

STATE OF WASHINGTON

FY 2020 WSDOT FERRIES DIVISION PERFORMANCE REPORT

COMPILED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

December 2020

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STATE OF WASHINGTON

OFFICE OF FINANCIAL MANAGEMENT

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Dear Governor Inslee, legislators and interested readers,

I am pleased to comment on the 2020 Performance Report for Washington State Ferries 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 statute (RCW 47.64.355). It explores WSF progress in providing the people of Washington with the best possible value for their transportation system dollars. It focuses on the key performance areas of safety performance, service effectiveness, cost containment and capital program effectiveness.

As the report shows, WSF effectively balanced the significant challenges posed by the COVID-19 pandemic, including decreased ridership, limited availability of ship-repair facilities, and the need to put protections in place for employees and passengers. The data shows that continued investment in our ferry system enhanced performance in many areas. It also indicates where additional analysis and potential investment may be needed.

Where improvements are showing:

- The percentage of completed ferry trips continues to exceed the department's goal.
- All terminal and vessel capital projects were completed on time.
- Preliminary engineering costs for vessels continued to be below agency guidelines.

Where challenges remain:

- On-time performance continues to fall short of the set goal.
- Vessel out-of-service time continues to be high as the fleet ages.

The state is committed to maintain safety on Washington ferries, manage ridership, improve the reliability of our ferry fleet, and maintain rider satisfaction with employees, ferry vessels and terminals.

We look forward to working with you, the public and our transportation partners to maintain our worldclass ferry system.

David Schumacher Director Office of Financial Management

FY 2020 Ferries Performance Measures

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Executive Summary

This is the ninth annual comprehensive report on performance measures of the Washington State Department of Transportation Ferries Division (WSF). The report focuses on performance in Fiscal Year 2020 (FY 2020) from July 1, 2019, to June 30, 2020. 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 includes 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 FY 2020, WSF dealt with the unprecedented effects of the COVID-19 pandemic, resulting in fewer passengers as well as fewer personnel to operate vessels and perform maintenance when Governor Inslee implemented the "Stay Home, Stay Healthy" mandate on March 23, 2020. In March 2020, ridership dropped to levels similar to when the state first took over the ferry system in 1951. Over 100 staff were reassigned teleworking tasks or on leave because they were in high-risk groups.

WSF began a modified winter schedule in March 2020 that lasted through the end of the fiscal year, and regularly reviewed service needs based on four service pillars: ridership, crew availability, vessel availability, and budget. Using these criteria, WSF reduced service by one vessel each, as well as the last sailing of the day, on the Seattle/Bainbridge Island, Seattle/Bremerton, and Fauntleroy/Vashon/Southworth ferry routes which resulted in a total of 14 vessels in service. For comparison, the winter schedule, WSF's lowest service level during the year, is normally 17 vessels. There is no international service to Sidney, B.C. and only one vessel on the Port Townsend/Coupeville route on the winter schedule. During WSF's summer season there are normally 19 vessels in service. This reduction in service affected many factors in this annual report to include ridership, reliability, ontime performance, miles traveled, hours worked, and fuel. Additionally, the Ferry Rider's Opinion Group survey normally completed in March/April was suspended for FY 2020 due to an inadequate sample size to validate the survey process.

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 costs such as materials, fuel, training, and maintenance that facilitate approximately 446 trips each day across 10 ferry routes. The capital program is responsible for preserving 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.

FY 2020 Ferries Performance December 2020 Page 5

In FY 2020, WSF met 8 of 14¹ annual performance goals while transporting nearly 19.4 million passengers, a ridership amount that decreased significantly when travel restrictions and sudden use of teleworking due to the "Stay Home, Stay Healthy" orders were instituted as a result of the pandemic.

Three measures based on the annual FROG survey were not completed because the FY 2020 survey was cancelled due to COVID-19 restrictions.

Key measurement results include:

- 100% of the terminal and vessel capital projects were completed on time.
- Vessel out-of-service time for maintenance met the performance goal of 8 weeks or less at 7.2 weeks. This is the first time in six years that WSF achieved this goal. This does not include the days where all vessel work was put on hold when all maintenance facilities were closed by the "Stay Home, Stay Healthy" mandate.
- Employee injuries per 10,000 revenue service hours at the rate of 6.5 achieved the goal of 7.6 incidents or less.

The report also communicates challenges WSF faces moving forward:

On-time performance increased to 92% after decreasing each year for the past seven years but
was still below the goal of 95%. Since FY 2018, multiple construction projects at and near
Colman dock (Seattle Ferry Terminal) presented challenges in loading and unloading the vessels
in a timely manner, and this affected on-time performance for routes that use this facility. Ontime performance improved as compared to recent years with fewer cars and passengers on
ferry routes since March 2020 due to COVID-19 impacts.

