GNB GRAY NOTEBOOK

Washington State Department of Transportation

Quarterly performance analysis of WSDOT's multimodal systems and programs

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

Edition 78 ▪ June 2020

TAKING PROACTIVE STEPS

WSDOT WORKS WITH ITS PARTNERS TO MAKE ACTIVE TRANSPORTATION CONNECTIONS

Moving on up

Multimodal connections push the state's economic growth forward

Clear waters

WSDOT works to remove barriers for migratory fish passage

Full tool box

WSDOT uses different types of social media to reach traveling public

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The Gray Notebook team

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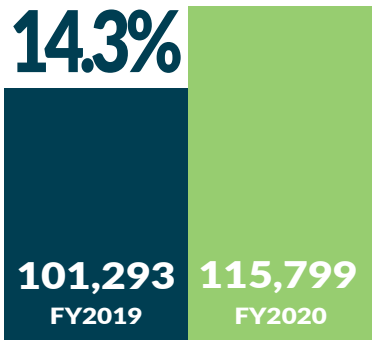
PERFORMANCE HIGHLIGHTS reported for the quarter ending June 30, 2020

33,410

trips completed by WSF in the fourth quarter of FY2020. This comprised 99.2% of the 33,696 regularly scheduled trips

THE NUMBER OF PEOPLE FOLLOWING WSDOT'S FACEBOOK PAGE INCREASED 14.3%



14.9 PERCENT decrease in **imports** and **exports** from 2018 to 2019

2,588 HOURS of WSDOT staff time saved by **General Hydraulic Project Approval permits** in 2019

21 percent of those who died in traffic crashes in 2019 were **pedestrians** and **bicyclists**

$17.4 MILLION in economic benefit provided by WSDOT's **Incident Response** teams clearing 10,356 incidents during the quarter

Construction projects completed with **Nickel** or **Transportation Partnership Account** funds **383**

WSDOT COMPLETED 8 FISH PASSAGE PROJECTS IN 2019, IMPROVING ACCESS TO 20 MILES OF UPSTREAM HABITAT

On the cover: Prior to the COVID-19 pandemic, a bicyclist loads his bike onto a Sound Transit bus to continue his journey.

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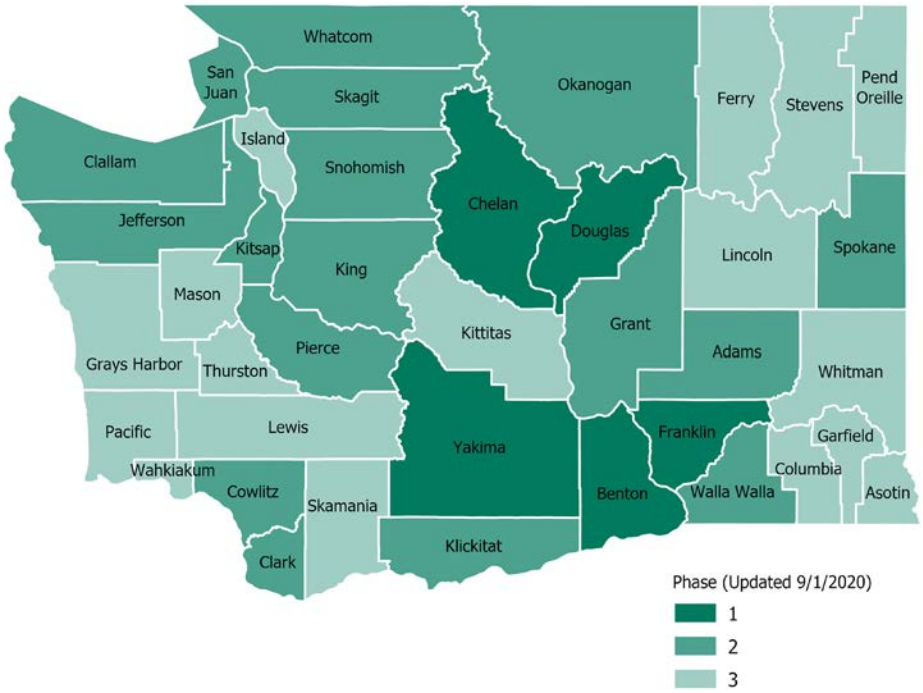
78 COVID-19 EFFECTS ON STATE TRANSPORTATION AND WSDOT

Washington transportation begins slow rebound as travel trends up during pandemic

Counties throughout Washington are in various stages of reopening following Gov. Jay Inslee's June 1 "Safe Start" plan. The plan, which was concurrent to the expiration of Inslee's "Stay Home, Stay Healthy" order, allows businesses and activities to reopen in phases provided adequate physical distancing measures and health standards are in place. Counties with higher COVID-19 rates are categorized as being in Phase 1 (see map below) and as conditions improve, can apply for fewer restrictions that will eventually move them to Phase 4. As of September 1, Washington had:

- Five counties in Phase 1
- 17 counties in Phase 2
- 17 counties in Phase 3
- Zero counties in Phase 4

For additional information on the phases as well as updates on status of COVID-19 in Washington, visit http://bit.ly/COVID-Risk. The county-by-county plan has slowly put the state back in motion and has increased the number of travelers using various modes of transportation as well (see chart on p. 4). WSDOT tracks the impacts of COVID-19 on multimodal transportation system performance through an interactive online dashboard. For more information, visit the COVID-19 Multimodal Transportation System Performance Dashboard at https://bit.ly/COVID19dash.



Notable results

- *Use of Washington State Ferries and highways has increased 51% from pandemic-related lows that occurred in March 2020*
- *As of September 1, 2020, ridership on Amtrak Cascades was 93% below where it was in 2019*
- *As of July 2020, International airline travel from Washington state was 93.3% below where it was compared to July 2019*

Washington sees increase in travelers throughout state

As much as travel dropped during the earlier phases of the COVID-19 pandemic, it is starting to show a rebound across transportation modes when compared to the lows hit in March and April. But while highway travel and Washington State Ferries experienced large percentage point increases—up from -63% on March 29 to -12% on Sept. 1 and from -87% on March 28 to -36% on Sept. 1, respectively—they are still far below where they were during the same periods in 2019. Amtrak Cascades, while increasing, had a much smaller percentage point increase and is still 92% below where its ridership was in 2019.

Active transportation experienced large initial increases in the percentages of people walking and bicycling compared to 2019. Even though these have tapered down, they are still well above 2019 with pedestrian travel up 70% and bicycling up 53% as of Sept. 1.

While domestic air travel increased 23.2 percentage points from April to July 2020, it was still 69.9% below July 2019 levels. During this same period, international air travel saw a 3.8 percentage point increase from April to July 2020, putting it 93.3% below corresponding July levels in 2019. This modest change to international travel can be attributed to many countries either banning flights from the United States or requiring 14-day quarantines for passengers arriving from the U.S.

Statewide travel increases since COVID-19 low points in March and April

Percentages from select dates for all modes compared to percentages on Sept. 1, 2020; Percentage point change; Safety fatality rate per 100 million vehicle miles traveled

Transportation mode	Percent or rate low (date)[1]	Sept. 1, 2020[2]	Percentage point or rate change
Highway travel	-63% (3/29)	-12%	+51
Tolling	-80% (3/28)	-33%	+47
Washington State Ferries	-87% (3/28)	-36%	+51
Transit	-77% (4/22)	-52%	+25
Amtrak Cascades	-98% (4/19)	-92%	+6
Freight			
Snohomish	-78% [3] (4/12)	-19%	+58
King	-88% (4/5) [3]	-14%	+64
Pierce	-89% [3] (4/5)	-5%	+85
Thurston	-44% (4/12)	3%	+47
Lewis	-65% (4/4)	-8%	+57
Clark	-71% [3] (4/4)	-11%	+60
Benton	-57% (4/5)	-11%	+46
Franklin	-62% (4/12)	-6%	+56
Active Transportation			
Pedestrians	-58% (3/13)	+70%	+112
Bicyclists	-60% (3/14)	+53%	+93
Safety[4]	0.8[3] (March)	1.1 (July)	+0.3
Aviation			
Domestic passengers	-93.1% (April)	-69.9% (July)	+23.2
International passengers	-97.1% (April)	-93.3% (July)	+3.8

Data source: WSDOT Transportation Safety & Systems Analysis.

Note: **1** Dates compared to varying days in 2019. **2** Tuesday, September 1, 2020 compared to Tuesday, September 3, 2019. **3** Some percentages and numbers have been updated from GNB 77 and as a result, corresponding dates may have also changed. **4** Crash rate per 100 million vehicle miles traveled.

WSDOT continues to put health and safety first

WSDOT has been working closely with the state Department of Health, the Governor's Office, Labor and Industries and the state Emergency Management Division since the COVID-19 pandemic started.

All WSDOT employees who are able to telework have done so since March; they recently were told to continue to do so for the foreseeable future. Ferries, construction and maintenance workers in the field are following stringent safety guidelines, including temperature checks, handwashing, physical distancing and wearing of proper personal protective equipment, including masks. WSDOT is also working to ensure all employees who are sick stay home, and reminding healthy employees to practice good hygiene at work and at home to help slow the spread of any respiratory illness.

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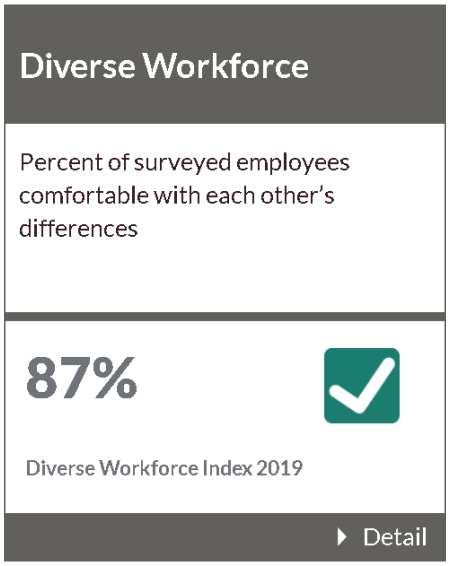
78 WSDOT'S STRATEGIC PLAN

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.

Under the strategic plan, WSDOT's engages employees, communities and partners as the agency collaboratively delivers its Inclusion goal. 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 the agency attracts and retains a quality workforce to meet its legislative, regulatory, service and public expectations.

The agency has 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—five for each goal—and details progress on the plan's work.

WSDOT strives to reflect, be sensitive to and understand the communities it serves while valuing a diverse workforce. One way this is measured is through an annual employee survey. "Diverse Workforce Index" measures the success of WSDOT's inclusion efforts. The index gives equal weight to two statements WSDOT employees score in an annual engagement survey, "I am comfortable seeking perspectives from people who are different from me," and "People I work with treat others with dignity and respect."



The agency scored 87% positive response to these two statements in 2019, an increase of three percentage points from 2018 results. WSDOT continues to assess ways to integrate diversity, equity and inclusion into its polices, development and leadership training and work culture.

Click the box at left to learn more about WSDOT's Diverse Workforce strategy, part of the agency's Inclusion Goal.

WSDOT's Vision

Washington travelers have a safe, sustainable and integrated multimodal transportation system.

WSDOT's Mission

We provide safe, reliable and cost-effective transportation options to improve communities and economic vitality for people and businesses.

- **Inclusion Goal**
  Strengthen commitment to diversity and engagement in every aspect of our work.
- **Practical Solutions Goal**
  Prioritize innovative, timely and cost-effective decisions, with our stakeholders and partners.
- **Workforce Development Goal**
  Be an employer of choice by hiring, training and retaining skilled workers to meet Washington's transportation needs.

WSDOT's Values

- Safety
- Engagement
- Innovation
- Integrity
- Leadership
- Sustainability

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78 STATEWIDE TRANSPORTATION POLICY GOALS DASHBOARD

Statewide policy goal/ WSDOT performance measure	Previous period	Current period	Goal	Goal met	Five-year trend (unless noted)	Desired trend
Safety						
Rate of **traffic fatalities** per 100 million vehicle miles traveled statewide[1] (Annual measure: calendar years 2017 & 2018)	0.92	0.88	<1.00	✓		↓
Rate of **recordable incidents** for every 100 full-time WSDOT workers (Annual measure: calendar years 2018 & 2019)	5.0	4.7	<5.0	✓		↓
Preservation						
Percentage of state **highway pavement** in fair or better condition by vehicle miles traveled (Annual measure: calendar years 2017 & 2018)	91.8%	91.4%	≥ 90%	✓		↑
Percentage of **state bridges** in fair or better condition by bridge deck area (Annual measure: fiscal years 2018 & 2019)	92.5%	92.9%	≥ 90%	✓		↑
Mobility[2] (congestion relief)						
Highways: Vehicle Miles Traveled **(VMT)** on state highways (Annual measure: calendar years 2017 & 2018)	34.6 billion	35.4 billion	*	N/A		Not applicable
Highways: Average **incident clearance times** for all Incident Response program responses (Calendar quarterly measure: Q2 2019 & Q2 2020)	12.3 minutes	13.4 minutes	*	N/A		↓
Ferries: Percentage of trips departing on time[3] (Fiscal quarterly measure: year to year Q4 FY2019 & Q4 FY2020)	87.5%	95.1%	≥ 95%	✓		↑
Rail: Amtrak Cascades on-time performance[4] (Annual measure: calendar years 2018 & 2019)[5]	50%	58%	≥ 88%	—		↑
Environment						
Number of WSDOT **stormwater management facilities** constructed (Annual measure: fiscal years 2018 & 2019)	78	66	*	N/A		Not applicable
Cumulative number of WSDOT **fish passage improvement projects** constructed (Annual measure: calendar years 2018 & 2019)	345	329	*	N/A		↑
Stewardship						
Cumulative number of Nickel and TPA **projects completed**[5] and **percentage on time**[6] (Biennial quarterly measure: Q3 2019-2021 & Q4 2019-2021, trendline for percentage on time)	383/ 86%	383/ 86%	≥ 90% on time	—	(Five-quarter trend)	↑
Cumulative number of Nickel and TPA **projects completed**[5] and **percentage on budget**[6] (Biennial quarterly measure: Q3 2019-2021 & Q4 2019-2021, trendline for percentage on budget)	383/ 91%	383/ 91%	≥ 90% on budget	✓	(Five-quarter trend)	↑
Variance of total project costs[5] compared to **budget expectations**[6] (Biennial quarterly measure: Q3 2019-2021 & Q4 2019-2021)	Under budget by 1.5%	Under budget by 1.5%	On or under budget	✓	(Five-quarter trend)	Not applicable

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. The separate goals for reducing pedestrian/bicyclist fatalities were not met (see pp. 9-15) as the five-year rolling average trend line is moving upward even with some decline in 2019. **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** Construction projects only. **6** Projects are on time if they are completed within the quarter planned in the last approved schedule, and on budget if costs are within 5% of the budget set in the last approved state transportation budget.

