

STATE OF WASHINGTON

FY 2018 WSDOT FERRIES DIVISION PERFORMANCE REPORT

COMPILED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

December 2018

Americans with Disabilities Act (ADA) Information: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise discriminated against under any of its programs, services, or activities. Any person who believes their Americans with Disabilities protection has been violated may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding ADA complaint procedures and/or information regarding our non-discrimination obligations, please contact Larry Watkinson, WSDOT ADA Compliance Manager, at wsdotada@wsdot.wa.gov or by calling toll free 855-362-4ADA (4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Request for Reasonable Modification: The Washington State Department of Transportation (WSDOT) will modify its policies, practices, and procedures to ensure individuals with disabilities have an equal opportunity to participate in the programs, services, or activities unless the modification fundamentally alters the program, service, or activity, creates a safety concern, or is not otherwise required by the ADA. Requests for modification can be made to any WSDOT employee or at wsdotada@wsdot.wa.gov or by calling toll free 855-362-4ADA (4232).

Title VI Notice to the Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally-funded programs and activities. Any person who believes his /her Title VI protection has been violated may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at 360-705-7090.

Visit our website at www.wsdot.wa.gov



STATE OF WASHINGTON

OFFICE OF FINANCIAL MANAGEMENT Insurance Building, PO Box 43113 • Olympia, Washington 98504-3113 • (360) 902-0555

Dear Governor, Legislators and Interested Readers:

I am pleased to comment on the 2018 Ferries Performance Report on the state of the ferry system, prepared by the Washington State Department of Transportation Ferries Division.

This report is a concise, informative and timely summary of the goals and measures established in RCW 47.64.355 to monitor progress in providing the people of our state with the best possible value for their transportation system dollars. It focuses on the following key performance areas: safety performance, service effectiveness, cost containment and capital program effectiveness.

The data shows that continued investment in our ferry system has improved performance in many areas. It also indicates where additional analysis and potential investment may be needed.

Where improvements are showing:

- Safety of passengers continues to exceed goals.
- Customer satisfaction with the website continues to meet goals.
- Ratings of interactions with ferry employees exceed goals.

Where challenges remain:

- The increase in crew injuries is a concern.
- Vessel out-of-service time continues to increase as the fleet ages and there are more mechanical emergencies.
- On-time performance has been hard to maintain as more ridership has made peak travel periods longer and busier.

In closing, the state reiterates its commitment to maintaining safety on Washington ferries, managing rising ridership, improving the reliability of our ferry fleet, and maintaining rider satisfaction with employees, ferry vessels and terminals.

We look forward to working with you, the public and our transportation partners to maintain a world-class ferry system.

Sincerely,

David Schumacher Director

FY 2018 Ferries Performance Measures

Contents

Execu	utive Summary	5
Leg	gislative Background	7
WS	SDOT Performance Reporting	7
Per	rformance Targets	7
Cap	pital Program	8
Ор	erating Program	8
#1	Percent of Terminal Capital Projects Completed On Time	10
#2	Percent of Terminal Capital Projects Completed On Budget	13
#3a	Percent of Vessel Preservation and Improvement Projects On Time	15
#3b	Percent of New Vessels Complete On Time	17
#4a	Percent of Vessel Preservation and Improvement Projects On Budget	18
#4b	Percent of New Vessel Projects On Budget	20
#5	Passenger Injuries per Million Passengers	21
#6	Recordable Crew Injuries per 10,000 Service Hours	23
#7	Passenger Satisfaction with Interactions with Ferry Employees	25
#8	Passenger Satisfaction with Cleanliness and Comfort of Vessels and Terminals	27
#9	Passenger Satisfaction with Responses to Requests for Assistance	29
#10	Operating Cost Per Passenger Mile	31
#11	Operating Cost Per Revenue Service Mile	33
#12	Overtime as a percentage of Straight Time	35
#13	Gallons of Fuel Consumed Per Revenue Service Mile	37
#14	Terminal and Vessel Engineering costs as a percentage of total project costs	
#15	Total Vessel Out-of-Service Time	41
#16	On-time Performance	43
#17	Service Reliability	45
Appe	ndix A – WSF Capital Project Delivery	47
Gloss	ary	50
Data	Sources by Measure	51

Executive Summary

This is the seventh annual comprehensive report on performance measures of the Washington State Department of Transportation Ferries Division (WSF). The report focuses on performance in Fiscal Year 2018 (FY 2018) from July 1, 2017, to June 30, 2018. The report is based on 2011 Washington state legislation (RCW 47.64.360), and requires its annual submittal to state level transportation committees.

This report provides an expanded list of 17 performance measures spanning four areas within WSF that included the Capital Program, Safety, Operating Costs, and Service. WSF has historically reported performance in a variety of ways. This report supports and supplements those other published documents. In WSF's 2040 Long Range Plan, one of the recommendations is to review the performance measures in the report and propose changes as needed.

WSF's operating and capital programs are funded from different sources. The operating program is responsible for the day-to-day operations of the ferry system. This includes labor and non-labor such as materials, fuel, training, and maintenance costs that facilitate approximately 446 trips each day. The capital program is responsible for preserving and improving systems at the terminals, on vessels, and at the Eagle Harbor maintenance facility. Additionally, the capital program funds improvement projects, and emergency repairs. Performance elements from both programs are measured in this report.

In FY 2018, WSF met 10 of its 17 annual performance goals while transporting nearly 24.6 million passengers, a ridership amount that has increased consecutively over the last six years. Key measurement results include:

- Passenger satisfaction with WSF Staff and requests for assistance met the performance goal of 90 percent satisfaction.
- All cost containment measures associated with budgeting operational costs met their goals.

The report also communicates challenges WSF faces moving forward in the upcoming years:

- Vessel out of service time continues to be higher than desired. This highlights the balance between completing required preservation and necessary maintenance work on an aging fleet with the need to keep vessels available for service.
- On-time performance decreased for the fourth consecutive year in a row to 91.4%, below the goal of 95%. Ridership has a linear but inverse relationship with on-time performance. Steady increases in ridership lengthen peak travel period unload, dwell and load times, which reduces the ability of crews to get vessels back on schedule to meet on-time standards.

 Fuel consumption continues to increase as new Olympic class vessels replace smaller vessels. Efforts began in FY 2018 to reduce consumption through changes to operating procedures. In January 2018, Governor Inslee issued Executive Order 18-01 State Efficiency and Environmental Performance which included the following language: *The Secretary of the Department of Transportation (WSDOT) shall ensure that the Washington State Ferry system begins the transition to a zero-carbon-emission ferry fleet, including the accelerated adoption of both ferry electrification and operational improvements that will conserve energy and cut fuel use.* In response, in April 2018 WSF's operations staff were advised to run vessels at lower speeds as fuel consumption increases exponentially at higher speed.

This report also provides an appendix with capital project delivery details for FY 2018 terminal and vessel projects, a glossary of terms, and documentation of sources of data used to compile the report results.

Legislative Background

RCW 47.64.360 set forth a process for establishing performance measures for WSF and listed areas in which performance measures were required. The legislation broke the measures into four categories: 1) Safety Performance, 2) Service Effectiveness, 3) Cost Containment, and 4) Capital Program Effectiveness. An ad hoc committee was created to develop performance targets for the measures and to present them for review to members of the transportation committees and the Joint Transportation Committee by December 31, 2011. During the 2016 legislative session, RCW 47.64.360 was amended to require the Office of Financial Management (OFM) to review and provide comment on the report prior to its submittal by WSDOT to the Legislature. The report is required to be submitted by December 31 of each year on the performance for the fiscal year ending June 30 of that year. This report has been prepared by WSF and reviewed by OFM.

WSDOT Performance Reporting

WSDOT has a 17-year history of reporting the performance of its various programs. Specific to WSF, WSDOT has reported ridership and farebox revenue, service reliability, on-time trip performance, customer feedback, workplace and passenger injuries, and on time / on budget information for Nickel and TPA projects as part of quarterly Gray Notebook publications. In addition, annual articles on vessel and terminal preservation occur in the Gray Notebook. The WSF website hosts quarterly and annual ridership data from 2003 to present, and since August 2011 WSDOT has posted reasons for late vessel departures on a monthly basis. This report complements the existing Gray Notebook and web based accountability reporting.

