GRAY NOTEBOOK

GNB

Washington State Department of Transportation

Quarterly performance analysis of WSDOT's multimodal systems and programs

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

Edition 73 ■ March 2019

GREEN ACRES

WSDOT EXPANDS ITS INVENTORY OF PROTECTED STREAMS AND WETLANDS

Safer systems

WSDOT works to improve transportation safety for bicyclists and pedestrians

Goods to go

WSDOT helps commercial trucks moving statewide

Street smarts

WSDOT keeps travelers informed throughout Washington

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The Gray Notebook team

WSDOT's Gray Notebook is produced by the Performance Management and Strategic Management offices of the Transportation Safety & Systems Analysis Division: Hide Aso, Anjali Bhatt, Dan Davis, Sreenath Gangula, Helen Goldstein, Joe Irwin, Lisa Mikesell, Dustin Motte and Yvette Wixson. TSSA is directed by John Milton.

PERFORMANCE HIGHLIGHTS reported for the quarter ending March 31, 2019

NINE SITES that included **17 ACRES** added to WSDOT's **WETLAND & STREAMS** inventory in 2018

382 of 421 projects completed with **Nickel** or **Transportation Partnership Account** funds

$26.6 MILLION in economic benefit provided by WSDOT's **Incident Response** teams clearing 17,010 incidents during the quarter

99.2 PERCENT of **WSF's scheduled trips** were completed during the third quarter of FY2019

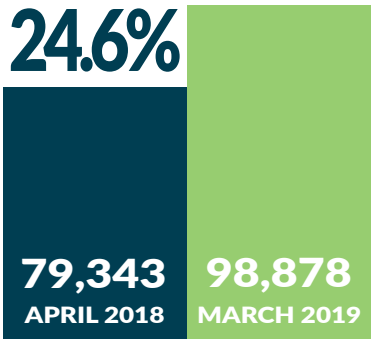
$20.1 MILLION in operating costs avoided by the trucking industry in 2018 due to WSDOT's **electronic screening system**

$3.21 annual average **gasoline price** in 2018, marking a 10% increase from 2017

75 of 131 WSDOT **Pre-existing Funds** projects advertised during the quarter

22 PERCENT of the total traffic fatalities in Washington in 2018 involved **Bicyclists** or **Pedestrians**

THE NUMBER OF PEOPLE FOLLOWING WSDOT'S FACEBOOK PAGE INCREASED 24.6%



On the cover: WSDOT wetland interns from The Evergreen State College sample for native emergent vegetation at Upper Keechelus Lake in the Cascade Mountains. Photo by Shauna Bittle, © The Evergreen State College.

73 STRATEGIC PLAN

WSDOT's Strategic Plan has three goals; Inclusion, Practical Solutions and Workforce Development. This plan continues WSDOT's focus on how the agency makes investments and delivers projects with limited resources.

The agency has launched an online interactive strategic plan dashboard, which can be accessed at http://www.wsdot.wa.gov/about/secretary/strategic-plan/. The dashboard contains leading indicators for the plan's 15 strategies and details about progress on the plan's work.

Under the strategic plan, WSDOT's Inclusion efforts ensure it engages its employees, communities and partners as the agency collaboratively delivers the program. Practical Solutions allows WSDOT to leverage finite funding to get the most capacity and safety out of the entire multimodal transportation system. WSDOT's focus on Workforce Development ensures that the agency attracts and retains a quality workforce to meet its legislative, regulatory, service and public expectations.

The strategic plan's goal teams developed strategies, five for each goal area. Work plans define the actions and deliverables needed to achieve the agency's goals. Articles in this issue, indicated by a box with a goal name, show how these goals are being realized.

In addition to three goals, the strategic plan features a vision, mission and values. WSDOT's vision, defined as where the agency wants to go, is "Washington travelers have a safe, sustainable and integrated multimodal transportation system." The strategic plan's mission is a statement about the agency's core purpose, "We provide safe, reliable and cost-effective transportation options to improve communities and economic vitality for people and businesses."

WSDOT's Strategic Plan features six values, defined as "how we do business" or statements of guiding principles. The values are: safety, engagement, innovation, integrity, leadership and sustainability.

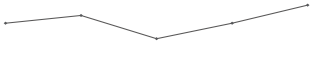
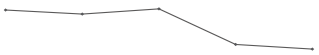
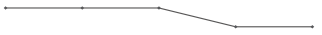
Recent editions of the Gray Notebook have featured articles on Practical Solutions, Workforce Development and Inclusion efforts at WSDOT. See Gray Notebook 72, pp. 33-35 for the Practical Solutions Annual Report, Gray Notebook 70, pp. 40-43 for the Inclusion Annual Report and Gray Notebook 69, pp. 31-34 for the Workforce Development Annual Report.

Inclusion Goal
Strengthen commitment to diversity and engagement in all of WSDOT's business processes, functions and services to ensure every voice is heard.

Practical Solutions Goal
Prioritize innovative, timely and cost-effective decisions, with our partners, to operate, maintain, plan and build our multimodal transportation system.

Workforce Development Goal
Be an employer of choice, creating a modern workforce while attracting and retaining quality workers to deliver our legislative, regulatory, and service requirements.

73 STATEWIDE TRANSPORTATION POLICY GOALS

Statewide policy goal/ WSDOT performance measure	Previous period	Current period	Target	Target met	Five-year trend (unless noted)	Desired trend
Safety						
Rate of **traffic fatalities** per 100 million vehicle miles traveled statewide (Annual measure: calendar years 2016 & 2017)	0.88	0.92	<1.00[1]	✓		↓
Rate of **recordable incidents** for every 100 full-time WSDOT workers (Annual measure: calendar years 2017 & 2018)	4.7	5.0	<5.0	—		↓
Preservation						
Percentage of state **highway pavement** in fair or better condition by vehicle miles traveled (Annual measure: calendar years 2016 & 2017)	92.2%	91.8%	≥ 90%	✓		↑
Percentage of **state bridges** in fair or better condition by bridge deck area (Annual measure: fiscal years 2017 & 2018)	91.8%	92.5%	≥ 90%	✓		↑
Mobility[2] (congestion relief)						
Highways: Vehicle Miles Traveled **(VMT)** on state highways (Annual measure: calendar years 2016 & 2017)	34.2 million	34.6 million	*	N/A		↓
Highways: Average **incident clearance times** for all Incident Response program responses (Calendar quarterly measure: Q1 2018 & Q1 2019)	13.1 minutes	12.5 minutes	*	N/A	 (Five-quarter trend)	↓
Ferries: Percentage of trips departing on time[3] (Fiscal quarterly measure: year to year Q3 FY2018 & Q3 FY2019)	95.7%	93.7%	≥ 95%	—	 (Five-quarter trend)	↑
Rail: Amtrak Cascades on-time performance[4] (Annual measure: fiscal years 2017 & 2018)	56.3%[5]	53.9%	≥ 88%	—		↑
Environment						
Number of WSDOT **stormwater management facilities** constructed (Annual measure: fiscal years 2017 & 2018)	129	78	*	N/A		N/A
Cumulative number of WSDOT **fish passage improvement projects** constructed (Annual measure: calendar years 2016 & 2017)	316[6]	330	*	N/A		↑
Stewardship						
Cumulative number of Nickel and TPA **projects completed**[7] and **percentage on time**[8] (Calendar quarterly measure: Q4 2018 & Q1 2019, trendline for percentage on time	382/ 86%	382/ 86%	≥ 90% on time	—	 (Five-quarter trend)	↑
Cumulative number of Nickel and TPA **projects completed**[7] and **percentage on budget**[8] (Calendar quarterly measure: Q4 2018 & Q1 2019, trendline for percentage on budget)	382/ 91%	382/ 91%	≥ 90% on budget	✓	(Five-quarter trend)	↑
Variance of total project costs[7] compared to **budget expectations**[8] (Calendar quarterly measure: Q4 2018 & Q1 2019)	Under budget by 1.6%	Under budget by 1.6%	On or under budget	✓	 (Five-quarter trend)	N/A

Data source: WSDOT Transportation Safety & Systems Analysis.
Notes: (*) = goal has not been set. Dash (—) = goal was not met in the reporting period. **1** The Statewide Transportation Policy Goal for this performance measure is different than the federal MAP-21 goal for the same measure. **2** Mobility does not yet include goals for people walking/ biking for transportation. **3** Washington State Ferries' on-time departures include any trip recorded by automated tracking as leaving the terminal within 10 minutes of scheduled time. **4** Amtrak Cascades' on-time performance includes any trip arriving within 10 or 15 minutes, depending on the route, of scheduled arrival time. **5** Amtrak Cascades' 2017 on-time performance was reported for calendar year 2017 in GNB 70 and 71. **6** The 2016 number differs from previous publications to reflect the most recent available data. **7** Construction projects only. **8** Budget and schedule expectations are defined in the last approved state transportation budget. See p. 24 for more information.

73 MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY

WSDOT reports its 2019 targets, baselines for the MAP-21 highway safety measures

WSDOT reported its 2019 Moving Ahead for Progress in the 21st Century highway safety targets to the Federal Highway Administration on August 31, 2018. In December 2019, FHWA will determine whether WSDOT has made significant progress toward achieving the 2018 targets or baselines it set for highway safety (also referred to as PM1). The PM1 targets in the table below are on an annual reporting cycle and were established collaboratively by WSDOT and Metropolitan Planning Organizations.

WSDOT tracking MAP-21 performance toward its targets for bridges, pavement and highway systems

On May 20, 2018, WSDOT established its federally-required MAP-21 targets for bridges and pavement (also referred to as PM2), and highway system performance, freight, and Congestion Mitigation and Air Quality (also referred to as PM3). WSDOT needs to show significant progress toward meeting PM2 and PM3 targets by October 2022. Targets were established by WSDOT and Metropolitan Planning Organizations.

WSDOT and state MPOs submitted MAP-21 targets for PM2 and PM3 to FHWA's Washington state division office in the Baseline Performance Report on October 1, 2018. The division office recommended the FHWA national headquarters office accept the targets, which began a four-year reporting cycle for PM2 and PM3 performance measures that requires:

- A Mid-Performance Period Progress Report (due by October 1, 2020), and
- A Full-Performance Period Progress Report (due by October 1, 2022).

How MAP-21 penalties can affect WSDOT

Penalties are triggered when significant progress is not achieved and the five-year rolling averages are more than targets or are higher than baseline levels. These penalties, which may involve additional reporting, require WSDOT to explain to the Federal Highway Administration how it will make future progress toward its targets. Specific measures in PM1 and PM2 also invoke penalties that require WSDOT to redistribute its federal monies to help ensure significant progress toward these targets occurs in the future.

MAP-21 performance measures by program area	2013-2017 baseline[1]	2019 target	Penalty[2]
Highway Safety (PM1) 23 CFR Part 490 ID No. 2125-AF49			
Number of traffic fatalities on all public roads[3]	≤ 510.0	≤ 489.2	Yes
Rate of traffic fatalities per 100 million vehicle miles traveled (VMT) on all public roads[3]	≤ 0.857	≤ 0.813	Yes
Number of serious traffic injuries on all public roads[3]	≤ 2,092.2	≤ 1,855.0	Yes
Rate of serious traffic injuries per 100 million VMT on all public roads[3]	≤ 3.517	≤ 3.068	Yes
Number of non-motorist traffic fatalities plus serious injuries	≤ 511.8	≤ 511.8	Yes
MAP-21 Special Rules (Safety)			
Rate of per capita traffic fatalities for drivers and pedestrians 65 or older	Show progress		No
Rate of fatalities on high-risk rural roads[3]	Show progress		Yes
Highway-railway crossing fatalities[4]	Show progress		No

Data source: WSDOT Transportation Safety & Systems Analysis.

Notes: **1** The PM1 targets for 2019 were submitted on August 31, 2018, using 2013-2017 for current baseline data. **2** Penalties will not be assessed if WSDOT shows significant progress on four of five PM1 targets. Significant progress is achieved if the five-year rolling average is less than or equal to the target or less than or equal to the baseline level. **3** Performance metric includes all individuals (drivers, passengers, pedestrians and bicyclists) who died or were seriously injured as a result of a motor vehicle crash in Washington. **4** Includes bicyclists and pedestrians.

When WSDOT and MPOs report their progress toward achieving PM2 and PM3 targets in the 2020 mid-performance period progress report they will also provide updates on two-year condition/performance and investment strategies as well as discuss any necessary target adjustments.

WSDOT and MPOs can adjust their four-year targets at the two-year mark, but must explain the basis for the changes and how these adjusted targets support expectations documented in longer-range plans.

In 2022, FHWA will use the full-performance period progress report to determine whether WSDOT has made significant progress toward its PM2 and PM3 targets.

MAP-21 folios helping MPOs, stakeholders

WSDOT developed informational folios to ensure the agency and its partners are aligned as MAP-21 work progresses. For links to WSDOT-specific MAP-21 folios, visit www.wsdot.wa.gov/Accountability/MAP-21.

MAP-21 performance measures by program area	Current data	2-year target[1,2]	4-year target[1,2]	Penalty
Pavement and Bridges (PM2) 23 CFR Part 490 ID No. 2125-AF53				
Pavement on the National Highway System				
Percentage of Interstate pavement on the NHS in good condition	32.5%[3]	N/A	30%	No
Percentage of Interstate pavement on the NHS in poor condition	3.6%[3]	N/A	4%[4]	Yes
Percentage of non-Interstate pavement on the NHS in good condition	18%[3]	45%	18%	No
Percentage of non-Interstate pavement on the NHS in poor condition	5%[3]	21%	5%	No
Bridges on the National Highway System				
Percentage of NHS bridges classified in good condition (weighted by deck area)	32.8%	30%	30%	No
Percentage of NHS bridges classified in poor condition (weighted by deck area)	7.8%	10%	10%[4]	Yes
Highway System Performance, Freight, and Congestion Mitigation & Air Quality (PM3) 23 CFR Part 490 ID No. 2125-AF54				
Highway System Performance (Congestion)				
Percentage of person-miles traveled on the Interstate System that are reliable	73%	70%	68%	No
Percent of person-miles traveled on the Non-Interstate NHS System that are reliable	77%	N/A	61%	No
National Freight Movement Program				
Truck Travel Time Reliability (TTTR) Index	1.63	1.70	1.75	No
Congestion Mitigation & Air Quality Program				
Non-Single Occupancy Vehicle (SOV) travel in Seattle urbanized area (NHS)	32%	32.8%	33.2%	No
Peak hours of Excessive Delay per capita in Seattle urbanized area (NHS)	23	N/A	28	No
All Pollutants (kg/day)[2]	1,658.640	366.285	658.300	No
Carbon Monoxide (CO) (kg/day)[2]	313.160	309.000	309.060	No
Particulate Matter less than 10 microns (PM_{10}) (kg/day)[2]	435.690	0.305	224.000	No
Particulate Matter less than 2.5 microns ($PM_{2.5}$) (kg/day)[2]	36.820	2.100	8.700	No
Nitrogen Oxides (NOX) (kg/day)[2]	872.970	54.880	116.540	No

Data sources: WSDOT Bridge and Structures Office, WSDOT Pavement Office, WSDOT Transportation Safety & Systems Analysis, WSDOT Rail, Freight, and Ports Division, WSDOT Environmental Services Office.