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78 MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY

FHWA set to make determination on WSDOT MAP-21 highway safety performance

In March 2020, the Federal Highway Administration will provide its first determinations of whether WSDOT has made significant progress toward achieving its 2018 Moving Ahead for Progress in the 21st Century targets for highway safety (also referred to as PM1). WSDOT reported its MAP-21 highway safety targets for 2019 to the FHWA on August 31, 2018. FHWA will inform WSDOT whether significant progress has been made on those targets in March 2021.

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). Like the PM1 targets, WSDOT needs to show significant progress toward meeting PM2 and PM3 targets. These targets were established collaboratively by WSDOT and Metropolitan Planning Organizations.

WSDOT and state MPOs submitted MAP-21 targets for PM2 and PM3 to the FHWA's Washington state division office in the Baseline Performance Report on October 1, 2018, and the targets were recommended for acceptance to the FHWA national headquarters office. This begins a four-year reporting cycle for PM2 and PM3 performance measures, which includes WSDOT producing a Mid-Performance Period Progress Report (due by October 1, 2020) and a Full-Performance Period Progress Report (due by October 1, 2022). When WSDOT and MPOs report on their progress toward achieving PM2 and PM3 targets in the 2020 mid-performance period progress report, they will provide updates on two-year condition/performance and investment strategy discussions as well as target adjustment discussions.

MAP-21 safety reporting on an annual cycle

Targets for the highway safety rules (included in PM1) are on an annual reporting cycle, which differs from the two-year and four-year reporting cycles for PM2 and PM3. The safety targets established for 2019 represent the second annual reporting cycle since the initial reporting of MAP-21 safety targets for 2018.

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

Data source: WSDOT Transportation Safety & Systems Analysis.

Notes: The PM1 targets for 2019 were submitted on August 31, 2018, using 2013-2017 for current baseline data. **1** 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. **2** Performance metric includes all individuals (for example, pedestrians and bicyclists) who died or were seriously injured as a result of a crash with a motorist in Washington. **3** Includes bicyclists, pedestrians and micromobility users.

WSDOT and MPOs can also adjust their four-year targets at that time, but must explain the basis for the changes and how 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. WSDOT may face penalties (see table below) if it does not show necessary improvements on certain targets. While not showing significant progress toward targets triggers a penalty—and requires an explanation of what WSDOT will do to make future progress or require additional reporting—specific measures in PM1 and PM2 invoke financial penalties if targets are not met. These penalties require redistributing federal monies to help ensure significant progress toward specific targets in the future.

MAP-21 folios helping MPOs, stakeholders

WSDOT has 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				
Percent of Interstate pavement on the NHS in good condition	32.5%[3]	N/A	30%	No
Percent of Interstate pavement on the NHS in poor condition	3.6%[3]	N/A	4%[4]	Yes
Percent of non-Interstate pavement on the NHS in good condition	18%[3]	45%	18%	No
Percent of non-Interstate pavement on the NHS in poor condition	5%[3]	21%	5%	No
Bridges				
Percent of NHS bridges classified in good condition (weighted by deck area)	32.8%	30%	30%	No
Percent 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)				
Percent 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 Strategic Assessment Office, 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 percent of Interstate pavement on the NHS in poor condition not exceed 5% and the percent of NHS bridges classified in poor condition (weighted by deck area) not exceed 10%.

78 ACTIVE TRANSPORTATION: ANNUAL SAFETY REPORT

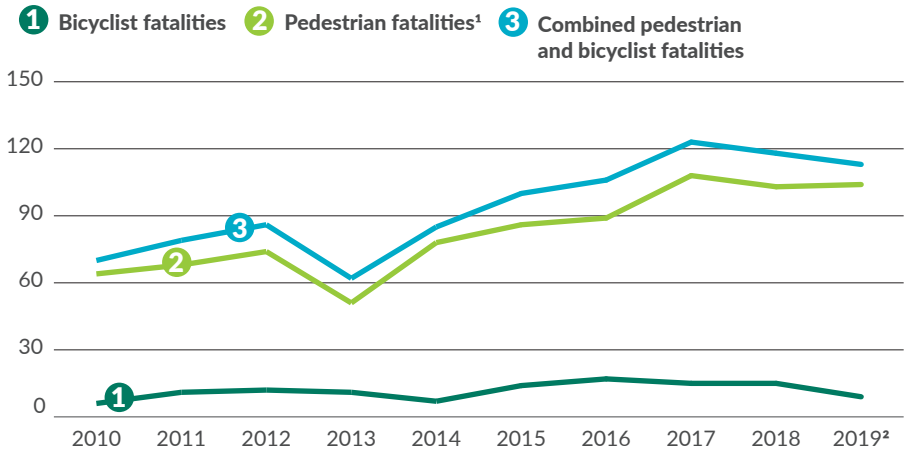
Pedestrian and bicyclist fatalities drop slightly from 2018 to 2019, but stay above 2010 levels

There were five fewer fatalities involving people walking and biking on Washington roadways in 2019 (113 people) than in 2018 (118 people). Despite this second year of incremental improvement, combined pedestrian and bicyclist fatalities were 61.4% higher in 2019 than in 2010 (71 people; see chart below). Due to fluctuations in the numbers of pedestrian and bicyclist fatalities over the last 10 years, it is too early to say whether or not the five fewer lives lost in 2019 indicates a change in the long-term trend.

Traffic fatalities involving pedestrians—including people in wheelchairs and those using small rideable devices such as skateboards and scooters—increased by 62.5% from 64 in 2010 to 104 in 2019 (see chart below). Bicyclist fatalities increased 50% from six in 2010 to nine in 2019.

Combined pedestrian and bicyclist fatalities in Washington state decreases for the second year in a row in 2019, but 10-year trend is still increasing

Pedestrian fatalities, bicyclist fatalities, combined pedestrian and bicyclist fatalities in Washington state; 2010 through 2019



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

Notes: Some numbers have changed since previous editions of the Gray Notebook due to updates within the Fatality Analysis Reporting System. **1** Pedestrians include people in wheelchairs and those using small rideable devices such as skateboards and scooters, in addition to those walking. **2** Data for 2019 is preliminary.

Pedestrian and bicyclist serious injuries decrease in 2019

Between 2018 and 2019, the total number of traffic-related serious injuries to people walking and bicycling decreased 11% from 523 to 464—with serious injuries to people walking decreasing by 9.9%, and those to people bicycling decreasing 15.6%. Over the 10-year period from 2010 through 2019, traffic-related serious injuries to people walking and biking increased from 408 injuries in 2010 to 464 in 2019 (an increase of 13.7%). The number of serious injuries rose and fell over this period, following a pattern similar to the fatality trend (see chart above).

Notable results

- *Combined pedestrian and bicyclist traffic fatalities declined slightly, going from 118 deaths in 2018 to 113 deaths in 2019*
- *Serious injuries to people walking and bicycling decreased 11% from 523 in 2018 to 464 in 2019*
- *About 21% of those who died or were seriously injured in traffic crashes during 2019 were pedestrians and bicyclists*
- *From 2010 to 2019, 86% of pedestrian and bicyclist fatalities occurred on roads with posted speeds of 30 mph or higher*
- *Pedestrian and bicyclist fatalities in March-June of 2020 were 48% higher than the pre-COVID-19 average for those months*

Target Zero

Target Zero, Washington's strategic highway safety plan, aims to reduce traffic fatalties and serious injuries to zero by 2030. Target Zero includes an intermediate goal of reducing fatalities and serious injuries by 5% per year beginning in 2009. If this intermediate target had been reached for bicyclist and pedestrian fatalities alone, 439 premature deaths could have been avoided. Bold actions are needed to get to zero.

Fatalities and serious injuries in 2019 worth $1.6 billion to society

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 kind of analysis becomes necessary, WSDOT follows USDOT guidance for calculating the value of lives saved and injuries prevented, available at http://bit.ly/usdotvaluation. Using the "Value of a Statistical Life" methodology specified in this guidance, the 113 pedestrian and bicycle fatalities that occurred in Washington state in 2019 represented a value of approximately $1.2 billion. Additionally, the 464 pedestrian and bicyclist serious injuries represent societal value of approximately $468 million.

Bicyclists and pedestrians are over-represented in fatal and serious injury crashes

Crashes involving people who walk and bike represented 21% of all fatal and serious injury traffic crashes in 2019 even though walking and biking for transportation represents about 12% of all trips.

Higher driving speeds increase severity of crashes

Higher driving speeds are correlated with more severe crashes involving pedestrians and bicyclists. From 2010 to 2019, most fatalities of people walking and biking (86%) occurred on roads with a posted speed of 30 mph or higher.

COVID-19 leads to changes in walking and bicycling

On February 29, 2020, Gov. Jay Inslee released a COVID-19 Emergency Proclamation for Washington state. The proclamation was followed by limits on large events, school closures, the shutdown of restaurants/bars, a halt on elective surgeries/dental services, and other restrictions, culminating in a "Stay Home, Stay Healthy" order on March 23.

Most Washingtonians who could stay home did so, resulting in fewer vehicle trips. Where pedestrian/bicyclist counters were available, large increases in walking and biking were documented. These increases peaked in April.

The increase in walking and biking was accompanied by a reduction of all crashes involving bicyclists and/or pedestrians crashes, as well as reduction in serious injuries. In March, April, May and June 2020, the number of crashes involving bicyclists and/or pedestrians was 51% below the average for those months in 2010-2019, and the number of serious injuries was 30% lower than the pre-COVID-19 average for those months (see chart below).

In contrast, the number of pedestrian and bicyclist fatalities in March-June 2020 was 48% higher than the pre-COVID-19 average for March-June, and the percentage of crashes involving bicyclists and pedestrians that also involved a fatality or serious injury was 4.2 percentage points higher (see chart below). Because the data is considered preliminary, WSDOT has not yet conducted analysis of contributing circumstances. There are, however, indications that higher driver speeds are at least partially to blame. For more information on the transportation impacts of COVID-19, see p. 3 and WSDOT's COVID-19 Multimodal Transportation System Performance Dashboard (at https://bit.ly/COVID19dash).

Number of crashes involving bicyclists and pedestrians decreases, fatalities increase during COVID-19 pandemic

Bicyclist and pedestrian fatalities, serious injuries and crashes in March-June; Pre-COVID (2010-2019) average and 2020

Crash type	Pre-COVID average for March-June	2020 total for March-June	Change
Fatalities	23	34	48%
Serious injuries	125	88	-30%
All crashes	2,378	1,172	-51%
Percentage of bicylist and pedestrian crashes involving bicyclist and/or pedestrian fatalities or serious injuries	6.2%	10.4%	4.2 percentage points

Data source: WSDOT Active Transportation Division.

Most bicyclist, pedestrian fatalities/serious injuries occur in population centers

From 2010 through 2019, 61% of fatalities and serious injuries involving people walking and bicycling occurred on city streets. Over the same time period, 27% of these fatalities and serious injuries occurred on state routes and 11% on county roads. Of those fatalities and serious injuries on state highways, 83% were in population centers (census-designated places; see charts at right).

The concentration of bicyclist and pedestrian fatalities and serious injuries on city streets and state routes in population centers reflects the shorter distances between destinations in populated areas—which encourage active transportation trips—and larger concentrations of pedestrians, bicyclists and motorists.

Severe crashes more likely for pedestrians and bicyclists crossing the street and at intersections

People crossing the street made up 62% of fatal and serious injury crashes involving pedestrians from 2010 through 2019. During the same period, 55% of fatal and serious injury crashes involving bicyclists were intersection-related.

From 2010-2019, 46% of pedestrian fatal and serious injury crashes occurred while the person was using a roadway, and 5% occurred while the person was using a sidewalk. Similarly, 53% of bicyclist fatal and serious injury crashes occurred when the person biking was using a roadway, while 9% occurred when the bicyclist was on the shoulder and 13% occurred on a designated bike route.

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

Rates of pedestrian, bicyclist traffic crashes vary by demographic

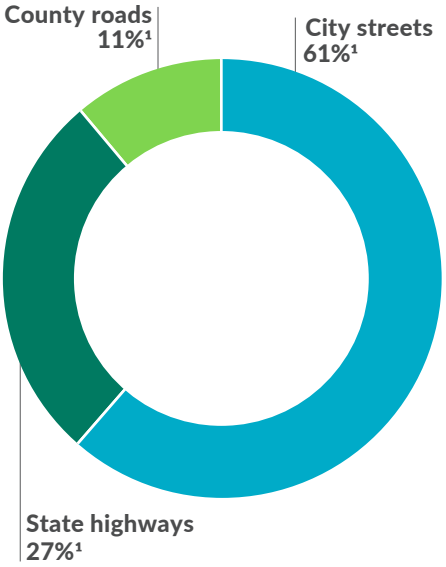
The rates of fatalities and serious injuries to bicyclists and pedestrians vary depending on several demographic characteristics, including age, income and race.

Bicyclists and pedestrians in their 20s more likely to be killed or injured than other age groups

People in their 20s are more likely to be killed or seriously injured while walking or bicycling than members of other age groups. This demographic made up 14% of the total state population but was involved in 18% of all pedestrian and bicyclist fatal and serious injury crashes during the 10-year period 2010-2019.

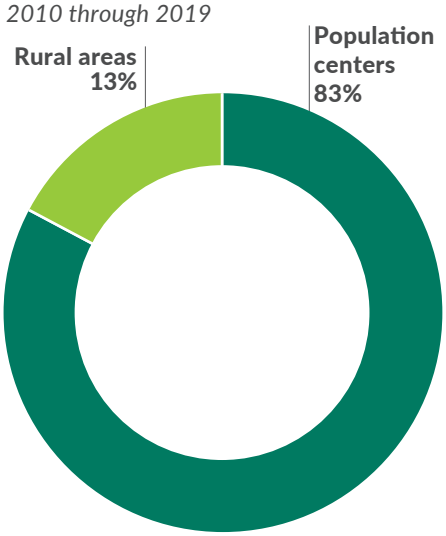
Majority of bicyclist and pedestrian fatalities and serious injuries in last decade were on city streets

Bicyclist and pedestrian fatalities and serious injuries; 2010 through 2019



Majority of bicyclist and pedestrian fatalities and serious injuries on state highways are in population centers

Bicyclist and pedestrian fatalities and serious injuries on state highways; 2010 through 2019



Data: WSDOT Active Transportation Division.
Notes: **1** Percentages may not add to 100 due to rounding.