Performance Targets

The performance targets include:

- **Capital Program Effectiveness** These capital and maintenance program measures include project delivery rate as measured by the number of projects completed on time and within budget. Also, included are vessel and terminal design and engineering costs as measured by a percentage of the total capital program, and total vessel out-of-service time.
- Safety Performance Safety performance as measured by passenger injuries per million passenger miles and by OSHA recordable crew injuries per 10,000 revenue service hours. This report applied the National Transit Database criteria to define passenger injuries as required by the Federal Transit Administration (FTA) for injury reporting.

- **Cost Containment** These budget and expense related measures include operating cost per passenger mile, operating cost per revenue service mile, discretionary overtime as a percentage of straight time, and gallons of fuel consumed per revenue service mile.
- Service Effectiveness Service effectiveness measures reflect service experienced by WSF passengers. These include, service reliability and on-time performance as well as passenger satisfaction regarding interactions with ferry employees, cleanliness and comfort of vessels and terminals, and WSF's response to requests for assistance.

The ad hoc committee added two service effectiveness measures for the inaugural report: on time performance and service reliability. These are key operational priorities for WSF and quarterly performance for these measures is tracked and published in WSDOT's quarterly performance report, the *Gray Notebook*.

Capital Program

WSF oversees the preservation and improvement of existing ferry terminals and vessels, as well as the construction of new vessels. The division is responsible for preserving 19 terminals, 22 active vessels and the Eagle Harbor Maintenance Facility. Preservation and improvement projects fall into three major categories: terminals, vessels, and emergency repairs. The focus of preservation projects is to refurbish or replace terminal or vessel systems. These systems are itemized, and their conditions tracked in a Life Cycle Cost Model (LCCM) database. Improvement projects achieve a program goal, create a new asset through construction, improve conditions, or accommodate changes in service. Emergency repairs occur when vessels or terminals need immediate repairs that necessitate an unexpected service disruption.

Operating Program

WSF is the world's second largest auto-carrying system in the world, and carries the most passengers of any ferry system in the United States. In Fiscal Year (FY) 2018, the ferry system carried nearly 24.6 million riders, consisting of almost 13.9 million passengers and over 10.7 million vehicles/drivers. There were approximately 446 sailings each day on nine ferry routes across Puget Sound and through the San Juan Islands including an international route to Sidney, British Columbia.

FY 2018 Washington State Ferries

F	ERFORMANCE MEASURES	FY 2017	FY 2018	Goal	Goal met?	Comments
CAP	ITAL EFFECTIVENESS					
1	Percent of terminal projects completed on time ¹	75%	50%	90%	-	1 of 2 terminal projects completed on time.
2	Percent of terminal projects completed on budget ^{1,3}	100%	100%	90%	1	2 of 2 terminal projects completed within budget.
3a 3b	Percent of contracts completed on time: • Existing Vessels ² • New Vessels	81%	82% N/A	75% 100%	✓ -	9 of 11 contracts completed on time. No new vessels in FY 2018.
4a 4b	Percent of contracts completed on budget: • Existing Vessels ^{2, 3} • New Vessels ³	88% 100%	73% N/A	75% 100%	-	8 of 11 contracts within budget. No new vessels in FY 2018.
14	 Preliminary engineering costs: As a percent of terminal capital project costs As a percent of vessel capital project costs 	11.2% 9%	2.2% 4%	16.7% 17%	1 1	Terminal projects exceeded goal. Vessel projects exceeded goal.
15	Average vessel out of service time	9.3	9.8	8	-	Missed goal.
SAFE		weeks	weeks	weeks		
5	Passenger injuries per million passengers	0.70	0.41	Less than 1.00	 Image: A start of the start of	Goal met.
6	OSHA recordable crew injuries per 10,000 revenue service hours	6.8	9.9	Less than 7.6	-	Missed goal.
COS	I CONTAINMENT					
10	passenger mile compared to budgeted cost	-1.7%	1.0%	5% of budget	1	Goal met.
11	Annual operating cost estimate per revenue service mile compared to budgeted cost	-0.3%	2.2%	Within 5% of budget	1	Goal met.
12	Overtime hours as a percentage of straight time hours compared to budgeted overtime hours	0.8%	0.8%	Within 1% of budget	1	Goal met.
13	Gallons of fuel consumed per revenue service mile compared to budgeted fuel consumption	3.4%	1.0%	Within 5% of budget	<	Goal met.
SERV 7	Passenger satisfaction with WSF Staff customer service	95%	95%	90%	 Image: A second s	Goal met.
8	Passenger satisfaction with cleanliness and comfort of WSF terminals, facilities and vessels	90%	88%	90%	-	Missed goal.
9	Passenger satisfaction with service requests made via telephone or WSF website	91%	90%	90%	 Image: A start of the start of	Goal met.
16	On-time performance level (percent of trips departing within 10 minutes of scheduled time).	93%	91%	95%	-	Missed goal.
17	Service reliability level (percent of scheduled trips completed).	99.5%	98.9%	99.0%	-	Missed goal.

1. Includes completed preservation and improvement projects. 2. Includes completed preservation and improvement projects with the exception of new vessels. 3. Budget goal is expenditures at the vessel PIN level based on last approved legislative budget.

#1 Percent of Terminal Capital Projects Completed On Time

FY 2018 Results:

WSF missed the performance goal of 90 percent of terminal capital projects delivered on time in FY 2018, with 50% of projects delivered on time.

WSF Goal: 90% of terminal capital projects on time

Preservation Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Terminal Preservation Projects Completed		3	2	2	1
Terminal Preservation Projects Completed on Time*		2	2	2	0
% Delivered on time	90%	67%	100%	100%	0%

Improvement Project Data for FY 2015- FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Terminal Improvement Projects Completed		1	0	2	1
Terminal Improvement Projects Completed on Time*		0	0	1	1
% Delivered on time	90%	0%	-	50%	100%

Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Total Terminal Projects Completed		4	2	4	2
Total Terminal Projects Completed on Time*		2	2	3	1
% Delivered on time	90%	50%	100%	75%	50%

* - Delivered in same quarter as listed in last approved legislative budget (18WSFLFC).

Trend Analysis:

In FY 2018, WSF completed 50 percent of its terminal projects on time. This is a decline from FY 2017 (75%). Terminal project on time delivery met the performance goal in two of the last four years.

Fewer projects were completed in FY 2018, two as compared to FY 2017 with four. The number of terminal projects completed recently is small compared to historic numbers as significant resources are being dedicated to the Seattle and Mukilteo terminal replacement projects.



In FY 2018, terminal engineering completed the following projects:

SR 163/Point Defiance Terminal - Emergency Generator Improvement

This project installed a 150 kilowatt emergency generator at the Point Defiance Ferry Terminal.

SR 305/Eagle Harbor Maintenance Facility - Hazmat Storage Building Replacement

This project replaced an existing deteriorated structure with a new structure compliant with environmental regulatory requirements (four-hour, fire rated freestanding hazardous material storage building for use at the Eagle Harbor Maintenance Facility). The maintenance facility has three freestanding hazardous material buildings on site. Two units were replaced in 2009, and the third unit - which has been used for paint mixing, tool cleaning and paint storage - has been maintained and repaired annually, but was rusting out beyond repair. This replacement hazardous material storage building will help ensure paint and solvent contaminants do not make their way into Eagle Harbor. This project was not completed on time.