Notes: Federal rule allows state and MPOs to adjust four-year targets during the mid-performance period progress report. **1** Two-year and four-year reports for PM2 and PM3 are due October 1, 2020, and October 1, 2022. **2** Base emissions are for the four-year period 2013-2016 as reported in the CMAQ Public Access System. **3** PM2 "Current data" is relative to four-year pavement targets only. **4** The National Highway Performance Program (NHPP) targets require the percentage of Interstate pavement on the NHS in poor condition not exceed 5% and the percentage of NHS bridges classified in poor condition (weighted by deck area) not exceed 10%.

73 ACTIVE TRANSPORTATION: ANNUAL SAFETY REPORT

Pedestrian fatalities continue to increase while bicyclist fatalities remain the same in 2018

Traffic deaths involving people walking and biking on Washington roadways increased 50% from 82 in 2014 to 123 in 2018. Between 2017 and 2018, the total number of fatalities increased less than 1%—from 121 to 123—with pedestrian fatalities increasing by two, and bicyclist fatalities remaining steady. Since 2014, traffic fatalities involving pedestrians—including people in wheelchairs and those using other small rideable devices such as skateboards and scooters—have increased 42% from 76 to 108. Bicyclist fatalities have more than doubled during this same five-year period, increasing 150% from six in 2014 to 15 in 2018.

The number of serious traffic injuries to people walking and bicycling increased 27% from 421 in 2014 to 535 in 2018. Between 2017 and 2018, serious injuries to people walking and biking increased 15% from 460 to 535, with serious injuries to people walking increasing 12%, and people bicycling increasing 32%. WSDOT is working to reduce both serious injuries

Combined pedestrian and bicyclist fatalities increase to 123 in 2018, making up 22% of all traffic fatalities in Washington

2014 through 2018; Number of fatalities and percentage of total traffic fatalities

	2014	2015	2016	2017	2018[1]	Five-year trend Reduction goal[2] - -
Pedestrian fatalities	76	86	88	106	108	
Bicyclist fatalities	6	14	17	15	15	
Total pedestrian and bicyclist fatalities	82	100	105	121	123	
Total statewide traffic fatalities[3] = 100%	*462*	*551*	*537*	*565*	*548*	
Statewide percentage of pedestrian and bicyclist traffic fatalities	*18%*	*18%*	*20%*	*21%*	*22%*	
Pedestrian serious injuries	309	287	364	360	403	
Bicyclist serious injuries	112	122	136	100	132	
Pedestrian and bicyclist serious injuries	421	409	500	460	535	

Data source: WSDOT Transportation Data, GIS & Modeling Office.

Notes: Some fatality numbers are changed from past Gray Notebooks due to updates within the Fatality Analysis Reporting System data source. **1** 2018 data is preliminary. **2** To reach the goal of zero fatalities for pedestrians and bicyclists by 2030 requires at least a 5% annual fatality reduction. **3** Total statewide fatalities include all modes of travel on public roadways.

Notable results

- *About 22% of those who died in a traffic collision during 2018 were pedestrians and bicyclists*
- *Serious injuries to people walking and bicycling increased 15% from 450 in 2017 to 519 in 2018*
- *Evaluation of Safe Routes to School/ Pedestrian and Bicycle Program projects found a 36% to 44% decrease in bicyclist and pedestrian crashes at project sites*
- *From 2014 to 2018, 87% of pedestrian and bicyclist fatalities occurred on roads with posted speeds of 30 mph or higher*

Pedestrian and bicyclist data versus motorist data

Information on drivers' collisions is reported on the basis of their exposure to risk: the more miles people drive the more exposure they have to a potential crash.

For people walking and bicycling, WSDOT does not have information on exposure rates because the agency does not have data on the total miles walked or biked.

WSDOT is continuing research to develop an exposure model with the aim of building on the methodology of the agency's permanent bicyclist/pedestrian count program.

Fatalities and serious injuries cost society over $1 billion in 2018

While the loss of a human life is incalculable to those who have lost a loved one, there is also a substantial economic cost to society. To inform policy decisions, it can be instructive to assign a monetary value to human life and health. Understanding the societal costs helps decision makers recognize the need to fund improvements that will prevent crashes. When this becomes necessary, WSDOT follows USDOT guidance for calculating the value of lives saved and injuries prevented, available at http://bit.ly/usdotvaluation. Using this methodology, the 123 pedestrian and bicycle fatalities that occurred in Washington state in 2018 cost society approximately $1.2 billion based on "Value of a Statistical Life" calculations. Additionally, the 519 pedestrian and bicyclist serious injuries cost society approximately $524 million.

and fatalities for bicyclists and pedestrians through a number of projects and programs (see pp. 9-11).

Highest number of crashes occur on city streets

Sixty-one percent of fatal and serious injuries that involved people walking and bicycling from 2014-2018 occurred on city streets while 27% of these incidents happened on state routes and 11% occurred on county roads. The higher incidence for city streets reflects the shorter distances between destinations in urban areas—which encourages active transportation trip—and larger concentrations of pedestrians, bicyclists and motorists.

Of the 27% of serious injury/fatal crashes taking place on state routes, 85% were in urban or urbanizing areas. Main street highways (sections of state routes that also serve as main streets for local populations) represent about 10% of total lane miles in Washington, but were the sites of 45% of all pedestrian and bicyclist fatalities. State routes classified as principle or minor arterials saw 74% of active transportation fatal and serious injury crashes.

Rates of pedestrian, bicyclist traffic crashes vary by demographic

Approximately 67% of fatal and serious injury crashes from 2014-2018 involved men, and about 33% involved women.

In proportion to their representation in the population, People in their 20s are more likely to be killed or seriously injured while walking or bicycling. This demographic made up 14% of the total population from 2014-2018 but was involved in 18% of all pedestrian and bicyclist fatal and serious injury crashes.

Compared to other age groups, younger and older people are less likely to be killed or seriously injured when walking or bicycling. Children ages 19 and younger comprised 25% of the total Washington state population from 2014-2018, with 16% of pedestrian or bicyclist fatalities and serious injuries. People 65 years and older are also under-represented; they made up 15% of the total population during the five-year period and were involved in 14% of fatal and serious injury pedestrian and bicyclist crashes.

People in poverty over-represented in active transportation fatalities and serious injuries

For population studies, the state is divided into census block groups (a geographic unit typically between 600-3,000 people). In Washington, about 44% of census block groups have higher poverty levels than the state average, with 59% of fatal and serious injury crashes occurring in these locations. Lower income neighborhoods tend to have less infrastructure dedicated to walking and bicycling. People living in poverty also include an over-representation of other vulnerable groups such as people of color, the elderly, and people with disabilities.

Higher driving speeds a major contributing factor in severity of crashes

Higher driving speeds are directly linked to the severity of pedestrian

and bicyclist fatal and serious injury crashes.

From 2014 to 2018, most fatalities of people walking and biking (87%) occurred on roads with a posted speed of 30 mph or higher. Over the same period, 13% of pedestrian and bicyclist fatal crashes occurred on roads with a posted speed of 25 mph or less.

Severe crashes more likely for pedestrians and bicyclists on roadways

People crossing the street made up 62% of fatal and serious injury crashes involving pedestrians from 2014-2018. During this five-year period, 54% of bicyclist fatal and serious injury crashes were intersection-related. From 2014-2018, 47% of pedestrian fatal and serious injury crashes occurred while the person was using a roadway, and 5% occurred while the person was using the sidewalk. Similarly, 49% of bicyclist fatal and serious injury crashes occurred when the person biking was using the roadway, while 10% occurred when the bicyclist was on the shoulder and 15% occurred on a designated bike route.

Dedicated places for people to walk or bicycle are not available on every roadway where they need to travel; current data collection does not always inform WSDOT whether or not infrastructure was available in crash locations, or what type of infrastructure was present.

Target Zero safety plan helps identify problems

Washington state is not currently on track to meet the pedestrian and bicyclist safety goals set forth in its strategic highway safety plan, Target Zero. The plan calls for zero traffic fatalities or serious injuries by 2030, but both have increased since 2016. For more information, see p. 11.

In the forthcoming 2019 Target Zero report, emphasis areas for pedestrians and bicyclists based on 2018 data prioritize crossings, speed management, and the need for safe, complete infrastructure, among other strategies. Of the fatal and serious injury crashes involved pedestrians in 2018:

- 62% occurred when the pedestrian was crossing the street
- 65% occurred where there were no traffic controls (stop signs, traffic signals, etc.), and
- 73% occurred on roads with a posted speed of 30 mph or higher.

New laws focus on pedestrian, bicyclist safety

In the 2019 session the legislature passed Senate Bill 5710, merging separate pedestrian and bicyclist councils into the Cooper Jones Active Transportation Safety Advisory Council. The ATSAC will continue to analyze data and make recommendations with the aim of reducing pedestrian and bicyclist fatalities and serious injuries.

The legislature also passed SB 5723, an update to the vulnerable road user law that defines safe passing, increases fines for unsafe passing, and uses the revenues to establish a vulnerable roadway user education fund. This was one of the recommendations in the 2018

WSDOT promotes the Safe Systems Approach

Updates to Target Zero (Washington's Strategic Highway Safety Plan) in 2019 will include information on the Safe Systems Approach. This approach is a widely recognized and successful method for using traffic safety data to inform decisions. The Safe Systems Approach recognizes that people make mistakes and that roads should be designed to allow for those mistakes while keeping all road users safe. This includes proactive design and control to eliminate safety risks before they cause serious injury or death. The Safe Systems Approach focuses on proven strategies in five principle areas:

1. Speed control and separation: Ensure safe operating speeds for roadways and separation of drivers from pedestrians and bicyclists
2. Functional harmony: Design roadways and vehicles to reduce conflicts between roadway users
3. Predictability and simplicity: Make it easier for all roadway users to use roadways safely
4. Forgiveness and restrictiveness: Predict where simple mistakes can happen and prevent them
5. State awareness: Change behaviors that contribute to crashes

reports of both the Pedestrian and Bicyclist Safety Advisory councils.

Both reports recommended development of a speed management policy. WSDOT has convened a speed policy working group with injury minimization as its goal, and will release a policy and guidelines in early 2020. Additional recommendations on topics like the development of complete networks, investment in infrastructure in underserved areas, and improved collection of asset data can be found at http://bit.ly/PSAC2018Report and http://bit.ly/BSAC2018Report.

WSDOT invests in safety improvements for pedestrians and bicyclists

The WSDOT Pedestrian and Bicycle Program and the Safe Routes to School Program provide funding to public agencies for bicyclist and pedestrian safety improvements. The programs are open to all public agencies in Washington and emphasize crash reduction; the SRTS program requires projects to be located within two miles of a school.

WSDOT expects to award approximately $41 million in funding for the two programs in summer 2019. From January to April 2018, WSDOT received 255 applications requesting $187.4 million from the two programs—the highest total amount ever requested.

Pedestrian and Bicycle Program completes 107 projects

In 2018, WSDOT received 135 Pedestrian and Bicycle Program project requests from 92 agencies and organizations.

More than half of the applications (59%) either called for making improvements at known crash locations or proposed projects based on the Federal Highway Administration's Systemic Safety Approach. Forty-two percent of the applications were located within areas with a greater than average percentage of people of color, and about 59% of the applications focused on low-income areas.

Since this program was created in 2005, more than $72 million has been made available for 158 projects, of which 107 have been completed. An evaluation of Pedestrian and Bicycle Program projects between 2005 and 2015 indicates a 43.8% reduction in walking- and bicycling-related crashes at project sites during the study time period.

Safe Routes to School completes 162 projects in Washington

In 2018, WSDOT received 120 Safe Routes to School project requests from 85 agencies and organizations totaling approximately $87.4 million.

Thirty-six percent of these applications either targeted known crash locations or proposed improvements based on the Federal Highway Administration's Systemic Safety Approach. Forty-seven percent of the applications would serve schools with greater than the state average percentage of students of color, and about 61% of the applications focused on schools with greater than the state average percentage of children that receive free and reduce priced meals.

Since 2005, $71 million has been made available for 215 projects, of which 162 have been completed. An evaluation of past Safe Routes to School projects (2005-2015)

WSDOT partners with UW on research to reduce pedestrian crashes

The University of Washington, in partnership with WSDOT, is conducting the Advancing Multimodal Safety Through Pedestrian Risk Reduction study. This study focuses on assessing factors that contribute to pedestrian collisions at crash-risk locations. The researchers developed statistical models based on environmental and socioeconomic factors identified from pedestrian crashes at both intersection and non-intersection locations on state routes. Researchers are working to determine if there is a need to develop different pedestrian safety strategies and policies for these two types of crash-risk locations. Preliminary results show several environmental factors associated with high pedestrian-motor vehicle collision rates—including roadway characteristics, traffic condition, neighborhood characteristics and land use. Wider, major roadways at intersection locations appear to show higher levels of collision rates. Both intersection and non-intersection crash locations have common characteristics related to pedestrian volumes, bus ridership, residential density, employment density, park and rides, residential area and service area of land uses.

indicates a 36.4% reduction in walking- and bicycling-related crashes at the project locations.

WSDOT to update Active Transportation Plan

WSDOT expects to release a five-year update to its Washington State Bicycle Facilities and Pedestrian Walkways Plan in 2020. This plan will inform WSDOT's work both on its own roads and with its partners, guiding the implementation of changes to increase access, safety and mobility and enable Washingtonians of all ages and abilities to walk, bike and roll. The plan includes an analysis of existing facilities, guidelines for prioritizing improvements for a complete network, an assessment of asset management practices, a policy review, study of funding opportunities and development of performance measures.

WSDOT is engaging the public and stakeholders across the state in the plan update by asking them to help provide vision, policy direction and actionable, prioritized strategies for WSDOT and its partner agencies. To participate in the survey, visit http://bit.ly/WSDOT-2019-ATP.

WSDOT works to develop pedestrian crossing plan

In 2018, WSDOT staff worked with the Federal Highway Administration to develop an action plan for implementing pedestrian crossing countermeasures at uncontrolled locations, available at http://bit.ly/PedestrianActionPlan. The plan recommends process changes to help WSDOT better understand:

- Where pedestrian crossing needs exist
- How to prioritize unmet need and make best use of existing and future funding, and
- How to obtain the right mix of effective treatments.

Washington again most bicycle-friendly state

Washington state remains the most bicycle friendly state in the nation, according to the League of American Bicyclists. LAB ranks states based on state-submitted information on policy, use of funds, state DOT surveys, and other factors. Washington has led the list since the ranking system was established in 2008. Learn more and read the Washington state 2018 Progress Report at https://bikeleague.org/states.

Contributors include Barb Chamberlain, Charlotte Claybrooke, Brian Wood, Joe Irwin and Lisa Mikesell

WSDOT and partners set Target Zero pedestrian and bicyclist safety goals

- Reduce pedestrian and bicyclist fatalities to zero by 2030.
- Reduce pedestrian and bicyclist serious injuries to zero by 2030.
- Introduce combinations of speed management tools and lower speed limits. *This would reduce motorist speeds on state routes within town centers where pedestrians and/or bicyclists are expected.*
- Expand and improve pedestrian and bicyclist crossing opportunities. *For 2019, WSDOT is developing a baseline of traffic signals with protected pedestrian phase intervals on the state system and a methodology for evaluation of highway crossing needs.*
- Complete a network of separated pedestrian and bicyclist facilities. *The 2019 State Active Transportation Plan is developing a baseline of miles on the state system rated by pedestrian and bicyclist level of traffic stress as well as a method for prioritizing gap completion.*
- Improve safety for children walking and bicycling to school. *This goal also includes increasing the percentage of SRTS and Pedestrian and Bicyclist Program project requests focusing on underserved populations where infrastructure is lacking.*
- Improve data and performance measures. *The 2019 State Active Transportation Plan will establish performance measures and identify data needs.*
- Improve traveler behavior by developing education programs for travelers and law enforcement.
- Improve education and enforcement of laws pertaining to motorists, pedestrians and bicyclists.