WSDOT promotes the Safe Systems Approach

The 2019 update to Target Zero, WSDOT's Strategic Highway Safety Plan, includes a chapter on the Safe Systems Approach. A proven approach to reducing crashes and saving lives, the Safe Systems Approach identifies four core principles:

- Fatal and serious injuries are preventable
- Mobility should not come at the expense of safety
- The transportation system needs to directly address the needs of all road users
- Recognize human physical tolerance and limits—reduce kinetic energy carried into a crash

In contrast, both 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 Washington state's population, but made up 18.6% of pedestrian or bicyclist fatalities and serious injuries from 2010 through 2019, while people 65 years and older made up 15% of the total population and were involved in 13.6% of fatal and serious injury pedestrian and bicyclist crashes.

Majority of active transportation fatalities and serious injuries occur in lower-income areas

For population studies, the state is divided into census block groups (a geographic unit typically home to between 600 and 3,000 people). From 2010 through 2019, about 51% of active transportation fatalities and serious injuries in Washington state took place in the 44% of census block groups that have higher-than-average poverty levels.

Lower income neighborhoods tend to have less infrastructure dedicated to walking and bicycling, yet those residents are more apt to rely on active transportation and transit.. People living in poverty also include an over-representation of other vulnerable groups such as black, indigenous and people of color, the elderly, and people with disabilities.

Areas with higher minority populations over-represented in bicyclist, pedestrian crashes

From 2010 through 2019, about 33% of fatal and serious injuries to bicyclists and pedestrians in Washington took place in the 24% of census blocks that are home to higher-than-average percentages of people who are neither white nor non-Hispanic.

WSDOT updates Target Zero highway safety plan

In 2019, WSDOT updated its Strategic Highway Safety Plan, Target Zero. The updated plan includes a chapter on pedestrian and bicyclist safety, which notes the importance of engineering approaches in reducing or eliminating the potential for a serious or fatal crash to occur. Recommended strategies include:

- Speed management focused on injury minimization to save lives for all roadway users;
- Expanded and improved crossing opportunities;
- A complete active transportation network;
- Improved safety for children walking or bicycling to school; and
- Improved data and performance measures.

The Cooper Jones Active Transportation Safety Council has identified these as priorities in past legislative reports (see box on p. 13).

Target Zero also includes a chapter on the Safe Systems Approach (see box at left). WSDOT is participating in an implementation work group with the Washington Traffic Safety Commission and other partners. The group is evaluating the many strategies listed in Target Zero to identify those that will provide the largest return in lives saved, and will identify next steps for implementing those strategies.

Active Transportation Safety Council to recommend increase in traffic safety cameras around schools

As of June 30th, 2020, 15 local agencies in Washington state use automated safety cameras in school speed zones. The safety cameras work by capturing a picture of the license plate of anyone speeding through a school zone and results in a speeding ticket being issued.

The Cooper Jones Active Transportation Safety Council intends to recommend allowing the use of automated traffic safety cameras in school walk zones (the one mile road distance around Washington state schools). Automated traffic safety cameras are currently allowed in school speed zones, as well as at intersections and railroad crossings. Communities that have used the automated safety cameras (such as Seattle, Spokane, and Kirkland) have seen significant speed and crash reductions at locations where the cameras have been installed. The recommendation would also designate the revenues from the automated enforcement to other traffic safety improvements near schools, such as sidewalks.

According to the Washington State Student Travel Survey, 38% of children who live within a mile of their school walked or biked to school in 2019. The amount or speed of traffic along routes to school were among the top reasons why parents did not allow their children to walk or bike to school.

New laws focus on pedestrian, bicyclist safety

During the 2020 session, the Legislature passed several bills related to safety and mobility for people walking and bicycling. These include:

- **SSB 6208 "Safety Stop"** Beginning on October 1, 2020, this bill gives people bicycling the option to treat a stop sign as a yield after confirming that it is safe to enter the intersection. Stop sign signals on school buses and at railroad crossings will still require a complete stop. Washington becomes the fifth state in the nation to legalize the Safety Stop, following Idaho, Delaware, Arkansas, and Oregon.
- **HB 2587 Scenic Bikeways Program** This bill requires the Parks and Recreation Commission to establish a scenic bikeways program for the designation and promotion of bicycle routes of notable scenic, recreational, cultural, or historic value. WSDOT will coordinate U.S. Bicycle Route identification with this new program where appropriate.
- **HB 1793** This bill will allow the City of Seattle to use automated traffic safety cameras for enforcement of laws that make it illegal to block an intersection or crosswalk or travel in restricted lanes such as those marked for use only by public transportation vehicles.
- **SB 6493** This bill is a technical fix to the 2019 enabling legislation for the Cooper Jones Active Transportation Safety Council. Information on the ATSC and its 2019 report are available at https://bit.ly/WA_ATSC.

Cooper Jones Active Transportation Safety Council

The Cooper Jones Active Transportation Safety Council works to decrease deaths and serious injuries involving walkers, bicyclists and other non-vehicle methods of transportation. The council's name honors Cooper Jones, a 13-year-old boy who died after being struck from behind by a driver as Cooper participated in a road race in Spokane County.

The council makes recommendations on active transportation safety to organizations that have the authority to implement the recommendations. These organizations include state agencies, the Governor's Office, and the Legislature.

For more information on the Council, including its 2019 Annual Report, see https://bit.ly/WA_ATSC.

WSDOT studies state highways as barriers to active transportation

Beginning in 2019, WSDOT undertook a Federal Highway Administration-funded study to examine the extent to which state highways act as barriers and/or deterrents to active transportation. The study calculated a Route Directness Index that indicates how far out of their way people need to travel in order to cross a state route. RDI information complements previous work that established the Level of Traffic Stress associated with state route crossings due to characteristics such as high traffic volumes, number of travel lanes, and posted speed (see box below), WSDOT intends to use LTS and RDI data to identify and prioritize areas in need of new or improved crossings for pedestrians and bicyclists.

Level of Traffic Stress

Level of Traffic Stress is a methodology for assessing how stressful it is to walk or ride a bicycle on a particular road. Using a combination of roadway characteristics, geographic location and surrounding land use, it rates roads from LTS 1 (least stressful) to LTS 4 (most stressful). LTS is calculated separately for bicyclists and pedestrians.

For an in-depth description of LTS methodology, see Gray Notebook 71, p. 31.

WSDOT makes progress on Active Transportation Plan

Throughout 2019, WSDOT conducted planning, outreach, and analysis of state routes in order to update the agency's Active Transportation Plan. The ATP will meet state and federal statutory requirements (see https://bit.ly/RCW4706100).

The ATP builds on and integrates previous work, including the findings and recommendations in WSDOT's 2018 Pedestrian Safety Action Plan (available at http://bit.ly/PedestrianActionPlan). The Safe Systems Approach highlighted in Target Zero in WSDOT's analysis of active transportation needs is embedded in the ATP (see box on p. 12). The ATP also incorporates recommendations made by the Cooper Jones Active Transportation Safety Council in its reports to the legislature, including an emphasis on complete networks, infrastructure investment in underserved areas, and improved collection of facilities data (see box on p. 13). The plan supports other WSDOT plans and is designed to contribute to the Highway System Plan now under development.

WSDOT's ATP uses Level of Traffic Stress analysis to identify gaps in the the active transportation network (see box at left). WSDOT is only the third state DOT in the nation to use Level of Traffic Stress in its active transportation assessment.

The plan also identifies needs using evaluation criteria for safety, equity, and demand to determine where future improvements can contribute most to safety, opportunity, and participation. The ATP focuses on population centers—the places where people are most likely to want or need to walk or bike for short trips.

ATP outreach identifies safe biking, walking facilities as top concern

WSDOT invited public input on the ATP through a variety of channels, including an online open house, social media, in-person presentations and focus groups, and questionnaires. The agency received responses from thousands of Washingtonians.

In its analysis of the responses received, WSDOT found that the top concern of two categories of respondents—people who walk and bike now, and people who would increase their use of active transportation if they felt safe doing so—was safer facilities that provide complete connections.

The ATP will be out for public comment in fall 2020. To be notified when the plan is available, subscribe to the ATP E-News at http://bit.ly/WSDOT-ATPlan-Enews.

Contributors include Mike Bernard, Barb Chamberlain, Charlotte Claybrooke, Brian Wood, Helen Goldstein and Joe Irwin

78 TRAVEL INFORMATION ANNUAL REPORT

WSDOT's social media following continues to grow

WSDOT's social media following continued its upward trend during fiscal year 2020 (July 1, 2019 through June 30, 2020). The number of people following WSDOT's Facebook page increased 14.3% from 101,293 in FY2019 to 115,799 in FY2020.

WSDOT has 13 Twitter accounts; the two most popular—"@wsdot_traffic" and "@wsdot"—gained followers in FY2020. The number of people following the "@wsdot_traffic" Twitter account increased 0.7% from 472,244 in FY2019 to 475,659 in FY2020, and those following the "@wsdot" Twitter account increased 2.8% from 286,662 to 294,576 during the same time period.

WSDOT's mobile apps (available on both iPhone and Android) had 197,446 downloads FY2020. Altogether the apps reached the one million download mark this reporting period since first being offered in 2010.

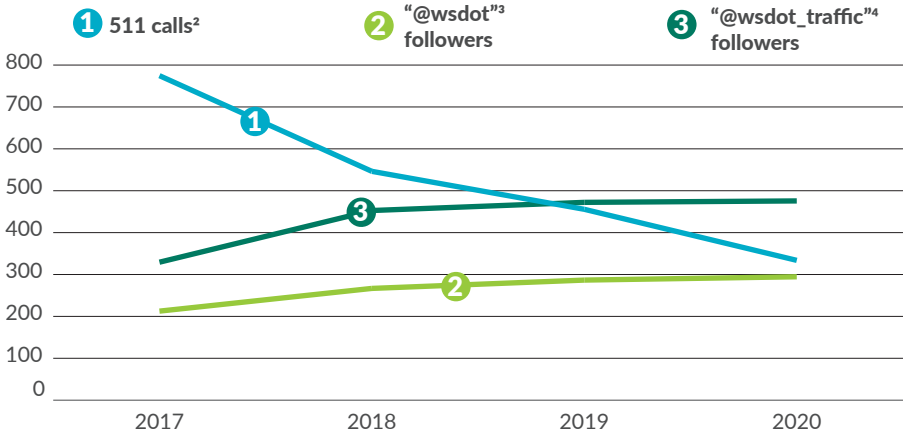
WSDOT's 511 travel information calls decrease

The number of calls to WSDOT's 511 travel information phone system decreased 26.7% to 333,781 calls during the 2020 reporting period, down from 455,650 calls during the previous reporting period (April 1, 2018 through March 31, 2019). While the exact reason for this decrease is unknown, customers may be using WSDOT's other outreach tools to receive this information. WSDOT's 511 travel information serves as a resource for travelers who do not have access to the agency's internet-based travel information site.

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

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

2017 through 2020[1]; Numbers in thousands



Data source: WSDOT Communications Office

Notes: **1** Reporting period for 2020 is July 1, 2019 through June 30, 2020. 2017, 2018 and 2019 reporting period are April 1 through March 31. **2** WSDOT's travel information phone system. **3** WSDOT's Twitter account. **4** WSDOT Northwest Region traffic information Twitter account.

Notable results

- *The number of WSDOT's Facebook page followers increased 14.3% from 101,293 in FY2019 to 115,799 in FY2020*
- *WSDOT's mobile app had 197,466 downloads in FY2020*

WSDOT web traffic decreases due to COVID-19

WSDOT's travel information website had about 129 million page views during FY2020, down 20.9% from FY2019. The Governor's COVID-19 related Stay at Home order meant fewer people traveling, which resulted in less site traffic.

WSDOT website undergoing a redesign

Agency staff have started a mobile-first, user-centered design process to redesign the external website with a planned launch date of July 2021.

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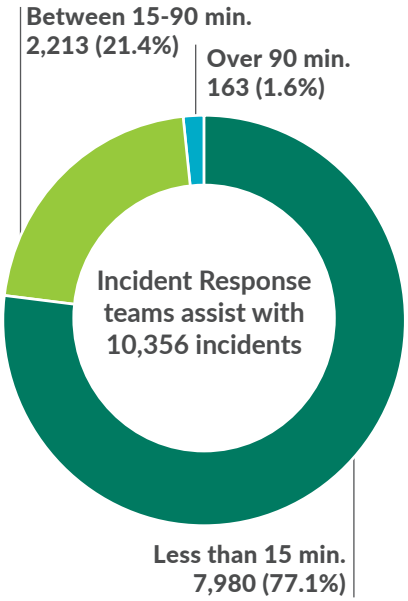
78 INCIDENT RESPONSE QUARTERLY UPDATE

Notable results

- *WSDOT responded to 10,356 incidents during the second quarter of 2020, 5,912 (36.3%) fewer than during the same quarter in 2019*
- *WSDOT cleared incident scenes in an average of 13 minutes and 24 seconds during the second quarter of 2020, 1.1 minute (8.9%) slower than in the same quarter in 2019*
- *In the second quarter of 2020, IR teams provided an estimated $17.4 million in economic benefit by reducing the effects of incidents on drivers*
- *For every $1 spent on WSDOT's IR program, the traveling public received $11.58 in economic benefit*

WSDOT clears majority of traffic incidents in 15 minutes or less

Second quarter 2020; Times to clear incidents; Number and percentage of incidents



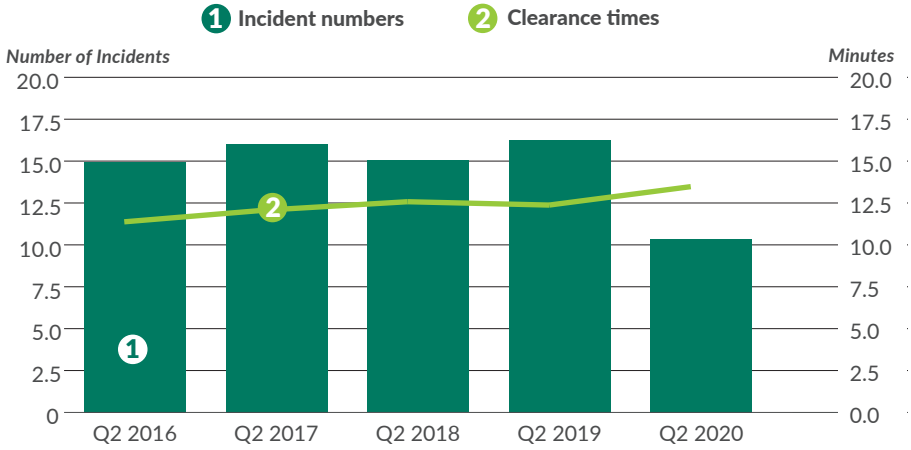
Data source: Washington Incident Tracking System.

