 2020.

Capital Facilities

WSDOT's Capital Facilities Program maintains, operates, and is responsible for the improvement and preservation of over 970 department-owned buildings and structures at 280 separate sites across the state. These facilities assets are valued in excess of $1.5 billion dollars and support staff across all programs that construct, maintain, and operate state highways.



Facilities assets, which contain many unique uses and complex building systems, include region headquarters complexes, traffic management centers, maintenance crew facilities, commercial vehicle repair facilities, welding and fabrication shops, project engineer offices, testing laboratories, materials storage and wireless communications sites.

Asset Management throughout the Life Cycle

Biennial condition assessments identify and quantify deficiencies, and track the backlog of work to be done at existing facilities. Maintenance management assures that the life of facilities systems is maximized for the funding level provided. Selective renovation projects preserve assets and delay replacement. Without adequate funding facilities will continue to decline until replacement is the only viable option.

Programming

Priorities are driven by life-safety, code compliance, asset preservation and mission support needs. Opportunities to consolidate geographically, to move closer to operational centers, and collocate with others are also considerations. Financial analysis models are tools used to assist in making long-term decisions.

Capital Facilities major replacement projects are prioritized considering support of strategic goals of the organization, impact on operations, impact on building condition and project success factors, feasibility and opportunities.

Capital Facilities minor projects are currently prioritized using condition assessment data identifying building system and structural repair, roofing and building envelope, paving, siding, lighting and electrical replacement, code compliance, environmental, and other improvement and preservation deficiencies.

Sustainability assessment

The Capital Facilities Office is currently providing data and technical support to the agency's Sustainable Transportation initiatives, including:

- Reporting of statewide energy consumption estimates in response to RCW 70.235,
- Benchmarking and establishing Energy Use Indexes for certain buildings in response to RCW 19.27A.190 and Governor's Executive Order 12-06, and
- Implementing building and construction practices in response to Governor's Executive Order 05-01 on Green Buildings for state facilities.
- Compliance with RCW 39.35 High-Performance Public Buildings in pursuit of Leadership in Energy and Environmental Design (LEED) Silver minimum status as defined by the United States Green Building Council (USGBC).
- Implementing Building a Modern Work Environment in response to Governor's Executive Order 16-07 on Green Buildings for state facilities.
- Implementing State Efficiency and Environmental Performance in response to Governor's Executive Order 20-01 on Green Buildings for state facilities.

There is a continual effort to look for energy savings opportunities within budget allowances and better ways to measure energy performance.

OFM Six-Year Planning

The Capital Facilities Office continues to coordinate with the Office of Financial Management (OFM) Facilities Oversight to provide facilities needs information for long-range planning and management (see RCW 43.82.055).

Projects

Buildings – Clean Buildings Compliance

Estimated Cost: $9.781

Funding for SWR HQ Admin and Tumwater HQ Materials Lab Building for the implementation of the Clean Buildings Act (RCW 19.27A.200).

Preservation and Improvement Minor Works Projects

Estimated Cost: $10.164 million

Minor improvement and preservation work performed at facilities statewide that improve, maintain, preserve and extend the life of existing state facilities and assets and do not significantly change the programmed use of the facility. This funding assists in keeping facilities operational for staff that operate, maintain, design, and construct the transportation infrastructure.

NPDES Facility Projects

Estimated Cost: $2.250 million

The funding is for ongoing minor infrastructure improvements at existing capital facilities to meet stormwater permit requirements.

Corson Ave RHQ – TEF Shop Building Replacement - NWR

Estimated Cost: $72 million

The NWR vehicle repair and parts building is currently closed to staff due to damaged asbestos containing materials causing high concentrations of asbestos fiber in sampled dust. Replacement of the 68 year old building will remedy asbestos issue and keep displaced employees in a safe, reliable, and cost effective duty station to support the traveling public.

Major Facility Replacements – Maintenance Section Sheds

Estimated Cost: $5 million

Replacement of a section shed building. The intent would be to design/demo/construct a section shed that is functionally obsolete and in critical condition.

Facilities Tumwater Site Building Demolition Funding

Estimated Cost: $3.5 million

Preparation for the sale of the old Olympic Region HQ site in Tumwater. Demolition of the existing buildings is the next step to prepare the site for cleanup and sale. If funded, this project will reduce the need for ongoing utility, upkeep, and security costs at the site. It will also reduce the risk of personal injury, dumping, vandalism, and other crime.

Scoping and Predesign

Estimated Cost: $2 million

Scoping and predesign work to align with state of good repair projects.

Statewide Safety Rest Area Minor Projects and Emergent Needs

Estimated Cost: $0.35 million

Statewide reserve for minor rest area preservation needs. Funds minor capital purchases of an emergency or emergent nature. Will be used for high priority work not evident when the biennial rest area program was developed. Compliments but does not supplant activities performed in the Maintenance Program.

Safety Rest Areas with Sanitary Disposal - Preservation Program

Estimated Cost: $0.751 million

Reserve for the preservation of recreational vehicle sanitary disposal systems at state rest areas. To be allocated to regions when needs are identified. This is funded by a $3.00 fee assessed on all self-contained recreational vehicles to be used for sanitary disposal systems at rest areas.

Rest Area Preservation

Estimated Cost: $0.75 million

Replace or rehabilitate building components, utilities, and other site features at rest area facilities statewide.

Facilities Condition Assessment Ratings and Deficiency Backlog

The Capital Facilities Program targets investment on high-priority preservation and improvement projects for primary buildings (those over 2,000 square foot in area). Primary buildings comprise 85% of the square footage of WSDOT owned facilities, excluding Ferries and Safety Rest Areas. Facility condition assessments are conducted every two years. The condition assessments evaluate the number of buildings in good, fair, or poor condition. This information becomes the basis for determining the repair backlog and factors into facility replacement priorities.

Capital Facilities primary building condition ratings

	As of Sept 2017		*As of Sept 2019*		*As of Sept 2021*	
Condition rating	**Number**	**Percent of total**	**Number**	**Percent of total**	**Number**	**Percent of total**
Good	22	8%	21	7%	28	10%
Fair	135	48%	110	39%	132	46%
Poor	126	44%	153	54%	126	44%
Total	283		284		286	

Data source: WSDOT Capital Facilities Office, June 2022

The assessment cycle completed in June of 2021 identified that 44% of primary buildings are in ‘poor’ condition. This remains flat since 2017. The number of primary buildings in ‘good’ condition has increased over this time period as new construction has replaced some older facilities.

The total maintenance backlog of primary buildings is estimated to be $256 million dollars in 2022. This amount is significantly influenced by the fact that seventy-six percent of these buildings are more than 25 years old (see table below). Forty-five percent of the buildings exceed 50 years in age. Major building systems (e.g., heating, plumbing, lighting, roofing and structural elements) require substantial repair or replacement around the 20-to-25-year point in a building’s lifetime. Buildings over 50 years in age are more likely to be inefficient or unsuitable for modern operations, plagued by problems that range from

inadequate number of vehicle bays and bay sizes too small for modern trucks, to insufficient crew facilities and material storage.

Capital Facilities primary building age and backlog

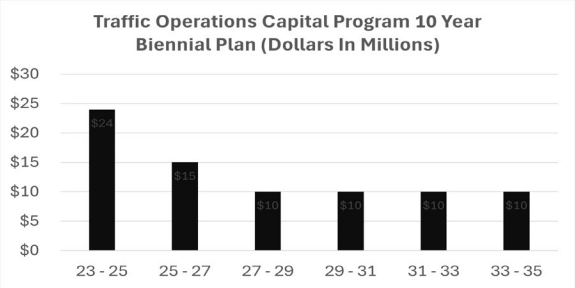
As of Sept 2022, dollars in millions

Age of buildings	Number	Percent	Total backlog
25 years or less	68	24%	$28
26 to 50 years	89	31%	$92
Over 50 years	129	45%	$136
Total	286		**$256**

Data source: WSDOT Capital Facilities Office, June 2022

Traffic Operations

The Traffic Operations Capital Program delivers Transportation Systems Management and Operations (TSMO) projects that take a Practical Solutions approach to improving the mobility and safety performance of existing infrastructure and systems. TSMO projects also aim to deliver projects that are quickly implemented at relatively lower cost and defer the need for investment in larger capital roadway expansion projects. While TSMO strategies can be nontechnology based, many are supported by the deployment of advanced technology.



Program Preservation Goals
To support WSDOT's efforts in implementing practical solutions, Traffic Operations has adopted various goals in the preservation of its electrical systems. These goals are as follows:

1) Optimize the performance of major electrical assets by maximizing the functional life of their components.
2) Minimize the number of assets deployed with electrical components beyond their design life.
3) Minimize lifecycle costs through design and construction practices for major electrical assets that result in lowest cost maintenance activities/solutions.
4) Minimize the number of major electrical assets in poor condition.

Program Investments
Following is a description of major areas of investment for Transportation Operations as it relates to TSMO and advanced technologies.

Traffic Signal Systems
Traffic Signal Systems help manage the movement of traffic through intersections and support safety, mobility, and system management goals. Each signal system includes a complex system of traffic detectors, signal preemption systems, accessible pedestrian systems, signal displays, and support structures that work together to control the movement of traffic through the intersection. To improve roadway safety and mobility, WSDOT coordinates operation and maintenance of these signals with many regional partners.

Illumination Systems

Illumination Systems provide lighting to locations along highways, in parking lots, and at other facilities to enhance the visual perception of conditions or features that require additional motorist, cyclist, or pedestrian alertness during the hours of darkness. Each system includes a number of luminaire fixtures mounted on structures (poles, bridges, tunnels, etc.) to provide lighting to the area of interest. WSDOT is currently in the process of converting its inventory of high-pressure sodium fixtures to the more efficient Light Emitting Diode (LED) technology. Efforts are currently underway to complete the replacement of 310-Watt fixtures. Fixtures of other Wattage levels will be replaced in the future.