73 TRAVEL INFORMATION ANNUAL REPORT

Notable results

- *The number of WSDOT's Facebook page followers increased 24.6% from 79,343 in April 2018 to 98,878 in March 2019*
- *WSDOT had 187,277 downloads of its mobile app from April 2018 to March 2019, bringing the total number of downloads to 936,480*

Web traffic increases, ad revenue decreases

WSDOT's travel information website had about 192 million page views during the 2019 reporting period, up 54.8% from approximately 124 million views in the last reporting period. Severe weather events during February 2019 resulted in increased traffic. People viewed the website to check pass conditions, cameras, and traffic alerts.

The average net revenue from advertising commercial goods or services on WSDOT's travel information website was $7,512 per month from April 2018 through March 2019. This is a 24.4% decrease in revenue from the monthly average of $9,943 for the previous 12 months. For more information about WSDOT online advertising, see https://www.wsdot.wa.gov/Business/Advertising/.

WSDOT's social media following continues to grow

WSDOT's social media following continued its upward trend during the 2019 reporting period (April 1, 2018 through March 31, 2019). The number of people following WSDOT's Facebook page increased 24.6% from 79,343 in April 2018 to 98,878 in March 2019. The increase was largely due to the SR 99 tunnel opening in Seattle and the statewide snowstorm in February 2019. Continuous updates on cross-state highway conditions during the snowstorm were viewed about 903,100 times.

WSDOT has 13 Twitter accounts; the two most popular—"@wsdot_traffic" and "@wsdot"—gained followers during the 2019 reporting period. During the reporting period, the number of people following the "@wsdot_traffic" Twitter account increased 1.9% from 461,295 to 470,244, and those following the "@wsdot" Twitter account increased 0.5% from 272,711 to 273,968.

WSDOT's mobile apps (available on both iPhone and Android) had 187,277 downloads during the 2019 reporting period. There were 936,480 total downloads (both versions) of WSDOT's mobile apps as of March 31, 2019. Social media contributes to WSDOT's strategic goal of Inclusion by providing information to customers from various communities.

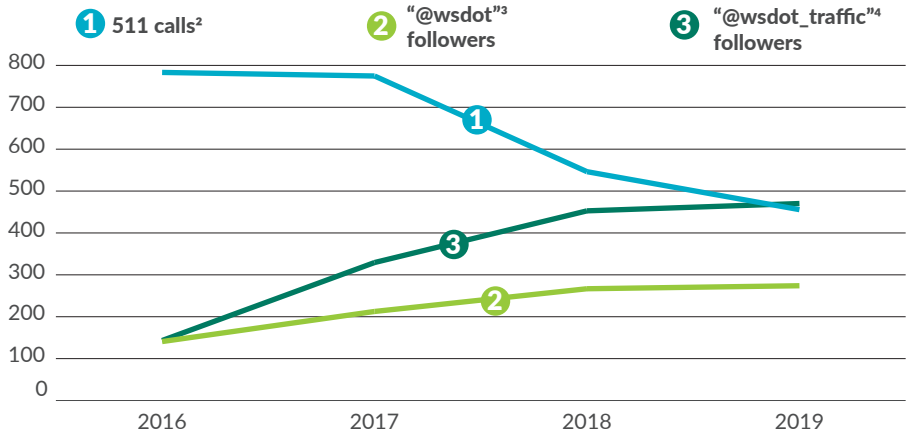
WSDOT's 511 travel information calls decrease

The number of calls to WSDOT's 511 travel information phone system decreased 16.6% to 455,650 calls during the 2019 reporting period, down from 546,281 calls during the previous 12 months. While the exact cause of this decrease is unknown, customers may be using WSDOT's other outreach tools to receive this information.

Contributors include Jeremy Bertrand, Ron Vessey, Takahide Aso and Dustin Motte

WSDOT's Twitter following continues to increase, 511 calls see decrease

April through March, 2016 through 2019[1]; Numbers in thousands



Data source: WSDOT Communications Office

Notes: Numbers for Facebook, Twitter—"@wsdot" and "@wsdot_traffic" reported on GNB 69 Travel Information 2018 reporting period (April 1, 2017 to March 31 2018) were recalculated with improved data collection methods. Recalculated numbers for GNB 69: Facebook 79,343, Twitter—"@wsdot" 272,711, "@wsdot_traffic" 461,295. **1** The reporting period is April 1 through March 31 of the following year. **2** WSDOT's travel information phone system. **3** WSDOT's Twitter account. **4** WSDOT Northwest Region traffic information Twitter account.

73 INCIDENT RESPONSE QUARTERLY UPDATE

WSDOT Incident Response teams improve driver safety at 17,010 incidents

WSDOT Incident Response teams were dispatched to 17,010 incidents during the first quarter (January through March) of 2019. There were 2,172 more incidents during the first quarter of 2019 than during the same period in 2018, a 14.6% increase.

Incident Response teams cleared incidents in an average of 12 minutes and 30 seconds. This is 36 seconds faster than the average incident clearance time for the same quarter in 2018.

Compared to the same quarter in 2018, the first quarter of 2019 had 5.6% more incidents lasting longer than 90 minutes, 10.8% more incidents lasting 15-90 minutes and 16.0% more incidents lasting less than 15 minutes. The proportion of incidents that blocked at least one lane decreased slightly from 26.1% for the first quarter of 2018 to 25.6% during the same period in 2019.

WSDOT focuses on safety when clearing incidents, working to reduce the potential for secondary incidents as well as incident-induced delay. Secondary incidents occur in the congestion resulting from a prior incident and may be caused by distracted driving, unexpected slowdowns or debris in the roadway. The IR teams help alert drivers about incidents and assist in clearing the roadway to reduce the likelihood of new incidents. WSDOT's assistance at incident scenes provided an estimated $26.6 million in economic benefit during the first quarter of 2019 by reducing the impacts of incidents on drivers. This benefit is provided in two ways:

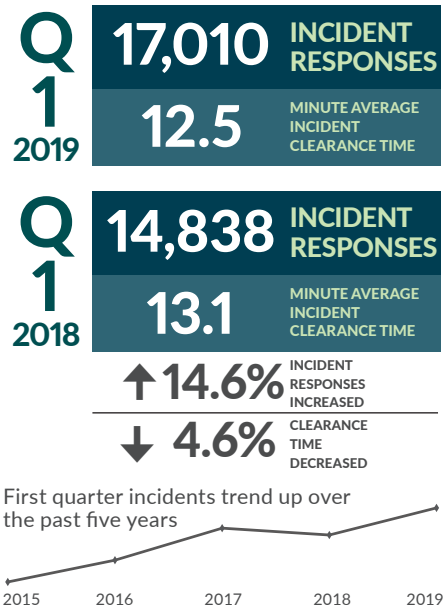
- WSDOT reduces the time and fuel motorists waste in incident-induced traffic delay by clearing incidents quickly. About $15.0 million of IR's economic benefit for the quarter result from reduced traffic delay.
- WSDOT helps prevent secondary incidents by proactively managing traffic at incident scenes. About $11.6 million of IR's economic benefit results from preventing an estimated 3,243 secondary incidents and resulting delay. This figure is based on Federal Highway Administration data that indicates 20% of all incidents are secondary incidents.

Based on WSDOT's budget for IR, every $1 spent on the program this quarter provided drivers roughly $17.72 in economic benefit. A table summarizing the IR program's performance and benefits for the quarter is on the next page.

Notable results

- *WSDOT responded to 17,010 incidents during the quarter, providing about $26.6 million in economic benefit*
- *WSDOT cleared incident scenes in an average of 12 minutes and 30 seconds, reducing traffic delay and the risk of secondary incidents*

First quarter (January through March) 2018 and 2019



Data source: Washington Incident Tracking System.

Notes: The data above only accounts for incidents to which an IR unit responded. IR data reported for the current quarter (Q1 2019) is considered preliminary. In the previous quarter (Q4 2018), WSDOT responded to 13,984 incidents, clearing them in an average of 13.6 minutes. These numbers have been confirmed and are now finalized.

The mission of WSDOT's Incident Response program is to clear traffic incidents safely and quickly, minimizing congestion and the risk of secondary incidents. The statewide program has a biennial budget of $12 million, about 59 full-time equivalent positions and 69 dedicated vehicles. Teams are on-call 24/7 and actively patrol approximately 1,300 centerline miles (3,400 lane miles) of highway on major corridors around the state during peak traffic hours. This covers approximately 18% of all state-owned centerline miles statewide.

WSDOT's Incident Response provides an estimated $26.6 million in economic benefit

January through March 2019; Incidents by duration; Times in minutes; Costs and benefits in millions of dollars

Incident duration	Number of incidents[1]	Percent blocking[2,5]	Average incident clearance time[3,5] (all incidents)	Cost of incident-induced delay[5]	Economic benefits from IR program[4,5]
Less than 15 minutes	13,016	16.2%	4.7	$15.5	$7.2
Between 15 and 90 minutes	3,804	55.0%	30.3	$33.4	$14.6
Over 90 minutes	190	82.1%	179.9	$11.3	$4.8
Total	17,010	25.6%	12.5	$60.1	$26.6
Percent change from the first quarter of 2018	**↑14.6%**	**↓0.5%**	**↓4.6%**	**↑8.9%**	**↑9.5%**

Data source: Washington Incident Tracking System.

Notes: Some numbers do not add to 100% due to rounding.

1 Teams were unable to locate 795 of the 17,010 incidents. Because an IR team attempted to respond, these incidents are included in the total incident count.
2 An incident is considered blocking when it shuts down one or more lanes of travel.
3 Incident clearance time is the time between an IR team's first awareness of an incident and when the last responder has left the scene.
4 Estimated economic benefits include benefits from delay reduction and prevented secondary incidents. See WSDOT's Handbook for Corridor Capacity Evaluation, 2nd edition, pp. 45-47, for WSDOT's methods to calculate IR benefits.
5 Performance measure excludes the incidents IR teams were unable to locate.

WSDOT teams respond to 190 over-90-minute incidents

WSDOT Incident Response units provided assistance at the scenes of 190 incidents that lasted more than 90 minutes during the first quarter of 2019. This is 10 more incidents—a 5.6% increase—than in the same quarter in 2018. Over-90-minute incidents accounted for only 1.1% of all incidents, but resulted in 18.7% of all incident-related delay costs.

Ten of the 190 over-90-minute incidents took six hours or more to clear (these are referred to as extraordinary incidents). This is one incident more than in the first quarter of 2018. The 10 extraordinary incidents took an average of 11 hours and 25 minutes to clear, and accounted for 3.9% of all incident-induced delay costs for the quarter.

The average incident clearance time for all over-90-minute incidents was about two hours and 59 minutes. This is about three minutes faster than the same quarter in 2018 (three hours and two minutes). Excluding the 10 extraordinary incidents, WSDOT's average clearance time for over-90-minute incidents was two hours and 29 minutes. Performance data reported in this article comes from WSDOT's Washington Incident Tracking System, which tracks incidents to which a WSDOT IR team responded.

For more information on how WSDOT calculates these figures and all IR performance metrics, see WSDOT's Handbook for Corridor Capacity Evaluation, 2nd edition, pp. 45-47.

Contributors include Vince Fairhurst, Michele Villnave, Takahide Aso and Dustin Motte

Customer feedback:

- Ken was great. He pushed me to a safer location. I was only there a few minutes before he was there.
- Jeff was extremely cordial, professional, and helpful. Many thanks to WSDOT and Jeff for providing this invaluable service to highway drivers!
- Heather was amazing. She went above and beyond her usual duties to help me and therefore couldn't have been better help than Heather! She needs a raise.

73 WASHINGTON STATE FERRIES QUARTERLY UPDATE

WSF service reliability remains above goal

There were 38,641 regularly scheduled ferry trips during the third quarter of fiscal year 2019 (January through March 2019). Washington State Ferries completed 99.2% (38,348) of these trips. This exceeds the annual service reliability performance goal of 99% but is 0.2 percentage points lower than the same quarter in FY2018 (see table on the next page).

In the third quarter of FY2019, WSF canceled 373 trips and was able to replace 80 of them, resulting in 293 net missed trips. This was 58 more net missed trips compared to the 235 missed during the same quarter in FY2018.

Of the 373 total canceled trips for the quarter, 219 were due to a mechanical problem on the Motor/Vessel *Wenatchee*. The vessel was assigned to the Seattle – Bainbridge Island route, which is the system's busiest (56 of 219 canceled trips were replaced, resulting in 163 net missed trips). To ensure adequate service system-wide, WSF reassigned one of three vessels from the Fauntleroy – Vashon – Southworth route to the Seattle – Bainbridge Island route.

WSF's service reliability remained high during the quarter despite several significant snowstorms. Some areas in the region received as much as 21 inches of snow. Of 3,874 scheduled trips during the snowstorms (February 2-12) WSF completed 99.5% (3,853) of those trips.

Ridership decreases during the third quarter of FY2019

WSF ridership was approximately 4.8 million during the third quarter of FY2019. This was about 444,500 (8.5%) fewer passengers than WSDOT projected for the quarter, and about 297,300 (5.8%) fewer passengers than the corresponding quarter in FY2018.

Ridership during the third quarter of FY2019 decreased on seven of the nine routes compared to the same quarter in FY2018. The severe winter storms in February and March were a significant contributors to reduced ridership.

Excluding the Anacortes – Friday Harbor – Sidney, B.C. route, which is closed for much of the winter and represented a low percentage of overall ridership, the Point Defiance – Tahlequah route showed the largest increase in ridership for the quarter. Ridership on this route increased by 1.0 percentage point (1,878 riders) compared to the same quarter last year.

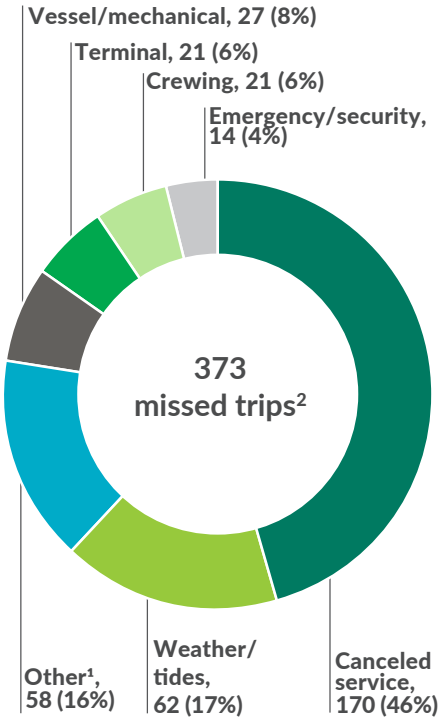
The Seattle – Bainbridge route had an 8.7% decrease in ridership compared to the same quarter last year. Ridership on this route was affected by the weather and the closure of the Alaskan Way Viaduct on SR 99 in Seattle from January 11 through February 3. The closure was advertised in advance and people were advised to find alternatives to commuting to avoid increased congestion in the downtown core. Additionally, Kitsap Transit's passenger-only fast ferry between Kingston and downtown Seattle—which went into service in November 2018—may have affected ridership on the Seattle – Bainbridge route as well as the Edmonds – Kingston route.