WSDOT Incident Response teams help improve driver safety at 10,356 incidents

WSDOT's Incident Response teams assisted at 10,356 incidents during the second quarter (April through June) of 2020. On average, the IR teams responded to an incident scene every 12 minutes and 39 seconds during the quarter. There were 5,912 (36.3%) fewer incidents during the second quarter of 2020 than in the same quarter last year, when there were 16,268 incidents. This reduction is the result of fewer people traveling during the quarter due to COVID-19. To learn more about how the pandemic affected travel during the quarter, visit https://bit.ly/COVID19dash.

Number of incident responses decreases during the second quarter of 2020

Second quarters 2016 through 2020; Number of incidents responded to in thousands; Clearance times in minutes



Data sources: 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 (Q2 2020) is considered preliminary. In the previous quarter (Q1 2020), WSDOT responded to 13,168 incidents, clearing them in an average of 13.5 minutes. These numbers have been confirmed and are now finalized.

During the second quarter of 2020, IR cleared 10,356 incidents in an average of 13 minutes and 24 seconds. This is one minute and six seconds (8.9%) slower than the average incident clearance time for the same quarter in 2019.

Of the 10,356 total incidents, 7,980 (77.1%) lasted less than 15 minutes, 2,213 (21.4%) lasted 15-90 minutes and 163 (1.6%) lasted more than 90 minutes. During the second quarter of 2020, there were 36% fewer incidents lasting less than 15 minutes than during the same quarter in 2019. There were also 38.8% fewer incidents lasting 15-90 minutes and 9.9% more incidents lasting more than 90 minutes in the second quarter of 2020 than in the second quarter of 2019.

IR program provides $17.4 million in economic benefit during the quarter

Incident Response teams help alert drivers about incidents and clear roadways to reduce the likelihood of new incidents. WSDOT's assistance at incident scenes provided an estimated $17.4 million in economic benefit during the first quarter of 2020 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 $9.9 million of IR's economic benefit for the quarter resulted from reduced traffic delay.
- WSDOT helps prevent secondary incidents by proactively managing traffic at incident scenes. About $7.5 million of IR's economic benefit resulted from preventing an estimated 1,957 secondary incidents and resulting delay. This figure is based on Federal Highway Administration data that estimates 20% of all incidents are secondary incidents.

Every dollar WSDOT spent on the IR program during the first quarter of 2020 provided drivers $11.58 in economic benefit.

Incident Response helps reduce congestion

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.

WSDOT's Incident Response teams provide an estimated $17.4 million in economic benefit

Second quarter 2020; Incidents by duration in minutes; Time in minutes; Costs and benefits in millions of dollars

Incident duration	Number of incidents[1]	Percent blocking[2]	Average incident clearance time[3] (all incidents)	Cost of incident-induced delay	Economic benefits from IR program[4]
Less than 15 min.	7,980	20.6%	4.8	$9.8	$4.5
Between 15 and 90 min.	2,213	54.1%	31.6	$20.3	$8.9
Over 90 min.	163	85.9%	174.6	$9.4	$4.0
Total	10,356	29.0%	13.4	$39.5	$17.4
Percent change from the second quarter of 2019	**↓36.3%**	**↑5.3%**	**↑8.9%**	**↓30.0%**	**↓30.5%**

Data source: Washington Incident Tracking System.

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

1 Teams were unable to locate 571 of the 10,356 incidents. Because an IR team attempted to respond, these incidents are included in the total incident count. Other performance measures do not include incidents that were not located.

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 the IR program's methods for calculating benefits.

WSDOT teams respond to 163 over-90-minute incidents

IR teams assisted at the scene of 163 incidents that lasted more than 90 minutes during the second quarter of 2020. This is 18 fewer incidents—a 9.9% decrease—compared to the same quarter in 2019. While these over-90-minute incidents accounted for 1.6% of all incidents, they resulted in 23.9% of all incident-related delay costs.

Nine of the 163 over-90-minute incidents took six hours or more to clear (referred to as extraordinary incidents). This is one extraordinary incident fewer than in the same quarter in 2019. The nine extraordinary incidents in second quarter of 2020 took an average of nine hours and 30 minutes to clear, accounting for 4.5% of all incident-induced delay costs.

The average incident clearance time for all over-90-minute incidents was two hours and 54 minutes. This is about 10 minutes faster than in the same quarter in 2019. Excluding the five extraordinary incidents, WSDOT's average clearance time for over-90-minute incidents was two hours and 14 minutes.

WSDOT focuses on safety when clearing incidents, working to reduce incident-induced delay as well as the potential for secondary incidents. 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.

IR drivers gear up to protect public and themselves during the pandemic

IR team members across the state are taking extra precautions as more people return to roads and traffic increases as COVID-19 pandemic restrictions are reduced. Team members wear additional personal protective equipment and have implemented several other safety procedures—including special flashcards that allow travelers to stay in the their vehicles while communicating with IR team members.

Performance data reported in this article is 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, Tony Leingang, Michele Villnave, Takahide Aso and Dustin Motte

Customer feedback:

- "Keep doing what you are doing. We pulled over with a flat tire and 30 seconds later Bud was there. We made our flight because of Bud's assistance."
- "I had an unexpected incident on I-5 that I was not prepared for. Dave helped me and I was impressed with his professionalism, great personality and kindness."
- "Richard was very professional and made me feel very safe."

Ken Burett, an IRT lead in the Seattle area, shows off one of the new flashcards IR team is using to communicate with the public.

Richard Ostrander wears his personal protective equipment while assisting a driver on I-5 in Tacoma.

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78 WASHINGTON STATE FERRIES QUARTERLY UPDATE

WSF reduces service to address diminished ridership during pandemic

In response to the reduction in passengers resulting from the COVID-19 pandemic, WSF remained on a modified winter schedule throughout the fourth quarter of FY2020 (April through June 2020) with 17.5% fewer sailings scheduled than in the same quarter last year. WSF leadership reviewed service needs based on four pillars of service: ridership, crew availability, vessel availability and budget. Using these criteria, WSF reduced service by one vessel each on the Seattle/Bainbridge Island, Seattle/Bremerton, and Fauntleroy/Vashon/Southworth ferry routes during the quarter. Also, there were no scheduled trips on the Anacortes/Friday Harbor/Sidney, B.C. route as this route is not served during the winter season. This route will be subject to any international closures due to COVID-19 concerns, which may be an additional restriction on operating this route. For more information about the impacts of COVID-19 on travel, visit the COVID-19 Multimodal Transportation System Performance Dashboard at https://bit.ly/COVID19dash.

Ridership decreases during the quarter

WSF ridership for the fourth quarter of FY2020 was 2,518,923—down 60.1% from 3,790,075 during the corresponding quarter in FY2019. This record-low ridership (the lowest since 1951) is due to the downturn in the economy, increase in telework and general decline in travel due to COVID-19.

The Seattle/Bremerton route had the largest decrease in ridership, with 543,450 (83.6%) fewer passengers than the same quarter last year. The Point Defiance/Tahlequah route had the smallest decrease in ridership with 90,406 (39.3%) fewer riders than in FY2019.

WSF service reliability remains above goal

There were 33,696 regularly scheduled ferry trips during the fourth quarter of FY2020 (down 17.5% from 40,835 in the same quarter in FY2019). Washington State Ferries completed 99.2% (33,410) of these trips. This exceeds the annual service reliability performance goal of 99%, but is 0.2 percentage points lower than in the same quarter in FY2019 (see table on the next page).

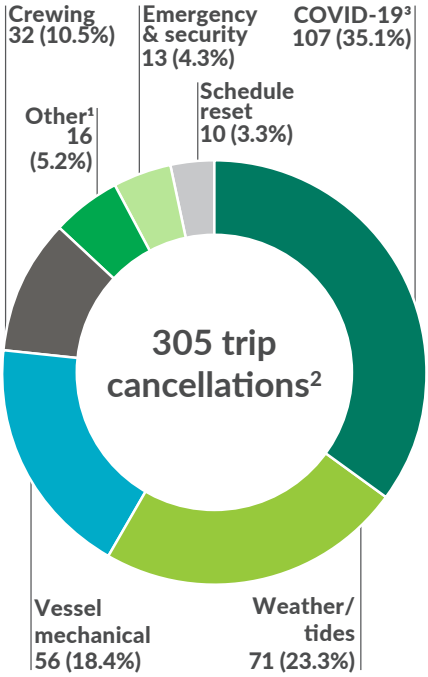
During the quarter, 305 trips were canceled and 19 were replaced, for a total of 286 net missed trips. This was 22 fewer net missed trips than in the same quarter in 2019. Of the 305 canceled trips for the quarter, 107 were due to COVID-19; over 100 WSF crew members have been reassigned teleworking tasks or on leave because they are in high-risk groups. Due to the resulting vessel-staffing challenges, WSF canceled sailings on the Mukilteo/Clinton and Edmonds/Kingston routes during three weekend days in June. These reductions were in addition to the extended winter schedule noted above, and were counted as missed trips because there was not enough advance notice to change the published schedule.

Notable results

- *WSF completed 33,410 (99.2%) of its 33,696 regularly scheduled trips in the fourth quarter of fiscal year 2020*
- *WSF ridership was approximately 2.52 million in the fourth quarter of fiscal year 2020, with 3.79 million (60.1%) fewer than the corresponding quarter in FY2019*

COVID-19 leads to most cancellations for the quarter

Fourth quarter (April - June) FY2020



Data source: Washington State Ferries.

Notes: Fiscal years run from July 1 through June 30. As a result, April through June 2020 represents the fourth quarter of FY2020. Percentage totals may not add to 100 due to rounding. **1** The category for "Other" includes issues at terminals, and events such as disabled vehicles, environmental issues and non-vessel related incidents that can impact operations. **2** WSF replaced 19 of the 305 canceled trips for a total of 286 net missed trips. **3** Cancellations due to COVID-19 causing a reduction in WSF staff (over 100 crew members were reassigned teleworking tasks or on leave during the pandemic because they are in high-risk groups).

WSF on-time performance improves, reliability down slightly in the fourth quarter of fiscal year 2020

April through June FY2019 and FY2020; Annual on-time goal = 95%; Annual service reliability goal = 99%

	On-time performance (fourth quarter)				Trip reliability (fourth quarter)			
Route	**FY2019**	**FY2020**	**Status**	**Trend**	**FY2019**	**FY2020**	**Status**	**Trend**
San Juan Domestic	67.7%	84.1%	16.4%	↑	99.8%	99.6%	-0.2%	↓
Anacortes/Friday Harbor/Sidney, B.C.[1]	48.5%	N/A	N/A	↔	99.0%	N/A	N/A	↔
Edmonds/Kingston	96.0%	99.1%	3.0%	↑	99.8%	99.0%	-0.8%	↓
Fauntleroy/Vashon/Southworth	88.9%	95.5%	6.6%	↑	99.8%	99.7%	-0.1%	↓
Port Townsend/Coupeville	91.5%	99.5%	8.0%	↑	93.1%	96.2%	3.1%	↑
Mukilteo/Clinton	95.7%	99.1%	3.4%	↑	99.9%	98.5%	-1.4%	↓
Point Defiance/Tahlequah	96.0%	99.3%	3.3%	↑	99.3%	99.1%	-0.2%	↓
Seattle/Bainbridge Island	82.7%	92.6%	9.9%	↑	99.8%	100%	0.2%	↑
Seattle/Bremerton	93.5%	98.5%	5.0%	↑	99.3%	100%	0.7%	↑
Total system	**87.5%**	**95.1%**	**7.6%**	↑	**99.4%**	**99.2%**	**-0.2%**	↓

Data source: Washington State Ferries.

Notes: FY = fiscal year (July 1 through June 30). As a result, April through June 2020 represents the fourth quarter of FY2020. 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. Numbers shown in the table have been rounded to the tenth and may not add correctly.
1 Due to COVID-19, there were no scheduled trips to or from Sidney, B.C. during the quarter.

Tides accounted for 71 cancellations, all of which occurred on the Port Townsend/Coupeville route. The terminal at Keystone Harbor—where the Coupeville terminal is located on Whidbey Island—is narrow and shallow, so tidal variations have a more significant impact there.

The third-highest cancellation category was vessel mechanical issues, which accounted for 56 cancellations. During the quarter, eight vessels experienced mechanical breakdowns. The most significant breakdowns occurred in April, when steering issues on the M/V *Salish* caused 28 cancellations and a rudder problem on the M/V *Samish* resulted in 14 missed trips. The remaining 14 mechanical-related cancellations were scattered throughout the quarter, with no more than five missed trips on any one route.

Of the remaining cancellations not mentioned earlier, 32 occurred on various routes when crew members called in sick and could not be replaced; 15 due to terminal issues that prevented vessels from docking (12 at Fauntleroy and three at Southworth); and 13 due to medical evacuations from Vashon and Southworth to Fauntleroy taking precedence over normally scheduled service. On the Mukilteo/Clinton route eight trips were cancelled due to a schedule reset which occurs when the vessel is so far delayed that it gets back on schedule.

On-time performance improves during quarter

On-time performance was 95.1% in the fourth quarter of FY2020, 7.6 percentage points higher than in the same quarter in FY2019.

The quarterly rate achieved WSF's on-time performance goal of 95%.

The reduction in the number of sailings made it easier for vessels to stay on schedule as there was more ability to catch up if a vessel got behind schedule. In addition, with fewer riders, less time was needed to load and unload vessels and this helped maintain departure time.

On-time performance improved on all routes compared to the fourth quarter of FY2019, excluding the Anacortes/Friday Harbor/Sidney, B.C. route.

The San Juan Domestic route experienced a 16.4% improvement in on-time performance compared to the same quarter in FY2019.

See an interactive map version of this article at bit.ly/GNBferriesmap.

Both passenger injuries and employee injuries decrease

The rate of passenger injuries was 1.19 per million riders in the fourth quarter of FY2020, a decrease from 1.43 in the corresponding quarter of FY2019. This was a decrease from nine to three total passenger injuries per quarter.