In addition, Terminal Engineering progressed on two multi-biennium projects:

Mukilteo Multimodal Terminal Project:

- September 2017, began work on the Trestle and Bridge Seat contract (Phase 2B)
- January 2018, began work on the Deep Stormwater Utility contract (Phase 2C)
- Two contractors were working simultaneously onsite for the second half of FY 2018
- Successfully completed the utility contract without triggering key archeologically sensitive risks
- June 2018, final design was completed on the last two phases of project

Seattle Multimodal Terminal Project:

- Began full construction in August 2018
- During the first in-water work window (Aug 2017 to Feb 2018), crews installed over 170 piles to support construction of the new trestle
- In FY 2018, crews fabricated 50% of new deck panels

#2 Percent of Terminal Capital Projects Completed On Budget

FY 2018 Results:

WSF met the performance goal by completing 100 percent of its terminal capital projects on budget in FY 2018.

WSF Goal: 90% of terminal capital projects on budget

Preservation Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Terminal Preservation Projects Completed		3	2	2	1
Terminal Preservation Projects Completed on Budget*		3	2	2	1
% Delivered on budget	90%	100%	100%	100%	100%

Improvement Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Terminal Improvement Projects Completed		1	0	2	1
Terminal Improvement Projects Completed on Budget*		1	0	2	1
% Delivered on budget	90%	100%	-	N/A	100%

Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Total Terminal Projects Completed		4	2	4	2
Total Terminal Projects Completed on Budget*		4	2	4	2
% Delivered on budget	90%	100%	100%	100%	100%

* Completed spending no more than 5% of the project budget listed in last approved legislative budget. (18WSFLFC).

Trend Analysis:

Over the last four years, all terminal projects were completed at or below budget (12 projects). There were two projects completed in FY 2018: Point Defiance Terminal - Emergency Generator Improvement and the Eagle Harbor Maintenance Facility - Hazmat Storage Building Replacement. The combined costs of these two completed projects was \$367,452. WSF delivered these projects with 67% of their authorized budgets.



Projects completed in FY 2018 were delivered with total expenditures being 67 percent or \$367,452 of the total authorized budget of \$549,000 for those projects.

See Appendix A on page 47 for actual budget and expenditure amounts by project.

#3a Percent of Vessel Preservation and Improvement Projects Completed On Time

FY 2018 Results:

WSF exceeded the performance goal of 75 percent, delivering 82 percent of capital projects for vessels on time in FY 2018.

WSF Goal: 75% of vessel capital projects on time

Preservation Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Vessel Preservation Projects Completed		7	3	7	11
Vessel Preservation Projects Completed on Time*		4	3	7	9
% Delivered on time	75%	57%	100%	100%	82%

Improvement Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Vessel Improvement Projects Completed		5	2	9	0
Vessel Improvement Projects Completed on Time*		2	2	6	0
% Delivered on time	75%	40%	100%	67%	NA

Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Total Vessel Projects Completed		12	5	16	11
Total Vessel Projects Completed on Time*		6	5	13	9
% Delivered on time	75%	50%	100%	81%	82%

* Projects delivered in same quarter as listed in the Vessel Engineering Layup Schedule Plan dated June 27, 2017

Trend Analysis:

For three of the last four years, vessel capital projects met the on-time delivery goal of 75 percent.



In FY 2018, nine of 11 projects were operationally completed and delivered on time (82%).

Preservation projects:

- *M/V Kitsap* Preservation (2015-2017 Biennium) complete on July 9, 2017
- M/V Tokitae Preservation (2015-2017 Biennium) complete on July 7, 2107
- *M/V Spokane* Commercial Drydock (2017-2019 Biennium) complete on March 16, 2018
- M/V Hyak Commercial Drydock (2017-2019 Biennium) complete on December 15, 2017
- M/V Samish Commercial Drydock (2017-2019 Biennium) complete on May 30, 2018
- *M/V Kittitas* Commercial Drydock (2017-2019 Biennium) complete on August 28, 2018
- M/V Chelan Commercial Drydock (2017-2019 Biennium) complete on January 14, 2018
- M/V Tillicum Commercial Drydock (2017-2019 Biennium) complete on June 29, 2018
- M/V Issaquah Commercial Dockside (2017-2019 Biennium) complete on June 21, 2018

The following projects were performed but not delivered operationally complete on time:

- *M/V Spokane* Preservation (2015-2017 Biennium) complete on October 7, 2017
- *M/V Chetzemoka* Commercial Drydock (2017-2019 Biennium) complete on April 2, 2018

#3b Percent of New Vessels Completed On Time

FY 2018 Results:

There were no new vessels delivered in FY 2018.

WSF Goal: 100% of new vessels completed on time

Data for FY 2015- FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
New Vessel Projects Completed		1	0	1	0
New Vessel Projects Completed on Time*		0	0	0	0
% Delivered on time	100%	0%	-	0%	-

* - Delivered in same quarter as the delivery date documented in the new vessel construction contract.

Trend Analysis:

All three Olympic Class vessels in FY 2014, FY 2015, and FY 2017 were delivered after the planned delivery date listed in the original contract.



#4a Percent of Vessel Preservation and Improvement Projects On Budget

FY 2018 Results:

WSF did not meet the performance goal of 75 percent of combined vessel preservation and improvement projects completed on budget. In FY 2018, 73 percent of preservation and improvement projects were completed on budget.

WSF Goal: 75% of vessel capital projects on budget

Preservation Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Vessel Preservation Projects Completed		7	3	7	11
Vessel Preservation Projects Completed on Budget*		6	3	7	8
% Delivered on Budget	75%	86%	100%	100%	73%

Improvement Project Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Vessel Improvement Projects Completed		5	2	9	0
Vessel Improvement Projects Completed on Budget*		3	0	7	0
% Delivered on Budget	75%	60%	0%	78%	NA

Data for FY 2015- FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Total Vessel Projects Completed		12	5	16	11
Total Vessel Projects Completed on Budget*		9	3	14	8
% Delivered on Budget	75%	75%	60%	88%	73%

* - Completed spending no more than 5% more than the project PIN budget listed in last approved legislative budget (18WSFLFC).

Trend Analysis:

There were no vessel improvement projects in FY 2018. Preservation projects did not meet the goal of 75 percent on budget for the second time in the past four years, with eight of 11 projects on time for 73%. This is a decline from FY 2017, when WSF delivered 100% of its preservation projects on budget. In two of the last four years, vessel preservation projects were delivered at or above the performance goal of 75 percent.



In FY 2018, WSF completed 11 vessel projects with a combined budget of \$43.2 million; the actual expenditures on those projects were \$34.4 million, or 80 percent of the total combined budget. Only three projects were over budget, meaning eight were delivered at or below budget.

See Appendix A on page 49 for actual budget and expenditure amounts by project.

#4b Percent of New Vessels on Budget

FY 2018 Results:

There were no new vessels scheduled for completion in FY 2018.

WSF Goal: 100% of new vessel projects on budget

Data for FY 2015- FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
New Vessel Projects Completed		1	0	1	0
New Vessel Projects Completed on Budget*		1	0	1	0
% Delivered on Budget	100%	100%	-	100%	-

 \ast - Completed spending no more than 5% more than the project PIN budget listed in

last approved legislative budget.

Trend Analysis:

The first three Olympic Class vessels were delivered in FY 2014, FY 2015, and FY 2017 were on budget. One Olympic class vessel (*M/V Suquamish*) is scheduled for completion in FY 2019.



#5 Passenger Injuries per Million Passengers

FY 2018 Results:

WSF met the performance goal of having less than one passenger injury per million passengers. WSF documented 10 passenger injuries during FY 2018, WSF carried nearly 24.6 million passengers during this time, resulting in 0.41 passenger injuries per million passengers.

WSF Goal: Injury rate at or below one injury per million passenge

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Million Passengers		23.6	24.1	24.2	24.6
NTD Passenger Injuries		22	10	17	10
Injuries per Million Passenger	1.00	0.93	0.42	0.70	0.41

Trend Analysis:

The passenger injury rate of 0.41 injuries per million passengers in FY 2018 decreased as compared to the rate of 0.70 in FY 2017. The passenger injury rate has remained below one injury per million passengers for the past five years. Passenger injury counts have fluctuated between 10 and 22 injuries per year during this timeframe. Passenger injuries are reported monthly to the Federal Transit Administration through the National Transit Database (NTD).