Fuel consumption (Measure 13) decreased due to reduced service when the winter schedule was extended for the balance of FY 2020, and some routes were operating with one fewer vessel as a result of reduced ridership and fewer available resources during the pandemic. Efforts to reduce consumption through changes to operating procedures also continued. 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 issued a standing order 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 2020 terminal and vessel projects, a glossary of terms, and documentation of data sources used to compile the report results.

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FY 2020 Ferries Performance December 2020

¹ There are only 14 measures to report on for FY 2020 because the FROG Survey used for three measures was not accomplished after COVID-19 restrictions prevented the survey from being performed.

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 divided 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 in 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 due to the legislature 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 19-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, Transportation Partnership Account (TPA), and Connecting Washington projects as part of quarterly Gray Notebook publications. In addition, annual articles on vessel and terminal preservation occur in WSDOT's 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 monthly. This report complements the existing Gray Notebook and web-based accountability reporting.

PERFORMANCE TARGETS

The performance targets include:

- Capital Program Effectiveness The capital and maintenance program measures include
 project delivery rate measured in terms of the number of projects completed on time and
 within budget, vessel and terminal design and engineering costs measured in terms of 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. [NOTE: Due to a change by FTA, injuries are reported differently since FY 2019. See discussion on page 22.]
- 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*. These two measures are found at the end of this report.

CAPITAL PROGRAM

WSF oversees the preservation and improvement of existing ferry terminals and vessels, as well as the construction of new vessels and terminals. The division is responsible for preserving 19 terminals, 21 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 are made to minimize service disruptions when a vessel or terminal experiences damage due to a casualty incident or must address an unanticipated regulatory requirement.

OPERATING PROGRAM

WSF is the second largest auto-carrying system in the world and carries the most passengers of any ferry system in the United States. In FY 2020, the ferry system carried nearly 19.4 million riders, consisting of almost 10.4 million passengers and over 9 million vehicles/drivers. This was down from 24.3 million riders in FY 2019, consisting of almost 13.7 million passengers and over 10.5 million vehicles/drivers. There were approximately 424 sailings each day on ten ferry routes across Puget Sound and through the San Juan Islands including an international route to Sidney, British Columbia.

FY 2020 Washington State Ferries

		FY	FY		Goal	
Pe	rformance Measures	2019	2020	Goal	Met?	Comments
CAPITAL	EFFECTIVENESS					
	Percent of terminal projects				ſ	
1	completed on time ¹	100%	100%	90%	\checkmark	3 terminal projects completed on time
2	Percent of terminal projects	1000/	670/	0.00/		4 of 2 to main all maning to accomply dead
2	completed on budget ^{1,3}	100%	67%	90%	-	1 of 3 terminal projects over budget
	Percent of contracts completed on					
	time:				r	
3a	 Existing Vessels² 	78%	100%	75%	\checkmark	4 of 4 contracts completed on time
3b	New Vessels	100%	NA	100%	NA	
	Percent of contracts completed on					
_	budget:	670/	750/	750/	ſ	
4a	• Existing Vessels ^{2,3}	67%	75%	75%	\checkmark	3 of 4 vessel projects on budget
4b	• New Vessels ³	100%	NA	100%	NA	
	Preliminary engineering costs:					
14	As a percent of terminal	19.3%	26.7%	14.7%	_	
14	capital project costs ⁴					
	 As a percent of vessel capital project costs 	14.0%	0.6%	17.0%	\checkmark	
4.5		11.9	7.2	8 weeks or		
15	Average vessel out-of-service time	weeks	weeks	less	√	
SAFETY P	ERFORMANCE					
5	Passenger injuries per million	1.65	1.70	Less than	_	
	passengers		21,70	1.00		
6	OSHA recordable crew injuries per 10,000 revenue service hours	5.69	6.45	Less than 7.60		
COST COM	NTAINMENT			7.00		
COST COT	Annual operating cost estimate					
10	per passenger mile compared to	0.36%	30.91%	Within 5%	_	
	budgeted cost			of budget		
	Annual operating cost estimate			Within 5%	ſ	
11	per revenue service mile compared to budgeted cost	-1.0%	-2.3%	of budget	√	
	Overtime hours as a percentage of					
12	straight time hours compared to	1.2%	0.4%	Within 1%		
	budgeted overtime hours			of budget	•	
	Gallons of fuel consumed per			Within 5%		
13	revenue service mile compared to budgeted fuel consumption	0.1%	-9.4%	of budget	-	
CEDVICE	<u> </u>					
SERVICE E	Passenger satisfaction with WSF		I			
7	Staff customer service	94%	NA	90%	NA	Winter FROG survey cancelled (COVID-19)
	Passenger satisfaction with					
8	cleanliness and comfort of WSF	85%	NA	90%	NA	Winter FROG survey cancelled (COVID-19)
	terminals, facilities and vessels					
9	Passenger satisfaction with service requests made via	88%	NA	90%	NA	Winter FROG survey cancelled (COVID-19)
3	telephone or WSF website	0070	INA	30%	NA	winter rhod survey cancelled (COVID-19)
	On-time performance level					
16	(percent of trips departing within	90.0%	92.0%	95.0%	-	
	10 minutes of scheduled time)					
17	Service reliability level (percent of scheduled trips completed)	99.2%	99.4%	99.0%		
	mpleted preservation and improvement proj		<u> </u>		•	