The passenger injury rate during the quarter missed WSF's annual 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 7.2 in the fourth quarter of FY2019 to 6.0 during the same period in FY2020. This represents eight fewer injuries than in the same quarter in FY2019, and achieved WSF's annual goal of having a rate of fewer than 7.6 crew injuries per 10,000 revenue service hours.

COVID-19 effects drastically cut WSF farebox revenue

Lower ridership due to the COVID-19 pandemic resulted in lower revenue this quarter (see graph below). Farebox revenue was $28.2 million for the fourth quarter of FY2020. This was about $29 million (50.7%) below projections for the quarter.

Annual revenue for the entirety of FY2020 was about $39 million (18.9%) under projections, with over $35 million of the shortfall occurring since the beginning of March.

Passenger complaints decrease for the quarter

WSF received 379 complaints and 11 compliments during the fourth quarter of FY2020, compared to 749 complaints and 54 compliments during the same quarter in FY2019.

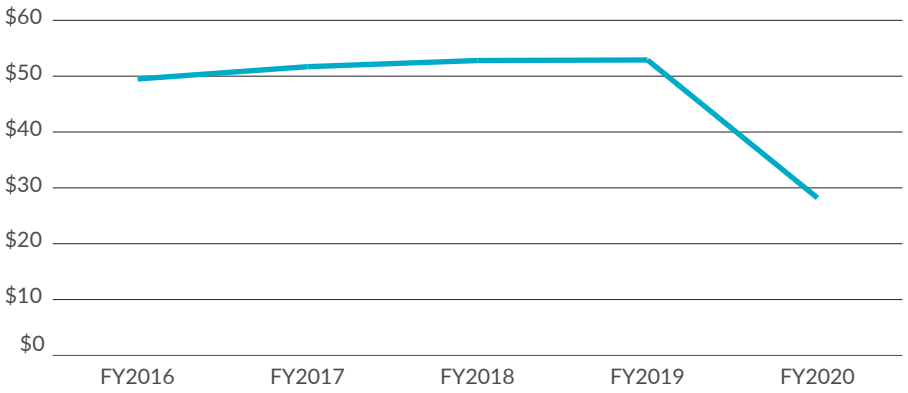
Due to the drop in ridership it is difficult to make quarter-to-quarter comparisons. One way is to use a ratio of complaints per 100,000 riders. Based on this method, there were 15.0 complaints per 100,000 riders in FY 020 and 11.9 complaints per 100,000 riders in FY2019, an increase of 3.1 complaints per 100,000 riders.

The category with the most complaints in both years was employee behavior with 4.4 per 100,000 riders (111) in FY2020 compared to 2.4 (149) in the fourth quarter of FY2019. The second highest category of complaints, 2.5 (64), were related to ferry schedules compared to 0.6 (40) in the same quarter of FY2019. In the fourth quarter of FY2019, there were 145 complaints about on-time performance with only 19 in this category for FY2020 with an improvement from 2.3 to 0.8 per 100,000 riders year over year.

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

WSF farebox revenue down in fourth quarter of FY2020 due to COVID-19

WSF farebox revenue; Fourth quarters FY2016-2020; Dollars in millions



Data source: Washington State Ferries

Customer feedback: WSF supports rescue in Puget Sound

"On June 20, at about 6:30 in the evening, I was sailing near Port of Edmonds. I decided to return to my moorage, so I turned into the wind, took down my sail and started my engine. A rope on my boat got caught in the propeller and my engine became useless. While I was contacting the Coast Guard, officers from WSF (M/V *Spokane*) indicated they were monitoring my conversation on the radio. They could see my boat and offered to send a craft to provide assistance. I was very relieved. It was still quite windy. Thank you to the two individuals who provided the assistance and WSF for supporting our rescue."

(Comment edited and is an excerpt)

78 FISH PASSAGE ANNUAL REPORT

Notable results

- *WSDOT completed eight fish passage projects statewide in 2019, improving access to 20.45 miles of upstream fish habitat*
- *Since 2013, WSDOT has corrected 73 fish passage barriers within the case area of the 2013 injunction, improving access to 329 miles of salmon and steelhead habitat*

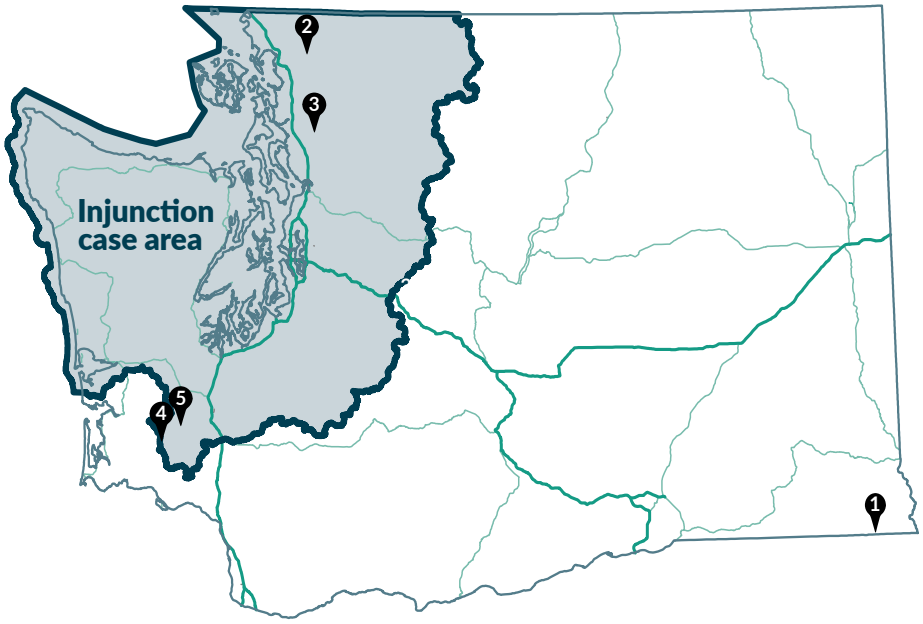
WSDOT improves access to 20 miles of potential upstream habitat in 2019

WSDOT completed eight fish passage projects statewide in 2019, restoring fish access to 20.45 miles of potential upstream habitat. Seven of the projects were located in the area designated by a March 2013 federal injunction that requires WSDOT to restore access to 90% of blocked habitat within the area by 2030 (for more information, visit http://www.wsdot.wa.gov/Projects/FishPassage/). The other fish passage project, located along SR 129 near the Washington/Oregon border, was constructed through a partnership with the Nez Perce Tribe, with funding from the Salmon Recovery Funding Board and the Brian Abbott Fish Barrier Removal Board (see p. 23 for details).

As of calendar year 2019, WSDOT had corrected 73 fish passage barriers within the injunction area. These corrections improved access to about 329 miles of previously blocked habitat within the federal injunction case area. WSDOT must correct between 380 and 415 additional barriers by 2030 in order to comply with the injunction. These numbers are updated as new information is collected regarding the condition of existing and corrected barriers, which can change over time.

WSDOT completes eight fish passage projects in 2019, including seven in injunction area

Map No.	Road	Body of water
1	SR 129	Buford Creek
Fish barrier corrections applicable to 2013 injunction		
2	SR 9	Tributary to Tawes Creek
2	SR 9	Tributary to Tawes Creek
2	SR 9	Tawes Creek
3	SR 530	Schoolyard Creek
4	SR 6	Salmon Creek
5	SR 6	South Branch Fronia Creek
5	SR 6	Fronia Creek

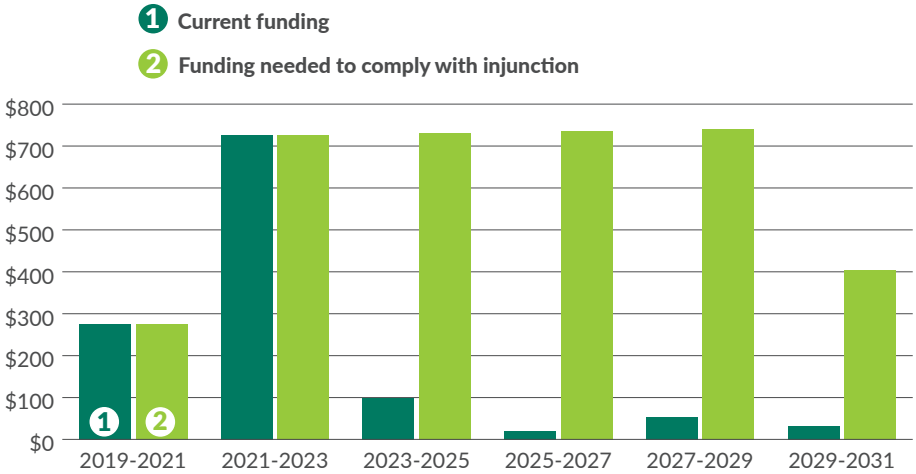


Data source: WSDOT Environmental Services Office.

Notes: Numbers on markers correspond with numbers in the table on the left. Numbers 2 and 5 have multiple fish passage barrier correction sites in the same area.

WSDOT's projected funding falls well short of estimated funding needed to comply with injunction

2019-2021 biennium through 2020-2031 biennium; Dollars in millions



Data source: WSDOT Capital Program Development and Management Division.

Notes: Funding sources for fish passage barrier corrections planned in the 2021-2023 biennium are currently unknown.

WSDOT plans to meet the federal injunction requirements through utilizing innovative delivery, partnership coordination, and constant improvement based on data driven feedback. Barrier correction projects are applicable to the injunction if they correct highway culverts that are documented barriers to salmon or steelhead and are within the case area.

A total of $1.4 billion has been allocated to fund the fish passage program through the 2029-2031 biennium. However, in order to comply with the terms of the injunction, an additional $2.4 billion is needed (see graph above).

As of 2019, WSDOT had corrected 352 fish passage barriers statewide—including one that had been corrected previously but was rebuilt in 2019—restoring access to over 1,170 miles of potential habitat for native fish. The number of WSDOT fish passage barriers and estimated potential upstream habitat are dynamic values that fluctuate as ongoing inventory and assessments take place. The values are tallied each June for annual reporting purposes.

WSDOT collaborates with Brian Abbott Fish Barrier Removal Board

In collaboration with WSDOT, the Brian Abbott Fish Barrier Removal Board is scheduled to remove 52 fish passage barriers in the 2019-2021 biennium.

The FBRB was established in 2014 through Washington state legislation. The board develops collaborative statewide strategies focused on maximizing habitat recovery

Why and where WSDOT does fish passage work

WSDOT started working collaboratively with the Washington Department of Fish and Wildlife in 1991 to systematically identify and correct fish passage barriers that occur where state-owned highways intersect streams. Correcting fish passage barriers contributes to healthy fish and wildlife.

WSDOT corrects fish passage barriers using bridge designs and stream simulation culverts designed to provide conditions close to those of a natural stream. These corrections take place as either stand-alone projects for high-priority barriers, or as part of larger transportation projects.

Fish Passage Annual Reporting

WSDOT publishes an annual Fish Passage Performance Report each summer, available here: http://bit.ly/Fish_Passage.

Strategic Plan Goal
Inclusion

WSDOT exemplifies Inclusion—through community engagement—by coordinating fish passage barrier correction efforts with landowners, local governments and tribal entities.

Before: The culvert on Buford Creek at SR 129 was a barrier to fish passage.

After: The culvert on Buford Creek at SR 129 was corrected to allow access to upstream potential spawning habitat for fish.

through a coordinated approach and developed a streamlined permitting process for fish passage projects. Partners of the FBRB include WSDOT, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Governor's Salmon Recovery Office, tribes, and local governments statewide.

WSDOT coordinates barrier corrections with partners

WSDOT supports partnerships with other public agencies, cities, counties, public and private enhancement groups, and others who seek to help advance this work. WSDOT collaborated with the Salmon Recovery Funding Board and the FBRB to fund the Buford Creek project, which was completed in 2019.

Buford Creek is a tributary to the Grand Ronde River along the Washington/Oregon border. The culvert conveying Buford Creek under SR 129 was a barrier to fish—including federally threatened steelhead—impeding their passage upstream to potential spawning habitat. WSDOT collaborated with the Nez Perce Tribe, WDFW, the Asotin County Conservation District and the Snake River Salmon Recovery Board to correct the fish passage barrier. The project replaced a corrugated metal culvert with a bottomless steel arch, restoring the streambed using WDFW stream simulation guidelines. The project improves access to fish habitat within the Nez Perce historic lands and provides a passable corridor for wildlife living within the Buford Creek Canyon.

SR 129 remained open to traffic during construction due to the importance of the highway as a transportation corridor for remote communities in eastern Washington and Oregon. Restoration efforts were led by the Nez Perce Tribe, which developed the vegetation restoration plan and were responsible for seeding, replanting and maintenance.

Fish passage monitoring ensures barrier corrections are functional and fish passable

In FY2020, WSDOT inspected 41 individual sites to monitor the performance of previously-completed fish passage projects. Of the 41 sites inspected, 37 of them remain 100% passable by fish. The other four sites are at risk of becoming fish passage barriers again due to conditions changing over time. WSDOT is actively planning corrective repairs to these four sites to maintain sustainable routes for fish traveling to their natural spawning habitat.

Fish passage monitoring is part of a vital feedback loop that assists WSDOT in making data-driven decisions regarding designing and maintaining fish passable structures.

Contributors include Marc Hershfield, Susan Kanzler, Damon Romero, Helen Goldstein and Dustin Motte

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78 HYDRAULIC PROJECT APPROVAL PERMITS ANNUAL REPORT

Hydraulic Project Approval permits expedite WSDOT project and maintenance work

Washington Department of Fish and Wildlife requires Hydraulic Project Approval permits for all construction or work that affects state waters, including repair or replacement of any structure that crosses a stream, river, or the flow or bed of a water body. HPA permit provisions include measures that protect habitat while WSDOT staff or contractors perform authorized activities.

WDFW issued 68 HPA permits to WSDOT in 2019, the same number as in 2018. WSDOT applies for five different types of HPA permits: General, Fish Habitat Enhancement Projects, Expedited, Emergency and Standard for construction and maintenance activities (see chart on next page). WDFW has 45 days to issue most types of HPA permits after receiving an application with the exceptions noted on p. 26.

WSDOT used eight General Hydraulic Project Approval permits to complete 647 maintenance activities in 2019—an increase of 29.4% from 500 in 2018 (see table below). WSDOT typically saves four hours for every activity conducted under GHPA permits, which allow the agency to bypass the requirement to apply for a separate HPA permit for each activity. In 2019, the permits saved WSDOT staff an estimated 2,588 hours.