Communications Backbone
The backbone of the Intelligent Transportation System is communications. WSDOT operates an ITS communication network composed of radio, microwave, and fiber optics elements that touches all sections of the road network. This data network connects ITS devices in the field with central processing offices in each region, where both automated systems and operator actions provide direction for field equipment operations, driver information by way of multiple platforms, and staff communications through our radio network. A high-speed dedicated communications network is vital to all ITS operations.

Traffic Cameras

WSDOT operates an extensive network of closed-circuit television across the state to monitor road conditions, such as incidents, congestions, or road conditions. Camera feeds are used to verify traffic conditions, direct incident response efforts, provide driver information, and support local media traffic reporting by making feeds available to local news stations.

Variable Message Signs (VMS)
Variable message signs are the single most effective way to provide information to all drivers on a section of roadway as quickly as possible. Variable message signs are capable of providing a wide range of warnings and general information, such as incident warnings, congestion warnings, detour information, alternate route information, speed limit reductions, travel times, ferry wait times, amber alerts, silver alerts, and driver emphasis messages.

Highway Advisory Radios (HAR)
Highway advisory radios are licensed low-power AM radio stations installed along the roadway to provide alerts and general information regarding traffic and travel. These radio transmitters remain important in locations where providing driver information through other means is difficult or impossible, such as areas with poor or no cellular coverage. The presence of a HAR transmitter is marked by a roadway sign instructing motorists to tune to a specific AM radio frequency as indicated on the sign.

Road/Weather Information Systems (RWIS)
Road/weather Information Systems are installed along the roadway with instruments and equipment which provide weather and road surface condition observations. This information is primarily used to maintenance responses to weather events but is also used to provide information to drivers. A typical RWIS station may measure air and road surface temperature, barometric pressure, humidity, wind speed and direction, precipitation, visibility and road surface condition (dry, wet, freezing), and include a fixed CCTV camera to support the ITS Traffic Camera system.

Ramp Meters
Ramp meters are traffic signals on freeway on-ramps which are used to manage the rate of vehicles entering the freeway mainline. Metering rates are automatically adjusted by the system, which relies on numerous sensors and the ITS communications network for data inputs.

Traffic Data Accumulators (Data Stations)
Traffic data accumulators collect data from numerous detectors installed on state highways, with the highest concentrations on freeways and freeway ramps. The data collected is used to operate ramp meters, calculate travel times, monitor traffic speeds, document traffic volumes, and in some locations, classify vehicle types. This data is transmitted over the ITS network to traffic management centers, where it is used in operations and transmitted to the public through systems such as the web, the WSDOT phone app, and local media.

Virtual Coordination Center (VCC)
The Virtual Coordination Center for Multimodal Integrated Corridor Management Project (VCC) is a model deployment of a cloud-based environment that enables regional stakeholders to share a common working environment in support of coordinated mobility management. Agencies will share data within a common virtual workspace that allows transportation managers across all agencies to see incidents as they occur, make more informed decisions, collaborate in real-time to coordinate response, and distribute a unified public message. By creating a robust pool of shared data, VCC will also harness advances in data analytics, machine learning, and predictive modeling to improve regional planning and operations with scalability and portability to locations throughout the state and nation.

The development of VCC was funded in part by a Federal Highway Administration's (FHWA) Advanced Transportation and Congestion Management Technologies Deployment Program (ATCMTD) grant, awarded to the Washington State Department of Transportation (WSDOT) in September 2020. The University of Washington (UW) is managing VCC using agile development methodologies. An agile approach enhances the end product by involving stakeholders at every stage of development. VCC partners include WSDOT, the City of Seattle (Seattle Department of Transportation, Seattle Police Department, Seattle Fire Department, Seattle Information Technology), King County Metro Transit, Sound Transit, Washington State Patrol, and the Port of Seattle/Northwest Seaport Alliance.

It is anticipated that the VCC will expand statewide.

Commercial Vehicle Information Systems and Networks (CVISN)
CVISN designs, implements, and maintains the state's electronic screening system that is used to screen commercial vehicles for credential and weight safety concerns while in motion to allow compliant vehicles to bypass weigh stations and focus resources on potentially unsafe vehicles on the roadways. The program uses hardware and software to identify and screen vehicles and carriers for automated sorting to keep traffic safely flowing, preventing backups onto the highway. Virtual systems are also used at remote locations without a physical weigh station that provide efficient utilization of personnel resources for patrolling, enforcement, and carrier reviews. Washington State's system is used by WSP, FMCSA, and DOL for enforcement and carrier reviews.

Legal commercial carriers allowed by the CVISN program to bypass the weigh station when open created roughly $28.9 million in economic benefit in 2021 by saving an estimated 230,000 hours of travel time and an estimated 1.5 million gallons of diesel fuel. On average, carrier bypassing the weigh station saved approximately five minutes and $10.49 in operating and fuel costs. The reduced diesel usage from the bypasses cut carbon dioxide emissions by approximately 34.1 million pounds in 2021.

To maintain an efficient and cost effective CVISN program, WSDOT Commercial Vehicle Services successfully submitted a grant to the Federal Motor Carrier Safety Administration to replace 36 outdated enforcement cameras throughout the state. The total grant award is $684,676, of which the federal government provided $581,973.

Oversize/Overweight Permit Program
The Permit Office regulates the issuance of special permits and monitors the agency's Electronic System Network for Oversize/Overweight Permits Information (ESNOOPI). ESNOOPI is the permit system utilized by WSDOT for creating permits for vehicles or loads that exceed legal dimensions or weights. The Permit Program also maintains road and bridge restrictions that effects the oversize/overweight industry, accounting for over 200 active restrictions on our highway system. In 2021, ESNOOPI accounted for 172,661 permits issued or $10,024,871.50 in permit revenue.

ESNOOPI was originally developed by WSDOT in 1998 and with the advancement of technology the permitting system does not meet current industry standards. For example, the current routing system is a text field that requires the user to enter the state highway and the beginning and ending mileposts which is confusing for users and frequently users do not select the correct mileposts which can impact the cost of the permit. Neighboring states utilize GIS software to route oversize/overweight loads which is easier for the user and more accurate. Also, the Federal Motor Carrier Safety Administration (FMCSA) recommends that states do not issue permits to carriers placed on an Out of Service (OOS) status, ESNOOPI does not check a carriers operating status before issuing a permit. CVS applied for and was awarded a grant from FMCSA to replace ESNOOPI. The grant total is $2,270,663 which includes a 15% state match of $336,390.

WSDOT Commercial Vehicle Services selected a vendor in May 2022 after a competitive bid to replace ESNOOPI. The new program was released to the public in February 2024.

Truck Parking Information Management System (TPIMS)
A 2016 WSDOT Truck Parking Study identified the lack of information on truck parking space availability as a major concern for commercial vehicle operators. Following this study, WSDOT recently completed a pilot project with the University of Washington to develop a TPIMS that would detect truck parking occupancy, predict future availability, and disseminate this information to the public. Following successful completion of a pilot project at the Ft Lewis/Nisqually Weigh Station and the Scatter Creek Rest Area, both on I-5, WSDOT was awarded a $2.3 million grant from FMCSA to deploy parking detection systems to state-owned rest areas and weigh stations along I-5. Grant funding for this work is available through September 2025. Through this work, WSDOT will look to deploy detection systems statewide and integrate the TPIMS with other WSDOT applications for dissemination to the public.

Sorting Changeable Message Signs

Washington State uses Changeable Message Signs (CMS) Sorting to sort non-transpondered commercial vehicles at the weigh stations with electronic screening (e-screening) capabilities. The CMS Sorting signs are a lighted sign located between the WIM and the weigh station entrance ramp. Most of the CMS Sorting signs in use are past or approaching the end of their life expectancy and beginning to fail. Additionally, the manufacturer is no longer supporting or manufacturing replacement parts for these signs. The CMS Sorting signs are critical in Washington State's e-screening system and safety on the interstate. The goal of this project is to account for the life cycle of our existing e-screening equipment and promote a state of good repair by replacing old CMS Sorting signs.

The CMS Sorting signs are a critical part of Washington State's e-screening system. Washington has 18 CMS Sorting signs that need to be added or replaced to promote safety and keep e-screening equipment functional and reliable. WSDOT has 11 e-screening equipped weigh stations. Without working CMS Sorting signs, all vehicles without a transponder, including those with successful license plate reads, will be required to pull into a weigh station when open. In 2021 open weigh stations in Washington State used CMS Sorting signs in need of replacement to notify over 665,000 commercial motor vehicles identified by license plate of an e-screening system bypass. In 2021 approximately 46% or over 1.9 million electronically screened vehicles were identified by license plate and require CMS Sorting signs to direct the vehicle.

WSDOT Commercial Vehicle Services successfully submitted a grant to the Federal Motor Carrier Safety Administration to replace 18 sorting Changeable Message Signs throughout the state. The total grant award is $1,189,979, which is fully funded by the federal government. This grant does not require a state match.