^{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. 4. Goal for current FY based on Cost Estimating Manual for Projects; varies year to year

WSF met the performance goal of 90% of terminal capital projects delivered on time in FY 2020, with 100% of projects delivered on time (3 of 3 projects on time).

WSF Goal: 90% of terminal capital projects on time

Preservation Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Terminal Preservation Projects Completed		2	1	0	0
Terminal Preservation Projects Completed on Time*		2	0	0	0
% Delivered on time	90%	100%	0%	-	-

Improvement Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Terminal Improvement Projects Completed		2	1	1	3
Terminal Improvement Projects Completed on Time*		1	1	1	3
% Delivered on time	90%	50%	100%	100%	100%

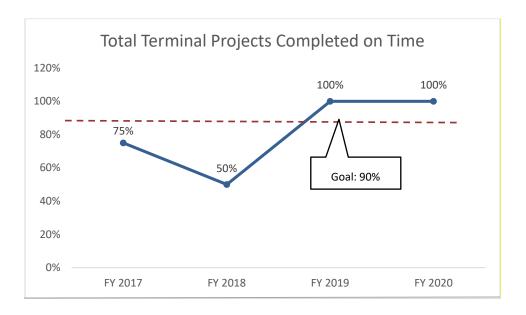
Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Total Terminal Projects Completed		4	2	1	3
Total Terminal Projects Completed on Time*		3	1	1	3
% Delivered on time	90%	75%	50%	100%	100%

^{*-}Delivered in same quarter as listed in last approved legislative budget (20WSFLFC).

Trend Analysis:

In FY 2020, WSF completed 100% of its terminal projects on time (3 of 3 projects). This is consistent with FY 2019 (100%). Terminal projects as a performance goal exceeded the goal in two of the last four years.

Currently WSF's terminal engineering department is dedicating significant resources to two multi-year projects (Colman Dock and Mukilteo terminal replacements) so the number of projects has been relatively low as the multi-year projects are progressing. See discussion on the next page.



In FY 2020, terminal engineering completed the following projects:

- Bremerton and Lopez Island Ferry Terminals Dolphins: Dolphins are the landing aids that help guide a ferry into a slip.
 This project provided the following improvements to the Bremerton Ferry Terminal in Kitsap County and the Lopez Ferry Terminal in San Juan County to allow larger Olympic Class vessels better access to slips:
 - o Installed a fender panel system at Lopez Island
 - Salvaged fenders and piles from Lopez Island
 - Used salvaged materials to install a new dolphin at Bremerton
- Clinton Ferry Terminal Passenger Drop-Off and ADA Improvements: This project provided better passenger access to the Clinton Ferry Terminal on south Whidbey Island (Island County):
 - Constructed a soldier pile wall
 - Created a passenger pick-up/drop-off lane
 - Added a sidewalk along Ferry Dock Road adjacent to the terminal
- Anacortes Ferry Terminal Shared Pedestrian Improvement: This project provided the following improvements to the Anacortes Ferry Terminal (Skagit County):
 - Widened shoulder access along the west side of the SR 20 spur
 - Constructed a gravity block wall
 - Improved sidewalk networks within the ferry terminal
 - Improved illumination
 - Performed paving, striping, and signing
 - Constructed ADA compliant upgrades on parking lots and sidewalks

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

Mukilteo Multimodal Terminal Project:

- <u>July 2019</u>: Began structural steel framing in the Terminal building. Started work on the Maintenance building slab and Toll Plaza foundation. Initiated work on Uplands retaining walls. Installed utilities and performed drainage work.
- October 2019: Put roof on Terminal building. Installed radiant floor heating. Continued installing Uplands retaining
 walls, utilities, and drainage. Began on-site work driving piles and shaft casings for the Vessel Transfer Span (VTS)

- <u>December 2019</u>: Roughed in plumbing, electrical, and inside framing for Terminal building. Completed Vessel Transfer Span (VTS) and Overhead Loading (OHL) shafts. Installed Wingwall and Dolphin piles. Began setup to drive Fishing Pier piles.
- March 2020: Suspended work due to COVID-19.
- May 2020: Resumed work after COVID-19 Suspension. Installed electrical, lighting, HVAC, windows, and toll
 canopy to Terminal, Maintenance, and Toll buildings. Continued installing Uplands retaining walls, utilities,
 drainage, and irrigation. Continued off-site fabrication of steel structures.
- June 2020: Installed drywall, tape, and mud in Terminal building. Continued off-site fabrication of VTS and OHL.