In 2019, WDFW issued WSDOT four new GHPA permits for fishway maintenance, bridge debris maintenance, culvert maintenance and minor repairs, and channelized stream maintenance; these permits followed guidelines established in WSDOT's tribal consultation process, which helps ensure tribal entities are aware of planned work.

Notable results

- *Washington State Department of Fish and Wildlife issued 68 Hydraulic Project Approval permits to WSDOT in 2019, including four General HPAs*
- *WSDOT used eight GHPA permits to complete 647 maintenance activities in 2019, an increase of 29.4% from 2018*

Strategic Plan Goal

INCLUSION

In 2019, WSDOT demonstrated inclusion through improving its tribal consultation process for maintenance work for multiple GHPA permit types. A statewide tribal engagement process helps ensure that tribal entities are aware of planned drainage maintenance work before it starts.

WSDOT uses eight General Hydraulic Project Approval permits to streamline 647 maintenance activities

2016 through 2019; Number of maintenance activities and hours saved per type of GHPA permit

	2016		2017		2018		2019	
GHPA permit	Activities	Hours	Activities	Hours	Activities	Hours	Activities	Hours
Bridge preservation and maintenance	308	1,232	243	972	180	720	250	1,000
Beaver dam removal	136	544	238	952	214	856	311	1,244
Culvert maintenance	30	120	50	200	49	196	42	168
Channelized stream maintenance	24	96	28	112	36	144	37	148
Bridge debris maintenance	6	24	13	52	14	56	4	16
Other[1]	9	36	13	52	7	28	3	12
Total	**513**	**2,052**	**585**	**2,340**	**500**	**2,000**	**647**	**2,588**

Data source: WSDOT Environmental Services Office.

Note: **1** "Other" maintenance activities include three types of GHPA permits: fishway structures maintenance and repair; freshwater and marine water sediment test boring; and removing, repairing and replacing piles at ferry terminals. Ferry terminal work was in 2016 and 2017 only.

By allowing WSDOT to quickly address roadway maintenance issues without applying for separate permits every time such work is needed, GHPA permits let WSDOT make repairs before small problems become big ones. For example, the beaver dam maintenance GHPA permit allows staff to remove or alter beaver dams that are less than a year old. Beaver dam maintenance is required to reduce potential flooding that could damage infrastructure.

Proactive approach to beaver dams along SR 202 help prevent flooding and damage in the Redmond area

Sometimes beavers move into waterbodies adjacent to roadways which can create problems for infrastructure. WSDOT constructed a mitigation site along SR 202 over 10 years ago, and beavers immediately built dams—which increased flooding—threatening the stability of roads and damage adjacent properties. WSDOT had worked with WDFW, the Department of Ecology, King County and adjacent land owners to unsuccessfully address the SR 202 beaver dam problem, using methods such as installing beaver pond levelers, beaver relocation, and relocating large wood

In 2019, WSDOT monitored beaver dam activity more frequently at the site along SR 202. The GHPA allows WSDOT to remove or alter beaver dams that are less than a year old, ensuring wetlands are not harmed. By using the GHPA this work could occur immediately when new activity was noted (beavers sometimes rebuilt their dams within a week).

WSDOT then protectively monitored beaver activity and identified flooding threats to infrastructure and adjacent properties. This led to WSDOT performing more activities than usual in 2019, but successfully prevented flood damage to adjacent properties and infrastructure in the area.

Contributors include Virginia Stone and Dustin Motte

WSDOT commonly uses five different types of Hydraulic Project Approval permits

HPA Types	Requirements and limitations	Issued in 2019
General HPA	GHPA permits cover infrastructure maintenance that has a low likelihood of environmental impact. GHPA permits address a geographic area and are not site-specific. These permits are good for up to five years, and help WSDOT protect the environment while meeting critical roadway safety and maintenance needs. GHPA permits cannot be modified for site-specific requirements. All other types of HPA permits are for specific sites.	4
Fish Habitat Enhancement Projects	The FHEP permit is a streamlined HPA permit and approval process for projects that remove human-caused fish passage barriers, restore an eroded or unstable stream bank, or place woody debris or in-stream structures that benefit naturally reproducing fish stocks. The purpose of these projects is limited to fish habitat enhancement.	9
Emergency	Emergency HPA permits cover work that corrects an immediate threat (anticipated to occur within 24 hours) to people, property, or the environment. Work may proceed immediately after WDFW provides verbal approval, which is followed by a written HPA permit.	10
Expedited	WDFW issues expedited HPA permits within 15 days when normal processing time would result in significant hardship for the applicant or unacceptable damage to the environment. These permits expire within 60 days with no extensions allowed.	8
Standard	A standard HPA permit may be issued for a single- or multiple-project sites when the proposed activity does not meet one of the other HPA types listed above. This is the most common HPA permit that WSDOT obtains.	37

For more information about HPA permits, see: http://bit.ly/HPAGuidance.

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78 FREIGHT SEMI-ANNUAL REPORT

Washington state drops out of top 10 most trade-dependent states in 2019

Washington state's total imports and exports (transported by any mode) in 2019 were valued at $113 billion, a 14.9% decrease from $132.7 billion in 2018. According to the U.S. Census Bureau, it was the eleventh most trade-dependent state in the country per capita in 2019, dropping from seventh most trade-dependent state in 2018. Until 2019, Washington had been among the top 10 most trade-dependent states every year since 2008—the first year for which data is available.

The primary reason for this ranking change was a $10.5 billion (32.5%) decline in trade with China, which followed the imposition of tariffs on imports from China by the United States and the subsequent imposition of tariffs on American goods (such as corn, fruit, wheat and cut lumber) by China. As a result of these tariffs, the dollar value of both Washington's exports to China and the state's imports from China declined from 2018 to 2019—by 43.4% and 22.0%, respectively. The total value of Washington's trade with China (both imports and exports) dropped 32.5% from $32.3 billion in 2018 to $21.8 billion in 2019.

A 39% decline in civilian aircraft and parts exported through Washington also contributed significantly to the decrease in international trade. Total civilian aviation exports (which include civilian aviation exports to China) dropped from $41.8 billion in 2018 to $25.4 billion in 2019. This is primarily attributable to the worldwide grounding of Boeing's top-selling 737 Max airliner in 2019, which caused aircraft orders and deliveries to plummet.

The state's overall gross business income for freight-dependent industries declined slightly, going from $660 billion in 2018 to $657.7 billion in 2019—a drop of 0.4%.

Notable results

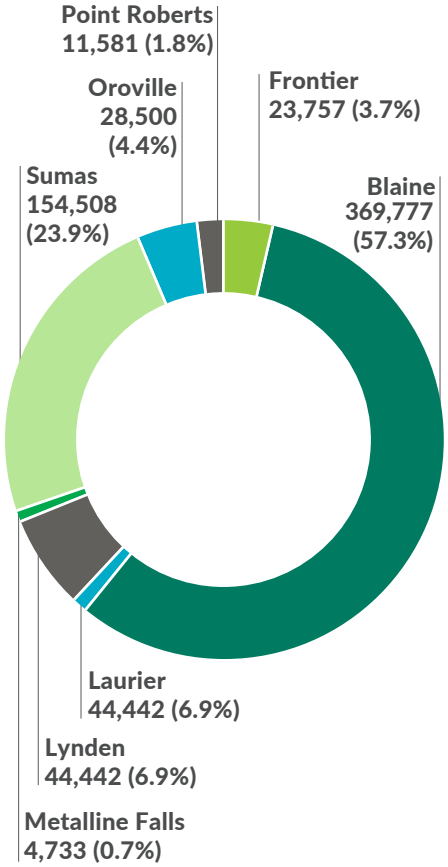
- *Total Washington state imports and exports were valued at $113 billion in 2019, down 14.9% from 2018*
- *The number of freight trucks entering Washington from Canada decreased slightly from 655,767 crossings in 2018 to 645,732 in 2019*
- *Washington waterborne freight tonnage increased 4.0% from 2017 to 2018*
- *Air cargo tonnage in Washington increased 3.6%, from 1.88 million tons in 2017 to 1.95 million tons in 2018*

WSDOT facilitates multimodal freight transportation

WSDOT supports the freight system and freight-dependent industries by directly managing the state's highway and ferry system, a short line railroad and several freight rail programs. For more information on WSDOT's freight rail programs, see the Freight Semi-Annual Report in Gray Notebook 76 (at https://bit.ly/Freight_GNB76).

WSDOT also provides policy analysis and planning coordination for the movement of goods in commerce statewide. WSDOT supports waterborne freight planning efforts, including the development and implementation fo the 2017 Marine Ports and Navigation Plan (available online at https://bit.ly/2017MarinePlan).

Majority of trucks entering Washington from Canada cross the border at Blaine
Truck crossings from Canada into Washington at the border; 2019



Data source: U.S. Department of Transportation, Bureau of Transportation Statistics and WSDOT Rail, Freight, and Ports Division.

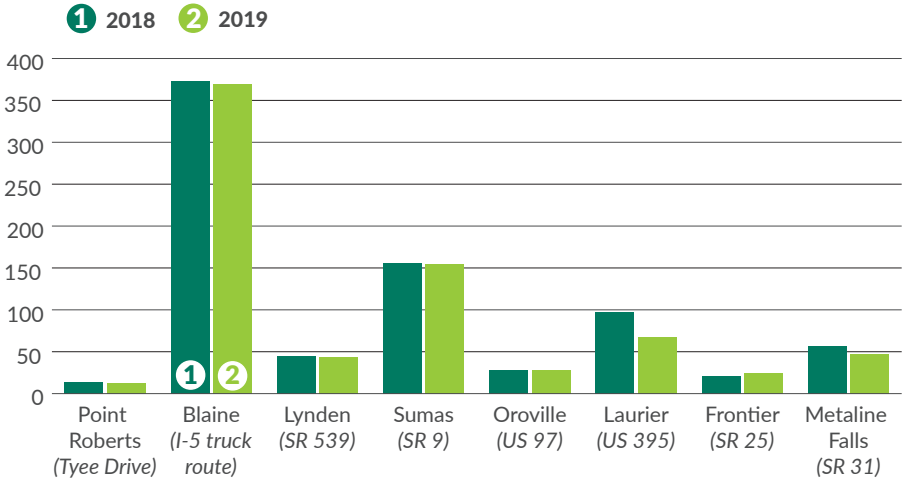
Notes: Graph does not include truck crossings at Ferry (62 crossings in 2019), Port Angeles (436 crossings in 2019), Boundary (297 crossings in 2019), Danville (666 crossings in 2019), or Friday Harbor (zero crossings in 2019).

Washington sees a small decrease in trucks entering from Canada in 2019

The number of freight trucks entering Washington from Canada decreased by 1.5%, from 655,767 crossings in 2018 to 645,732 in 2019 (see chart below). In both years, the bulk of the traffic was at the Blaine and Sumas border crossings. In 2019, 369,777 trucks entered Washington at the Blaine crossing on Interstate 5, down 0.9% from 373,191 in 2018. The Sumas crossing on State Route 9 had 154,508 trucks enter Washington in 2019, a 1% decrease from 156,083 trucks in 2018.

In 2019, 81.2% of all freight trucks that entered Washington from Canada crossed the border at either the Blaine or Sumas crossings (see chart at left).

Freight truck border crossings concentrated at Blaine and Sumas
Truck crossings (in thousands) from Canada into Washington at the border; 2018 and 2019



Data source: U.S. Department of Transportation, Bureau of Transportation Statistics and WSDOT Rail, Freight, and Ports Division.

Notes: Graph does not include truck crossings at Ferry (62 crossings in 2019), Port Angeles (436 crossings in 2019), Boundary (297 crossings in 2019), Danville (666 crossings in 2019), or Friday Harbor (zero crossings in 2019).

Ports of Seattle and Tacoma see a small decrease in containerized waterborne cargo in 2019

In 2019, the ports of Seattle and Tacoma (which merged their marine cargo operations into the Northwest Seaport Alliance in 2015) handled a combined 3.78 million 20-foot equivalent units (TEUs; see box at right) of containerized cargo—a 0.6% drop from 3.80 million TEUs in 2018 (see chart below). This decline in containerized freight volume was the first these ports had experienced since 2014, and is primarily attributed to the ongoing tariffs on trade with China (see p. 27).

The ports of Seattle and Tacoma, which are by far the largest ports in Washington state, handled an average of 3.68 million TEUs of freight each year from 2015 through 2019. Despite the decline in freight volume in 2019, this average remains higher than the 2014-2018 average, because these ports handled more freight in 2019 than in 2014.

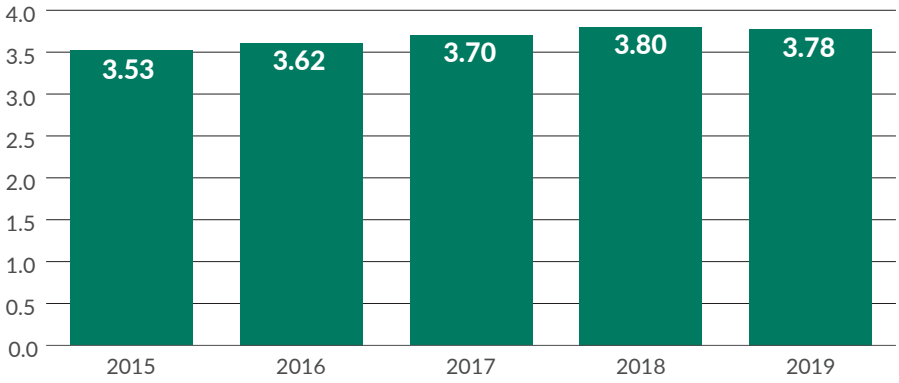
Statewide 2019 data for waterborne freight was not available at the time of publication.

20-foot equivalent units

Containerized port freight is measured in 20-foot equivalent units (TEUs). One TEU is the amount of freight that can be carried in one 20-foot marine cargo container. Cargo containers carry many different types of freight and come in different lengths; for example a 40-foot container can hold two TEUs of cargo.

Ports of Seattle and Tacoma see decrease in containerized waterborne cargo

Containerized volume of waterborne cargo in millions of TEUs[1]; 2015 through 2019



Data source: WSDOT Rail, Freight, and Ports Division.

Note: **1** TEU stands for "Twenty-foot equivalent unit"; see box at right for definition.