Open / Closed Changeable Message Signs
Washington State uses electronically controlled Changeable Message Signs (CMS) Open Closed signs as part of the e-screening system to indicate weigh station status and promote safety by using the signs to direct commercial motor vehicles into specific lanes. The CMS Open Closed signs are electronically controlled energy efficient LED modules located prior to the in-road weigh-in-motion (WIM). Most of the CMS Open Closed signs in use are past or approaching the end of their life expectancy and some are currently in failure status. Additionally, the manufacturer is no longer supporting or manufacturing replacement parts for these signs. The CMS Open Closed signs are critical to Washington State's e-screening system and safety on the interstate preventing last minute lane changes by commercial motor vehicles. The goal of this project is to account for the life cycle of our existing e-screening equipment and promote a state of good repair by replacing old CMS Open Closed signs.

The CMS Open Closed signs are a critical part of Washington State's e-screening system. Washington has 14 CMS Open Closed signs that need to be added or replaced to promote safety and keep e-screening equipment in a state of good repair. New signs with updated technology will require less maintenance, reduce chaos on the interstate, be more energy efficient, and standardize the message and colors of signage across the state to give commercial motor vehicle drivers a consistent message.

WSDOT Commercial Vehicle Services successfully submitted a grant to the Federal Motor Carrier Safety Administration to replace 14 open / closed Changeable Message Signs throughout the state. The total grant award is $634,979, which is fully funded by the federal government. This grant does not require a state match.

Project Prioritization and Selection Process:
Project prioritization for Traffic Operations is completed through three avenues associated with the funding source and improvement type:

1) Operational Unfunded Needs - for funding provided to the Traffic Operations Capital – Q3 subprogram
2) Major Electrical - for funding provided to support existing Major Electrical systems - P3 subprogram
3) Commercial Vehicle Services/Weigh Station Strategic Plan - for funding provided to the Weigh Station Strategic Plan - P3 subprogram

Operational Unfunded Needs
When an operational need is identified, region staff score the unfunded need based on five categories: Safety, Mobility, Preservation, Cost-Effectiveness, and Partnerships. The total project score is then determined from the sum of the weighted criteria scores. Updates to this list are provided to HQ on an annual or as-needed basis.

From these lists maintained by the regions, HQ compiles a list of unfunded projects proposed for delivery in the upcoming biennia. The first priority is to set aside a sufficient portion of the motor vehicle account—state appropriation for federal grants that require matching state funds. Any remaining state funds are allocated to projects based on prioritization of the benefits addressed through project completion. Considerations for project selection included: (a) Projects leveraging federal and/or local grants, (b) the additional efforts required for project completion (also known as whether a project is "shovel ready"), (c) the logical sequencing of TSMO projects with high prioritization scores, and (d) project cost in relation to available funding.

As of June 2022 the project lists identified ~$760 million in unfunded Q3 needs over the next 6 years with only ~$17 million in anticipated funding to support these needs, utilizing the expected biennial state funding levels for the 23-25 through 27-29 biennia.

Major Electrical Preservation Program
Through routine operation and maintenance, region staff identify various repair, replacement, or rehabilitation needs to traffic electrical systems (including signals, illumination, ITS, and supporting power/communications infrastructure). Any needs that are beyond the scope of routine maintenance are identified and prioritized for completion through projects funded by the P3 – Major Electrical sub-program. Considerations for prioritization include: system age, condition, and the potential for failure. Based on current inventory levels, there is an estimated need of $2.1 billion for the replacement of electrical assets that will become obsolete or have a high expectation of failure over the next 10 years. Approximately $98 million in projects have been identified as critical needs by region maintenance and operations personnel.

Commercial Vehicle Services/Weigh Station Strategic Plan
Since the completion of the *Commercial Vehicle Enforcement System Strategic Plan* in 2017, WSDOT Traffic Operations has continued to collaborate with WSP in determining and prioritizing the various weigh station infrastructure needs that are supported by the P3 program. Prioritization of these needs has focused on the criticality of the weigh station facility (dependent on the potential for freight related crashes due to truck maintenance, weight and driver considerations, commercial vehicle traffic volumes, and WSP enforcement strategies) and the condition/functionality of the equipment at the site. The most recent update to the strategic plan was completed in March 2021, with ~$82 million in weigh station needs identified and prioritized.

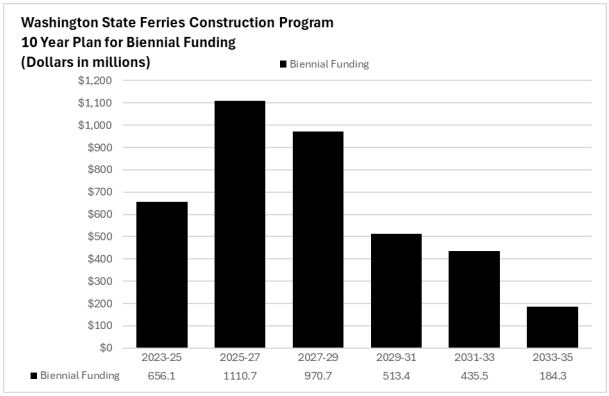
Future Funding Levels
Continued underfunding of operations needs will limit our ability to support strategies that meet various agency goals. Solutions funded and/or supported by the Traffic Operations Program provide low-cost, operational benefits that are vital to achieving WSDOT's goals to reduce crash potential using practical solutions.

Operational needs address various contributing factors to crashes and mobility concerns at locations where crash prevention, and/or congestion mitigation strategies have been identified as priorities. With WSDOT proactive approach to crash reduction providing additional funding allows for more locations to be modified which may lead to a reduction in fatal or serious injuries.

The underfunding of preservation needs for electrical systems and weigh station facilities will result in suboptimal asset deployment strategies. As electrical assets age, the operational benefits initially realized with their deployment will be diminished, making them obsolete over time. Weigh station needs that are not addressed will impact WSP's enforcement capabilities, ultimately resulting in unsafe roadways if high-risk commercial vehicles remain unchecked and continue to use Washington State's roadways.

Washington State Ferries Construction Program

Ferry System Overview



Transportation Role

The Washington State Department of Transportation (WSDOT), acting through its Washington State Ferries (WSF) Division, operates the largest ferry system in the United States. Twenty-one ferries crossed Puget Sound and its inland waterways in FY 2024, carrying around 19 million riders to 19 different ports of call. From Tacoma, Washington, to the San Juan Islands, WSF plays an important role in the state's transportation system. The Ferry System is a critical link in east-west highways carrying people and freight from one side of Puget Sound to the other. It serves the region's commuters in eight counties. It connects islands to the mainland and other islands. It provides access to recreational areas. Finally, it provides the populations of rural peninsulas and islands, including people of color and low income, who live in low opportunity areas with access to high opportunity urbanized areas.

Unfunded Current Service and Delivery Items

- Terminal Electrification BIN L1000341: Completed Pre-Design Studies for the Seattle and Bainbridge Island Terminal Electrification projects estimate an increased need of $115 million in 2025-27 and a $22.2 million in 2027-29 for a Total increase of $137.5 million.
- Administrative Support BIN's 998901J (W1) and 998951A (W2) are linked and are funded proportionally to match total program splits between W1 & W2 each biennium. The net increase for the two BIN's is $634,000. Individually the W2 Vessels BIN 998951A had an increase of $7.5 million and W1 Terminals 998901J had a decrease $6.9 million. This total increase represents 2 FTE's that were shifted from the Vessel Project Support BIN 20000006 to the Administrative Support BIN 998951A (W2) and shows a related net $530,000 decrease.
- Vessel Preservation Increases on existing projects of $72.3 million needed to preserve critical vessel assets to reduce unscheduled out of service events impacting service operations and the traveling public:

BIN	Vessel	Increase
944405D	MV Chelan Preservation	$9.5 million
L2021072	Vessel and Terminal Preservation	$8.8 million
944442B	MV Spokane Preservation	$5.8 million
944441B	MV Walla Walla Preservation	$5.8 million
944406D	MV Sealth Preservation	$5.3 million
944401D	MV Issaquah Preservation	$4.8 million
944404D	MV Cathlamet Preservation	$4.7 million
944403D	MV Kitsap Preservation	$4.4 million
944499D	MV Tacoma Preservation	$4.4 million
944499E	MV Wenatchee Preservation	$3.8 million
Varies	Preservation across 7 other Vessels	$15.2 million

- Vessel Preservation needs on projects in the outer biennia - $1.36 billion needed in outer biennia to preserve critical vessel assets to reduce unscheduled out of service events impacting service

operations and the traveling public. This amount is spread over the outer 14 years or 7 biennia. Prior budget versions had no funding identified in the final 8 years of the vessel preservation plan, and the $1.36 billion includes those needs.

- Vessel Improvement on projects in the outer biennia - $52.6 million of funding in outer biennia is needed to deliver planned improvements.

Explanation of Variance Between Project List and Unfunded Service and Delivery Items

WSF's situation is shaped by several key factors. First, historical underinvestment in the fleet has resulted in an inadequate number of vessels trying to maintain the service schedule. This has led to less time for operating maintenance and capital preservation and improvements, resulting in a deterioration of the fleet's state of good repair. Second, there has been a shortfall in the acquisition of human resources needed to operate, maintain and invest in the Ferry System.

The 2025-27 project list development process began with WSF's engineering and operations departments submitting to WSF Executive Management proposed projects to address capital needs. This list of proposed projects is based on the Preservation Life Cycle Cost Model and Improvements identified in the Ferries Long Range Plan. The Executive Team determined which projects would be addressed by available revenues and which projects are critical but unfunded. Many projects had to reduce their scopes to fit within the budget constraint. If additional funding becomes available, the scopes of these projects would be restored.

This summary is intended to display the magnitude of the constrained project list and restoration of the originally proposed project list need.

The two tables below show the difference between the project list proposed by WSF engineering and operating departments and the constrained project list. Over the 2025-35 ten-year period, proposed investments exceed constrained investments by $880 million. However, $267 million is due to the fact that the Vessel Construction Subprogram is comparing a proposed ten-year plan to the constrained plan that only has eight years.