Notable results

- *WSF completed 38,348 (99.2%) of its 38,641 regularly scheduled trips in the third quarter of FY2019*
- *WSF ridership was approximately 4.8 million in the third quarter of FY2019, about 297,000 (5.8%) fewer than the corresponding quarter in FY2018*

Canceled service top reason for WSF missed trips during quarter

Third quarter (January - March) FY2019; Number of cancellations and percent of total cancellations per category



Data source: Washington State Ferries.

Notes: Fiscal years run from July 1 through June 30. As a result, January - March 2019 represents the third quarter of FY2019.
1 The category for "Other" includes vessel availability, issues at terminals, and events like disabled vehicles, environmental reasons and non-vessel related incidents that can impact operations. **2** WSF replaced 80 of the 373 missed trips for a total of 293 net missed trips.

WSF on-time performance and reliability decrease in the third quarter of fiscal year 2019

January through March FY2018 and FY2019; Annual on-time goal = 95%; Annual service reliability goal = 99%

	On-time performance (third quarter)				Trip reliability (third quarter)			
Route	FY2018	FY2019	Status	Trend	FY2018	FY2019	Status	Trend
San Juan Domestic	90.6%	84.8%	-5.8%	↓	99.7%	99.8%	+0.1%	↑
Anacortes/Friday Harbor – Sidney, B.C.	91.7%	83.3%	-8.4%	↓	100.0%	100.0%	0.0%	↔
Edmonds – Kingston	98.1%	98.2%	+0.1%	↑	99.9%	99.9%	0.0%	↔
Fauntleroy – Vashon – Southworth	94.8%	93.3%	-1.5%	↓	98.8%	98.1%	-0.7%	↓
Port Townsend – Coupeville	98.0%	95.0%	-3.0%	↓	95.4%	96.4%	+1.0%	↑
Mukilteo – Clinton	98.7%	98.9%	+0.2%	↑	100.0%	99.7%	-0.3%	↓
Point Defiance – Tahlequah	98.7%	98.6%	-0.1%	↓	99.8%	100.0%	+0.2%	↑
Seattle – Bainbridge Island	94.0%	90.0%	-4.0%	↓	100.0%	99.9%	-0.1%	↓
Seattle – Bremerton	96.2%	94.1%	-2.1%	↓	99.7%	99.7%	0.0%	↔
Total system	**95.7%**	**93.7%**	**-2.0%**	↓	**99.4%**	**99.2%**	**-0.2%**	↓

Data source: Washington State Ferries.

Notes: FY = fiscal year (July 1 through June 30). As a result, January - March 2019 represents the third quarter of FY2019. A trip is considered delayed when a vessel leaves the terminal more than 10 minutes later than the scheduled departure time. WSF operates 10 routes but combines the Anacortes – Friday Harbor route with the San Juan Interisland route as the San Juan Domestic for on-time performance and service reliability. Due to unique fare collection methods in the San Juan Islands, and similar origin and destination legs on both routes, some statistics cannot be separated between the two routes.

Revenue follows ridership, trends down for the quarter

Farebox revenue came in at about $36.7 million for the third quarter of FY2019. Farebox revenue was almost $1.2 million (3.0%) less than the same quarter in FY2018, and about $3.1 million (7.9%) below projections of $39.9 million.

WSF misses on-time performance goal

On-time performance was 93.7% in the third quarter of FY2019, two percentage points lower than the same quarter in FY2018, and below WSF's annual on-time performance goal of 95%.

On-time performance decreased on seven of nine routes compared to the third quarter of FY2018. On average, 6.3% (2,370) of trips did not leave the terminal within 10 minutes of the scheduled departure time, two percentage points higher than the average of 4.3% (1,605) for the same quarter in FY2018.

The Anacortes – Friday Harbor – Sidney, B.C. route had the largest percentage point decrease in on-time performance (8.4%) compared to the same quarter last year. Due to the low number of scheduled sailings for this route, this means that two of 12 total trips (16.7%) did not leave on time.

Passenger injuries increase, employee injuries decrease

The rate of passenger injuries per million riders increased from 0.2 in the third quarter of FY2018 to 2.5 in the third quarter of FY2019.

Passenger injuries are based on the National Transit Database standard, which changed how injuries are reported beginning in FY2019. In prior years, only injuries that resulted in the passenger being transported from the scene via aid car were reportable. The new standard includes all injuries where medical care was sought. The passenger injury rate during the quarter missed WSF's goal of having one or fewer injuries per million riders.

The rate of Occupational Safety and Health Administration recordable crew injuries per 10,000 revenue service hours decreased from 9.4 in the third quarter of FY2018 to 5.0 during the same period in FY2019. This represents 13 fewer injuries than the same quarter in FY2018, and met WSF's annual goal of having a rate of fewer than 7.6 crew injuries per 10,000 revenue service hours.

Contributors include Matt Hanbey, Donna Thomas, Joe Irwin and Dustin Motte

The online version of this article links to an interactive map at bit.ly/GNBferriesmap.

73 RAIL: AMTRAK CASCADES QUARTERLY UPDATE

Amtrak Cascades ticket revenue rises in 2018

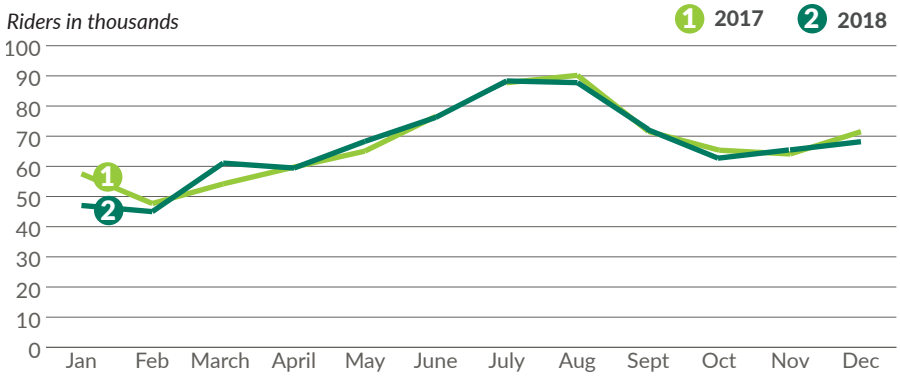
Amtrak Cascades ticket revenue totaled $31.3 million in 2018, an increase of 5.7% from $29.6 million in 2017. This increase was primarily due to reducing the number of everyday travel discounts and focusing on short flash sales to encourage travel during off-peak periods. As a result, revenue increased during peak travel periods (such as summer weekends, holidays and school breaks) in 2018, when demand did not warrant discount pricing.

The Seattle-to-Portland travel segment accounted for the largest share (31.6%) of ticket revenue in 2018 (see graph at right), as it did in 2017. The segment's $9.9 million of ticket revenue was $800,000 more than in 2017.

Amtrak Cascades ridership recovers following derailment

Ridership on Amtrak Cascades followed a similar pattern in 2018 as in 2017 (see graph below), despite an initial dip immediately following the tragic derailment of an Amtrak Cascades train on December 18, 2017. A total of 802,000 passengers traveled on Amtrak Cascades in 2018, down 1.2% from 811,000 passengers in 2017. This decline was primarily attributable to January 2018 (the month following the derailment), when ridership was 18% lower than in January 2017. Ridership recovered later in 2018, with March and May seeing notable increases over 2017—12.7% and 5%, respectively. As in previous years, 2018 Amtrak Cascades ridership peaked in the summer; July 2018 saw ridership pass 88,000 passengers—the best July in five years.

Amtrak Cascades Ridership declines in January 2018, recovers later in the year
Amtrak Cascades ridership by month



Over half of ridership uses Seattle-to-Portland segment

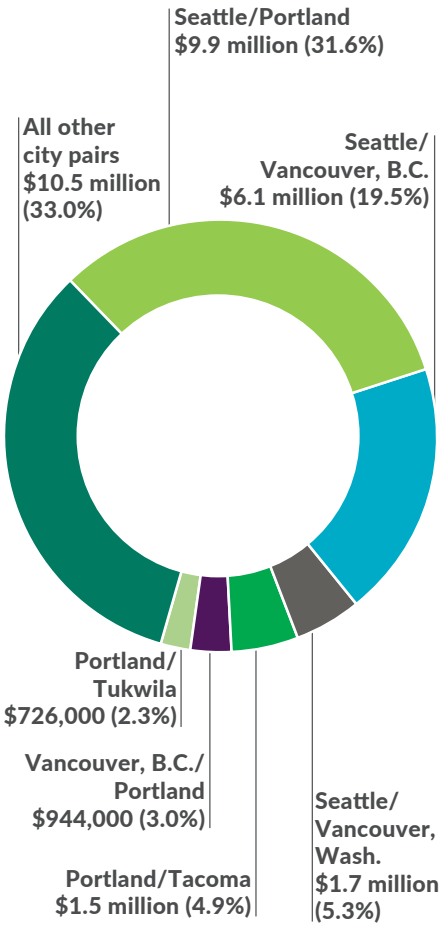
In 2018, more than 447,000 Amtrak Cascades passengers (56%) took trips that both began and ended between Seattle and Portland (including trips between intermediate cities such as Olympia and Tacoma). Seattle and Portland were also home to the two busiest stations on the Amtrak Cascades corridor in 2018, with 492,000 passengers getting on or off a train at Seattle's King Street Station and 409,000 on-offs at Union Station in Portland.

Contributors include Barbara LaBoe, Janet Matkin, Helen Goldstein and Lisa Mikesell

Notable results

- *Amtrak Cascades ridership decreased by 1.2% to 802,000 passengers in 2018*
- *Amtrak Cascades revenue increased by 5.7%, from $29.6 million in 2017 to $31.3 million in 2018*

Amtrak Cascades ticket revenue reaches $31.3 million
2018; Dollar value and percent of total dollar value by segment



Data source: WSDOT Rail, Freight and Ports Division.
Notes: Amtrak Cascades runs 467 miles from Vancouver, B.C. to Eugene, Oregon. Percentages may not add to 100 due to rounding.

73 WETLANDS PROTECTION ANNUAL REPORT

Notable results

- *WSDOT added nine new wetland and stream mitigation sites on 17 acres in 2018, bringing the total to 300 sites on 1,623 acres*
- *WSDOT closed out two mitigation sites on 0.65 acres at the end of their 10-year monitoring periods*
- *WSDOT's mitigation banks earned 7.42 credits and provided agency transportation projects 0.89 credits in 2018*

How mitigation banks work for WSDOT

The Environmental Protection Agency and Army Corps of Engineers' guidance on compensatory mitigation for construction projects recommends mitigation banking. Mitigation banking can be thought of as a type of "savings account" for WSDOT's future capital projects and mitigation needs. Mitigation banks create credits based on the number of acres and their value. These credits can be withdrawn from the account (or used) by projects as compensation for unavoidable wetland impacts within the bank's specified service area.

For more information about mitigation banks, visit http://bit.ly/wsdotmitigation.

WSDOT adds 17 acres of wetland and stream mitigation sites in 2018

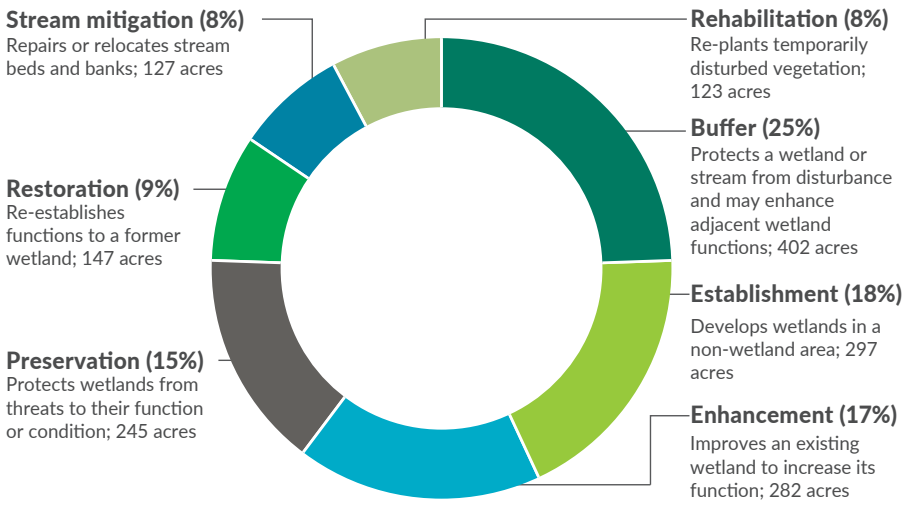
WSDOT began monitoring nine new wetland and stream mitigation sites on 17 acres in 2018, bringing the statewide total to 300 wetland and stream mitigation sites on 1,623 acres. The agency started issuing monitoring reports on mitigation sites in 1988 and has since transferred 173 sites to long-term stewardship with WSDOT partners—including local government agencies—which monitor the sites after initial permit requirements are met. WSDOT will continue to monitor the remaining 127 sites until initial permit requirements are met.

WSDOT's statewide inventory of 300 mitigation sites includes:

- Eighty-eight wetland and stream mitigation sites currently in the 10-year monitoring period;
- Three sites that are beyond the 10-year monitoring period but have not yet met all permit requirements;
- Thirty sites being evaluated by the U.S. Army Corps of Engineers (Corps) and Washington State Department of Ecology (Ecology) for completion of their permit requirements;
- One hundred seventy-three sites in long-term stewardship that have met their permit requirements; and
- Six mitigation banks.

WSDOT's total mitigation site acreage increases to 1,623

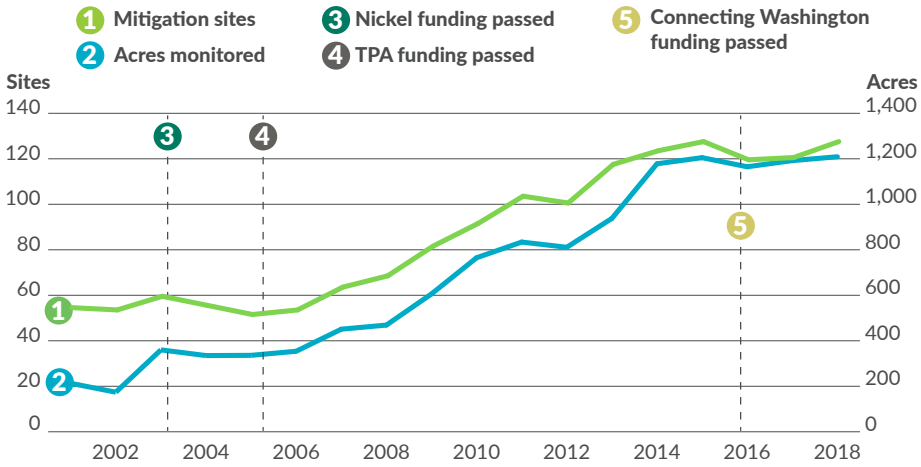
1988 through 2018; Total acreage (and percent of total) of replacement wetlands and stream mitigation sites by type



Data source: WSDOT Environmental Services Office.

WSDOT monitors 127 mitigation sites including six mitigation banks

2001 through 2018; Number of sites and acres monitored



Data source: WSDOT Environmental Services Office.

Notes: Of the 127 sites above, WSDOT has 88 active mitigation sites, 30 sites submitted for closeout that are being evaluated, three sites beyond the initial monitoring period and six mitigation banks.