A high percentage of passenger injuries come from slips, trips, and falls. Injuries can occur on stairs and ramps as well as on flat surfaces. Wet surfaces and vessel motion increase the chances of an injury. WSDOT continually evaluates the causes of injuries to determine new injury prevention methods and strategies.

In FY 2018, WSF established a policy standard and guidelines for assisting electric and hybrid vehicles at terminals and vessels for safely moving or restarting these types of vehicles. The guideline gives WSF personnel options to handle disabled electric vehicles or hybrid vehicles to better serve the public when these situations occur.

NOTE:

The performance goal for this measure was changed in FY 2015 from prior reports. Previously, the goal was stated as an injury rate below the average of the last three years, with the rate being defined by passenger injuries per million passenger miles. The method was changed because a high or low number of injuries in a given year had a significant impact on the next year's goal because it was based only on the average of prior three years. The goal could then be missed (or met) independent of the actual number of injuries in that year.

The new goal is restated as equal to or less than one passenger injury per million passengers. This new method for passenger injuries per million passenger provides a more stable benchmark for performance measurement.

#6 Recordable Crew Injuries per 10,000 Service Hours

FY 2018 Results:

WSF missed the performance goal in FY 2018 with 9.92 incidents per 10,000 service hours. The goal is no more than 7.6 employee injuries per 10,000 service hours. Injuries are defined by Occupational Safety and Health Administration (OSHA) standards.

WSF Goal: At or below 7.6 incidents	per 10,000 Service Hours
-------------------------------------	--------------------------

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
OSHA Recordable Incidents		79	72	86	124
10,000 Total Service Hours		12.72	12.78	12.70	12.50
Incidents per 10k Total Service Hours	7.6	6.2	5.6	6.8	9.9
Change from Prior Year		-18%	-9%	20%	47%
Goal (Incidents per 10,000 Total Service Hours) ¹		8.0	7.6	7.6	7.6

1 - Goal changed in FY 2016.

Trend Analysis:

In FY 2016, WSF lowered the goal to the industry standard of 7.6 injuries per 10,000 service miles. The FY 2018 injury rate of 9.92 injuries per 10,000 service hours was the highest of the last four years. There were 124 total incidents with the most common reported injury of pain and soreness with 36 incidents, followed by sprains/strains with 31 incidents.



Note: Objective is to be below stated performance goal.

WSF has a robust training program to keep its employees current on safety procedures and safety risks. Once a year, WSF goes through a hiring process to fill seasonal vacancies ensuring there are proper staffing levels available for the busy summer sailing season. All new hires take an intensive 13-day training and safety course that covers personal survival and safety, firefighting, first aid, deck duties, emergency procedures and US Coast Guard requirements. This training is an important part of keeping injuries low in the challenging marine transportation environment that WSF employees work.

Through a comprehensive safety investigation and review of each crew injury, many potential injuries are avoided. The investigations also help establish trending data to assist with developing specific training, to further help reduce both the number and the severity of injuries. WSF is continuing annual safety enhancement seminars targeting employees with the highest injury rates. The goals of this training are to reinforce employee awareness of physical surroundings, identify when they should ask for help, and to review proper techniques for using specific tools and machinery. Initial results have shown a reduced rate of injury by the participating employees.

WSF has provided automatic external defibrillators (AEDs) to all terminals and onboard vessels to be available to persons who might suffer a Sudden Cardiac Arrest (SCA). In the past, AEDs were only available on vessels in the public-use area, but are now installed for engine room personnel as well. In addition all WSF ferry terminals and our headquarters building have one or more AED units available for access and emergency situation usage. WSF key personnel are trained in inspections, maintenance and use of the AEDs.

In FY 2018, WSDOT promoted proper ergonomics to help improve quality of work, employee engagement, productivity, and reduce ergonomic risk factors over time. The safety office implemented a program to conduct ergonomics assessments for employees at WSF headquarters. Both individual and group work stations were rearranged and upgraded as a result of these assessments.

#7 Passenger Satisfaction with Interactions with Ferry Employees

FY 2018 Results:

The performance goal was met, with 95 percent of passengers surveyed being satisfied with their interactions with ferry employees. The annual goal is 90 percent satisfaction.

FY 2015 - FY2018 WSTC Survey Results		Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Tollbooth Staff is Friendly		96%	97%	96%	97%
Vehicle Loading Crew is Friendly		94%	94%	93%	93%
Unloading Crew is Friendly		97%	97%	96%	98%
WSF Vessel Crew is Friendly		96%	96%	97%	96%
WSF Vessel Crew is Helpful		96%	97%	96%	96%
Terminal Staff is Helpful		92%	92%	92%	93%
Assistance from Vessel Staff		89%	91%	96%	89%
Passenger Satisfaction of Interactions with Ferry Employees	90%	94% ²	95% ³	95% ⁴	95 ^{%¹}

1 - Results from 2018 WSTC Winter Performance Survey.

2 - Results from March/April 2015 WSTC Winter Performance Survey.

3 - Results from March/April 2016 WSTC Winter Performance Survey.

4 - Results from April/May 2017 WSTC Winter Performance Survey.

Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

Trend Analysis:

Over the last four years, passenger satisfaction with their interactions with WSF employees has met the performance goal of 90 percent. Between FY 2015 and FY 2018, the satisfaction rate varied by 1 percentage point, ranging from 94 percent to 95 percent. The rating for a friendly vessel crew and assistance from vessel staff remained constant in FY 2018 when compared to FY 2015.



WSDOT tracks customer complaints and sorts them into over 40 categories. The results are reported quarterly in WSDOT's Gray Notebook. Customer complaints that involve employee interactions are tracked and reviewed, with feedback given to employees, including disciplinary action for inappropriate or unprofessional behavior.

#8 Passenger Satisfaction with Cleanliness and Comfort of Vessels and Terminals

FY 2018 Results:

WSF did not meet the passenger satisfaction performance goal of 90 percent with 88 percent of passengers surveyed being satisfied with cleanliness and comfort of vessels and terminals in FY 2018.

WSF Goal: 90% or more satisfied or neutral

		Satisfied	Satisfied	Satisfied	Satisfied
		or	or	or	or
FY 2015 - FY2018 WSTC Survey Results		Neutral	Neutral	Neutral	Neutral
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Terminal Cleanliness		93%	93%	92%	91%
Terminals are Comfortable		86%	83%	83%	77%
Terminal Bathrooms are Clean & Well Maintained		79%	80%	80%	79%
Ferry Passenger Seating areas Clean and Comfortable		95%	95%	96%	95%
Vessel Bathrooms are Clean & Well Maintained		90%	92%	93%	92%
Vessels are Well Maintained		89%	92%	95%	95%
Passenger Satisfaction of Cleanliness and Comfort	90%	89% ²	89% ³	90% ⁴	88% ¹

1 - Results from 2018 WSTC Winter Performance Survey.

2 - Results from March/April 2015 WSTC Winter Performance Survey.

3 - Results from March/April 2016 WSTC Winter Performance Survey.

4 - Results from April/May 2017 WSTC Winter Performance Survey.

Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

Trend Analysis:

WSF has been consistent over the past four years, varying between 88 percent to 90 percent satisfaction with cleanliness and comfort. Performance of four of the six questions over the last four years has varied between 1 percent through 3 percent. The two questions that have varied outside this range are comfort of terminals (9 percent) and vessels being well maintained (6 percent).



Comfort of terminals and cleanliness of bathrooms had the lowest satisfaction ratings of the survey. WSF's Colman Dock terminal in Seattle had the highest dissatisfaction rate at 35% for both measures. Colman Dock faces unique challenges due to heavy passenger traffic, close proximity to a large population center, and being under construction while is in the process of being replaced. WSF employs custodians to keep terminals and bathrooms clean at Colman terminal.

FY 2018 Results:

WSF met the goal of 90 percent passenger satisfaction with 90 percent of the passengers surveyed satisfied with responses to their requests for assistance in FY 2018.