The $880 million 10-year difference between the proposed project list and the constrained project list is allocated between Ferries subprograms as follows. The Vessel Construction subprogram accounts for $685 million of the difference. The Terminal Construction subprogram accounts for $194 million of the difference. See Table 1.

Table 1
Difference between Proposed and Constrained Project Lists
Ferries Subprograms
2023-35 Biennia, Dollars in Millions

Subprogram	23 - 25	25 - 27	27 - 29	29 - 31	31 - 33	33 - 35	10-Yr
W1 Terminal Construction Proposed	210	381	226	205	148	138	1,097
W1 Terminal Construction Constrained	209	264	169	191	137	141	903
Difference	1	117	58	13	10	-4	194
W2 Vessel Construction Proposed	441	915	949	475	324	309	2,972
W2 Vessel Construction Constrained	423	841	797	317	293	38	2,287
Difference	18	73	153	158	31	271	685
W3 Emergency Repairs Proposed	25	5	5	5	5	5	25
W3 Emergency Repairs Constrained	25	5	5	5	5	5	25
Difference	0	0	0	0	0	0	0
W WSF Construction Program Proposed	676	1,301	1,181	685	476	452	4,094
W WSF Construction Program Constrained	656	1,111	971	513	436	184	3,215
Difference	20	190	210	171	41	267	880

The $880 million difference between the proposed and constrained 10-year plans is allocated between preservation and improvements. The Preservation proposal is reduced by $732 million largely for Vessel Preservation. The Improvement proposal is reduced by $148 million largely for Terminal Electrification. See Table 2.

Table 2
Difference between Proposed and Constrained Project Lists
Ferries Preservation and Improvements
2023-35 Biennia, Dollars in Millions

	23 - 25	25 - 27	27 - 29	29 - 31	31 - 33	33 - 35	10-Yr
WSF Preservation Proposed	334	376	497	505	369	394	2,140
WSF Preservation Constrained	314	302	310	334	327	135	1,408
Difference	20	74	186	172	42	259	732
WSF Improvements Proposed	342	925	684	179	108	58	1,954
WSF Improvement Constrained	342	808	660	179	109	49	1,806
Difference	(0)	116	24	(0)	(1)	9	148
WSF Construction Proposed	676	1,301	1,181	685	476	452	4,094
WSF Construction Constrained	656	1,111	971	513	436	184	3,215
Difference	20	190	210	171	41	267	880

Critical Unfunded Priority - Restoring Ferry Service ($5.25 - $5.5 billion)
Washington's ferry system is vital for maintaining the reliability and resilience of the state's transportation network, particularly for communities heavily dependent on ferry services. Addressing WSF's unfunded needs is crucial for meeting environmental goals and preserving critical infrastructure. The focus is on sustaining and operating the system efficiently rather than expanding it, ensuring functionality amidst growing demands. This includes transitioning to hybrid-electric power by 2040, which is essential for emission reduction, resiliency, and cost savings. Funding is required for new hybrid electric vessels, conversion of existing vessels to hybrid electric, and terminal electrification to facilitate this transition.

Asset management is integral to resilience, with preservation being a key aspect for the successful operation of the ferry system. Terminal and vessel preservation needs steadily increase posing risks to service. This includes terminal building replacements and the preservation of various assets within each terminal, as well as vessel system preservation and mid-life refurbishments to extend vessel service life. Modernizing fleet operations technology is a priority, moving towards a more digital environment with mobile equipment for crew members and electronic updates for consistent fleetwide usage. Despite a 40% increase in funding over the past four years, additional staffing is needed to support new programs and resources, particularly in operations, vessels, finance, administration, and planning.

Strategic Framework
The Washington State Ferries, a division of the Washington State Department of Transportation, is aligned with the Department's Strategic Plan's three goal areas of:

- Diversity, Equity, and Inclusion,
- Resilience, and
- Workforce Development

Diversity Equity and Inclusion: WSF's Diversity Advisory Group (DAG) was established in 2018. It is one of the first such committees created in WSDOT. Its purpose is to advance and advocate for diversity and inclusion initiatives within WSF. One of its aims is to increase the participation of disadvantaged business enterprises in all phases of project development. The Washington State Ferry System also supports equity for underserved populations. For example, it has committed $25 million over ten years to improve access for disabled riders to ferry service.

Resilience: WSF is investing resources to improve its ability to mitigate, prepare for, and respond to emergencies, combat climate change, and build a transportation system that provides equitable services, improves multimodal access, and supports Washington's long-term resilience. Examples include replacing existing diesel-powered vessels and acquiring new vessels that employ hybrid-electric propulsion which will significantly reduce "greenhouse" gases helping to improve the health of our population and combat climate change. Also, WSF is seismically retrofitting terminals to mitigate the effects of earthquakes and building facilities in anticipation of rising sea levels.

Workforce Development: WSF values its diverse workforce. In the construction program, it is working proactively to recruit, train, and retain a quality workforce that brings expertise, is flexible and versatile, and is well-trained to safely perform many functions. One example is the successful recruitment of seasoned engineers and specialists from the mega construction programs in the Seattle area.

WSF's Mission
WSF's mission is providing marine high capacity transportation linkages for people and goods throughout the Greater Puget Sound Region.

WSF's Strategic Direction
Moving our iconic ferry system forward successfully, and in alignment with the WSDOT Strategic Plan, with a focus on three simple strategic priorities which are Service Excellence, Improved Communication, and Empowered People.

WSF Construction Program's Mission
WSDOT makes capital investments in the Ferry System through the WSF Construction Program. The program's mission is to effectively and efficiently use limited resources to acquire, preserve, and improve infrastructure that maximizes the Ferry System's ability to deliver safe, reliable, and responsible marine transportation services to its customers. It accomplishes this mission through investments that are guided by the WSF Long Range Plan and separate Terminal and Vessel Asset Management Plans. The Long Range Plan considers current ridership demand forecasts, vehicle levels of service standards, pricing and operational strategies, and appropriate terminal and vessel design standards.

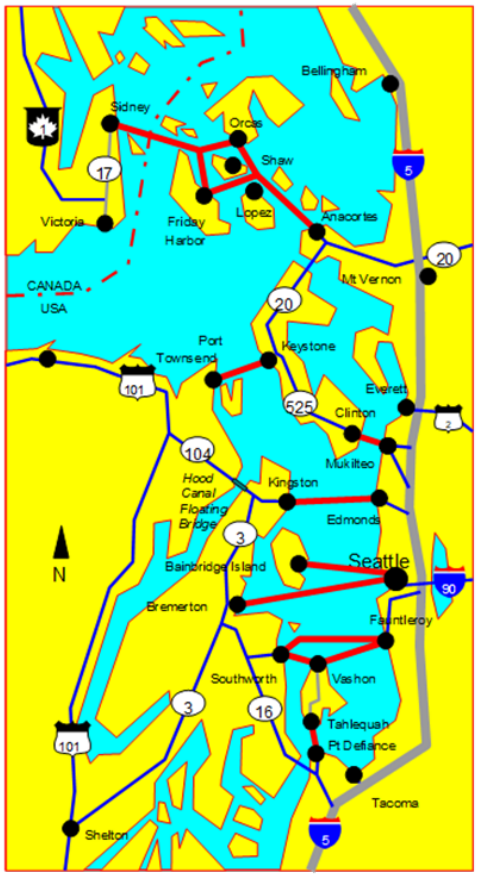
WSF Assets
WSF's infrastructure includes terminals, vessels, and a major maintenance facility. WSF is currently operating 19 terminals that provide vessel reception; customer access to and clearance of terminal facilities; vehicle and passenger staging, holding, loading, and unloading for vessels; and connections with other modes of transportation. Service to a twentieth terminal at Sidney, British Columbia, Canada was interrupted during the COVID-19 pandemic and has not yet been restored. The current fleet consists of 21 vessels grouped into seven classes of vessels. Finally, the system operates a major maintenance facility at Eagle Harbor which serves WSF's fleet of vessels and terminals.

WSF Routes
WSF operates nine ferry routes which includes service to Sydney, British Columbia whose service has not yet been restored since COVID-19. These routes are equivalent to 200 miles of highway bridges. WSF's vessels make over 350 sailings per day over these routes. See the figure below.

Ferry Routes / Terminals

- International: Anacortes-Sidney, BC
- San Juan Islands: Anacortes, Friday Harbor, Lopez, Orcas, Shaw
- Port Townsend-Keystone
- Clinton-Mukilteo
- Kingston-Edmonds
- Bainbridge Island-Seattle
- Bremerton-Seattle
- Triangle: Southworth, Vashon, Fauntleroy
- Tahlequah-Point Defiance

Auto Passenger Routes



Strategic Long-Term Investment Process

WSDOT makes capital investments in the Ferry System in a manner that balances meeting service targets with the long-term need to preserve and improve the state's transportation system. WSF accomplishes this through sound fiscal planning, asset management, and the development of strategic investment programs. The Legislature, the Governor and regulatory agencies provide guidance to WSF's investment process.

Consistent with current agency direction, WSF's investment decisions are based on a comprehensive asset management approach. WSF develops its capital project list based on preservation requirements, high priority improvements (e.g., safety and regulatory compliance and environmental enhancements), contingency funding for emergencies, risk management principles, and financial constraints. The project list is reviewed and approved by the Assistant Secretary for Ferries, WSDOT Executives, the Office of Financial Management (OFM), the Legislature and the Governor. This list of projects is called the Capital Improvement and Preservation Program (CIPP). The CIPP focuses on the 2025-27 biennium that will receive legislative appropriations (spending authority) with a foundation of a long-range vision. So, the CIPP also describes long-term investment plans for another seven biennia. Successful execution of the CIPP ensures that WSF's terminals and vessels will provide safe, reliable and responsible service to Ferry System riders.