Colman Dock Multimodal Terminal Project:

- August 2019: Opened the permanent King County Passenger-only facility to the public.
- <u>September 2019</u>: Completed the first-third of the new Terminal building and the 24' wide Temporary bridge and stairs to replace the Marion St. Pedestrian bridge connection that was demolished by the Viaduct program. These facilities were opened to the public allowing demolition of the old terminal building.
- October 2019: First Phase 3 production steel pile driven as part of year 3 fish window work.
- <u>February 2020</u>: Closed Phase 3 In-Water work window. Installed 141 out of 152 planned steel piles for new trestle construction.
- March 2020: Work suspended onsite per Governor's Stay Home, Stay Healthy order in response to the COVID-19 pandemic.
- May 2020: Work suspension lifted. Resumed work onsite in accordance with the Governor's Phase 1 Construction Restart COVID-19 Job Site Requirements.

WSF did not meet the performance goal of completing 90% of its terminal capital projects on budget in FY 2020 with only 67% (2 of 3 projects) completed on budget.

WSF Goal: 90% of terminal capital projects on budget

Preservation Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Terminal Preservation Projects Completed		2	1	0	0
Terminal Preservation Projects Completed on Budget*		2	1	0	0
% Delivered on budget	90%	100%	100%	NA	NA

Improvement Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Terminal Improvement Projects Completed		2	1	1	3
Terminal Improvement Projects Completed on Budget*		2	1	1	2
% Delivered on budget	90%	100%	100%	100%	67%

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Total Terminal Projects Completed		4	2	1	3
Total Terminal Projects Completed on Budget*		4	2	1	2
% Delivered on budget	90%	100%	100%	100%	67%

^{*} Completed spending no more than 5% of the project budget listed in last approved legislative budget. (20WSFLFC).

Trend Analysis:

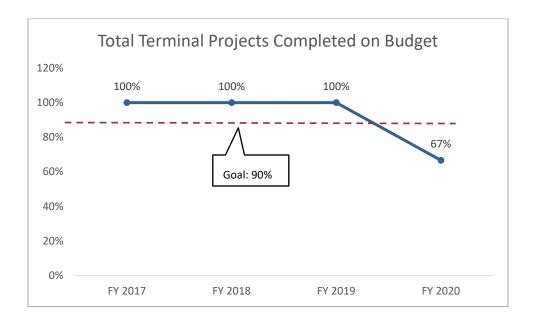
There were three projects completed in FY 2020:

Bremerton and Lopez Island Ferry Terminals Dolphins: WSF delivered this project under budget within 87% (\$1,083,603) of the authorized budget (\$1,249,000).

Clinton Ferry Terminal Passenger Drop-Off and ADA Improvements: The cost of this completed project was \$3,231,359. WSF delivered this project at 7% over the authorized budget (\$3,029,000).

Anacortes Ferry Terminal Shared Pedestrian and ADA Improvement: WSF delivered this project under budget within 96% (\$1,691,737) of the authorized budget (\$1,764,000). This represents two projects authorized by 20WSFLFC where preliminary engineering was done separately, but construction was done concurrently saving a net of \$72,000 through economy of scale.

This is the first year since FY 2017 that terminal projects did not achieve the on-budget goal of 90%, with only 67% (2 of 3) of projects in FY 2020 completed on budget.



Projects completed in FY 2020 were delivered with total expenditures being 72 percent or \$7,638,489 of the total authorized budget of \$10,595,000 for these projects.

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

WSF exceeded the performance goal of 75%, delivering 100% of capital projects for vessels on time in FY 2020 (4 of 4 projects).

WSF Goal: 75% of vessel capital projects on time

Preservation Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Vessel Preservation Projects Completed		7	11	4	4
Vessel Preservation Projects Completed on Time*		7	9	3	4
% Delivered on time	75%	100%	82%	75%	100%

Improvement Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Vessel Improvement Projects Completed		9	0	5	0
Vessel Improvement Projects Completed on Time*		6	0	4	0
% Delivered on time	75%	67%	NA	80%	NA

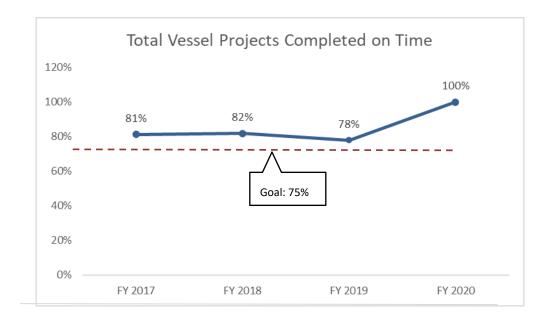
Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Total Vessel Projects Completed		16	11	9	4
Total Vessel Projects Completed on Time*		13	9	7	4
% Delivered on time	75%	81%	82%	78%	100%

^{*} Projects delivered in same quarter as listed in the Vessel Engineering Layup Schedule Plan dated July 2, 2019

Trend Analysis:

For the last four years, WSF met the on-time delivery goal of 75% for vessel capital projects.