WSDOT actively monitors 127 mitigation sites in 2018

From 2001 through 2018, the number of WSDOT-monitored wetland and stream mitigation sites increased by 135% (54 to 127) and total acreage monitored increased by 468% (213 to 1,209). These increases are primarily a result of construction projects funded by the 2003 Nickel and the 2005 Transportation Partnership Account revenue packages. To ensure these sites meet permit requirements, WSDOT monitors hydrology, vegetation and wildlife as they develop—typically for 10 years—before transferring them to long-term stewardship with agency partners.

WSDOT strives to meet completion requirements for mitigation sites

WSDOT completed monitoring work at two mitigation sites (0.65 acres) where permit requirements were met by the end of the monitoring period.

WSDOT mitigation sites provide benefits such as water quality improvement, wildlife and pollinator habitat, and storage areas for floodwater.

Three mitigation sites were past their initial monitoring period in 2018. One site (5.76 acres) had not yet met all final-year permit requirements, but was replanted in 2018; WSDOT will continue to monitor this site until it meets performance standards. The other two (1.25 acres) met all permit requirements in 2018, and WSDOT will request that these sites be transferred to long-term management.

Wetland mitigation sites help reduce climate impacts

WSDOT wetland mitigation sites not only compensate for the impacts of transportation projects, but can also mitigate climate change impacts.

Wetland mitigation sites protect infrastructure assets by storing flood water and improve the quality of water by filtering stormwater. They also absorb and store excess carbon from the atmosphere (for more information, visit http://bit.ly/WSDOTclimate). WSDOT's wetland mitigation sites in or near estuaries buffer coastlines from extreme weather events.

Mitigation options help WSDOT and the environment

WSDOT's six mitigation banks earned 7.42 credits and debited 0.89 credits to transportation projects in 2018.

Mitigation banks preserve, enhance, restore or create wetlands to offset impacts on existing wetlands from future construction projects. WSDOT mitigation banks efficiently meet future project needs and maximize environmental benefits by replacing ecological functions—like creating amphibian habitat and providing a storage area for floodwater—prior to any damage that project activity would cause to those ecological functions. The agency's mitigation banks save time and money by consolidating work efforts and banking credits for future projects.

WSDOT partnerships support Workforce Development and Inclusion

Wetlands Ecology and Monitoring Techniques Internship

In 2018, WSDOT partnered with the Pacific Mountain Workforce Development Council to help remove barriers to applying and participating in the WSDOT Wetlands Ecology and Monitoring Techniques Internship.

PACMTN connects interns who qualify with services that can help with purchasing work boots, gas money to drive to work, tuition, childcare, and more. Several students who participated in the 2018 internship with WSDOT reported they would not have applied without access to these resources. This partnership supports WSDOT's strategic goal of Inclusion and has resulted in a more inclusive and diverse applicant pool.

Sustainability in Prisons Project

In 2018, WSDOT partnered with The Evergreen State College and the Washington State Department of Corrections to create career pathways for currently and formerly incarcerated individuals through the Sustainability in Prisons Project.

In support of the SPP and WSDOT's strategic goal of Workforce Development, the agency provides training to highlight career opportunities related to wetland mitigation and other environmental fields. These pathways help bolster successful reentry to communities for formerly incarcerated individuals and cultivate a new pool of qualified workers for WSDOT's workforce.

Contributors include Tony Bush, Jennie Husby, Helen Goldstein and Dustin Motte

WSDOT's goal is no net loss of wetlands

WSDOT's environmental policies—in accordance with Washington State Executive Order 89-10—ensure it protects and preserves wetlands and streams by not allowing agency projects to cause any net loss of wetland acreage or function. WSDOT designs and builds transportation projects to avoid or minimize disturbance to wetlands and streams. When construction impacts cannot be avoided, the agency designs and builds wetland and stream mitigation sites as compensation. Refer to Gray Notebook 53, p. 20 for a description of the life of a typical WSDOT wetland mitigation site.

(Above) A student in the WSDOT Wetlands Ecology and Monitoring Techniques Internship samples vegetation at Upper Keechelus Lake. Photo by Shauna Bittle, © The Evergreen State College. (Below) Incarcerated individuals attend a class about endangered wildlife rehabilitation as part of the Sustainability in Prisons Project.

73 COMMERCIAL VEHICLE SERVICES ANNUAL REPORT

WSDOT helps trucking industry save time and money while reducing pollution

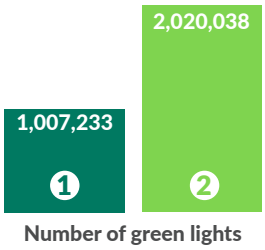
Weigh station bypasses (green lights) created roughly $20.1 million in economic benefit in 2018 by saving an estimated 168,000 hours of travel time and an estimated 808,000 gallons of diesel fuel. The reduced diesel usage cut carbon dioxide emissions by approximately 18.1 million pounds. WSDOT gave commercial trucks equipped with Commercial Vehicle Information Systems and Networks (CVISN) transponders the green light to bypass open weigh stations 2.02 million times in 2018. This was 101% more than the 1.01 million green lights given in 2017. The primary reasons for the increase were:

- The number of green lights in 2017 was lower than usual because four of the 11 weigh stations statewide that provide electronic screening were temporarily closed in 2017, while only one weigh station was closed in 2018; and
- The total number registered transponders increased to 223,306 commercial vehicles in 2018, up 101% from 111,111 vehicles in 2017. This was due to allowing transponders from additional states or provinces to be registered for use in Washington in 2018. This change outweighed a 26% drop to WSDOT transponder sales, which decreased from 5,944 sold in 2017 to 4,411 sold in 2018.

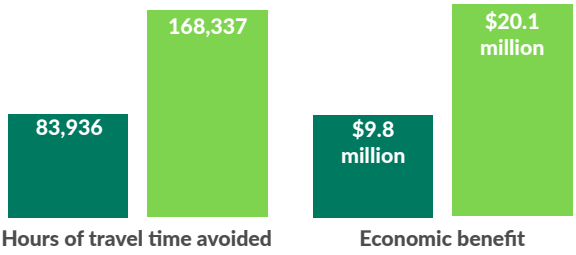
WSDOT calculates economic benefits using industry standards of five minutes avoided travel time and 0.4 gallons of fuel saved for each bypass. The economic benefit in 2018 was $9.95 per bypass, up from $9.74 in 2017 due to higher average diesel fuel cost. Commercial trucks must be equipped with a Washington-registered transponder to bypass weigh stations.

Contributors include Sonja Clark, Kevin Zeller, Anjali Bhatt and Lisa Mikesell

Statewide CVISN transponder use



Estimated CVISN program benefits[1]



1 2017 2 2018

Data source: WSDOT Commercial Vehicle Information Services Office.
Notes: A truck's transponder is read each time it nears an open weigh station. There were 2,591,868 readings in 2018 and 1,259,384 readings in 2017. Not all resulted in a green light.
1 WSDOT assumes five minutes and 0.4 gallons of fuel saved per bypass providing an economic benefit of $9.95 in 2018 and $9.74 in 2017 per bypass.

Notable results

- *WSDOT's Commercial Vehicle Information Systems and Networks helped the trucking industry avoid 168,000 travel hours and $20.1 million in operating costs in 2018*
- *WSDOT gave 2.02 million "green lights" in 2018, 101% more than the 1.01 million given in 2017*

Commercial vehicle permits see increases

The Commercial Vehicle Services permit process serves the trucking industry, safeguards the motoring public and protects the highway infrastructure by administering the state's size and weight laws and regulations. In 2018, a total of 188,888 permits were issued, a 5% increase from 2017.

Self-issued permits

Most routine permits can be self-issued online. In 2018, the self-issued permits comprised 154,527, or 81% of the 188,888 total permits issued.

Superloads

Loads exceeding 125 feet long, 16 feet wide, 16 feet high, or 200,000 pounds are considered superloads. They require special analysis and time to review and their approvals include specific travel conditions. In 2018, 1,616 superload permits were issued, an 8% increase from 2017.

73 TRANSPORTATION AND THE ECONOMY: ANNUAL REPORT

Notable results

- *The annual average price of gasoline in Washington state rose by 10% from 2017 to 2018, going from $2.92 per gallon to $3.21 per gallon*
- *Washington state's population aged 16 and above increased by 1.7% between 2017 and 2018, going from 5.84 million to 5.94 million*

Washington state gas prices increase 10% from 2017 to 2018

Washington state's transportation network and operations are closely tied to the state's economy. Nearly all economic activity relies on the transportation network—for getting commuters to work, or transporting goods and services to consumers. Efficient transportation systems facilitate economic activity, while congestion and bottlenecks can mean lost time and productivity for commuters, as well as higher costs for businesses. Economic conditions also influence how the transportation system performs, primarily because they affect the demand for transportation.

A practical way to analyze the complex relationship between the economy and the transportation system is to examine changes in individual economic indicators and their probable effects on a variety of transportation outcomes. Current and previous-period numbers for several economic indicators and transportation performance measures are included in the table on p. 23.

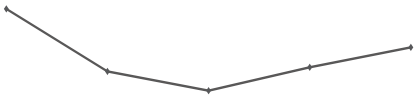
Between 2017 and 2018, the number of non-farm employees in Washington state increased 2.6% from 3.32 million to 3.41 million, and the number of Washington residents at least 16 years of age increased 1.7% from 5.84 million to 5.94 million. These changes, both of which continue multi-year trends, can increase the demand for transportation in Washington state.

In contrast, an increase in the price of gasoline can cause some drivers to make fewer trips or use other modes of transportation. The annual average price of gasoline rose between 2017 and 2018, increasing by 10.0% from $2.92 per gallon to $3.21 per gallon. This marks the second year of increasing average gasoline prices in Washington state.

Between 2016 and 2017 (the most recent year for which data is available), the drive-alone commuting rate dropped slightly from 72.1% to 71.7%. While this decline was not enough to completely offset the growth in demand for transportation over the same period, the 0.9% increase in vehicle miles traveled (VMT; from 60.9 billion in 2016 to 61.4 billion in 2017) is substantially smaller than previous one-year changes in VMT. Higher VMT may, depending on where the additional miles are traveled, result in more congestion. Additional VMT also causes pavement conditions to deteriorate faster, increasing the need for roadway preservation and maintenance. This is the first dataset to reflect the increase in gasoline prices that began in 2017.

Contributors include Lizbeth Martin-Mahar and Helen Goldstein

Transportation and the Economy Dashboard

Statewide Economic Indicator	Previous period	Current period	Five-year trend (unless noted)	Relationship to Transportation
Employment (Millions of non-farm employees in Washington state; 2017 & 2018)	3.32	3.41		More people working means more people commuting and more people who can afford leisure trips.
Median annual household income in Washington state (Inflation-adjusted, 2017 dollars; 2016 & 2017)	$68,496	$70,979		An increase in real (inflation-adjusted) household income increases demand for goods and services, which in turn increases demand for transportation
Washington residents at least 16 years of age (Millions of persons; 2017 & 2018)	5.84	5.94		An increase in the number of Washington residents at least 16 years of age means an increase in the potential number of drivers on the road.
Passenger vehicle registrations (Millions of passenger vehicles registered in Washington; excludes all trucks; 2016 & 2017)	4.76	5.15		An increase in the number of passenger vehicles registered in Washington increases the potential number of cars on the road.
Annual average gas price (Inflation-adjusted annual average price per gallon in 2018 dollars; 2017 & 2018)	$2.92	$3.21		Higher fuel prices may cause some commuters to consider alternative commute options; lower fuel prices make driving more affordable.
Vehicle miles traveled (VMT) (Billions of vehicle miles traveled on public roads in Washington; 2016 & 2017)	60.9	61.4		An increase in VMT could increase congestion, as well as roadway preservation and maintenance needs. Increased VMT will also increase fuel consumption unless it is accompanied by increased fuel efficiency.
Drive-alone commuting rate (Percentage of Washington commuters driving alone to work; 2016 & 2017)	72.1%	71.7%		The percentage of commuters driving alone influences the demand on the transportation system.
Revenue from Washington state Motor Vehicle Fuel Tax (Billions of dollars, not adjusted for inflation; 2013-2015 & 2015-2017 biennia)	$2.55	$3.28	 (four-biennium trend)	The Motor Vehicle Fuel Tax is a major source of transportation funding in Washington state; revenue depends on the number of gallons of fuel purchased.

Data sources: U.S. Bureau of Labor Statistics, Washington State Office of Financial Management, Washington State Department of Licensing, U.S. Energy Information Administration, WSDOT 2018 Corridor Capacity Report, U.S. Bureau of Labor Statistics: American Community Survey, Transportation Revenue Forecast Council: February 2018 Transportation Economic and Revenue Forecasts.

73 CAPITAL PROJECT DELIVERY PROGRAMS QUARTERLY UPDATES

Notable results

- *WSDOT completed one Connecting Washington project in the seventh quarter of the 2017-2019 biennium*
- *WSDOT added 42 projects from its Watch List during the seventh quarter of the 2017-2019 biennium; 64 remain*
- *WSDOT advertised 75 of 131 Pre-existing Funds projects during the seventh quarter of the 2017-2019 biennium*

WSDOT completes one Connecting Washington project during the quarter

WSDOT completed one Connecting Washington project and one Connecting Washington contract during the seventh quarter of the 2017–2019 biennium (January through March 2019). The agency has completed 16 highway program CW projects (including studies) since the funding package was passed in 2015. These individual projects may represent only a portion of their respective legislative budget line items.

WSDOT has completed 382 total Nickel and TPA construction projects since July 2003, with 86% on time and 91% on budget. The agency currently has five Nickel and TPA projects underway (see p. 33 for additional information).

The cost at completion for the 382 Nickel and TPA construction projects was $9.77 billion, 1.6% less than the baseline cost of $9.92 billion. As of March 31, 2019, WSDOT had 12 Nickel and TPA projects yet to be completed, with a total value of approximately $5.56 billion.

Nickel, Transportation Partnership Account funding continue to be lower than original projections

Fuel tax collections show 2003 and 2005 revenue forecasts, which were used to determine project lists, did not anticipate the economic recession in projecting future growth in fuel tax revenues. The 2003 Nickel and 2005 TPA gas taxes that fund projects are based on a fixed tax rate per gallon and do not change with the price of fuel. As such, reduced gasoline and diesel consumption and sales lead to reduced tax revenue.

Fuel tax funding from the 2005 TPA package has been lower than the original March 2005 projection. The original projection for the TPA account was $4.9 billion over a 16-year period from 2005 through 2021. Current TPA projections through 2021 be $4.0 billion, roughly $900 million (18.4%) less than the original 2005 projection.

The 2003 Nickel transportation package was originally a 10-year plan, with revenues forecasted to total $1.9 billion from 2003 through 2013. Fuel tax revenues collected during this period were 10.2% lower than the original March 2003 projection.

Nickel and TPA gas tax revenues are used to pay the debt on the bonds sold to finance planned projects. Once all the bonds are sold, revenues collected will be used to pay the debt.