Program and Project List Structure

The Legislature established the WSF Construction Program for the purpose of "...improving the Washington state ferries system, including, but not limited to, vessel construction, major and minor vessel preservation, and terminal preservation, construction, and improvements."

The WSF Construction Program consists of three sub-programs. Its project list consists of the eight types of projects. The subprograms and types of projects are listed in the table and described below.

WSF Construction Program Subprograms		
Terminal Construction Subprogram W1	Vessel Construction Subprogram W2	Emergency Repair Subprogram W3
WSF Construction Program Types of Projects		
Preservation Projects	Improvement Projects	
Terminal Preservation Projects Vessel Preservation Projects System-wide Projects	Terminal Improvement Projects Vessel Improvement Projects New Vessel Projects	Emergency Repair Projects System-wide Projects Administrative and Project Support Projects

Subprograms

The Terminal Construction Subprogram includes capital investments in WSF terminals and the Eagle Harbor maintenance facility. Investments are made to ensure WSF facilities follow requirements of regulatory agencies; are structurally, mechanically, and electrically sound; function efficiently and effectively; and have the capacity and mobility options to meet the demand for ferry service.

The Vessel Construction Subprogram includes capital investments in WSF's fleet. As above, investments are made to ensure WSF vessels follow requirements of regulatory agencies; are structurally, mechanically, and electrically sound; function efficiently and effectively; and have the capacity to meet the demand for ferry service.

The Emergency Repair Subprogram addresses either damage to a terminal or vessel caused by a casualty incident that is not the result of deterioration or wear that could be reasonably anticipated or is due to an unanticipated change in regulatory or other legal requirements.

Types of Projects

A Preservation Project extends the life of existing assets through replacement or refurbishment and does not change the program use of the asset. See RCW 47.60.005(10). State law requires WSF to use a Life Cycle Cost Model (LCCM), which is that portion of a capital asset inventory system, to estimate preservation needs, provide the basis for developing the budget request for terminal and vessel preservation funding, and be used to develop the terminal and vessel preservation plans in the Capital Plan (Ferries Long Range Plan). See RCWs 47.60.005(3) and (8), 47.60.345(3) and (4), and 47.60.375(2)(a) and (d). Federal asset management rules also require WSF to use analytical processes and decision-support tools to develop its investment prioritization for achieving a State of Good Repair.

An Improvement Project achieves a program goal, such as changing or improving the characteristics of an existing asset to meet new program requirements; or acquiring a new asset through construction, lease, or purchase. See RCW 47.60.005(3) and (6). Typical improvements include safety enhancements, compliance with regulatory requirements, customer–driven enhancements, and modifications to improve efficiency or reduce adverse environmental impacts. State law requires improvements to adhere to the Capital Plan. See RCW 47.60.385(1).

New Vessels are constructed to replace existing vessels that have reached the end of their service life or to add new capacity to the fleet. State law categorizes acquisition of new vessels as improvement projects regardless of whether the vessel is replacing an existing vessel or increasing the size of the fleet. See RCW 47.60.005(6).

An Emergency Repair Project addresses either damage to a terminal or vessel caused by a casualty incident that is not the result of deterioration or wear that could be reasonably anticipated or is due to an unanticipated change in regulatory or other legal requirements. WSF may use statutory provisions to expedite repairs to put a damaged facility or vessel back into service as quickly as possible.

A System-wide Project refers to a capital project that involves multiple terminals and/or vessels which are handled as a single project. A System-wide Project may be for either preservation or improvements. This type of project is used to facilitate oversight and reduce project management costs.

Administrative and Project Support Projects consist of activities which support the development and delivery of the construction program, such as, contract administration, budget and program development, planning, finance and administration, communications services, project controls and reporting, engineering technical services, development of design standards, regulatory compliance and inspections, and supervision of engineering staff. Support budgets are developed using zero-based budgeting methods. Support costs are assigned to terminal and vessel projects using a cost allocation methodology approved by OFM. See RCW 47.60.335(3).

Overview of the WSF Construction Program W 2025-27 Budget Request

The WSF Construction Program's 2025-27 budget request is the largest in WSF's history. It has two central themes. First, it addresses in earnest all three prongs of the electrification effort: building new hybrid-electric vessels, converting existing vessels to hybrid-electric propulsion, and building the terminal infrastructure to charge these vessels. Second, it focuses on the need to invest in the preservation of terminals and vessels. Vessel preservation addresses the needs of both vessels that are operating within their expected lives and vessels needing extension of their lives beyond their expected lives until new vessels can be delivered.

The WSF Construction Program W consists of three subprograms. The 2025-27 budget requests and 2025-35 Ten-Year Plan for Program W and its three subprograms are:

WSF Construction Program W by Subprogram					
2025-27 Biennium			2025-35 Ten-Year Plan		
$	264.3	Million is for Terminal Construction W1	$	902.8	Million is for Terminal Construction W1
$	841.4	Million is for Vessel Construction W2	$	2,286.7	Million is for Vessel Construction W2
$	5.0	Million is for Emergency Repairs W3	$	25.0	Million is for Emergency Repairs W3
$	1,110.7	Million Total WSF Construction	$	3,214.6	Million Total WSF Construction

Significant Highlights for the 2025-27 Biennium and 2025-35 Ten-Year Plan

Terminal Construction

2025-27 Budget Request and 2025-35 Ten-Year Plan
WSF is asking for **$264.3 million** for the Terminal Construction Subprogram in the 2025-27 biennium budget request. The Subprogram's 2025-35 Ten-Year Plan amounts to **$902.8 million**. State law requires WSF to classify capital spending on terminals as either preservation or improvements. See RCW 47.60.005(6) and (10).

WSF Terminal Construction Subprogram W1 Preservation and Improvements					
2025-27 Biennium			2025-35 Ten-Year Plan		
$	145.3	Million is for Terminal Preservation	$	552.8	Million is for Terminal Preservation
$	119.0	Million is for Terminal Improvements	$	350.1	Million is for Terminal Improvements
$	264.3	Million Total Terminal Construction	$	902.8	Million Total Terminal Construction

Major Spending on Terminal Projects in the 2025-27 Biennium
Below is a list of terminal Budget Item Numbers (BINs) that are requesting spending authority for $5 million or more in the 2025-27 biennium. Also shown is the total spending plan for the BIN over multiple biennia.

Electrification of Four Terminals
WSF proposes to spend **$60.4 million** in the 2025-27 biennium to advance work on four terminals to provide capability to charge hybrid-electric vessels allowing them to operate fully electric. This will result in significant reductions in "greenhouse" gases and a reduction in fuel consumption compared to operating in a hybrid-electric mode. The work involves bringing electricity to the terminals and constructing the terminal infrastructure to charge vessels. $17.1 million will be spent at the Clinton Terminal; $16.3 million will be spent at the Seattle Terminal; $16.0 million will be spent at the Bainbridge Island Terminal; and $11.0 million will be spent at the Kingston Terminal. The total estimated cost for this BIN is $167.8 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
L1000341	Terminal Electrification MAW	2.6	49.7	60.4	29.0	11.8	14.2	0.0	0.0	0.0	0.0	0.0	167.8

Bremerton Terminal Preservation
WSF proposes to spend **$44.3 million** in the 2025-27 biennium completing preservation work carried forward from the 2023-25 biennium. $42.1 million will be spent on Slips 1 and 2 Vehicle Transfer Span Replacement; $1.2 million will be spent on Slip 2 Left Inner Dolphin Replacement; and $1 million will be spent on Slips 1 and 2 Dolphin Replacement. The total estimated cost for this BIN is $66.1 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
930410T	Bremerton Tml Preservation	0.7	12.9	44.3	0.0	0.0	0.0	6.0	2.2	0.0	0.0	0.0	66.1

Kingston Terminal Preservation
WSF proposes to spend **$19.9 million** in the 2025-27 biennium for work to preserve the Kingston Terminal, including $13.6 million to complete Slips 1 and 2 Seismic Retrofit/Trestle Approach Improvement, $3.8 million to complete Slips 1 and 2 OHL Electrical and Mechanical Systems Preservation, $1.6 million to complete Holding Area - Restroom Building Replacement, and $0.9 million to complete Gangway-Bridge Seat and Tower Retrofit – Electrical and Mechanical Systems. The total estimated cost for this BIN is $55.6 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
910414P	Kingston Tml Preservation	1.5	5.2	19.9	1.7	2.0	5.1	10.9	9.1	0.0	0.0	0.0	55.6

Southworth Terminal Preservation
WSF proposes to spend **$12.5 million** in the 2025-27 biennium continuing work to preserve the Southworth Terminal, including Trestle and Terminal Building Replacement. The total estimated cost for this BIN is $54.3 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
916008R	Southworth Tml Preservation	1.1	9.5	12.5	29.9	0.0	0.0	0.7	0.6	0.0	0.0	0.0	54.3

Eagle Habor Maintenance Facility Preservation
WSF proposes to spend **$11.7 million** in the 2025-27 biennium for preservation work. $6.8 million is for completing the Welding Shop Replacement. $4.9 million is for completing Tie-up Slips Wing Dolphin Replacement. The total estimated cost for this BIN is $34.2 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
900040N	Eagle Harbor Maint Facility Preservati	0.1	4.5	11.7	0.0	1.4	0.0	14.1	2.3	0.0	0.0	0.0	34.2