In FY 2019, four of four projects were operationally completed and delivered on time (100%).



The following preservation projects were on time:

- *M/V Elwha* preservation complete on September 28,2019
- M/V Kittitas preservation complete on November 15, 2019
- M/V Cathlamet deferred FY 19 work and Emergent Steel Work complete on December 2, 2019
- M/V Chelan drydocking complete on February 18, 2020

There were no improvement projects in FY 2020.

#3B

FY 2020 Results:

There were no new vessels delivered in FY 2020.

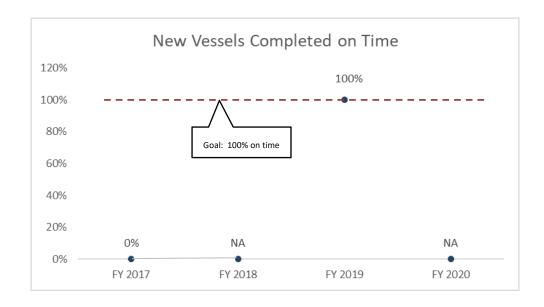
WSF Goal: 100% of new vessels completed on time

Data for FY 2017- FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
New Vessel Projects Completed		1	0	1	0
New Vessel Projects Completed on Time*		0	0	1	0
% Delivered on time	100%	0%	-	100%	-

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

Trend Analysis:

The newest Olympic Class vessel, *M/V Suquamish* was delivered on time in FY 2019. The first three Olympic Class vessels were delivered late (FY 2014, FY 2015, and FY 2017). No new vessels are expected until FY 2024.



WSF met the performance goal of 75% of combined vessel preservation and improvement projects completed on budget with 75% (3 of 4 projects) completed on budget.

WSF Goal: 75% of vessel capital projects on budget

Preservation Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Vessel Preservation Projects Completed		7	11	4	4
Vessel Preservation Projects Completed on Budget*		7	8	4	3
% Delivered on Budget	75%	100%	73%	100%	75%

Improvement Project Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Vessel Improvement Projects Completed		9	0	5	0
Vessel Improvement Projects Completed on Budget*		7	0	2	0
% Delivered on Budget	75%	78%	NA	40%	NA

Data for FY 2017 - FY 2020					
	Goal	FY 2016	FY 2017	FY 2019	FY 2020
Total Vessel Projects Completed		16	11	9	4
Total Vessel Projects Completed on Budget*		14	8	6	3
% Delivered on Budget	75%	88%	73%	67%	75%

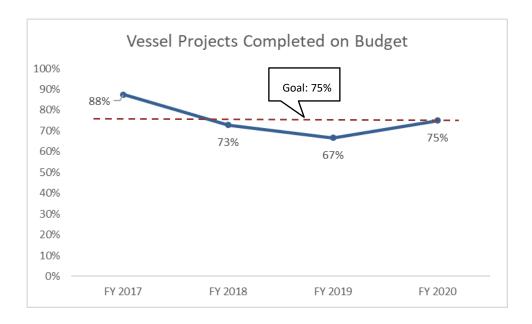
^{*} Completed spending no more than 5% more than the project PIN budget listed in last approved legislative budget (20WSFLFC).

Trend Analysis:

Vessel preservation projects met the goal of 75% on budget in two of the last four years, with three of four projects on budget (75%) in FY 2020.

Of the past four years, there were no improvement projects in FY 2018 and FY 2020, and only in FY 2017 did WSF meet the goal with 78% on budget.

At 75%, with three of four projects completed on budget, WSF met the combined goal of 75% for preservation and improvement projects and has met the goal twice in the past four years.



In FY 2020, WSF completed four vessel projects with a combined budget of \$7.8 million; the actual expenditures on those projects was \$7.6 million, or 3.0% under the total combined budget. One project was over budget, with three delivered at or below budget.

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

There were no new vessels completed in FY 2020.

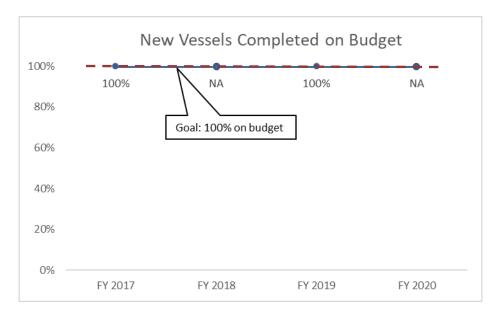
WSF Goal: 100% of new vessels on budget

troi Couil 200/001 liett ressels on Budget					
Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
New Vessel Projects Completed		1	0	1	0
New Vessel Projects Completed on Budget*		1	0	1	0
% Delivered on Budget	100%	100%	NA	100%	NA

^{*} Completed spending no more than 5% more than the project PIN budget listed in last approved legislative budget (20WSFLFC).