Nearly 73% of waterborne freight shipped in Washington in 2018 was categorized as foreign

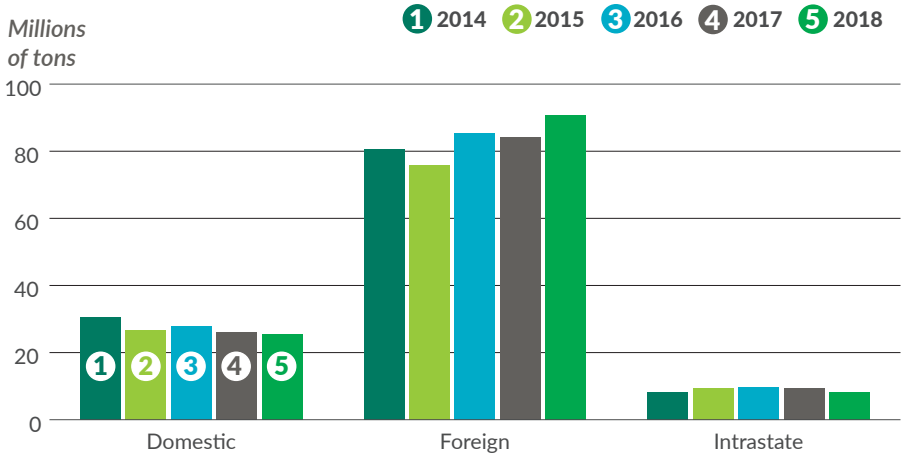
In 2018, approximately 124.2 million tons of waterborne freight were shipped in Washington, up 4.0% from 119.4 million tons in 2017 (2019 statewide figures were not available at the time of publication).

Waterborne freight is categorized as foreign, domestic or intrastate (with both origin and destination in Washington). In 2018, 72.9% of waterborne freight was foreign, 20.5% was domestic and 6.6% was intrastate (see chart below). Foreign freight activity increased—going from 84.1 million tons in 2017 to 90.6 million tons in 2018—while both domestic and intrastate freight activity decreased slightly. The increase in foreign waterborne freight activity was due to increases in food exported from Washington as well as increases in crude petroleum and petroleum products imported into the state.

The top commodities shipped to, from and within Washington state by water include food and food products (such as grain, oilseeds and other agricultural products), petroleum products and lumber products. In 2018, food and food products comprised 40.7% of the state's total waterborne freight shipped, petroleum products made up 12.5% and lumber products comprised 6.2%. The quantities of both food/food products and petroleum products shipped increased from 2017 to 2018 by 7.9% and 7.8%, respectively. Lumber products deceased by 16.5% over the same period.

Majority of waterborne freight in Washington crosses international borders

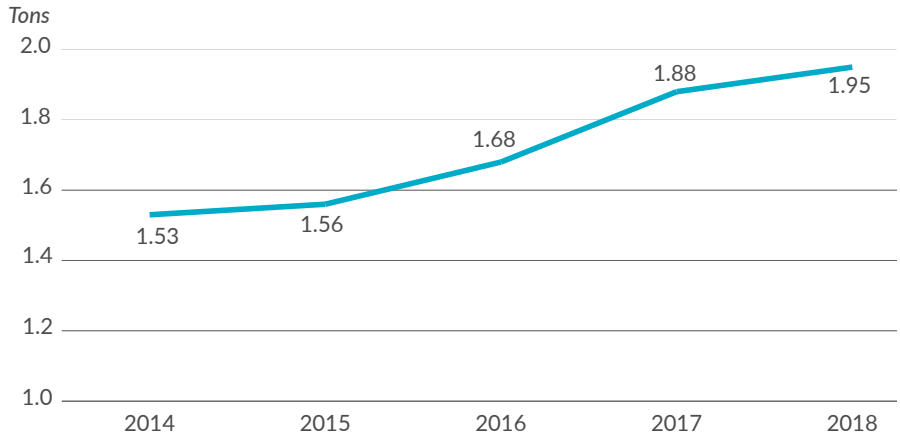
2014 through 2018; Tonnage in millions; Domestic, foreign and waterborne freight



Data source: U.S. Army Corps of Engineers, Navigation Data Center.

Washington total air cargo continues to increase in 2018

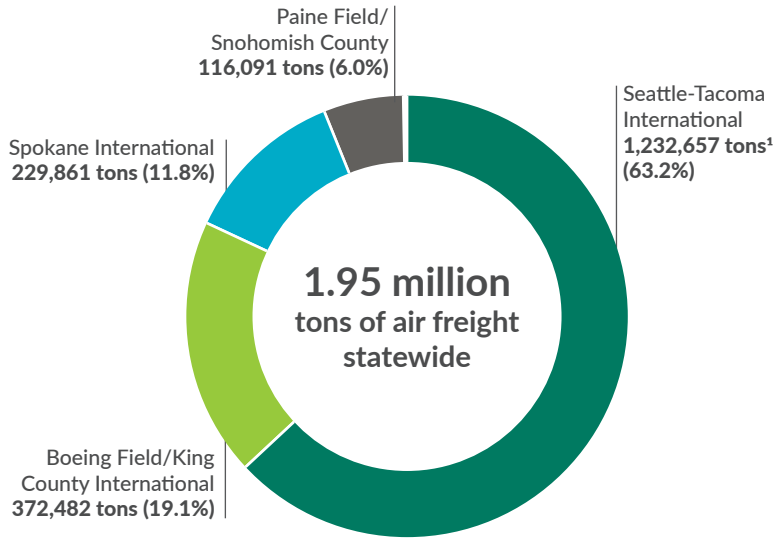
2014 through 2018; Tonnage measured in millions; Plane plus cargo weight



Data source: Federal Aviation Administration.

Seattle-Tacoma airport moves majority of state's air freight in 2018

Tonnage and percentage share of air freight per airport in Washington state



Data source: Federal Aviation Administration.

Note: **1** Tonnage reported in this chart includes the weight of the planes. Seattle-Tacoma International Airport also reports tonnage of freight handled excluding plane weight; this figure was 453,547 metric tons of total cargo in 2019.

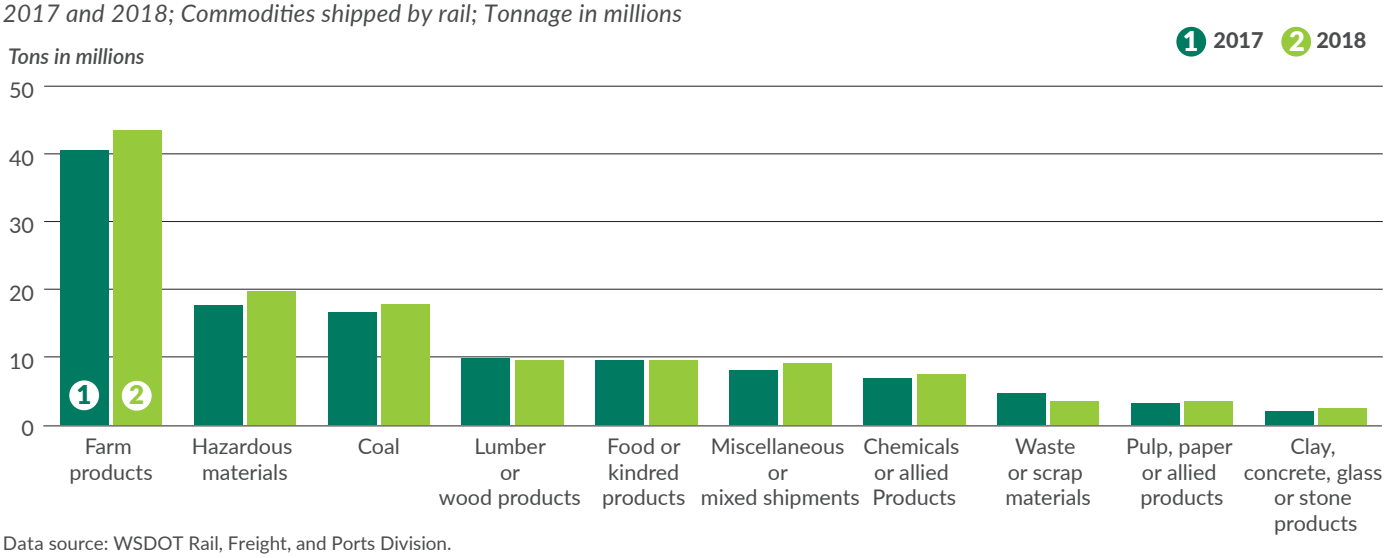
Air cargo tonnage increases 3.6% from 2017 to 2018

Washington airports handled 1.95 million tons of cargo (plane plus cargo weight) in 2018, continuing an upward trend that began in 2013. In 2018, the most recent year for which data is available, air cargo tonnage grew by 3.6% from 1.88 million tons in 2017. Much of this increase can be attributed to the 6.5% increase in cargo shipped through Seattle-Tacoma (Sea-Tac) International Airport between 2017 and 2018.

Sea-Tac continued to handle the bulk of all air cargo in the state in 2018, with 63.2% of the statewide total according to the Federal Aviation Administration. Sea-Tac Airport also provides daily, non-stop service to 91 domestic and 27 international destinations. According to the Port of Seattle, Sea-Tac handled approximately 453,547 metric tons of total cargo (not including plane weight) in 2019—an increase of 4.9% from 432,315 in 2018. (Note, due to the different standard of measurement—cargo weight alone rather than cargo and plane weight, these figures differ from those in the statewide tonnage reported above and in the charts at left). FedEx was the top cargo carrier out of Sea-Tac in 2019, accounting for 30.5% of all cargo tonnage.

Farm products continue to make up largest share of freight shipped by rail in Washington state in 2018

2017 and 2018; Commodities shipped by rail; Tonnage in millions



Data source: WSDOT Rail, Freight, and Ports Division.

Freight rail tonnage increases by 5.4% in 2018

Railroads in Washington state transported 135 million tons of freight in 2018, a 5.4% increase from the 128 million tons transported in 2017. The overall increase was driven by increases in corn shipments and hazardous material shipments.

The amount of inbound rail freight (freight that originated outside Washington and was transported to a destination within the state) increased 8.7% from 65.9 million tons in 2017 to 71.7 million tons in 2018. Inbound freight made up 53% of all statewide rail freight in 2018. Freight rail shipments passing through Washington (with both origin and destination outside the state) accounted for 30% (40.6 million tons) of total rail freight tonnage, compared to 39.5 million tons in 2017. Approximately 16.2 million tons of outbound rail freight (which had an in-state origin and an out-of-state destination) was transported in Washington state in 2018, making up 12% of total freight rail tonnage. The remaining 5% (6.7 million tons) of rail freight was intrastate, with both origin and destination inside Washington.

Over 7% more farm products shipped by rail in 2018 than in 2017

In 2018, 43.5 million tons of farm products (such as soybeans, corn, wheat and dried peas) were shipped by rail in Washington state, a 7.1% increase from the 40.6 million tons shipped in 2017 (see chart above). This increase was driven largely by growth in the amount of corn shipped by rail, which increased 81.5% from 13.1 million tons in 2017 to 23.8 million tons in 2018; the increase in corn shipments came primarily from corn originating in the Midwest, much of which was exported to Japan and South Korea.

In contrast, soybean shipments declined significantly, leading to an overall decrease of 40.2% (5.4 million tons) in the amount of soybeans shipped by rail in Washington state from 2017 to 2018. This decline was driven largely by a decrease in soybean exports to China following the imposition of tariffs (see p. 27). Additionally, the amount of wheat shipped by rail decreased by 16.3%, going from 11 million tons in 2017 to 9.2 million tons in 2018; this drop comes in part from a decrease in wheat imports from China.

Over 11% more hazardous material shipped by rail in 2018 than in 2017

Railroad shipments of hazardous materials increased by 11.1% in 2018 with 19.7 million tons compared to 17.7 million tons in 2017. Shipments of hazardous materials, such as petroleum crude oil, ethyl alcohol, asphalt, propane gas and petroleum/shale oil, increased largely due to more traffic from North Dakota and Alberta, Canada. Rail shipments of coal increased by nearly 7%, going from 16.6 million tons in 2017 to 17.7 million tons in 2018, largely driven by increased pass-through traffic from Montana to British Columbia.

Contributors include Barbara LaBoe, Janet Matkin, Cara Motte, Wenjuan Zhao, Takahide Aso and Helen Goldstein

78 CAPITAL PROJECT DELIVERY PROGRAMS QUARTERLY UPDATES

WSDOT does not complete any new Nickel, TPA or CW projects during the quarter

WSDOT did not complete any new Nickel, Transportation Partnership Account or Connecting Washington projects during the fourth quarter of the 2019-2021 biennium.

WSDOT has completed a total of 383 Nickel and TPA construction projects since July 2003, with 86% on time and 91% on budget. The cost at completion for the 383 Nickel and TPA construction projects was approximately $10.3 billion, 1.5% less than the baseline cost of $10.5 billion. The agency currently has four Nickel and TPA projects underway (see p. 36 for additional information).

Nickel and Transportation Partnership Account funding continues to be lower than original projections

Fuel tax collections show 2003 and 2005 revenue forecasts, which were used to determine project lists, could not anticipate how the economic recession that began in 2007 would affect fuel tax revenues. These forecasts also could not anticipate how the response to the ongoing COVID-19 pandemic would affect transportation and travel throughout Washington. The 2003 Nickel and 2005 TPA gas taxes that fund projects are based on a fixed tax rate per gallon. 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 are $4.0 billion, roughly $962 million (19.5%) 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.

Contributors include Mike Ellis, Penny Haeger, Heather Jones, Thanh Nguyen, Aaron Ward, Dan Wilder, and Joe Irwin

Notable results

- *WSDOT has completed 383 Nickel and TPA projects since 2003, with 86% on time and 91% on budget*
- *WSDOT advertised 20 of 25 Pre-existing Funds projects during the fourth quarter of the 2019-2021 biennium*

WSDOT's Watch List projects available online:

To streamline work and ensure accuracy and consistency, the Watch List is no longer featured in the quarterly Gray Notebook. It is now reported monthly at http://bit.ly/ProjectDeliveryReports. This change helps the Gray Notebook better align with WSDOT's Capital Program Development and Management Office and its monthly online Watch List of projects that have or may have significant changes in scope, schedule or budget.