WSF Goal: 90% or more satisfied or neutral

		Satisfied	Satisfied	Satisfied	Satisfied
		or	or	or	or
FY 2015 - FY2018 WSTC Survey Results		Neutral	Neutral	Neutral	Neutral
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Satisfied with experience using the WSF website		95%	94%	95%	94%
Satisfied with your experience calling WSF on the Phone		88%	87%	86%	85%
Passenger Satisfaction of Responses to Requests for Assistance	90%	92% ²	91% ³	91% ⁴	90% ¹

1 - Results from 2018 WSTC Winter Performance Survey.

2 - Results from March/April 2015 WSTC Winter Performance Survey.

3 - Results from March/April 2016 WSTC Winter Performance Survey.

4 - Results from April/May 2017 WSTC Winter Performance Survey.

Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

Trend Analysis:

Passenger satisfaction with responses to requests for assistance ranged from a high of 92 percent in FY 2015 to 90 percent in FY 2018, and marks the fourth consecutive year WSF met the goal.

Satisfaction with WSF's website remains high (94 percent) while satisfaction with phone calls decreased 1 percentage point to 85 percent from FY 2017 to FY 2018.



In FY 2018, WSF received over 221,000 phone calls, with more than 152,000 requiring operator assistance. Calls requesting operator assistance increased by about 7,000 calls, but the overall number of phone calls was significantly less than in FY 2017, most likely due to increased use of the internet for information. With over 36.2 million website views, WSF's views were up by nearly 4 million (12%) from FY 2017, and comprise almost 26% of WSDOT's total web views. Reservations, schedule information, and fares were the most frequently viewed pages on the WSF website.

Twitter has become a popular method of customer communication, with nearly 5,000 new followers in FY 2018. There were over 223,000 times where a user interacted with a WSF tweet, and nearly 19 million retweets where one of the WSF's tweets appeared on someone's feed.

#10 Operating Cost per Passenger Mile

FY 2018 Results:

WSF met the performance goal of operating costs per passenger mile being within 5 percent of plan, with cost per passenger mile being 1.0% more than planned.

WSF Goal: Cost per Passenger Mile within 5% of the budgeted plan						
Data for FY 2015 - FY 2018						
	Goal	FY 2015	FY 2016	FY 2017	FY 2018	
Planned WSF Operating Expenses		\$ 235.92 M	\$ 240.92 M	\$ 243.22 M	\$ 255.89 M	
Planned Passenger Miles		178.37 M	187.66 M	190.65 M	192.99 M	
Cost Per Passenger Mile		\$1.32	\$1.28	\$1.28	\$1.33	

Cost Per Passenger Mile		\$1.32	\$1.28	\$1.28	\$1.33
Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Actual WSF Operating Expenses		\$ 236.05 M	\$ 242.35 M	\$ 241.24 M	\$ 258.64 M
Actual Passonger Miles		106 77 M	100 CO M	102 /6 M	102 00 M

Actual Passenger Miles		186.77 M	189.68 M	192.46 M	193.09 M
Cost Per Passenger Mile		\$1.26	\$1.28	\$1.25	\$1.34
Variance from Plan	5% or less	-4.45%	-0.48%	-1.75%	1.02%

Trend Analysis:

The cost per passenger mile remained relatively stable over the past four years, with costs ranging between \$1.25 and \$1.34 per passenger mile.

For FY 2018, operating expenses were 0.1 percent more than the planned expenses. However, there were more passenger miles in FY 2018 as compared to plan, which kept the cost per passenger mile low, 1 cent more than planned per passenger mile. This trend is partially due to the addition of three new vessels that replaced smaller vessels and the subsequent increased labor and fuel costs.

М



Growth in ridership will reduce the cost per passenger miles as more riders means more passenger miles traveled. For operating costs, a fuel hedging program is helping minimize the potential effects of market fluctuations on fuel prices.

#11 Operating Cost per Revenue Service Mile

FY 2018 Results:

WSF met its performance goal of operating cost per revenue service mile by being within 5 percent of plan, with cost per revenue service mile at 2.4 percent less than plan. In FY 2018 the operating cost was higher than planned, and the revenue service miles were less than planned.

WSE Goal · Cost	ner Revenue Service	Mile within 5% of th	e hudgeted service plan
	per nevenue service		e buugeteu service plan

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Planned WSF Operating Expenses		\$ 235.92 M	\$ 240.92 M	\$ 243.22 M	\$ 255.89 M
Planned Revenue Service Miles		912,851	914,782	910,270	912,193
Planned Operating Cost per Revenue Service Mile		\$258.44	\$263.36	\$267.20	\$280.52

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Actual WSF Operating Expenses		\$ 236.05 M	\$ 242.35 M	\$ 241.24 M	\$ 258.64 M
Actual Revenue Service Miles		907,636	910,842	905,802	900,329
Actual Operating Cost per Revenue Service Mile		\$260.07	\$266.07	\$266.33	\$287.27
Variance from Plan	5% or less	0.6%	1.0%	-0.3%	2.4%

Trend Analysis:

Cost per revenue service mile over the past four years has risen from \$260 to \$287 per revenue service mile. This trend is partially due to the addition of three new vessels that replaced smaller vessels and subsequently increased labor and fuel cost.



With high service reliability goal (98.9 percent of trips completed), more revenue service miles are delivered which helps to lower the cost per revenue service mile. For operating costs, a fuel hedging program is helping to minimize effects of the potential market fluctuations on fuel prices.

#12 Overtime as a percentage of Straight Time

FY 2018 Results:

WSF met the performance goal with overtime as a percentage of straight time being within 1 percent of plan for FY 2018. Planned overtime as a percentage of straight time was 6.6 percent, so with an actual of 7.37 percent, the variance is 0.8 percent lower than planned.

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Planned Overtime Hours		164,732	168,494	164,481	165,059
Planned Straight Time Hours		2,538,527	2,567,333	2,532,754	2,496,750
Planned Overtime as a percent of Straight Time		6.49%	6.56%	6.49%	6.61%

WSF Goal: Overtime as a percentage of s	straight time within 1% of the budgeted plan
---	--

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Actual Overtime Hours		174,285	187,249	183,996	183,334
Actual Straight Time Hours		2,512,579	2,559,918	2,516,280	2,488,209
Actual Overtime as a percent of Straight Time		6.94%	7.31%	7.31%	7.37%
Variance from Plan	1% or less	0.4%	0.8%	0.8%	0.8%

WSF Note: Overtime hours include TA10 (overtime) and TA19 (holiday worked) hours

Trend Analysis:

The percentage of overtime in relation to straight time has remained constant for the past three years at 0.8 percent. The increased use of overtime has been due, in great part, to the use of regular employees to fill additional shifts on overtime when other employees are on leave or otherwise not able to fill their regularly assigned shifts. A United States Coast Guard decision in FY 2013 required additional deck crew on ferry vessels, which put additional strain on personnel resources and has continued to affect overtime since FY 2014. WSF continues to recruit and train employees to meet these challenges. It should be noted the impending retirement of Baby Boom generation employees is an emerging challenge in this area.



WSF is in a continual process of recruiting and training personnel who can work when regular employees are on leave or otherwise unable to work, helping lower the rate of overtime.

#13 Gallons of Fuel Consumed Per Revenue Service Mile

FY 2018 Results:

WSF met the performance goal with fuel consumption per revenue service mile (21.0 gallons per mile) being within 5 percent of plan (1.3 percent) for FY 2018.