Trend Analysis:

All Olympic Class vessels were delivered on budget in FY 2014, FY 2015, FY 2017, and FY 2019. The next new vessel is due in FY 2024.



WSF missed the performance goal of having less than one passenger injury per million passengers. WSF documented 33 passenger injuries during FY 2020, and carried nearly 19.4 million passengers during this time, resulting in 1.70 passenger injuries per million passengers. In FY 2019, there was a change in the methodology of what injuries are reported (see discussion below).

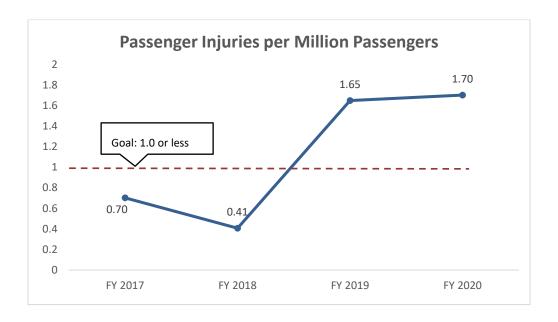
WSF Goal: Injury rate at or below one injury per million passengers

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Million Passengers		24.2	24.6	24.3	19.4
NTD Passenger Injuries		17	10	40	33
Injuries per Million Passenger	1.00	0.70	0.41	1.65	1.70

Trend Analysis:

The passenger injury rate of 1.70 injuries per million passengers in FY 2020 increased as compared to the rate of 1.65 in FY 2019. While the raw number of injuries dropped from 40 in FY 2019 to 33 in FY 2020, the rate per million passengers went up due to the drop in passengers for FY 2020. This injury rate increase was due to the precipitous drop in passengers between March and June when the COVID-19 pandemic resulted in stay at home orders that affected travel on all routes.

Previously passenger injuries were only reported when the passenger was transported to a medical facility via an aid car. As of July 1, 2018, all passengers transported to a medical facility regardless of the method of transport are counted as a passenger injury. 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.

The Risk and Safety Office led WSF's efforts to protect passengers during this unprecedented pandemic – COVID-19. The team collaborated with multiple divisions to focus on mitigation strategies. Adjustment of operations prioritized customer safety and encouraged personal preparedness by providing personal protective equipment (PPE), increased messaging and signage and used a vigorous sanitation and cleanliness protocol.

To promote less contact between drivers and ticket booth personnel, within 24 hours after coming up with the idea, our Information Technology team assembled, tested and installed new credit card readers on the outside of ticket booth windows and on selfie sticks for our tollbooth operators. This allowed customers to self-swipe their cards.

NOTE:

In FY 2019, the NTD changed how it counted passenger injuries. In the past, only an injury where the passenger was transported by an aid car to a medical facility was counted as a passenger injury. As of FY 2019, any injury that resulted in the passenger seeking medical treatment was counted, regardless of the method of transport to the medical facility. WSF may revisit the goal for this measure based on the change in methodology for reported injuries.

WSF met the performance goal in FY 2020 with 6.5 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.

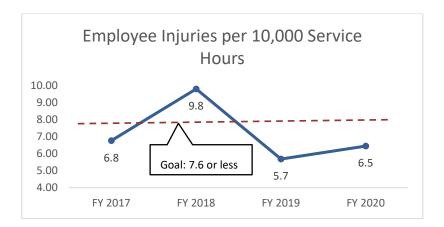
WSF Goal: At or below 7.6 incidents per 10,000 Service Hours

Goal	FY 2017	FY 2018	FY 2019	FY 2020
	86	124	72	78
	12.7	12.6	12.7	12.1
7.6	6.8	9.8	5.7	6.5
		86 12.7	86 124 12.7 12.6	86 124 72 12.7 12.6 12.7

Change from Prior Year	-9%	45%	-42%	14%
Goal (Incidents per 10,000 Total Service Hours) ¹	7.6	7.6	7.6	7.6

Trend Analysis:

The FY 2020 injury rate of 6.5 injuries per 10,000 service hours was 14% higher than FY 2019. In FY 2020, there were 78 total incidents with the most common reported injury of sprains/strains with 21 incidents, followed by pain and soreness with 18 incidents, and then by hearing loss with 14 incidents.



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 vacancies. 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 U. S. Coast Guard requirements. This training is an important part of keeping injuries low in the challenging marine transportation environment in which WSF employees work.