Beige Page contributors include Mike Ellis, Penny Haeger, Heather Jones, Thanh Nguyen, Aaron Ward, Dan Wilder, Joe Irwin and Lisa Mikesell

73 CURRENT LEGISLATIVE EVALUATION & ACCOUNTABILITY PROGRAM QUARTERLY UPDATE

Combined Nickel & Transportation Partnership Account Status of projects to date; 2003 through March 31, 2019; Dollars in millions	Number of Projects	Value of Program
Subtotal of completed construction projects[1]	**382**	**$9,920.6**
Non-construction projects that have been completed or otherwise removed from Nickel/TPA lists[2, 3]	*9*	*$205.0*
Projects included in the current transportation budget but not yet complete	12	$5,558.4
Projects that have been deferred indefinitely or deleted and removed from Nickel/TPA lists[3, 4]	*13*	*$499.2*
Projects now funded by Connecting Washington and removed from Nickel/TPA lists (see GNB 63, p. 35)	*5*	*$103.3*
Total number of projects[4] in improvement and preservation budget	421	$16,286.4
Schedule and budget summary Nickel & TPA combined: Results of completed construction projects in the current Legislative Transportation Budget and prior budgets; Dollars in millions	**Completed in 2017- 2019 Biennium Budget**	**Cumulative Program**
Total number of projects completed	5	382
Percent completed early or on time	*40%*	*86%*
Percent completed under or on budget	*80%*	*91%*
Baseline cost at completion	$2,943.7	$9,920.6
Current cost at completion	$2,939.3	$9,765.9
Percent of total program over or under budget	0.1% under	1.6% under
Advertisement record: Results of projects entering the construction phase or under construction	**Combined Nickel & TPA**	
Total current number of projects in construction phase as of March 31, 2019	5	
Percent advertised early or on time	*100%*	
Total number of projects advertised for construction during the 2017-2019 biennium (July 1, 2017, through June 30, 2019)	0	
Percent advertised early or on time	*N/A*	
Projects to be advertised: Results of projects now being advertised for construction or planned to be advertised	**Combined Nickel & TPA**	
Total number of projects being advertised for construction (April 1 through September 30, 2019)	0	
Percent on target for advertisement on schedule or early	N/A	
Budget status for the 2017-2019 biennium; Dollars in millions	**WSDOT biennial budget**	
Budget amount for 2017-2019 biennium	$1,036.6	
Actual expenditures in 2017-2019 biennium to date (July 1, 2017, through March 31, 2019)	$622.5[5]	
Total 2003 Transportation Funding Package (Nickel) expenditures	*$81.3[5]*	
Total 2005 Transportation Partnership Account expenditures	*$387.5[5]*	
Total Pre-existing Funds expenditures	*$153.6[5]*	

Data source: WSDOT Capital Program Development and Management.
Notes: Numbers have been rounded. This chart was updated in GNB 63 to reflect reconciled Nickel and TPA project counts, and as a result it does not exactly match Current Legislative Evaluation and Accountability Program charts from editions prior to GNB 63. **1** Cumulative projects completed from July 1, 2003 to March 31, 2019. **2** Non-construction projects include commitments for engineering and right of way work. **3** Projects that have been deferred indefinitely or deleted include projects that have no funding available, projects that have been halted by the Legislature and those for which other entities (e.g., cities and counties) are now serving as the lead agency. **4** The project total has been updated to show "unbundled" projects which may have been previously reported in programmatic construction groupings (such as Roadside Safety Improvements or Bridge Seismic Retrofit). See Gray Notebook 38, p. 55 for more details. **5** Amounts have been corrected and are lower than GNB 72 when planned expenditures were shown instead of actual expenditures.

73 COMPLETED PROJECTS & CONTRACTS UPDATE

Difference between projects and contracts

The Gray Notebook differentiates completed projects from completed contracts. Contracts are basically smaller parts of larger projects (for example pavement replacement on a section of I-5 that is part of a larger concrete rehabilitation project). Completing contracts does not mean that these larger projects are finished. For example, a project can involve three contracts total and two contracts finished. This project would be complete when all three contracts are done.

WSDOT completes a Connecting Washington project and a contract during the quarter

WSDOT completed one Connecting Washington project and one Connecting Washington contract during the seventh quarter of the 2017–2019 biennium (January through March 2019).

SR 518/Des Moines Memorial Drive - Interchange Improvements

KING COUNTY (CONNECTING WASHINGTON – PROJECT)

This project constructed a two-lane, eastbound off-ramp from SR 518 to Des Moines Memorial Drive in Burien.

Project benefits: This project improves freight and vehicle access to the city of Burien's Northeast Redevelopment Area, the Port of Seattle and the greater Puget Sound region. Previously, eastbound heavy truck traffic from SR 518 to Des Moines Memorial Drive was routed through city streets.

Budget performance: This project was delivered for $13.5 million, which on target with the last approved budget.

Schedule performance: This project was delivered in January 2019, one quarter later than the last approved schedule.

Highlights/challenges: Construction was originally reported to be completed in one season, but the project had been planned over two seasons. WSDOT caught the reporting error and corrected it.

I-405/SR 167 Interchange - Direct Connector

KING COUNTY (CONNECTING WASHINGTON – CONTRACT)

This contract built the first segment of the I-405/SR 167 interchange project by constructing a direct connector for the express toll lanes between SR 167 and I-405.

Contract benefits: This contract helps improve traffic flow and decreases the likelihood of collisions by reducing weaving issues and keeping traffic moving within the proposed express toll lane system. It also installed a noise wall, built stormwater management facilities, and upgraded stream crossings.

Budget performance: This contract was delivered for $168.5 million, which is 14.2% above the last approved budget of $154.3 million.

Schedule performance: This contract was delivered in February 2019, on target with the last approved schedule.

Highlights/challenges: This contract employed practical design ideas facilitated through a Practical Design Workshop, which resulted in cost reductions totalling $2,109,000.

73 WATCH LIST QUARTERLY UPDATE

Sixty-four projects on Watch List

WSDOT added 42 projects with Watch List issues to its 22 existing projects on the Watch List this quarter (January 2019 to March 2019), leaving 64 projects on the Watch List as of March 31, 2019. Watch List issues include significant changes or uncertainties in scope, schedule or budget. Projects may have more than one issue.

WSDOT maintains the Watch List to deliver on the agency's commitment to "No Surprises" reporting. WSDOT continuously monitors its projects' performance to ensure issues affecting schedule and/or budget are brought to the attention of legislators, executives and the public. The Watch List provides information on issues that have the potential to impact schedules or budgets of projects funded by Pre-existing Funds, Nickel, Transportation Partnership Account and Connecting Washington program revenue packages.

The Watch List helps track projects that have or may have issues to keep them in the spotlight so that they receive the necessary attention to resolve these issues. Projects are added and removed by WSDOT's Capital Program Development & Management Office. Projects are removed from the Watch List when the project has been completed or the issue has been resolved, and the change has been approved by WSDOT.

Watch List information:

WSDOT's Capital Program Development and Management Office is changing how it reports projects on the Watch List. Information in this edition of the Gray Notebook may not align with previous editions of the Gray Notebook and what is reported online. A complete list of Watch List projects that have or may have significant changes in scope, schedule or budget can be found using the following link, reported by month: http://bit.ly/ProjectDeliveryReports.

Projects on the Watch List

Project	Funding	Date added	Project phase & Watch List issue
SR 167/SR 410 to SR 18 - Congestion Management	PEF	September 2018	Design: The estimated total cost has increased due to incorporating an existing fish passage barrier within the project limits.
SR 290/Spokane River East Trent Bridge - Replace Bridge	TPA	September 2018	Design: The estimated total cost has increased due to adding a westbound double left turn lane to the project.
SR 202/Two Tributaries to Patterson Creek - Fish Passage	PEF	October 2018	Construction: To minimize wetland impacts and reduce the impact to the traveling public, the original design assumptions were changed. The current plan is to cast in place the culvert structures next to the highway for the required concrete curing time and then move them into their final location. This change has increased the estimated total cost for project.
I-405/NE 132nd St. Interchange - New Interchange	CW	October 2018	Design: The estimated total cost has increased due to incorporating the existing fish barrier at the NE 132nd Street Interchange area.
US 2/West of Leavenworth - Slope Stabilization	PEF	October 2018	Design: The delay is due to additional research requested by Department of Fish and Wildlife, including a preliminary reach analysis of the Wenatchee River in order to permit the project.
SR 6/Two Tributaries to Chehalis River - Fish Passage	PEF	October 2018	Design: The estimated total cost has increased due to additional scour protection work. The delay is due to additional time needed to procure local funding for relocating a waterline.
SR 433/Lewis and Clark Bridge - Replace Navigation Lights	PEF	October 2018	Design: The project is delayed is due to an agreement between WSDOT and the Oregon Department of Transportation taking longer than expected.

Projects on the Watch List

Project	Funding	Date added	Project phase & Watch List issue
SR 501/I-5 to Port of Vancouver - Intersection and Profile Improvements	PEF	October 2018	Design: The advertisement has been delayed by one year. The delay will allow WSDOT more time to work with local stakeholders to further define and agree upon the project's goals in order to finalize the scope of work for the project.
SR 9/Acme Vicinity to Mt. Baker Highway Vicinity - Weigh in Motion	PEF	November 2018	Design: The project's scoped location of the Weigh-in-Motion facility location is moving in order to align with the location of the Washington State Patrol enforcement area. This has increased the project's estimated total cost and delayed the project's advertisement date by nine months.
I-90/Lacey V. Murrow Bridge - Replace Anchor Cables	PEF	November 2018	Completed: The estimated total cost has increased due to additional anchor cable excavation that was required as the amount of sediment surrounding the cables was significantly more than anticipated because of unforeseen site conditions. In addition, hard clay material was encountered during excavation, which required hand excavation.
I-90/Homer M. Hadley Bridge - Replace Anchor Cables	PEF	November 2018	Completed: The estimated total cost has increased due to additional anchor cable excavation that was required as the amount of sediment surrounding the cables was significantly more than anticipated because of unforeseen site conditions. In addition, hard clay material was encountered during excavation, which required hand excavation.
I-405/Renton to Bellevue - Corridor Widening & Express Toll Lane (Stage 2)	CW	November 2018	Construction: The project is delayed is due to needing additional time to reorganize the environmental documents and allow contractors time to complete the statement of qualification.
I-405/SR 522 to SR 527 - Widening & Express Toll Lane	PEF	November 2018	Design: A right of way phase was added to this project which was originally funded for preliminary engineering. Funding approval is pending 2019 Legislative action.
SR 542/Britton Rd. Vicinity to Coal Creek Vicinity - Bituminous Surface Treatment	PEF	November 2018	Construction: The estimated total cost has increased due to bridge deck and pavement repairs as a result of further pavement deterioration.
Seattle Terminal Preservation[1]	CW	November 2018	Design: The estimated total cost has increased due primarily to addition of previously deferred scope elements, additional risk reserve need, and final pricing of the 100% design of the contracted scope reflecting final design development.
Mukilteo Terminal Improvement[1]	CW	November 2018	The project's estimated total cost has increased by $28.5 million, to $195.5 million, due to an increase to the terminal Uplands contract, addition of risk reserve and an updated estimate for the in-water work.
SR 203/Loutsis Creek - Fish Passage	PEF	December 2018	Design: The cost increase and schedule delay are the result of having to design and construct a larger culvert structure, as required by the hydraulics report.
SR 522/North Creek Bridge to SR 9 Vicinity - Paving	PEF	December 2018	Construction: The estimated total cost has increased due to higher than previously estimated costs for pavement and traffic control items.
US 101/Elwha River Bridge - Bridge Replacement	PEF	December 2018	Construction: The estimated total cost has increased due to required additional work to complete the environmental permitting, hydraulic design, and geotechnical designs.
I-82/Red Mountain Vicinity - Construct Interchange	CW	December 2018	Design: The project is delayed is due to completing the Interchange Justification Report and gaining Federal Highway Administration approval.
US 395/North Spokane Corridor BNSF - 2nd Railroad Realignment	CW	December 2018	Construction: The estimated total cost has increased due to more extensive utility relocation work than originally planned, along with additional site preparation work ahead of the next planned North Spokane Corridor project. Adding the work to this project eliminates significant schedule risk to the next two NSC projects north of the Spokane River.

Projects on the Watch List

Project	Funding	Date added	Project phase & Watch List issue
I-90/Sprague Ave. Interchange to Argonne Rd. Interchange - Portland - Cement Concrete Pavement Rehabilitation Grinding	PEF	December 2018	Construction: The estimated total cost has increased due to the need for additional grinding to correct roadway rutting.
US 2/South Fork Skykomish River Bridge - Scour Repair	PEF	January 2019	Design: The recommended alternative from the finalized Hydraulics and Scour Analysis Report is to continue to monitor the South Fork Skykomish River Bridge on US 2 and re-evaluate the need. As a result, this project was delayed by five years. The schedule delay has increased the project's estimated total cost due to inflation.
I-5/Northbound I-90 to SR 520 - Active Traffic Management	PEF	January 2019	Construction: The bids on the project exceeded the funding available for construction. The project will be delayed while the department develops alternatives to deliver the scope within budget.
I-5/Northbound Seneca St. to Olive Way - Mobility Improvements	PEF	January 2019	Construction: The bids on the project exceeded the funding available for construction. The project will be delayed while the department develops alternatives to deliver the scope within budget.
I-5/Northbound SR 104 Vicinity to 212th St. SW Vicinity - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to high bids for mobilization, paving, and traffic control.
I-5/164th St. SW Interchange - Ramp Paving	PEF	January 2019	Construction: The total project's estimated cost has increased due to higher costs for mobilization and asphalt pavement. The project's urban location has limited staging areas and will require the contractor to establish off-site staging areas increasing the travel time.
SR 18/Eastbound Soosette Creek to Jenkins Creek - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to higher costs for pavement and traffic control than previously estimated.
SR 18/Holder Creek Bridge - Deck Overlay	PEF	January 2019	Construction: The estimated total cost has increased due to higher costs for pavement and traffic control than previously estimated.
SR 181/SR 516 to W James St. - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to a change in the pavement condition, which has deteriorated more than originally planned and higher costs for pavement and traffic control items.
SR 181/SR 516 to W Sam St. - ADA Compliance	PEF	January 2019	Construction: The estimated total cost has increased due to incorporating additional Americans with Disabilities Act items after further evaluation.
SR 518/SR 509 to SR 99 - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to higher costs for pavement and traffic control items then previously estimated.
SR 518/42nd Ave. S and I-5/I-405 Bridges - Seismic Retrofit	PEF	January 2019	Construction: The estimated total cost has increased due to higher costs for bridge seismic work than previously estimated.
I-5/Plum St. to S Tacoma Way - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to additional bridge and pavement work.
US 101/Fisher Creek - Remove Fish Barrier	PEF	January 2019	Construction: The estimated total cost has increased, which is the result of having to design and construct a larger culvert structure, as required by the hydraulics report.
US 101/Steamboat Creek - Remove Fish Barrier	PEF	January 2019	Construction: The estimated total cost has increased due to replacing the culvert with a precast concrete structure and additional required shoring along the detour route.
SR 107/Chehalis River Bridge - Structural Rehabilitation	CW	January 2019	Construction: The estimated total cost has increased due to high bids for concrete filled steel tubes, which is a unique element of work related to the shaft construction for the bridge. This work element is relatively new to WSDOT, and there is limited bid history for it.