Seattle Terminal Preservation
WSF proposes to spend $**9.4 million** in the 2025-27 biennium to complete work on the half a billion dollar

Seattle Terminal, including $7.7 million to complete Pile Corrosion Mitigation, $2.5 million to continue Slip 2 Vehicle Transfer Span Tower Retrofit, $1.6 million to continue Slip 2 Passenger Overhead Loading (OHL) Replacement, $1.0 million to complete Terminal Building and Trestle Replacement, $0.7 million to complete Slip 3 OHL and Transfer Span Replacement, $0.5 million to start Slip 1 Vehicle Transfer Span Tower Retrofit, and $0.3 million to start Slip 1 OHL Rehabilitation. The total estimated cost for this BIN is $496.1 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
900010L	Seattle Tml Preservation	439.9	43.3	9.4	0.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	496.1

Anacortes Terminal Preservation
WSF proposes to spend $**6.6 million** in the 2025-27 biennium to preserve the Anacortes Terminal, including $2.8 million for Slip 1 Vehicle Transfer Span Rehabilitation, $2.0 million for Terminal Building Replacement, and $1.9 million for the DHS/CBP Compound Canopies Replacement. The total estimated cost for this BIN is $75.3 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
902020C	Anacortes Tml Preservation	2.8	3.4	6.6	11.3	2.7	19.5	24.9	4.1	0.0	0.0	0.0	75.3

Fauntleroy Terminal Preservation
WSF proposes to spend **$6.6 million** in the 2025-27 biennium to continue work to preserve the Fauntleroy Terminal. Work includes $8.7 million for replacing the Trestle and Transfer Span and $0.3 million for marine security upgrades. The total estimated cost for this BIN is $100.2 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
900005M	Fauntleroy Tml Preservation	4.5	9.0	6.6	17.2	61.8	1.0	0.1	0.0	0.0	0.0	0.0	100.2

Bainbridge Island Terminal Preservation
WSF proposes to spend **$6.0 million** in the 2025-27 biennium to continue work to preserve the Bainbridge Island Terminal, including toll booths and paving. The total estimated cost for this BIN is $68.6 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
930513G	Bainbridge Island Tml Preservation	22.2	14.3	6.0	1.2	0.6	4.2	3.3	16.8	0.0	0.0	0.0	68.6

Edmonds Terminal Preservation
WSF proposes to spend **$5.3 million** in the 2025-27 biennium to continue work to preserve the Edmonds Terminal, including $3.2 million for toll both replacement and $2.0 million for vehicle transfer span electrical and mechanical upgrades. The total estimated cost for this BIN is $59.9 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
910413Q	Edmonds Tml Preservation	0.2	0.6	5.3	4.1	5.5	35.8	4.0	4.5	0.0	0.0	0.0	59.9

Americans with Disabilities Act (ADA) Emergent Needs
WSF proposes to spend **$5.0 million** in the 2025-27 biennium to perform design studies and reviews of the existing terminal ADA systems and conditions, determine system-wide terminal preservation and improvement needs, and design and construct the needed ADA preservation and improvement projects at the terminals. The total estimated cost for this BIN is $25.0 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
L2021129	Americans with Disabilities Act (ADA)	0.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	25.0

Vessel Construction

2025-27 Budget Request and 2025-33 Eight-Year Plan
WSF is asking for **$841.4 million** for the Vessel Construction Subprogram in the 2025-27 biennium budget request and **$2,286.7 million** in its Vessel Ten-Year Plan. State law requires WSF to classify capital spending on vessels as either preservation or improvement projects See RCW 47.60.005(6) and (10).

WSF Vessel Construction Subprogram W2 Preservation and Improvements	
2025-27 Biennium	2025-35 Ten-Year Plan*
$ 147.7 Million is for Vessel Preservation	$ 823.1 Million is for Vessel Preservation
$ 693.7 Million is for Vessel Improvements	$ 1,463.7 Million is for Vessel Improvements
$ 841.4 Million Total Vessel Construction	$ 2,286.7 Million Total Vessel Construction

* The Vessel Construction subprogram did not program a complete project list for the 2033-35 biennium. As a result, its Ten-Year Plan is essentially short a one biennium of proposed expenditures.

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Major Spending on Vessel Projects in the 2025-27 Biennium

Acquisition of Five Hybrid-Electric Vessels

WSF proposes to spend **$578.0 million** in the 2025-27 biennium to advance work on five hybrid-electric vessels. This will result in significant reductions in "greenhouse" gases and a reduction in fuel consumption compared to operating diesel-powered vessels. The proposed 2025-27 budgets for these vessels are shown below.

- $197.8 million is for continuation of work on the #1 hybrid-electric vessel.
- $171.2 million is for continuation of work on the #4 vessel.
- $108.0 million is for starting work on the #2 vessel.
- $ 98.3 million is for starting work on the #5 vessel.
- $ 2.7 million is for starting work on the #3 vessel.
- **$578.0 million Total**

The total estimated cost for this BIN is $1,303.4 billion.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29-31	31-33	33-35	35-37	37-39	39-41	Future	Total
L2021073	Hybrid Electric Vessel	16.0	57.9	578.0	560.8	53.2	37.5	0.0	0.0	0.0	0.0	0.0	1303.4

Conversion of Three Existing Vessels to Hybrid-Electric Propulsion

WSF proposes to spend **$89.5 million** in the 2025-27 biennium to complete the conversion of the three Jumbo Mark II ferries to hybrid-electric propulsion. This will result in significant reductions in "greenhouse" gases and a reduction in fuel consumption compared to operating diesel-powered vessels. The MV Wenatchee conversion will be completed in the 2023-25 biennium. The remaining two vessels will be converted in the 2025-27 biennium. The funding in 2025-27 to complete this project is shown below.

- $62 8 million is for completion of the conversion of the MV Puyallup.
- $19.8 million is for completion of the conversion of the MV Tacoma.
- $ 6.8 million is for project management.
- **$89.5 million Total**

The total estimated cost for this BIN is $246.3 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29-31	31-33	33-35	35-37	37-39	39-41	Future	Total
L1000339	Vessel Conversions MAW	17.9	131.4	89.5	3.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0	246.3

Vessel Preservation

Preservation investments strive to keep the fleet in sound operating condition by addressing life cycle preservation needs of vessel components, including replacement or refurbishment of structural, interior, steel, piping, propulsion, major mechanical, electrical, lifesaving, and communication systems. Projects requesting budgets of $5 million or more for the 2025-27 biennium are concentrated in three vessel classes.

Jumbo Mark II Class Vessels

The Jumbo Mark II Class consists of three vessels. These vessels were built between 1997 and 1999. They are expected to have a sixty year life assuming a midlife rebuild. Their ages ranges between 25

and 27 years old. As they approach midlife, substantial preservation investments are needed. . The proposed 2025-27 budgets for these vessels are shown below.

- $20.8 million is for MV Puyallup Preservation.
- $ 9.5 million is for MV Wenatchee Preservation.
- $ 5.5 million is for MV Tacoma Preservation
- **$35.8 million Total**

The total estimated cost for the Jumbo Mark II Class Vessel Preservation BINs is $$287.0 million.

BIN s	Title ($s in Mil)	Prior	23-25	25-27	27-29	29-31	31-33	33-35	35-37	37-39	39-41	Future	Total
Jumbo Mark II	Vessel Preservation	22.7	71.0	35.8	57.1	68.8	11.6	2.7	2.7	12.5	0.0	2.2	287.0

Issaquah Class Vessels

The Issaquah Class consists of six vessels. These vessels were built between 1979 and 1982 and are now between 42 and 45 year old. Since, they did not receive midlife rebuilds, they need substantial preservation investments in the latter part of their service lives. The proposed 2025-27 budgets for these vessels are shown below.

- $11.0 million is for MV Chelan Preservation.
- $ 6.1 million is for MV Sealth Preservation.
- $ 5.5 million is for MV Issaquah Preservation
- $5.4 million is for MV Cathlamet Preservation.
- **$**5.1 million is for MV Kitsap Preservation.
- $1.4 million is for MV Kittitas Preservation.
- **$34.5 million Total**

The total estimated cost for the Issaquah Class Vessel Preservation BIN is $$228.7 million.

BINs	Title ($s in Mil)	Prior	23-25	25-27	27-29	29-31	31-33	33-35	35-37	37-39	39-41	Future	Total
Issaquah Class	Vessel Preservation	8.3	52.4	34.5	49.7	32.1	83.1	2.9	3.0	0.4	0.0	0.0	228.7

Jumbo Mark I Class Vessels

The Jumbo Mark I Class consists of two vessels. These vessels were built in 1972 and 1973. They are well past their midlives, being over 50 year old. They still have a decade of service left but need preservation investments to finish their careers. The proposed 2025-27 budgets for these vessels are shown below.

- $6.7 million is for MV Spokane Preservation.
- $6.7 million is for MV Walla Walla Preservation.
- **$13.4 million Total**

The total estimated cost for the Jumbo Mark I Class Vessel Preservation BINs is $$69.9 million.

BINs	Title ($s in Mil)	Prior	23-25	25-27	27-29	29-31	31-33	33-35	35-37	37-39	39-41	Future	Total
Jumbo Mark I Class	Preservation	7.8	6.5	13.4	22.0	7.6	12.5	0.0	0.0	0.0	0.0	0.0	69.9

Emergency Repairs

Emergency Repairs (ER) are a category of capital work and funding that addresses damage or a deficiency involving a terminal or vessel. Damage must be the result of a casualty incident, discovered damage reasonably attributable to a casualty incident or a deficiency arising from an unanticipated regulatory or legal requirement. ER is used to fix a damaged or deficient asset; not to address deterioration or wear that could be reasonably anticipated, to improve an asset, to increase the value of an asset, or to extend the life of an asset. ER funding is limited and should be used only when the damage or deficiency constitutes a real or immediate danger to the people that use and operate the terminal or vessel or precludes the prudent use of these facilities. Under these conditions, WSF may choose to use emergency contracting procedures to expedite repairs. ER is a key element in WSDOT's strategy to minimize service interruptions and to minimize the fiscal impact of emergencies on

programmed capital projects and budgeted maintenance.