The Risk and Safety Office led WSF's efforts to protect employees during this unprecedented corona virus pandemic—COVID-19. The team collaborated and developed multiple phased plans for maintaining continuity of operations along with restarting work in areas that were paused or stopped due to the pandemic. Additional actions took place by outlining key business functions, reducing the spread of disease to protect people at higher risk of complications, constantly assessing workplace exposure risks, developing workplace policies, applying infection control measures and cross-training employees to carry out essential workplace functions.

The Risk and Safety Office also made significant improvements in our hearing conservation and respiratory protection program. Comprehensive hearing studies took place for deck, engine, warehouse, and Eagle Harbor locations.

Due to COVID-19, the Ferry Riders Opinion Group (FROG) Survey was not completed in FY 2020. This survey is typically completed in the Winter of a given year; however, with the discovery of the first cases of COVID-19 in the Seattle area in February 2020 the survey did not occur.

WSF Goal: 90% or more satisfied or neutral

FY 2017 - FY 2020 WSTC Survey Results		Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
·	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Tollbooth Staff is Friendly		96%	97%	95%	NA
Vehicle Loading Crew is Friendly		93%	93%	93%	NA
Unloading Crew is Friendly		96%	98%	98%	NA
WSF Vessel Crew is Friendly		97%	96%	96%	NA
WSF Vessel Crew is Helpful		96%	96%	96%	NA
Terminal Staff is Helpful		92%	93%	91%	NA
Assistance from Vessel Staff		96%	89%	86%	NA
Passenger Satisfaction of Interactions with Ferry Employees	90%	95% ³	95%²	94% ¹	NA

^{1 -} Results from April/May 2017 WSTC Winter Performance Survey.

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

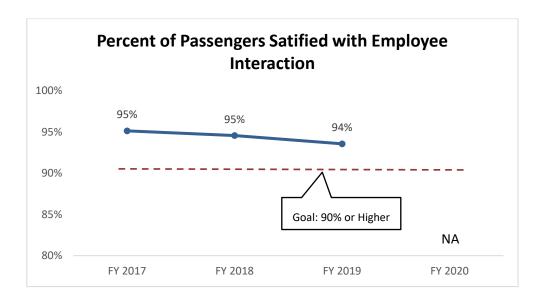
The Washington State Transportation Commission (WSTC) provides an open public forum for transportation policy development. WSF partners with the WSTC to perform jointly funded surveys related to WSF passenger satisfaction.

Trend Analysis:

Although there is no data for the current year, passenger satisfaction with interactions with WSF employees has met the performance goal of 90% every previous year. Between FY 2017 and FY 2019, the overall satisfaction rate varied by 1 percentage point, ranging from 95% to 94%. The rating for a friendly vessel crew remained constant at 96% in each of the three prior years. and the rating for friendly unloading crew improved by two percentage points to 98% as compared to FY 2016. The only criteria that did not exceed 90% each year was assistance from vessel staff at 89% in FY 2018 and 86% in FY 2019.

^{2 -} Results from April/May 2017 WSTC Winter Performance Survey.

^{3 -} Results from April/May 2017 WSTC Winter Performance Survey.



WSDOT tracks customer complaints and sorts them into over 40 categories. The results are reported quarterly in WSDOT's Gray Notebook. In FY 2020, there were 2,075 complaints, which is 10.7 complaints per million riders. The category with the most complaints was employee behavior with 462 complaints, 22.3% of all complaints for FY 2020, and the second highest category was vessel/terminal operations with 428 (20.6%).

In FY 2020, there were 91 commendations, which is 0.5 commendations per million riders.

Customer complaints that involve employee interactions are tracked and reviewed, with feedback given to employees, including disciplinary action for inappropriate or unprofessional behavior.

Due to COVID-19, the Ferry Riders Opinion Group (FROG) Survey was not completed in FY 2020. This survey is typically completed in the Winter of a given year; however, with the discovery of the first cases of COVID-19 in the Seattle area in February 2020 the survey did not occur.

WSF Goal: 90% or more satisfied or neutral

FY 2017 - FY 2020 WSTC Survey Results			Satisfied or Neutral	Satisfied or Neutral	Satisfied or Neutral
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Terminal Cleanliness		92%	91%	86%	NA
Terminals are Comfortable		83%	77%	67%	NA
Terminal Bathrooms are Clean & Well Maintained		80%	79%	74%	NA
Ferry Passenger Seating areas Clean and Comfortable		96%	95%	97%	NA
Vessel Bathrooms are Clean & Well Maintained		93%	92%	92%	NA
Vessels are Well Maintained		95%	95%	92%	NA
Passenger Satisfaction of Cleanliness and Comfort	90%	90% ³	88% ²	85% ¹	NA

^{1 -} Results from 2019 WSTC Winter Performance Survey.