Projects on the Watch List

Project	Funding	Date added	Project phase & Watch List issue
SR 507/North of Rainier to Junction SR 7 - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to higher costs for pavement, guardrail and pavement markings than previously estimated.
I-205 and I-5 Pavement Rehabilitation	PEF	January 2019	Construction: The estimated total cost has increased due to the need for additional pavement rehabilitation due to further deterioration.
Southwest Region Breakaway Cable Terminal Replacement - Interstate	PEF	January 2019	Construction: The estimated total cost has increased and schedule delayed due to the added design efforts required to incorporate additional breakaway cable terminals.
I-5 Northbound/1 Mile South of Todd Rd. Vicinity to Weigh Station Vicinity - Paving	PEF	January 2019	Construction: The estimated total cost has increased due to extending the paving limits and higher costs for pavement repair, traffic control items, and project inspection.
Olympic Region Maintenance and Administration Facility	CW	January 2019	Construction: This project had all three proposals come in over the maximum acceptable price. The best and final offer process is being used to reduce the scope to the available budget and award the project. Scope items at risk of removal include but are not limited to the furniture, relocation costs, equipment/storage building, and fuel island.
SR 20/Deception Pass & Canoe Pass Bridges - Special Bridge Repair	PEF	February 2019	Construction: The estimated total cost has increased due to higher costs in construction materials, including structural carbon steel, high strength bolts, and deck drainage equipment.
SR 99/Duwamish River Bridges - Special Bridge Repair	PEF	February 2019	Construction: The estimated total cost has increased due to higher costs for the bridge repair than previously estimated.
I-405/SR 167 Interchange Catch Basins - Drainage Repair	CW	February 2019	Completed: The estimated total cost has increased due to incorporating the repair of multiple catch basins from I-405/SR 167 Interchange - Direct Connector (Stage 1) to this project.
SR 542/I-5 to Britton Rd. - Paving	PEF	February 2019	Construction: The estimated total cost has increased due to high bids for mobilization, traffic control, and traffic signal items.
SR 542/I-5 to Hannegan Rd. Vicinity - ADA Compliance	PEF	February 2019	Construction: The estimated total cost has increased due to high bids for mobilization, traffic control, and traffic signal items.
SR 548/Tributary to California Creek - Fish Passage	PEF	February 2019	Construction: The estimated total cost has increased due to an updated cost for a reinforced concrete culvert.
SR 24/ Bench Rd. Intersection Improvements	PEF	February 2019	Design: The project schedule is delayed due to right of way acquisition.
US 101/Southeast of Johnson Rd. to West of Indian Creek - Chip Seal	PEF	February 2019	Design: The estimated total cost has increased due to incorporating an additional lane within the project limits. A recent review of the pavement condition identified further pavement deterioration.
SR 6/South Branch Fronia Creek and Fronia Creek - Fish Passage	PEF	February 2019	Construction: The estimated total cost has increased due to higher costs for asphalt paving, bridge, and traffic control items.
US 2/Colbert Rd. to Westwood Rd. - Paving	PEF	February 2019	Construction: The estimated total cost has increased due to high bids for pavement items.
SR 21/Keller Ferry to Republic - Chip Seal	PEF	February 2019	Completed: The estimated total cost has increased due to high bids for project preparation clearing, asphalt surface treatment, and pavement repair. Additional quantities of guardrail identified during construction also contributed to the increase.
SR 278/West of Dunkle Rd. - Culvert Replacement	PEF	February 2019	Construction: The project schedule is delayed due to unfavorable weather impacting workforce availability.
I-5/Tributary to California Creek - Fish Passage	PEF	March 2019	Construction: The estimated total cost has increased due to higher bid item costs for relocation of a WSDOT owned sanitary sewer line and impacts to a waterline that was not previously identified.

Projects on the Watch List

Project	Funding	Date added	Project phase & Watch List issue
SR 9/SR 204 Intersection - Improvements	CW	March 2019	Design: The project was delayed because additional time was needed to develop other alternatives for consideration that are within the project funding.
SR 20/Banta Rd. - Intersection Safety Improvements	PEF	March 2019	Construction: The estimated total cost has increased due to higher bid item costs for traffic control, mobilization and pavement.
SR 530/SR 9 Vicinity to South Fork Stillaguamish River - Paving	PEF	March 2019	Design: The estimated total cost has increased due to higher bid item costs for traffic control and pavement than previously estimated.
SR 20/7 Miles West of Rainy Pass - Flood Deflection Berm	PEF	March 2019	Design: The project has been delayed by one construction season due to the environmental permit approval process taking longer than anticipated.
SR 8/US 12 to West of Mox Chehalis Rd. - Paving	PEF	March 2019	Construction: The estimated total cost has increased due to higher bid item costs for pavement, traffic control and mobilization.
SR 8/West of Mox Chehalis Rd. to East of Winslow Dr. SW - Paving	PEF	March 2019	Construction: The cost has increased due to further pavement deterioration than estimated, which added additional pavement repair.
US 101/North of SR 107 - Stabilize Slope	PEF	March 2019	Construction: The Geotechnical Report has increased the length of the slope repair and number of stabilizing shafts required, which has increased the cost of the project.
SR 104/Hood Canal - W.A. Bugge Bridge - Special Repair	PEF	March 2019	Construction: The estimated total cost has increased due to higher bid item costs, which include the bridge superstructure.
SR 21/South of Republic - Gold Creek Bridge Emergent Repair	PEF	March 2019	Construction: The estimated total cost has increased due to incorporating a raised bridge, reinforcement to the existing stream and plant restoration to mitigate the 100-year flood elevations.

Data source: WSDOT Capital Program Development and Management.
Notes: TPA = Transportation Partnership Account. PEF = Pre-existing Funds. CW = Connecting Washington.
1 Washington State Ferries terminal projects are currently undergoing changes. More information will be available in the next Gray Notebook.

73 ADVERTISEMENT RECORD QUARTERLY UPDATE

Connecting Washington Account projects in construction[1] Through March 31, 2019; (County); Dollars in millions	Schedule status	Completion date	Total project cost
I-5/Joint Base Lewis-McChord Corridor Improvements (Pierce)			
I-5/Steilacoom-Dupont Rd. to Thorne Ln. - Corridor Improvements	On schedule	Apr-2021	$332.5
SR 167/SR 509 Puget Sound Gateway (multiple counties)			
SR 509/SeaTac Stage 1 Elements (WSDOT Contribution)	Advanced	Aug-2022	$49.3
SR 167/I-5 to SR 509 - Stage 1A	On schedule	Apr-2022	$57.4
I-405/Renton to Bellevue - Corridor Widening (King)			
I-405/Renton to Bellevue - Corridor Widening & Electronic Tolling Lanes (Stage 2)	Delayed	Dec-2024	$876.0
I-5/116th St. and 88th St. Interchanges - Improvements (Snohomish)			
I-5/116th St. Northeast Interchange - Tulalip Tribes Lead	Delayed	Apr-2019	$16.9
Land Mobile Radio Upgrade (multiple counties)			
Wireless Communication	Delayed	Nov-2021	$37.0
SR 520 Seattle Corridor Improvements - West End (King)			
SR 520/Montlake to Lake Washington - Interchange and Bridge Replacement	On schedule	Apr-2023	$628.1
US 395 North Spokane Corridor (Spokane)			
US 395/North Spokane Corridor - Columbia to Freya	Advanced	Jun-2019	$20.0
I-5/Marvin Road/SR 510 Interchange (Thurston)			
I-5/SR 510 Interchange - Reconstruct Interchange	Delayed	Dec-2020	$46.2
I-82/ Eastbound/Westbound On- and Off-Ramps (Yakima)			
I-82/South Union Gap Interchange - Construct Ramps	Advanced	Oct-2019	$22.9
US 2 Highway Safety (Snohomish)			
US 2/Corridor Improvements	On schedule	Oct-2019	$2.0
SR 107/Chehalis River Bridge (S. Montesano Bridge) Approach & Rail Repair (Grays Harbor)			
SR 107/Chehalis River Bridge - Structural Rehabilitation	Delayed	Jul-2020	$21.9
SR 14 Access Improvements (Clark)			
SR 14 Access Improvements	Advanced	Aug-2020	$7.5
I-90/Medical Lake & Geiger Interchanges (Spokane)			
I-90/Medical Lake Interchange to Geiger Field Interchange - Reconstruction	Advanced	Oct-2020	$16.0

Data source: WSDOT Capital Program Development and Management.
Note: **1** Connecting Washington advertisements show projects currently in construction, and does not represent a comprehensive list of completed Connecting Washington projects.

Nickel & TPA projects in construction Through March 31, 2019; (County); Dollars in millions	Fund type	Advertised on time	Ad date	Operationally complete date	Award amount
I-5 Concrete Rehabilitation Program (King)	**Nickel**				
I-5/Northbound Boeing Access Rd. to Northeast Ravenna Bridge - Pavement Repair	Nickel	N/A	Dec-2018	Sep-2019	$38.6
Work associated with the I-5/Northbound South Spokane St. Vicinity - Concrete Pavement Replacement, and I-5/Northbound I-90 Vicinity to James St. Vicinity - Concrete Pavement Replacement is included in I-5/Northbound Boeing Access Rd. to Northeast Ravenna Bridge - Pavement Repair.					
I-5/Southbound South Lucile St. to Spring St. - Pavement Repair	Nickel	N/A	Mar-2018	Nov-2019	$8.2
SR 99 Alaskan Way Viaduct Replacement (King)	**Nickel/ TPA**				
SR 99/South King Street Vicinity to Roy Street – Viaduct Replacement	Nickel/ TPA	√	May-2010	Feb-2021	$1,089.7
The SR 99 Tunnel contract achieved substantial completion in October 2018. A ribbon cutting and tunnel opening event occurred in February 2019.					
SR 99/Alaskan Way and Elliot Way Surface Street Restoration	Nickel/ TPA	√	Nov-2018	Jan-2023	TBD
I-5/Tacoma HOV Improvements (Pierce)	**Nickel/ TPA**				
I-5/SR 16 Interchange - Construct HOV Connections	TPA	√	Feb-2016	Jul-2019	$121.6
I-5/Portland Ave to Port of Tacoma Rd. - Northbound/Southbound HOV	Nickel/ TPA	Late	Jan-2018	Oct-2023	$152.6
I-90/Snoqualmie Pass East – Hyak to Keechelus Dam – Corridor Improvement (Kittitas)	**TPA**				
I-90/Snowshed to Keechelus Dam to Stampede Pass - Add Lanes/ Build Wildlife Bridges	TPA	Late	Feb-2015	Jun-2019	$72.8
I-90/Snowshed to Keechelus Dam Phase 1C – Replace Snowshed and Add Lanes Advertisement was delayed to alleviate fire and safety issues associated with the original snowshed design, resulting in long-term savings.	TPA	Late	Apr-2011	Jun-2019	$177.1
I-90/Keechelus Dam to Stampede Pass Phase 2F- Fencing 2A	TPA	√	Jan-2019	Oct-2019	$2.8
I-90/Concrete Rehabilitation (multiple counties)	**Nickel**				
I-90/Bullfrog Rd. Vicinity to Cle Elum Vicinity - Replace/Rehabilitate Concrete	Nickel	N/A	Jan-2019	Nov-2020	$8.2

Data source: WSDOT Capital Program Development and Management.

73 SCHEDULE & BUDGET SUMMARIES QUARTERLY UPDATE

Biennial summary of Nickel and Transportation Partnership Account projects

Costs estimated at completion; Dollars in millions

Cumulative to date	Fund type	Advertised on time[1]	Completed on time	Within scope	Baseline cost	Current cost	Completed on budget[2]
2017-2019 biennium summary *This information is updated quarterly during the biennium*	0 Nickel 5 TPA	3 on time 2 late	3 on time 2 late	2	$2,983.7	$2,939.3	4 on budget 1 over budget
2015-2017 biennium summary	0 Nickel 11 TPA	7 on time 4 late	10 on time 1 late	11	$809.9	$777.7	10 on budget 1 over budget
2013-2015 biennium summary	6 Nickel 15 TPA	16 on time 5 late	15 on time 6 late	21	$555.7	$514.0	18 on budget 3 over budget
2011-2013 biennium summary	5 Nickel 36 TPA	31 on time 10 late	32 on time 9 late	41	$1,485.5	$1,459.6	37 on budget 4 over budget
2009-2011 biennium summary	16 Nickel 74 TPA	73 on time 17 late	80 on time 10 late	90	$1,641.6	$1,597.0	85 on budget 5 over budget
2007-2009 biennium summary	42 Nickel 69 TPA	91 on time 20 late	96 on time 15 late	111	$1,685.7	$1,685.2	102 on budget 9 over budget
2005-2007 biennium summary	52 Nickel 24 TPA	71 on time 5 late	68 on time 8 late	76	$673.9	$668.8	67 on budget 9 over budget
2003-2005 biennium summary	27 Nickel	25 on time 2 late	27 on time 0 late	27	$124.6	$124.4	25 on budget 2 over budget

Data source: WSDOT Capital Program Development and Management.
Notes: Dollar amounts are rounded up. **1** Projects are "on time" if they are operationally complete within the quarter planned in the last approved schedule. **2** Projects are "on budget" if the costs are within 5% of the last approved budget.

WSDOT has one change order of $500,000 or more during the quarter

WSDOT had one change order of $500,000 or more during the quarter ending March 31, 2019. The 468th Ave. SE to West Summit Rd. Rehabilitate Concrete/Deck project required a $700,000 change order due to costs associated with the increased depth of concrete removal. After an extensive review—which can involve subject matter experts, contract specialists and other outside stakeholders—WSDOT sometimes changes its engineers' original plans and specifications in order to complete projects. When this occurs, WSDOT issues a formal modification (or change order) to the contract containing a description of the change and details about how or if the contractor may be compensated for it. Each month, WSDOT posts all change orders estimated to cost $500,000 or more online at http://bit.ly/WSDOTchangeorders.

73 PRE-EXISTING FUNDS QUARTERLY UPDATE

WSDOT advertises 417 Pre-existing Funds projects so far during the 2017-2019 biennium

WSDOT advertised 75 of 131 planned Pre-existing Funds projects in the seventh quarter of the 2017-2019 biennium (January through March 2019). Of the 75 total projects advertised this quarter, 32 were on time, 17 were emergent and 26 were late. Additionally, 10 projects originally scheduled to be advertised during the quarter were advertised in a previous quarter, eight were delayed within the biennium, 37 projects were deferred out of the biennium, and one was deleted. See pp. 35-36 for this quarter's PEF advertisements.

To date in the 2017-2019 biennium (July 2017 through June 2019), WSDOT's current cost to complete all 417 PEF projects that have been advertised is $934.4 million, about $49.1 million (5.5%) more than the original value of $885.3 million. See chart at right for additional information.

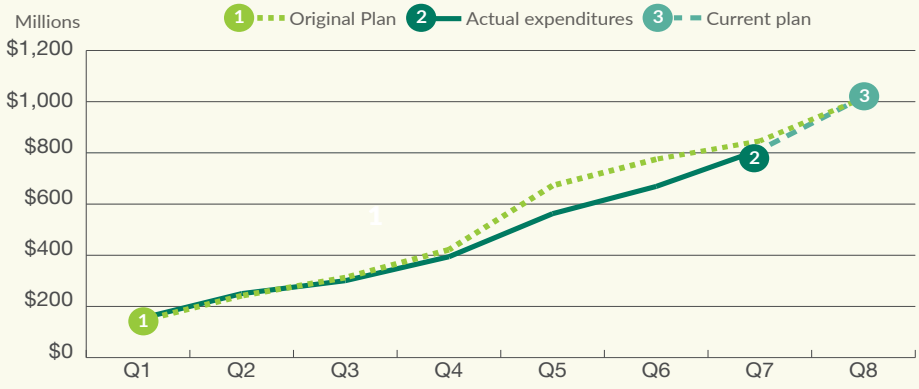
Combined improvement and preservation cash flows currently lower than original projections

WSDOT originally planned to have $846.5 million in cumulative combined PEF improvement and preservation cash flows at the end of the seventh quarter of the 2017-2019 biennium, but had $812.1 million (approximately 4.1% less). WSDOT expects to increase planned PEF expenditures in the final quarter to meet the original biennial expenditure plan by the end of the biennium.