Historically, WSF starts the biennium with a **$5.0 million** ER budget. If expenditures exceed $5.0 million, the Legislature may increase the ER budget though the supplemental budget process.

System-wide Projects
System-wide refers to capital projects that involve multiple terminals and/or vessels but are handled as a single project. They often involve innovative approaches to problems and opportunities. These projects are used to facilitate oversight and reduce project management costs. However, the Legislature is quite frugal in using system-wide projects due to their impact on visibility and transparency. Several of these projects meet the $5 million threshold for discussion purposes.

Dispatch System
WSF proposes to spend $11.9 million in the 2025-27 biennium for work to replace its Dispatch System. The antiquated crew dispatch system does not support engine room, terminal operations and the matching of regulatory crew qualifications (licenses and training) for ferry services. A modern system would optimize service level staffing and budgets to deliver efficient and on-time services. The total estimated cost for this BIN is $18.8 million.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
998901O	WSF/Systemwide - Dispatch System	1.0	5.9	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8

Ticketing and Reservation System Modernization
WSF proposes to spend **$6.0 million** in the 2025-27 biennium to design, purchase and install the required equipment to modernize and implement the ticketing and reservation system. The total estimated cost for this BIN is $21.7 million. NOTE THAT THE 2024 LEGISLATURE PLACED $13.6 MILLION IN THE FUTURE COLUMN. This will have to be moved forward to complete the project.

BIN	Title ($s in Mil)	Prior	23-25	25-27	27-29	29 31	31-33	33-35	35 37	37-39	39-41	Future	Total
990052C	Ticketing and Reservation System Mc	0.0	2.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	21.7

Other system-wide BINs for which WSF is seeking 2025-27 funding include:
- $4.6 million is for continuation of the WSF Terminal Wait Times Traveler Information System.
- $4.1 million is for completion of the ADA Visual Paging Project.
- $3.9 million is for completion of the Dispatch System Replacement.
- $1.5 million is for completion of the Future Hybrid Electric Ferry Class Pre-Design Study.
- $0.9 million is for completion of ORCA Card Next Generation Support.
- $0.5 million is for the Credit Card Security Enhancement Project.
- $0.2 million is for completion of the Ladder Safety Project.
- $0.1 million is for on-going support of the Ferries Schedule System Replacement.

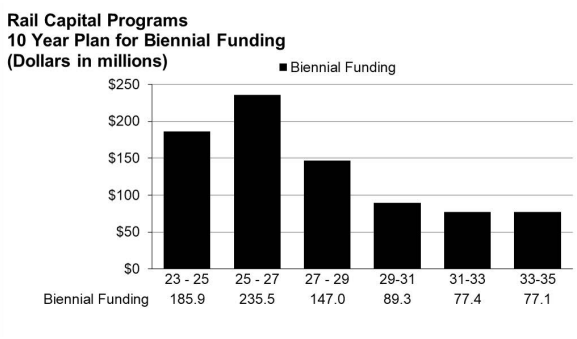
Administrative and Project Support (Indirect) Costs
WSF Construction Program W indirect costs are funded as projects in the capital project list and not distributed to capital projects. This provides better visibility and transparency to the Legislature. They are developed as “zero-based” budget packages for the budget request biennium and then inflated for the out biennia of the 16-year plan. When the next budget cycle occurs, the process is repeated

There are three indirect cost budgets: Administrative Support, Terminal Project Support, and Vessel Project Support. WSF is requesting **$36.8 million** for the 2025-27 biennium which is equal to 3% of direct costs.
- $17.6 million is for Administrative Support (split between Terminal and Vessel subprograms based on their relative sizes).
- $11.1 million is for Terminal Project Support.
- $ 8.1 million is for Vessel Project Support.
- **$36.8 million Total**

Rail, Freight & Ports Division Capital Program

The RFP Capital program provides support, administration, coordination, and project development for: passenger rail, freight rail, shortline rail improvements, freight mobility, and zero-emission port improvements.

Since 2015, WSDOT has been successful in receiving several awards for federal funds supporting capital projects. A list of the projects and source of federal funds is in the table below.



Federal Funding Source	Project Name
FY2015 – STEP	Port of Ridgefield Overpass Project
FY2017 – CRISI	PNWRC Landslide Mitigation-Phase II
	PNWRC Alternatives Development
FY2018 – BUILD	Washington State Rural Rail Rehabilitation Project
FY2020 – CRISI	PNWRC Landslide Mitigation-Phase III
FY2021 – CRISI	PNWRC Landslide Mitigation-Phase IV
FY2022 – CRISI	WA State Rural Rail Rehabilitation Phase II
FY2022 – INFRA	Salmon Bay Bridge Rehabilitation Project
FY2022 – Corridor ID	Amtrak Cascades Corridor
FY2022 – Corridor ID	Cascadia Ultra-High-Speed Ground Transportation Project Corridor
FY2023 – MPDG (INFRA)	I-5 Truck Parking Information Management System (multi-state award to WA, OR, and CA)

Passenger Rail Capital

WSDOT has been making capital improvements to support intercity passenger rail service on the Amtrak Cascades corridor since 1994.

Between 2010 and 2017, WSDOT delivered significant passenger rail capital improvement projects through a multi-year $790 million federal ARRA grant to allow faster travel times, increased reliability, and additional train frequencies. Capital improvements spanned the entire corridor from Blaine to Vancouver, Washington. Work included, new and improved track and sidings, installation of new safety technology solutions, separation of freight and passenger trains at key chokepoints, landslide mitigation projects, station upgrades and expansions, and purchase of new locomotives The goals of these improvements were to add two additional daily roundtrips between Seattle and Portland, decrease travel time between the two cities by 10 minutes, and reach 88% on-time reliability.

Those improvements included construction and operation of a new train station in Tacoma and the new Point Defiance Bypass, an inland route between Tacoma and Olympia, Washington. With the tragic Amtrak Cascades derailment in December 2017, service was temporarily suspended on this section of track until November 2021. However, the two additional daily roundtrips between Seattle and Portland were not restarted until December 11, 2023.

Ongoing improvements and maintenance to the passenger rail corridor in the 2023-2025 biennium will be federally- and state-funded. WSDOT was awarded three separate CRISI grants from the Federal Rail Administration (FRA) to address landslide mitigation on the bluffs north of Seattle. WSDOT leveraged

$4.5 million in state funds into more than $12 million total project funding through federal grants and BNSF railway contributions. WSDOT administers the grants and BNSF Railway performs the work to install catchment walls, improve drainage, and stabilize slopes. Phase 1 of these landslide mitigation projects was undertaken as part of the ARRA program. Phase 2 (CRISI FY17) was completed in 2024 at five locations. Phase 3 (CRISI FY20) is currently underway for design of catchment walls at three locations with construction scheduled to start in early 2025. Phase 4 is currently in the environmental review phase, with final design scheduled for completion in fall 2024 and construction in summer 2025. WSDOT will continue to pursue grant opportunities for rail capital improvement projects as they become available.

WSDOT is the recipient for a FY21 INFRA federal grant for the Salmon Bay Bridge Rehabilitation project. The project will replace the drawbridge mechanical system and extend the life of the bridge's moveable span by 50 years. Over 40 trains, including freight, Amtrak passenger rail service (Amtrak Cascades and Empire Builder) and Sounder Commuter Rail use the Salmon Bay Bridge each day. WSDOT is not contributing any state match for this $25 million federal grant, with the remainder of the funding for this $94 million project being contributed by BNSF Railway.

For the 2025-2027 biennium, $5.8 million in state funds provided by the Connecting Washington Act has been allocated for Cascades Corridor Resiliency. This funding will be allocated to:

- Use as state match for FRA federal grants, including FRA's Corridor Identification Development (CID) program step 2 that requires a 10% match
- Work with the host railroad BNSF to identify and mitigate areas with service disruptions along the Cascades Corridor where additional resiliency measures would benefit passenger service. Implement low-cost fixes by working with property owners and cities to mitigate actions (such as landscaping, drainage, or further development) that might contribute to landslides.
- Continue community outreach and education campaign focused on residents and businesses in coastal bluff areas that are vulnerable to landslides.

WSDOT also received $150 million from the Carbon Emissions Reduction account solely for the state match contributions to support the department's application for pending federal grant opportunities for Ultra High-Speed Ground Transportation planning. These funds are being used as match funding for the CID program for the Cascadia High Speed Rail project, which is separate from Amtrak Cascades. This program is now being administered by the newly created Cascadia High-Speed Rail and I-5 Planning office within the Mega-Programs Division.

Existing Passenger Rail Equipment

WSDOT received a 2011 ARRA grant for Cascades improvements, including the acquisition of eight Siemens Charger locomotives and associated capital spare parts. WSDOT joined IDOT in a multi-state procurement (WA, IL, and CA). The ARRA grant includes provisions that all federally funded improvements, including the locomotives, be kept in a state of good repair for 20 years and used as intended. If not, ARRA requires the repayment of a pro-rata share of the federal grant. The locomotives were placed in service in 2017. WSDOT executed a lease with Amtrak for the operation and maintenance of the locomotives. The lease is structured such that Amtrak has the maintenance obligation if they are the operator. WSDOT is responsible for all Cascades fleet maintenance costs, which are governed by a national policy: "PRIIA 209". WSDOT and ODOT contractually split the costs, 85% WSDOT and 15% ODOT based on train miles.