WSF Goal: Fuel consumed per revenue service mile within 5% of the budgeted plan

Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Planned Fuel Consumed (gallons)		18,121,942	18,233,702	18,233,702	18,885,742
Planned Revenue Service Miles		912,851	914,782	910,270	912,913
Planned Fuel Consumed per Revenue Service Mile (gallons)	TBD	19.9	19.9	20.0	20.7

al	FY 2015	FY 2016	FY 2017	FY 2018
	17,283,789	17,741,292	18,754,812	18,863,387
	907,636	910,811	905,802	900,329
D	19.0	19.5	20.7	21.0
	ai D	al FY 2015 17,283,789 907,636 D 19.0	ai FY 2015 FY 2016 17,283,789 17,741,292 907,636 910,811 D 19.0 19.5	ai FY 2015 FY 2016 FY 2017 17,283,789 17,741,292 18,754,812 907,636 910,811 905,802 D 19.0 19.5 20.7

Trend Analysis:

Variance from Plan

Fuel consumption has ranged from 17.3 million gallons in FY 2015 to 18.9 million gallons in FY 2018. The three new Olympic Class vessels, *M/V Chimacum*, *M/V Samish*, and *M/V Tokitae*, placed in service since FY 2014 consume more fuel than the smaller ferries they replaced.

5% or less

-4.1%

-2.3%

3.4%

1.3%

Actual fuel consumed in FY 2018 was 22,000 gallons less than planned, in part due to Governor Inslee's Executive Order 18-01 State Efficiency and Environmental Performance which included the following language: *The Secretary of the Department of Transportation (WSDOT) shall ensure that the Washington State Ferry system begins the transition to a zero-carbon-emission ferry fleet, including the accelerated adoption of both ferry electrification and operational improvements that will conserve energy and cut fuel use.* In response, ferries were operated at lower speeds as fuel consumption increases exponentially at higher speed.





When regularly assigned vessels are taken out of service for maintenance, fuel consumption can remain relatively stable as long as the planned mix of ferries serving the route continues. WSF continues to make fuel conservation efforts through vessel modifications and changes in operating procedures.

FY 2018 Results:

WSF's performance goal is to have terminal Preliminary Engineering (PE) costs for FY 2018 to be no more than 16.7 percent of total project costs. In FY 2018, WSF met the goal with PE costs being 2.2 percent of total project costs.

WSF's performance goal is to have vessel PE costs be no more than 17 percent of total project costs. In FY 2018, WSF met the goal with PE costs at 4 percent of total project costs.

Terminals Data for FY 2015-2018				
Terminal Engineering	 FY 2015	FY 2016	FY 2017	FY 2018
Preliminary Engineering Costs	\$ 903,691	\$ 441,603	\$ 1,911,648	\$ 8,074
Total Project Costs	\$ 7,467,946	\$ 5,704,579	\$ 17,132,504	\$ 367,452
PE% of Total Project Costs	 12.1%	 7.7%	 11.2%	2.2%
Goal (Weighted average by project type per WSDOT	 		 	

11.5%

WSF Goal: Preliminary	/ Engineering (percent below	guidelines
ttor ocurrentian			Barachico

Trend Analysis - Terminals:

Estimating Manual)

Terminal PE costs as a percentage of total project costs trended downward and have met the goal two of the last four years. The 2.2 percent in FY 2018 was significantly lower than the 11.2 percent in FY 2017. The goal varies each year based on WSDOT Estimating Manual guidelines; the guidelines establish expected PE costs depending on the complexity of each project. Terminal projects tracked for this measure in FY 2018 are the same two projects reported on in the on-time and on-budget measures (#1 and #2).

10.5%

10.5%

16.7%



Vessels Data for FY 2015-2018				
Vessel Engineering - Existing Vessels	FY 2015	FY 2016	FY 2017	FY 2018
Preliminary Engineering Costs	\$ 1,655,040	\$ 611,814	\$ 1,409,993	\$ 1,253,741
Total Project Costs	\$ 24,371,124	\$ 5,021,965	\$ 15,906,109	\$ 34,352,317
PE% of Total Project Costs	7%	12%	9%	4%

WSF Goal: Preliminary Engineering percent below guidelines

Goal for Vessels is 17%

Trend Analysis - Vessels:

Vessel PE costs on preservation projects in FY 2018 have continued the trend of spending below the goal since FY 2015. The 4 percent PE costs in FY 2018 was a decrease from the 9 percent in FY 2017. Vessel projects tracked for this measure in FY 2018 are the same 11 projects reported in the on-time and on-budget measures (#3 and #4). Typically the larger the total project costs are in a year the lower the PE percentage will be for vessel work.



Performance Factors:

Work in FY 2018 continued to replace fire suppression sprinkler systems on several vessels, rebuilding engines on the M/V Chetzemoka and M/V Tillicum, and completing structural preservation by painting and replacing steel on multiple vessels.

#15 Total Vessel Out-of-Service Time

FY 2018 Results:

In FY 2018, WSF missed the goal of having vessels out of service for less than 8.0 weeks per vessel, with vessels averaging 9.8 weeks of out-of-service time per vessel.

WSF Goal: Eight weeks out of service time per vessel per year

Data for FY 2015 - FY 2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
Jumbo Mark II (3 vessels)		353	313	125	138
Jumbo (2 vessels)		53	79	248	232
Evergreen State (3 vessels in FY 15 & FY16, 1.5 vessels in FY17,					
1 vessel in FY18)		321	509	31	54
lssaquah (6 vessels in FY15, FY16, & FY17, 5 vessels in FY18)		356	160	391	402
Super (4 vessels)		154	213	329	308
Kwa-di Tabil (3 vessels)		181	37	175	193
Olympic (1 vessel in FY15, 2 vessels in FY16 & FY17, 3 in FY18)		36	147	100	179
Total Days Out of Service		1,454	1,458	1,399	1,506
Total Number of Maintained Vessels		22	22	21.5	22
Weeks Out of Service per Maintained Vessel	8.0	9.4	9.5	9.3	9.8

Trend Analysis:

There was an increase in average vessel out-of-service time from FY 2017 at 9.3 weeks per year to FY 2018 at 9.8 weeks per year. FY 2018 was the fourth year in a row that the performance goal was not met. Given the average age of the fleet, annual maintenance exceeding eight weeks per vessel is likely to continue.



Three vessels had their sprinkler systems replaced in FY 2018. This was based on annual fleet wide inspections of fire suppression sprinkler systems nearing the end of their usable life.

The *M/V Salish* was out for 8.5 weeks of unplanned maintenance due to a grounding at Keystone Harbor, which was not related to any equipment failures. Three Kwa-Di Tabil Class vessels required an extra week each of maintenance to deploy their marine evacuation systems for USCG regulatory compliance.

To conduct technical training and assess the feasibility for two engine operations for reduced fuel consumption, three Jumbo Mark II vessels were removed from service for one week each.

During routine maintenance, deteriorated steel was found on the passenger deck of the *M/V Elwha* that necessitated an extended period of shipyard time that continued into FY 2019 with a cost in FY 2018 of \$22 million that caused other preservation work to be deferred.

#16 On-time Performance

FY 2018 Results:

WSF did not meet the performance goal (95% percent on-time) for FY 2018 with 91.4 percent of trips on time.

Data for FY 2015-2018									
	Goal	FY 2	2015	FY 2	FY 2016		FY 2017		018
Route	On-Time %	Actual On- Time Trips	On-Time %						
San Juan Domestic*		24,370	91.4%	24,124	89.7%	23,199	87.1%	20,482	80.5%
San Juan International		665	89.3%	715	94.2%	650	88.9%	580	84.0%
Edmonds - Kingston		16,703	98.0%	16,980	98.4%	16,572	96.7%	16,332	95.3%
Fauntleroy-Vashon-Southworth		37,126	91.9%	36,015	90.5%	36,542	91.8%	35,819	91.5%
Port Townsend - Coupeville		8,084	94.8%	8,011	94.4%	8,189	95.2%	7,526	93.4%
Mukilteo - Clinton		25,781	97.0%	25,971	96.9%	25,506	96.0%	25,372	95.9%
Point Defiance - Tahlequah		13,126	99.4%	13,797	99.0%	13,541	99.0%	13,114	98.3%
Seattle - Bainbridge Island		15,164	92.4%	15,179	91.8%	15,167	92.2%	14,738	89.8%
Seattle - Bremerton		10,653	97.9%	10,701	98.2%	10,388	96.0%	9,889	92.4%
On-Time Totals	95.0%	151,672	94.5%	151,504	93.9%	149,754	93.4%	143,853	91.4%

WSF Goal: On-Time annual performance of 95 percent or greater

* Includes Anacortes - San Juan Island and the San Juan inter-island routes.