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78 CURRENT LEGISLATIVE EVALUATION & ACCOUNTABILITY PROGRAM QUARTERLY UPDATE

Combined Nickel & Transportation Partnership Account Status of projects to date; 2003 through June 30, 2020; Dollars in millions	Number of Projects	Value of Program
Subtotal of completed construction projects[1]	**383**	**$10,485.5**
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	11	$4,989.7
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	$16,282.7
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 2019- 2021 Biennium Budget**	**Cumulative Program**
Total number of projects completed	1	383
Percent completed early or on time	*0%*	*86%*
Percent completed under or on budget	*100%*	*91%*
Baseline cost at completion	$564.9	$10,485.5
Current cost at completion	$564.5	$10,330.3
Percent of total program over or under budget	0.1% under	1.5% 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 June 30, 2020	4	
Percent advertised early or on time	*100%*	
Total number of projects advertised for construction during the 2019-2021 biennium (July 1, 2019 through June 30, 2021)	1	
Percent advertised early or on time	*0%*	
Projects to be advertised: Results of projects now being advertised for construction or planned to be advertised	**Combined Nickel & TPA**	
Projects being advertised for construction (July 1, 2020 through December 31, 2020)	0	
Percent on target for advertisement on schedule or early	0%	
Budget status for the 2019-2021 biennium; Dollars in millions	**WSDOT biennial budget**	
Budget amount for 2019-2021 biennium	$714.6	
Actual expenditures in 2019-2021 biennium to date	$255.9	
Total 2003 Transportation Funding Package (Nickel) expenditures	*$9.6*	
Total 2005 Transportation Partnership Account expenditures	*$180.5*	
Total Pre-existing Funds expenditures	*$65.9*	

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 June 30, 2020. **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.

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78 ADVERTISEMENT RECORD QUARTERLY UPDATE

Connecting Washington Account projects in construction[1] Through June 30, 2020; (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	Delayed	Aug-2021	$243.1
SR 167/SR 509 Puget Sound Gateway (multiple counties)			
SR 509/SeaTac Stage 1 Elements (WSDOT Contribution)	Advanced	Nov-2022	$49.8
SR 167/I-5 to SR 509 - Stage 1A	On schedule	Jun-2021	$57.4
SR 509/I-5 & SR 516 I/C[2] to 28th/24th Ave. South - SR 509 Completion Stage 1	Delayed	Jun-2025	$488.5
I-405/Renton to Bellevue - Corridor Widening (King)			
I-405/Renton to Bellevue - Corridor Widening & ETL[3] (Stage 2)	Delayed	Dec-2024	$790.0
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 - I/C and Bridge Replacement	Delayed	Apr-2023	$628.1
US 395 North Spokane Corridor (Spokane)			
US 395/North Spokane Corridor BNSF - Second Railroad Alignment	Delayed	Oct-2021	$81.2
I-5/Marvin Road/SR 510 Interchange (Thurston)			
I-5/SR 510 I/C - Reconstruct I/C	Delayed	May-2021	$45.9
I-82/ Eastbound/Westbound On- and Off-Ramps (Yakima)			
I-82/South Union Gap Interchange - Construct Ramps	Advanced	Aug-2020	$23.9
US 2 Highway Safety (Snohomish)			
US 2/Corridor Improvements	Delayed	Aug-2020	$2.0
SR 107/Chehalis River Bridge (S. Montesano Bridge) Approach & Rail Repair (Grays Harbor)			
SR 107/Chehalis River Bridge - Structural Rehabilitation	Delayed	Dec-2020	$21.8
I-90/Medical Lake & Geiger Interchanges (Spokane)			
I-90/Medical Lake I/C to Geiger Field I/C - Reconstruction	On schedule	Oct-2020	$15.9
US 395/Safety Corridor Improvements (Spokane)			
US 395/Safety Corridor Improvements	Delayed	Sep-2020	$13.6
I-90/Eastgate to SR 900 - Corridor Improvements (King)			
I-90/Eastgate to SR 900 - Corridor Improvements	Delayed	Oct-2021	$73.0
US 12/Walla Walla Corridor Improvements (Walla Walla)			
US 12/Nine Mile Hill to Frenchtown Vicinity - Build New Highway	Delayed	Jul-2022	$160.4
SR 240/Richland Corridor Improvements (Benton)			
SR 240/Duportail Rd. Intersection Improvements	On schedule	May-2021	$2.5
I-90 Snoqualmie Pass - Widen to Easton (Kittitas)			
I-90/Easton Hill to W. Easton I/C Westbound - Replace Bridge and Build Detour	Delayed	Sep-2021	$14.5
I-90/Barker to Harvard - Improve Interchanges & Local Roads (Spokane)			
I-90/Barker to Harvard - Improve Interchanges and Local Roads	Advanced	Oct-2020	$3.9
I-90/Barker to Harvard - Westbound On-Ramp Improvement	On schedule	Sep-2021	$2.1
I-90/Barker to Harvard - Add Lane Harvard Rd. Bridge	Delayed	Jun-2021	$3.3

Data source: WSDOT Capital Program Development and Management.
Note: **1** Connecting Washington advertisements show projects currently in construction, and do not represent a comprehensive list of completed Connecting Washington projects. **2** I/C = Interchange **3** ETL = Electronic Toll Lanes.

Nickel & TPA projects in construction Through June 30, 2020; (County); Dollars in millions	Fund type	Advertised on time	Ad date	Operationally complete date	Award amount
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 opened to traffic in February 2019. The award amount is for the SR 99 Tunnel contract. The Viaduct Demolition, Battery Street Tunnel Decommissioning and Surface Street Improvements are in process.					
SR 99/Alaskan Way and Elliot Ave Surface Street Restoration	Nickel/ TPA	√	Nov-2018	Jan-2023	$153.0
The City of Seattle is the lead on this project.					
I-5/Tacoma HOV Improvements (Pierce)	**Nickel/ TPA**				
I-5/Portland Ave to Port of Tacoma Rd. - Northbound/Southbound HOV	Nickel/ TPA	Late	Jan-2018	Oct-2023	$152.6
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
SR 290/Spokane River E. Trent Bridge - Replace Bridge (Spokane)	**TPA**				
SR 290/Spokane River E Trent Bridge - Replace Bridge	TPA	Late	Dec-2019	Oct-2022	$20.1

Data source: WSDOT Capital Program Development and Management.

WSDOT has nine change orders of $500,000 or more during the quarter

WSDOT had nine change orders of $500,000 or more during the quarter ending June 30, 2020. **1)** Paint needing to be removed that was thicker than anticipated on the SR 20, Deception Pass and Canoe Pass Bridges Paint project led to a $2.5 million increase. **2)** Design changes and an expanded footprint and timeline on the SR 530/ Trafton Creek & Schoolyard Creek - Fish Passage project led to a $2.2 million increase. **3)** I-5, Waterline and powerline relocations on the Steilacoom-Dupont Rd. to Thorne Lane Corridor project led to a $685,000 increase. **4)** Additional repairs, testing and lighting on the I-90, Two-Way Transit & HOV Operation, Stage 3 project led to a $2.7 million increase. **5)** Costs associated with a winter shutdown of work on the SR 305/Agate Pass Bridge Painting project led to a $500,000 increase. **6)** Construction reviews and ongoing parking lot maintenance on the SR 99/AWV Demolition Decommissioning & Surface Street project resulted in an $826,000 increase. **7)** Work associated with contaminated soil on the SR 530, Trafton Creek & Schoolyard Creek - Fish Passage project led to a $639,000 increase. **8)** Removal and relocation work associated with on-street lighting on the SR 99/AWV Demolition Decommissioning & North Surface Street led to an $868,000 increase. **9)** Revised design and construction work associated with Seattle City Light requirements for duct banks (conduit groups) in the Battery Street Tunnel as part of the SR 99/AWV Demolition Decommissioning & Surface Street project led to a $6.0 million increase.

After extensive reviews—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.

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78 PRE-EXISTING FUNDS QUARTERLY UPDATE

WSDOT advertises 20 Pre-existing Funds projects in the fourth quarter of the biennium

WSDOT advertised 20 of 25 Pre-existing Funds projects in the fourth quarter of the 2019-2021 biennium (April through June 2020). Of the 20 total projects advertised, two were on time, five were emergent, two were advanced from future quarters, and 11 were late. Of the remaining five projects—originally scheduled to be advertised during the quarter—one was advertised early in a previous quarter, two were delayed within the biennium, one was deferred out of the biennium, and one project was deleted.

As of June 30, 2020, WSDOT's current cost to complete the 134 planned PEF projects advertised through the fourth quarter of the 2019-2021 biennium was about $344.3 million, approximately $9.7 million (2.9%) more than the original value of $334.6 million (see chart at right).

Current cost to complete actual PEF advertisements $9.7 million more than original value

2019-2021 biennium (July 2019 through June 2021); Fourth quarter (ending June 30, 2020); Dollars in millions

	Number of projects	Original value	Current cost to complete
Planned PEF advertisements for the 2019-2021 biennium	276	$1,671.5	$1,677.8
Actual PEF advertisements through the fourth quarter	134	$334.6	$344.3

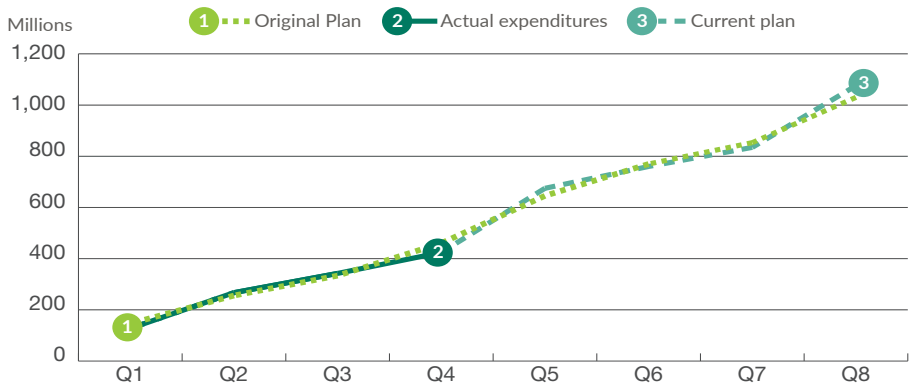
Data source: WSDOT Capital Program Development and Management.

Cash flows currently lower than original projections

WSDOT originally planned to have $460.5 million in cumulative combined PEF improvement and preservation cash flows at the end of the fourth quarter of the 2019-2021 biennium, but had $424.3 million (approximately $36.2 million, 7.9% less). Current cash flows can vary from originally planned cash flows due to a number of reasons. For example, emergent projects may add cash flow to the current reporting quarter, whereas project deletions can remove cash flow. The original plan—which is the 2019 delivery plan—will remain the same for the first four quarters of the biennium. It may be updated in the fifth quarter to reflect any revisions to the original 2020 delivery plan. As the biennium continues, the agency uses these original plans as goals to achieve while working to meet projections set forth in the current plan. The current plan is more fluid and reflects quarterly changes due to projects being emergent, delayed, deferred, advanced or deleted.

Cumulative Pre-existing Funds improvement and preservation combined cash flows during the 2019-2021 biennium lower than planned

Quarter ending June 30, 2020; Planned vs. actual expenditures and current plan; Dollars in millions



Data source: WSDOT Capital Program Development and Management.

Note: Q4 refers to the fourth quarter (April through June 2020) of the 2019-2021 biennium, which runs from July 2019 through June 2021.

WSDOT advertises 135 PEF projects during the 2019-2021 biennium

Advertisement status	Quarter[1]	Cumulative[2]
Advanced[3]	2	2
On time	2	87
Emergent[4]	5	22
Late	11	23
Total projects advertised	**20**	**134**
Early[5]	1	4
Delayed within the biennium	2	67
Deferred out of the biennium	1	1
Deleted	1	5

Data source: WSDOT Capital Program Development and Management.

Notes: **1** Quarter refers to April through June 2020. **2** Cumulative refers to July 2019 through June 2021. **3** Advanced refers to projects that were moved up from future quarters. **4** Emergent refers to emergency or unanticipated projects. **5** Early refers to projects planned for the quarter that were advertised in a previous quarter.

WSDOT advertises 20 Pre-existing Funds projects during the third quarter of the 2019-2021 biennium

April through June 2020

Advanced (2)	
SR 106/McReavy Rd. Vicinity - Culvert Repair	SR 103/US 101 to Stackpole Rd. with Exceptions - Chip Seal
On time (2)	
US 2/Tumwater Canyon Mitigation Repairs	SR 4/Oak Point Vicinity - Rockfall Prevention
Emergent (5)	
SR 26/Hatton Coulee Safety Rest Area - Install Pressure Tanks - Eastern Region	SR 14/SE 164th Ave. Interchange - Replace signals and poles at ramp terminus
SR 20/MP 98.9 Unstable Slope	I-82/East of Zillah - Emergency Culvert Repair
I-5/13th St Bridge - Replace Northbound Span	
Late (11)	
US 2/Bickford Ave. to SR 9 Vicinity - Median Barrier (Phase 2)	SR 6/Chehalis River Riverside Bridge - Deck Overlay
I-90/Raging River Bridge to Bandera Vicinity - Stormwater Retrofit	SR 14/0.8 Miles West of Wind River Rd. - Slope Stabilization
SR 161/31st Ave. Southwest Overpass - Improvements	SR 14/1.1 Miles West of Wind River Rd. - Slope Stabilization
I-5/Cowlitz River Bridges - Painting	US 97/Satus Creek Bridge - Bridge Replacement
SR 6/Chehalis River Bridge to I-5 - Americans with Disabilities Act Work	I-90/Barker Rd Intersection Improvements
SR 6/Chehalis River Bridge to I-5 - Pavement Rehab	
Early (1)	
Southwest Region/Regionwide Shoulder Rumble Strip Installation 2019-2021	
Delayed (2)	
SR 14/1.7 Miles East of Bingen - Slope Stabilization	SR 105/Embankment Erosion Repair
Deferred (1)	
SR 14/Columbia Hills State Park - Railroad Crossing Improvements	
Deleted (1)	
SR 162/Vicinity West of South Prairie - Culvert Replacement	

Data source: WSDOT Capital Program Development and Management.

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78 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:** 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. The GNB archives include every GNB published to date. Online versions might include corrections and may not exactly match print versions.

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 77			**GNB 78**			GNB 79			GNB 80		
Calendar	Q1 2020			**Q2 2020**			Q3 2020			Q4 2020		
State Fiscal	Q3 FY2020			**Q4 FY2020**			Q1 FY2020			Q2 FY2021		
Fed. Fiscal	Q2 FFY2020			**Q3 FFY2020**			Q4 FFY2020			Q1 FFY2021		

2019-2021 biennial quarters (used by Legislature)

Period	Quarter	Period	Quarter
Jul – Sep 2019	Q1	Jul – Sep 2020	Q5
Oct – Dec 2019	Q2	Oct – Dec 2020	Q6
Jan – Mar 2020	Q3	Jan – Mar 2021	Q7
Apr – Jun 2020	**Q4**	Apr – Jun 2021	Q8

GNB credits

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