Amtrak expressed concern they were no longer able to reliably maintain the locomotives without enhanced support from the manufacturer. In July 2024, Amtrak informed WSDOT of best and final costs

for a longer-term maintenance program (Technical Support and Spares, and Supplies Agreement, or TSSSA) with Siemens. WSDOT will incur substantially higher maintenance costs in future biennia for the locomotive fleet. No viable alternative to Amtrak maintenance exists due to contractual requirements and national cost policy for intercity passenger rail services. Amtrak is forecasting $250 million over the next 21 years to keep the locomotives in a state of good repair. Due to statutory preferences and federal legislation regarding Intercity Passenger Rail costs, WSDOT will be responsible for these costs.

New Passenger Rail Equipment

With the removal and sale of WSDOT owned Talgo trainsets based on the recommendations from the National Transportation Safety Board, WSDOT is actively participating in Amtrak's national procurement of passenger rail equipment to replace the trainsets. The new trainsets for Amtrak Cascades will be the first delivered from the manufacturer and will be arriving in Washington in 2026. The new Airo equipment are funded through a federal grant to Amtrak, but costs to maintain the equipment must be funded by WSDOT and the Oregon Department of Transportation. Maintenance costs for this new fleet will increase upon expiration of the 3-yr warranty after they have been placed in service. These costs will be additive to the locomotive fleet maintenance costs. The procurement of new trainsets aligns with WSDOT's Amtrak Cascades Fleet Management Plan (FMP), which provides the strategic blueprint for equipment management and replacement.

Freight Rail Capital Projects

The Connecting Washington Act provides ongoing funding for projects in the 2025-2027 biennium focused on specific local rail improvements.

The largest of the projects will continue the rehabilitation of the state-owned Palouse and Coulee City (PCC) Railway System. Since 2012, this 297-mile short-line rail system in eastern Washington has received incremental funding to make some upgrades, including rehabilitation work, track replacement, and basic maintenance.

In September 2023, WSDOT leveraged some of the $150 million in state funding available in the 2023-25 biennium as match for a federal CRISI grant from the Federal Railroad Administration. The Washington State Rural Rehabilitation Project Phase II was awarded $72.8 million in federal funds, matched by $39.2 million in state, local and private funds. This provides a total project budget of $112 million for capital improvements. The improvements include replacement of light weight worn rail; replacement of rotten railroad ties; rebuilding dilapidated roadway crossings; and surfacing of tracks. This grant work builds upon the prior BUILD grant-funded improvements and when coupled with other state capital contracts, it substantially rehabilitates the PCC Railway System, bringing a significant portion of it to a state of good repair.

During the 2025-2027 biennium, $7.9 million in Multimodal state funds and $19.9 million in Move Ahead Washington funding will allow for continued improvements These upgrades will bring strategically significant portions of the rail line into a state of good repair, permitting the support of modern 286,000 lb. rail cars at 25 mph. WSDOT will continue to pursue federal grant opportunities for rail capital improvement projects as they become available.

Grain Hopper Car Preservation and Maintenance funds

WSDOT owns grain hopper cars that are used on the PPC short-line railroad. These assets have been fully deployed on the state-owned PCC Railway system. The expenditure activity is for the preservation and maintenance of those grain cars.

Estimated Amount: $100,000 per biennium.

Truck Parking

The Rail, Freight, and Ports Division also supports the coordination of various truck parking efforts within WSDOT and with the Freight Mobility Strategic Investment Board. Currently, these programs are primarily in the planning and analysis stages.

One truck parking capital program will be implemented over the next few years and operational in 2027. WSDOT is partnering with the Oregon Department of Transportation and Caltrans in California to provide truck drivers with real-time parking availability information along the entire I-5 corridor through all three states. In January 2024, the states were awarded a $12.3 million federal INFRA grant, which when combined with state contributions, provides for a total project budget of $20.5 million for all three states.

Technology will be installed to provide real-time truck parking information at 54 public truck parking facilities along the I-5 corridor. Each state will determine the best data collection technologies for their state -- including radar detection, in-ground sensors, or video detection. This information will be available directly to truck drivers through in-cab systems, online apps and websites, and dynamic signs along the highway that display real-time information.

Pending Federal Grant Applications for Rail Improvements

In May 2023, WSDOT submitted two applications under the FY2024 CRISI program -- the Washington State Rural Rail Rehabilitation Phase III Project and the Puget Sound Rail Corridor Improvement Project. Award recipients have not yet been announced for these grants. WSDOT will continue to pursue federal grant opportunities for rail capital improvement projects as they become available.

RFP Grants and Loans (FRIB, FRAP, and Port Electrification) to Local Entities

Freight Rail Capital Program

WSDOT provides grant and loan assistance to railroads, port districts and local governments to keep freight rail services viable throughout the state. Examples include funding track repairs and enhancing business access to rail service. The Freight Rail Assistance Projects (FRAP) is a grant program, while the Freight Rail Investment Bank (FRIB) provides low interest loans. New projects are selected each biennium through a competitive application process, based on the amount of funding available. The Legislature allocated a total of $12 million for these two programs for the 2025-2027 biennium. This includes $7 million in funds for FRAP grants and $5 million for FRIB loans. These amounts are based on the current authorization level

A request for proposals for future freight projects for the 2025-2027 biennium is underway by WSDOT for both FRAP and FRIB, with a due date for applications of September 24, 2024. WSDOT will review the proposals and provide the Legislature and the Office of Financial Management with a prioritized list and associated project cost estimates in November 2024.

Due to the success of the FRIB/FRAP program, it has allowed public and private entities to complete projects to ensure the continuous movement of freight across the state of Washington. Example of projects funded include, but are not limited to:

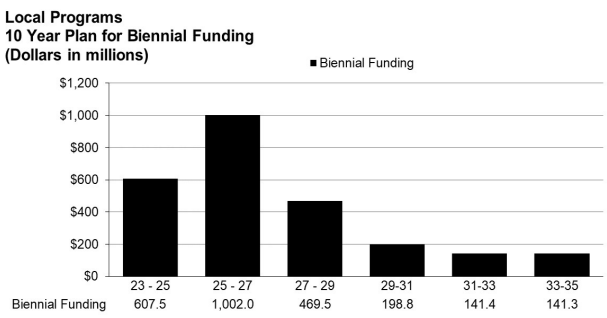
1. Updating and rehabilitating tracks (including tie replacement, installing new heavier rail, replacement of ballast and switches)
2. Constructing spur tracks and rail sidings
3. Repairing rail bridges
4. Replacing at-grade railroad crossings
5. Rebuilding turnouts
6. Purchase equipment

Port Electrification Grants

For the 2023-2025 biennium, the Legislature allocated a total of $26.5 million for Port Electrification grants from the state's Carbon Emissions Reductions Account. The deadline for applications under this program was July 8, 2024. Applications are being reviewed and scored based on the outlined criteria. WSDOT will providethe Office of Financial Management with a prioritized list and project cost estimates prior to the 2025 legislative session. Since the requirements for these grants have been in-process for the 2023-25 biennium, it is expected that these projects will be awarded in the current biennium and construction will begin in 2025-27.

Local Programs

Local Programs is responsible for administration and management of all federal and state funds that support local agency transportation systems. By providing engineering and technical assistance to cities, counties, ports, tribal governments, transit, metropolitan and regional transportation planning organizations, Local Programs helps build and improve local transportation systems using a Practical Solutions approach to improve processes and complete projects in a timely and cost-effective manner. This includes incorporating inclusion into the Practical Solutions strategies by actively managing the Disadvantaged Business Enterprise (DBE) participation to attain the federal goal.



New Investments and Work in Progress for the 2023-25 Biennium

The 2023-25 transportation budget established new funding for investments in local priority projects and active transportation projects, while continued funding for a number of projects underway.

23-25 Biennium Local Investments:

- $154.4M for legislatively identified Move Ahead Washington projects
- $109.5M for legislatively identified Connecting Washington projects
- $49M for legislatively identified Pedestrian and Bicycle Tiered projects
- $72.2M for the Pedestrian and Bicycle Safety Program
- $70.8 for the Safe Routes to School Program
- $25M for Connecting Communities
- $16.8M for School Based Bike Safety Education Program
- $51M for other legislatively identified projects
- $46.4M for local fish passage projects
- $81.5M for local freight projects
- $24M for local federal fund exchange

New Investments and Projects in the 2025-2027 Biennium

Local Programs continues supporting the local priority investments identified in the Move Ahead WA, Connecting WA, freight mobility, and other specific improvements in communities throughout the state. Local Programs coordinates the delivery of the Active Transportation Division selections of new Pedestrian Safety/Safe Routes to School grant projects that will reduce fatalities, increase biking and walking, and increase the number of children walking and biking to school safely. In addition, local investments continue for local priority projects established in the 23-25 Transportation budget.

25-27 Biennium Local Investments:

- $236.2M for legislatively identified Move Ahead Washington projects
- $142.6M for legislatively identified Connecting Washington projects
- $124.8M for legislatively identified Pedestrian and Bicycle Tiered projects
- $84.8 for the Pedestrian and Bicycle Safety Program
- $83.4M for the Safe Routes to School Program
- $33.2M for Connecting Communities
- $27.2M for School Based Bike Safety Education Program
- $58M for other legislatively identified projects
- $45M for local fish passage projects
- $65M for local freight projects

- $22M for local federal fund exchange