At the end of a biennium, funds not spent on active projects are reappropriated into the ensuing biennium, creating an expenditure plan that exceeds the PEF allotment plan. The allotment plan is adjusted when the first supplemental budget is approved. As an additional strategy, WSDOT may also over-program how many preservation projects are planned for a biennium to help ensure it uses all of its federal obligation authority.

Cumulative Pre-existing Funds improvement and preservation combined cash flows slightly lower than planned during the 2017-2019 biennium

Quarter ending March 31, 2019; Planned vs. actual expenditures; Dollars in millions



Data source: WSDOT Capital Program Development and Management.

Note: Q7 refers to the seventh quarter (January through March 2019) of the 2017-2019 biennium, which runs from July 2017 through June 2019.

Current cost to complete actual Pre-existing Fund advertisements $49.1 million over original value

2017-2019 biennium (July 2017 through June 2019); Seventh quarter (ending March 31, 2019); Dollars in millions

	Number of projects	Original value	Current cost to complete
Total PEF advertisements planned for the 2017-2019 biennium	532	$1,060.8	$1,167.9
Actual PEF advertisements March 31, 2019	417	$885.3	$934.4

Data source: WSDOT Capital Program Development and Management.

WSDOT advertises 417 PEF projects during the 2017-2019 biennium

Project status	Quarter[1]	Cumulative[2]
Projects advanced[3]	0	21
Projects advertised on time	32	258
Emergent projects advertised	17	48
Projects advertised late	26	90
Total projects advertised	**75**	**417**
Projects advertised early[4]	10	23
Projects delayed within the biennium	8	129
Projects deferred out of the biennium	37	102
Projects deleted	1	9

Data source: WSDOT Capital Program Development and Management.

Notes: **1** Quarter refers to January through March 2019. **2** Cumulative refers to July 2017 through June 2019. **3** Advanced refers to projects that were moved up from future quarters. **4** Early refers to projects planned for the quarter that were advertised in a previous quarter.

WSDOT advertises 32 Pre-existing Funds projects on time during the seventh quarter of the 2017-2019 biennium

January through March 2019

On time (32) - A project that is advertised within the quarter as planned in the biennial budget	
Regionwide Shoulder Rumble Strip Installation (2017-2019)	SR 6/Salmon Creek - Fish Passage
SR 20/Banta Rd. - Intersection Safety Improvements	SR 6/South Branch Fronia Creek and Fronia Creek - Fish Passage
US 2/Division Wye to Farwell Rd. - Paving	SR 14/SE 164th Ave. to NW 6th Ave. - Paving
SR 20/Newhalem to Lillian Creek - Install Rumblestrip	SR 506/Lacamas Creek - Bridge Replacement
SR 20/Lillian Creek to Granite Creek - Install Rumblestrip	US 12/White Pass Vicinity - Major Drainage Phase 2
SR 99/Pierce County Line to S 359th St. Vicinity - Paving	2019-2021 Eastern Region - Regionwide Basic Safety - Guardrail
SR 99/Duwamish River Bridges - Special Bridge Repair	Eastern Region BST Rumble Strips C - Install Rumble Strip
SR 522/North Creek Bridge to SR 9 Vicinity - Paving	Eastern Region Breakaway Cable Terminal - Remove and Replace
SR 542/Britton Rd. Vicinity to Coal Creek Vicinity - Bituminous surface treatment (BST)	SR 20/Cascade Rd. Vicinity to Goodell Creek Campground - Install Rumble Strip
SR 547/SR 542 to Saar Creek - BST with Exceptions	US 2/Colbert Rd. to Westwood Rd. - Paving
SR 548/North Star Rd. to Blaine Rd. - BST	SR 20/Republic to US 395 - Chip Seal
US 2/Dryden to Monitor - Advanced Warning Systems Rebuild	SR 20/Narcisse Rd. to Spruce Canyon Rd. - Chip Seal
I-5/Plum St. to S Tacoma Way - Paving	SR 20/South Fork Mill Creek Rd. to Tiger - Chip Seal
SR 8/US 12 to West of Mox Chehalis Rd. - Paving	SR 26/Washtucna to LaCrosse - Airport Rd. - Chip Seal
SR 8/West of Mox Chehalis Rd. to East of Winslow Dr. SW - Paving	SR 26/Dusty to Colfax - Chip Seal
SR 305/Agate Pass Bridge - Bridge Painting	US 195/SR 271 to Plaza Rd. - Paving
Emergent (17) - A new project that addresses unexpected needs, such as emergency landslide repair	
I-5/Silver Lake Southbound RV Dump Station Rehabilitation - Northwest Region	SR 24/Vernita Weigh Station - Preservation
SR 153/Methow River Bridges - Structure Rehabilitation - Phase 3	I-82/I-90 Vicinity to Thrall Road Vicinity - Paving
I-5/Rush Rd. to 13th St. - Crack Sealing	US 12/Pomeroy to Ledgerwood Road Vicinity - Chip Seal
SR 504/0.6 Miles West of Hall Rd. - Culvert Rehabilitation	I-90/Stevens Road Vicinity to Ryegrass Vicinity Eastbound - Paving
US 12/West Alpowa Vicinity - Chip Seal	I-90/Cle Elum River Bridge Eastbound - Deck Rehabilitation
US 12/East Alpowa Vicinity - Chip Seal	I-90/Bridge Pier - Redirectional Landform Mitigation
I-82/Yakima River Bridge to 3.6 Miles West of Gibbon Rd. Westbound - Paving	I-90/Sprague Ave. Interchange to Argonne Rd. Interchange - Portland Cement Concrete Pavement Rehabilitation Grinding
SR 22/SR 221 Intersection to I-82 Interchange - Paving	US 195/Smythe Rd. to Paradise Rd. - Decreasing Lanes Only - Paving
	US 395/Bridge Pier - Redirectional Landform Mitigation
Late (26) - A project that is advertised in the current quarter but missed its original advertisement date	
I-5/Gee Creek Southbound Safety Rest Area - Rehabilitate RV Dump Station	Olympic Region Breakaway Cable Terminal Replacement - Non-Interstate
US 2/S Fork Skykomish River Bridge to Money Creek Tunnel - BST	SR 153/Methow River Bridge MP 11.8 - Structural Rehabilitation
SR 9/Tawes Creek - Fish Passage	SR 155 Grand Coulee Bridge - Upgrade Illumination
SR 9/Two Tributaries to Tawes Creek - Fish Passage	Olympic Region Breakaway Cable Terminal Replacement - Interstate
I-405/61st Ave. S to SE 8th St. - Seismic Retrofit	SR 17/I-90 to Broadway Ave. - Safety Improvements
US 2/Stevens Pass - Avalanche Deflection Berm	Olympic Region - Guardrail and Roadside Safety
US 101/Fisher Creek - Remove Fish Barrier	I-90/Cle Elum River Bridge Eastbound - Bridge Painting
US 101/Chehalis River Bridge - Scour Repair	I-90/Ryegrass to Vantage Westbound - Paving
US 101/Steamboat Creek - Remove Fish Barrier	I-90/Vantage Vicinity - Median Cable Barrier

Data source: WSDOT Capital Program Development and Management.

WSDOT advertises 10 Pre-existing Funds projects early during the seventh quarter of the 2017-2019 biennium

January through March 2019

Late (continued)	
US 101/Harlow Creek - Remove Fish Barrier	I-90/Cle Elum River Bridge Westbound - Bridge Painting
Southwest Region Breakaway Cable Terminal Replacement - Interstate	I-82/Wine Country Rd. Interchange - Americans with Disabilities Act (ADA) Compliance
I-82/SR 241 Interchange - Paving	I-90/Cle Elum River Bridge Westbound - Deck Rehabilitation
I-82/Wine Country Rd. Interchange - Paving	US 2/Division Wye to Farwell Rd. - ADA Pedestrian Ramp Retrofit
Early (10) - A project with an advertisement date originally scheduled for the current quarter which was advertised in an earlier quarter	
US 2/Bickford Ave. SE to Fryelands Blvd. SE Vicinity - Corridor Improvements	US 2/Fryelands Blvd. SE Vicinity To Cascade View Dr. Vicinity - ADA Compliance
US 2/87th Ave. Vicinity to Pilchuck Vicinity - Paving	US 2/Old Owen Rd. Vic to Sofie Rd. Vicinity - Paving
US 2/Pilchuck River Vicinity to Roosevelt Rd. Vicinity - Paving	SR 9/30th St. SE Vicinity to US 2 Vicinity - Paving
US 2/Roosevelt Rd. Vicinity to SR 522 Vicinity - Install Rumble Strip	SR 510/North of Old Pacific Hwy. to East of Lake St. Clair Rd. - Paving
US 2/Roosevelt Rd. Vic to Cascade View Dr. Vicinity - Paving	North Central Region Guardrail Update 2017-2019
Delayed (8) - A project not been advertised, for which the advertisement date has been moved to another quarter within the biennium	
US 2/Nason Creek SRA - Replace Sewer Panel - North Central Region	SR 500/Burnt Bridge Creek to 4th Plain Rd. - Paving
Northwest Region Breakaway Cable Terminal Replacement - Interstate 2017-2019	Northwest Region Breakaway Cable Terminal Replacement-Non-Interstate 2017-2019
SR 500/I-205 Overcrossing Bridge - Replace Expansion Joints	US 395/E Elm Rd. to SR 17 Southbound - Paving
SR 500/Burnt Bridge Creek to 4th Plain Rd. - ADA	US 395/Pasco - Flamingo Mobile Home Park Noise Walls
Deferred (37) - A project not yet advertised, for which the advertisement date has been moved out of current biennium	
SR 24/Vernita SRA - RV Rehabilitation - South Central Region	US 197/The Dalles Bridge Deck Replacement
SR 99/Lincoln Way Vicinity to Evergreen Way - Paving	SR 401/US 101 to SR 4 - Chip Seal
SR 99/Lincoln Way Vicinity to Evergreen Way - ADA Compliance	SR 501/I-5 to SW 26th St. Vicinity Including Couplet - ADA
SR 167/Northbound Pierce County Line to 15th St. SW - Paving	SR 501/I-5 to SW 26th St. Vicinity Including Couplet - Paving
SR 167/Northbound 15th St. SW Off-Ramp - ADA Compliance	SR 503/Northeast 154th St. to SR 502 - Median Barrier
SR 203/Loutsis Creek - Fish Passage	US 12/Whetstone Creek Bridge - Replace Bridge
North Central Region 2017-2019 Curve Warning Sign Update	US 12/Cameron St. Vicinity to Dayton Ave. Vicinity - Paving
SR 24/ Bench Rd. Intersection Improvements	US 12/Cameron St. Vicinity to Dayton Ave. Vicinity - ADA Compliance
US 97/South of Tonasket - Paving	SR 22/US 97 to SR 223 - Chip Seal
SR 3/SR 304 On Ramp to North of Anderson Hill Rd. - Paving	SR 24/SR 240 to Vernita - Chip Seal
SR 8/West of Thurston County Line to Jct. US 101 - Paving	SR 24/SR 240 to Vernita - Shoulder and Centerline Rumble Strips
US 12/ Wishkah River Bridge - Mechanical Rehabilitation	I-82/SR 14 Interchange - Paving
US 101/Southeast of Johnson Rd. to West of Indian Creek - Special Repair	US 97/Dry Creek to Pumphouse Rd. Vicinity - Chip Seal
US 101/Southeast of Johnson Rd. to West of Indian Creek - Chip Seal	SR 225/Karen Ave. to SR 240 - Chip Seal
SR 106/McReavy Rd. Vicinity - Culvert Repair	SR 823/N Wenas Wye to SR 821 - Chip Seal
SR 106/US 101 to West of SR 3 - Chip Seal	I-90/Fishtrap to Latah Creek - Illumination Retrofit
SR 410/White River Bridge - Special Repair	SR 261/McElroy Coulee Crossing - Replace Drainage Structure
I-5/Woodland Vicinity at Horseshoe Lake - Upgrade Pump System	US 395/Columbia River to Boyds - Chip Seal
SR 6/Two Tributaries to Chehalis River - Fish Passage	
Deleted (1) A project that, upon review or due to changing priorities, is no longer required or has been addressed by another project	
SR 3/SR 304 On-Ramp to North of Anderson Hill Rd. - Special Repair	

Data source: WSDOT Capital Program Development and Management.

73 STATEWIDE TRANSPORTATION POLICY GOALS & GRAY NOTEBOOK INFORMATION GUIDE

Statewide transportation policy goals

Laws enacted in 2007 established policy goals for transportation agencies in Washington (RCW 47.04.280). Throughout its editions, WSDOT's Gray Notebook reports on progress toward the six statewide transportation policy goals that include:

- **Safety:** To provide for and improve the safety and security of transportation customers and the transportation system;
- **Preservation:** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- **Mobility (Congestion Relief):** To improve the predictable movement of goods and people throughout Washington, including congestion relief and improved freight mobility;
- **Environment:** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment;
- **Economic Vitality:** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy; and
- **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Gray Notebook edition archives available online

Readers can access past GNB editions online at bit.ly/GNBarchives. The archives include every GNB published to date and an easy to navigate chart explaining what edition articles are in.

GNB reporting periods

WSDOT programs report their performance data during different periods to best fit the work they do. For example, a program that receives substantial federal funds may report performance based on the federal fiscal year (see charts below).

Calendar, state fiscal and federal fiscal quarters

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	GNB 73			GNB 74			GNB 75			GNB 76		
Calendar	Q1 2019			Q2 2019			Q3 2019			Q4 2019		
State Fiscal	Q3 FY2019			Q4 FY2019			Q1 FY2020			Q2 FY2020		
Fed. Fiscal	Q2 FFY2019			Q3 FFY2019			Q4 FFY2019			Q1 FFY2020		

2017-2019 biennial quarters (used by Legislature)

Period	Quarter	Period	Quarter
Jul – Sep 2017	Q1	Jul – Sep 2018	Q5
Oct – Dec 2017	Q2	Oct – Dec 2018	Q6
Jan – Mar 2018	Q3	**Jan – Mar 2019**	**Q7**
Apr – Jun 2018	Q4	Apr – Jun 2019	Q8

GNB credits

The GNB is developed and produced by members of the WSDOT Transportation Safety & Systems Analysis Division's Performance Management and Strategic Management offices, and articles feature bylines indicating key contributors from dozens of WSDOT programs. The GNB and GNB Lite are printed in-house by Ronnie Jackson, Trudi Phillips, Talon Randazzo, Andrew Schoen, Larry Shibler and Deb Webb. Distribution assistance was provided by Andrew Poultridge, WSDOT Library. WSDOT's Headquarters Graphics Division (Marci Mill, Erica Mulherin and Steve Riddle) provides creative assistance, and WSDOT program staff and communicators take the photographs in each edition.

The Gray Notebook is prepared by:
Transportation Safety &
Systems Analysis Division
Washington State Department of Transportation
310 Maple Park Ave SE, Olympia, WA 98504

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