Trend Analysis:

FY 2018 on-time performance (91.4 percent) continued a trend where the goal (95 percent) was not met, and the reduction from the prior year (two percentage points) was larger than other years in the FY 2015 to FY 2018 time period.

All routes had a decline in on-time performance, with the largest drop on the San Juan Domestic (6.6 percent) and International routes (4.9 percent). For significant periods of time, vessels that were placed on the San Juan Inter-Island route were either not capable of keeping the ferry schedule or had to run at slower speeds due to maintenance issues. This affected both the International and San Juan Island routes. Other routes had reductions in on-time performance when vessels that were placed on a route due service disruptions on other routes were not able to keep up with the sailing schedule.

Lastly, in April 2018, WSF initiated a fuel savings program whereby vessels on certain routes would run at lower speeds in order to reduce fuel consumption. The initiative resulted in lower fuel costs and lower emissions but also affected on-time performance as the program was being rolled out.



On-time performance for the WSF system is closely related to ridership. Peak travel periods including the summer months, prime travel weekends in spring and fall, and holidays can affect on-time performance as additional time is needed to load and unload vessels. Additionally, the system has seen an increase in ridership each year since FY 2013, making those peak periods longer and/or busier.

#17 Service Reliability

FY 2018 Results:

WSF did not meet the service reliability performance goal with only 98.9 percent of planned trips completed, which was slightly under the goal (99.0 percent) by 0.1 percent for FY 2018.

Data for FY 2015-2018					
	Goal	FY 2015	FY 2016	FY 2017	FY 2018
	% Completed				
Route	Trips	Trips	Trips	Trips	Trips
San Juan Domestic*		99.7%	99.7%	99.7%	98.9%
San Juan International		97.6%	99.7%	100.0%	96.3%
Edmonds - Kingston		99.6%	99.8%	99.9%	99.9%
Fauntleroy-Vashon-Southworth		99.5%	99.5%	99.7%	99.0%
Port Townsend - Coupeville		95.3%	96.0%	96.5%	91.4%
Mukilteo - Clinton		99.8%	99.9%	99.7%	99.7%
Point Defiance - Tahlequah		99.8%	99.9%	98.0%	99.7%
Seattle - Bainbridge Island		99.8%	99.9%	99.7%	99.8%
Seattle - Bremerton		99.8%	99.8%	99.6%	98.8%
Trip Reliability Totals	99.0%	99.4%	99.5%	99.4%	98.9%

WSF Goal: Annual average trip reliability of 99 percent or greater

* Includes Anacortes - San Juan Island and the San Juan inter-island routes.

Trend Analysis:

FY 2018 was the first year the service reliability goal (99.0 percent) was not met (98.9 percent). Service reliability declined on five of nine routes, with the largest percentage point decrease on the Port Townsend-Coupeville (5.1 percent), and San Juan International (3.7 percent) routes. Of the four quarters in FY 2018 only the summer quarter (July – Sept) was below the service reliability goal (97.4 percent). In summer 2017, four ferry vessels were out of service for unplanned maintenance. This resulted in a reduction in service from two vessels to one vessel on the Port Townsend-Coupeville route, and a reduction from five vessels to four vessels for the San Juan Domestic and International routes.



A well-maintained ferry fleet is vital for reliable vessel service. In addition, ferry terminals must be maintained so drivers and passengers can access ferries for travel. The reliability of service, particularly in the reliability of vessel condition, is attributable to the work of WSF's engineering and maintenance programs. WSF had the most missed trips in FY 2018 (1,786) during the four year period (FY 2015 – FY 2018), exceeding the next highest number of missed trips in FY 2017 (975).

FY 2018 Washington State Ferries Capital Project Delivery

Terminal Projects Completed On-Time and On-Budget									
WSF Goal: 90% of Completed Projects									
Schedule and Budget Summary (Completed Projects) Preservation Improvement Total									
July 01, 2017 through June 30, 2018									
Total Number of Projects Completed	1	1	2						
% of Projects Completed Early or On-Time 50% 100% 75%									
% of Projects Completed Under or On-Budget	100%	100%	100%						

Vessel Projects Completed On-Time and On-Budget

WSF Goal: 75% of Completed Projects									
Schedule and Budget Summary (Completed Projects)	Preservation	Improvement	Total						
July 01, 2017 through June 30, 2018									
Total Number of Projects Completed	11	0	11						
% of Projects Completed Early or On-Time	82%	NA	82%						
% of Projects Completed Under or On-Budget	73%	NA	73%						

Project Details – Terminals

	FY 2018 Terminal Projects - Preservation									
	Original Cost at On									
PIN	Project Title	OC *	Actual OC	Budget *	Completion	Time	Budget			
	SR 305/Eagle Harbor Maintenance Facility - Hazmat Storage Building									
903737A	Replacement	12/29/2017	5/5/2018	\$ 85,000	\$ 77,420	-	V			

* - Original OC and Original Budget data are from the last approved legislative budget & detail plan (18WSFLFC)

	FY 2018 Terminal Projects - Improvement											
	Original Actual Original Cost at On Or											
PIN	Project Title	OC *	oc	Budget *	Completion	Time	Budget					
904606A	SR 163/Point Defiance Trm - Emergency Generator Improvement	1/11/2018	1/25/2018	\$ 464,000	\$ 290,032	٧	V					
* 0-1-1-10	Constructional Durdent data and from the last supremum disciplation burdent.	0 1										

* - Original OC and Original Budget data are from the last approved legislative budget & detail plan (18WSFLFC)

FY 2018Terminal BIN/PIN Project Crosswalk

BIN	PIN	
900040N		Eagle Harbor Preservation
	903737A	SR 305/Eagle Harbor Maintenance Facility - Hazmat Storage Building Replacement
9400001H		Point Defiance Improvement
	904606A	SR 163/Point Defiance Trm - Emergency Generator Improvement

Project Details – Vessels

	FY 2018 Vessel	Projects	- Preserva	tion			
		Original	Actual	Original	PIN Cost at	On	On
PIN/WO	Project Title/Work Description	OC *	oc	Budget *	Completion	Time	Budget
983030E	M/V Kitsap Preservation (2015-2017)	7/9/2017	7/9/2017	1,211,000	1,357,234	V	-
9067	Electronic door locks, sensors, and alarms, AC unit, p	ortable radio	s, saltwater pi	iping, sprinkler s	system		
981010E	M/V Spokane Preservation (2015-2017)	9/24/2017	10/7/2017	17,332,306	17,496,645	-	٧
9059	Topside Paint, machinery spaces, passenger spaces, s fixtures; davits	olariums, pr	opulsion cont	rols, HVAC vent s	systems/controls	interior l	ighting
990020B	M/V Tokitae Preservation (2015-2017)	7/7/2017	7/7/2017	1,167,000	1,007,672	٧	V
9088	Paint hull and curtain plate, paint number one engine	room, reduc	tion gear room	n, steering gear r	oom and void; al	uminum a	anodes
981010F	M/V Spokane Commercial Drydock (2017-2019)	3/11/2018	3/16/2018	5,596,000	2,986,736	V	٧
9169	Replace steel on hull and auto deck, paint hull, inflate	able buoyant	apparatus				
982010F	M/V Hyak Commercial Drydock (2017-2019)	12/3/2017	12/15/2017	1,655,000	1,817,238	٧	-
9139	Propulsion system, replace steel on auto deck, hull, so	ewage tanks,	paint bilges				
990030C	M/V Samish Commercial Drydock (2017-2019)	5/9/2018	5/30/2018	50,000	1,067,905	٧	-
9174	Propulsion system rudder number one end, paint bilg	es					
983020F	M/V Kittitas Commercial Drydock (2017-2019)	8/20/2017	8/28/2017	5,926,000	3,457,701	٧	V
9104	Potable water tanks, steel replacement on hull and au	ito deck, sprii	nkler systems,	paint hull, curta	ain plate and bilg	ges	
983050F	M/V Chelan Commercial Drydock (2017-2019)	2/11/2018	1/14/2018	3,538,000	1,640,191	V	v
9149	Replace steel on hull, paint hull and bilges						
984030F	M/V Tillicum Commercial Drydock (2017-2019)	6/17/2018	6/29/2018	1,523,000	917,913	٧	V
9249	Replace steel on hull, paint topside, bilges and potabl	le water tanks	;				
992010F	M/V Chetzemoka Commercial Drydock (2017-2019)	3/4/2018	4/2/2018	2,458,000	1,060,430	-	V
9162	Propulsion systems for rudder number one and two endered and two ender	nd, paint bilg	es				
983010F	M/V Issaquah Commercial Dockside (2017-2019)	6/17/2018	6/21/2018	3,753,000	1,542,652	٧	V
9241	Reduction gears number two, steering systems number	r one and two	, sprinkler sy	stem			

 * - Original Budget data are from the last approved legislative budget (18WSFLFC) and Original OC data are from the July 6, 2017 Vessel Maintenance Lay-up Schedule

Glossary

<u>Attainment Report</u> - published by the Department of Transportation (by the Office of Financial Management prior to 2017) in even-numbered years, the attainment report provides a high-level assessment of the state's progress in achieving its transportation goals using key performance measures and data.

<u>Automated Operating Scheduling System (AOSS)</u> - WSF's application used for marine crew dispatch. The system tracks employees who work on vessels and monitors various vessel information such as number of trips, vehicle miles traveled, cancellations, etc.

<u>Federal Transit Administration (FTA)</u> - FTA is a part of the US Department of Transportation and administers the National Transit Database.

<u>Ferry Riders Opinion Group (FROG) Survey</u> - the FROG Survey is performed by the State Transportation Commission and surveys ferry riders. The findings from the survey are reported to the Legislature and to the Governor.

<u>Gray Notebook (GNB)</u> - the Gray Notebook is the Washington State Department of Transportation's primary quarterly performance report for the department's program and project activities.

<u>Improvement</u> - an improvement project increases the capacity of the ferry system to move people and vehicles, provide ferry riders with connections to alternative modes of travel, and generate revenue and cost savings to support capital investments and service delivery.

<u>National Transit Database (NTD)</u> - recipients or beneficiaries of grants from the Federal Transit Administration (FTA) under the Urbanized Area Formula Program (§5307) or Other than Urbanized Area (Rural) Formula Program (§5311) are required by statute to submit data to the NTD which is the national source for information and statistics on the transit systems of the United States. Over 660 transit providers in urbanized areas report to the NTD and NTD performance data are used to apportion over billions of FTA funds to transit agencies.

<u>Operationally Complete</u> - the transportation capital milestone that occurs when the public has free and unobstructed use of the facility. In some cases, the facility will open as minor work items remain to be completed. Once completed and the contract punch list (list of work items) satisfied, the project becomes substantially or physically complete.

Passenger Mile - a passenger mile is one passenger moving over one mile of a ferry route.

<u>Preservation</u> - a preservation project refurbishes or replaces systems that make up a terminal or vessel.

<u>Revenue Service Mile</u> - a revenue service mile is the number of miles a ferry moves while carrying passengers on a particular ferry route. The number of revenue service miles does not account for the number of riders being carried and only measures the distance that the ferry travels when carrying passengers.

Data Sources by Measure

#1 Percent of Terminal Capital Projects Completed On Time

- a. Milestones: 18WSFLFC (Detailed version of Legislative budget)
- b. Actual Milestones: Terminal Engineering Confidence Reports

#2 Percent of Terminal Capital Projects Completed On Budget

- a. Milestones: 18WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)

#3a Percent of Vessel Preservation and Improvement Projects Completed On Time

- a. Milestones: 18WSFLFC (Detailed version of Legislative budget) & Vessel Layup Schedule (June27, 2017) & WSF Green Sheet (June 21, 2017)
- b. Actual Milestones: WSF Vessel Position Reports, Vessel Layup Schedule (June24, 2017) & WSF Green Sheet (July 6, 2017)

#3b Percent of New Vessels Completed On Time

- a. Milestones: Based original vessel delivery date from new vessel contracts.
- b. Actual Milestones: No vessels delivered in FY 2018

#4a Percent of Vessel Preservation and Improvement Projects On Budget

- a. Budget: 18WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)

#4b Percent of New Vessel Projects On Budget

- a. Milestones: Based original vessel delivery date from new vessel contracts.
- b. Actual Milestones: No vessels delivered in FY 2018

#5 Passenger Injuries per Million Passenger Miles

- a. Ridership: FY 2018 Rider Segment Report
- b. Passenger Injuries: WSF Safety Systems Office

#6 Recordable Crew Injuries per 10,000 Service Hours

- a. Actual Service Hours: Automated Operations Support System (AOSS)
- b. Employee Injuries: WSF Safety Systems Office

#7 Passenger Satisfaction with Interactions with Ferry Employees

a. Washington State Transportation Commission (WSTC) 2018 WSF Winter Ferry Performance FROG Survey Report.

#8 Passenger Satisfaction with Cleanliness and Comfort of Vessels and Terminals

a. Washington State Transportation Commission (WSTC) 2018 WSF Winter Ferry Performance FROG Survey Report.

#9 Passenger Satisfaction with Responses to Requests for Assistance

a. Washington State Transportation Commission (WSTC) 2018 WSF Winter Ferry Performance FROG Survey Report.

#10 Operating Cost per Passenger Mile

- a. Planned Operating Expenses: WSF FY 2018 Budget (June 2017)
- b. Actual Operating Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)
- c. Planned Passenger Miles
 - i. FY 2018 Ridership Forecast (June 2017)
 - ii. Route Miles: WSF Operations Department
- d. Actual Passenger Miles:
 - i. FY 2108 Rider Segment Report (Ridership by route from WSF Planning)
 - ii. Route Miles: WSF Operations Department

#11 Operating Cost per Revenue Service Mile

- a. Planned Operating Expenses: WSF FY 2018 Budget (June 2017)
- b. Actual Operating Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)
- c. Planned Revenue Service Miles:
 - i. Scheduled Trips: WSF Planning Office (AOSS Service Scorecard by Terminal Report)
 - ii. Route Miles: WSF Operations Department
- d. Actual Revenue Service Miles:
 - I. Actual Trips: AOSS 'Service Scorecard by Terminal' Report
 - II. Route Miles: WSF Operations Department

#12 Overtime as a Percentage of Straight Time

- a. Planned Straight Time and Overtime Hours: WSF FY 2018 Budget (June 2017)
- b. Actual Straight Time and Overtime Hours: WSDOT Labor Datamart

#13 Gallons of Fuel Consumed per Revenue Service Mile

- a. Planned Fuel Gallons: WSF FY 2018 Budget (June 2017)
- b. Actual Fuel Gallons: WSF Vessel Maintenance Department
- c. Planned Revenue Service Miles:
 - i. Scheduled Trips: WSF Planning (AOSS Service Scorecard by Terminal Report)
 - ii. Route Miles: WSF Operations Department
- d. Actual Revenue Service Miles:
 - i. Actual Trips: AOSS Service Scorecard by Terminal Report
 - ii. Route Miles: WSF Operations Department

#14 Terminal & Vessel Engineering costs as a percent of total project costs

a. Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)

#15 Total Vessel Out-of-Service Time

a. Actual Out-of-Service Dates: WSF Vessel Position Reports, Vessel Layup Schedule (August 31, 2018) & WSF Green Sheet (October 4, 2018)

#16 On Time Performance

a. On time Percent: WSF Operations (On Time Performance Datamart query)

#17 Service Reliability

a. Reliability data: AOSS `Service Scorecard by Terminal' Report