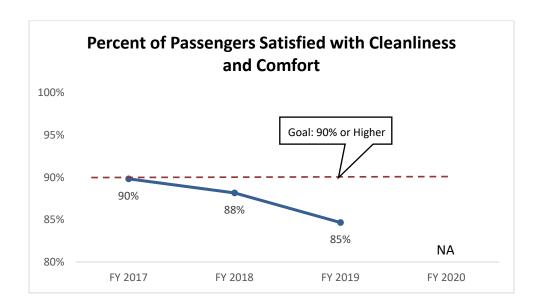
Note: "Satisfaction" is measured using the number of "very satisfied," "satisfied," or "neutral" responses to survey questions.

Trend Analysis:

Overall satisfaction with cleanliness and comfort has declined over the past three years, from 90% to 85%. Performance of three of the six questions over the past three years that met the 90% goal has varied up to 3%, and all three were related to vessels. The three questions that varied outside this range are all related to terminals, and are terminal cleanliness (6%), comfort of terminals (16%), and terminal bathrooms are clean and well maintained (6%). The drop in comfort of terminals between FY 2017 and FY 2019 was mainly due to construction at Colman Dock, as riders on the routes that use this terminal rated their dissatisfaction with comfort at 50%.

^{2 -} Results from 2018 WSTC Winter Performance Survey.

^{3 -} Results from April/May 2017 WSTC Winter Performance Survey.



Comfort of terminals and cleanliness of bathrooms had the lowest satisfaction ratings of the survey from FY 2019. WSF's Colman Dock terminal in Seattle had the highest dissatisfaction rate for cleanliness of bathrooms at 39% from Seattle/Bainbridge Island riders and 48% from Seattle/Bremerton riders. Colman Dock faces unique challenges due to heavy passenger traffic, close proximity to a large population center, and being under construction while it is in the process of being replaced. WSF employs custodians to keep terminals and bathrooms clean at Colman terminal.

Due to COVID-19, the Ferry Riders Opinion Group (FROG) Survey was not completed in FY 2020. This survey is typically completed in the Winter of a given year; however, with the discovery of the first cases of COVID-19 in the Seattle area in February 2020 the survey did not occur.

WSF Goal: 90% or more satisfied or neutral

			Satisfied	Satisfied	Satisfied
			or	or	or
FY 2017 - FY 2020 WSTC Survey Results		Neutral	Neutral	Neutral	Neutral
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Satisfied with experience using the WSF website		95%	94%	93%	NA
Satisfied with your experience calling WSF on the Phone		86%	85%	83%	NA
Passenger Satisfaction of Responses to Requests for Assistance	90%	91% ³	90% ²	88% ¹	NA

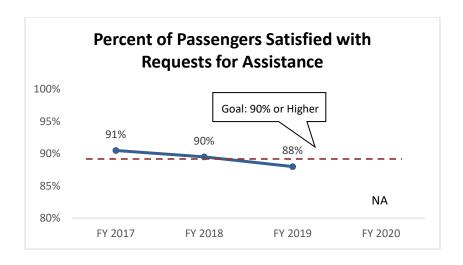
- 1 Results from 2019 WSTC Winter Performance Survey.
- 2 Results from 2018 WSTC Winter Performance Survey.
- 3 Results from April/May 2017 WSTC Winter Performance Survey.

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

Trend Analysis:

Passenger satisfaction with responses to requests for assistance ranged from a high of 91% in FY 2017 to 88% in FY 2019 and marks the first time in four years that WSF did not meet the goal.

Satisfaction with WSF's website remains high (93%) while satisfaction with phone calls decreased each of the past four years, with a 2-percentage point drop to 83% from FY 2018 to FY 2019.

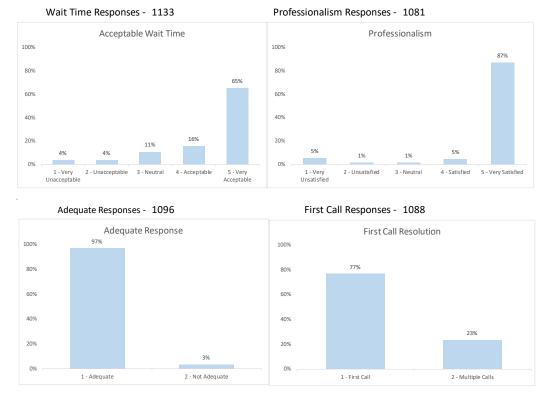


In lieu of the FROG survey, supplemental information is being provided for this measure based on internal customer feedback from customers' use of WSF's phone system for customer service. This includes calls asking for general information, ferry schedules, payment, and assistance with WSF's on-line reservation system that is in place for San Juan Island ferry routes and the Port Townsend-Coupeville route.

In FY 2020, WSF received over 150,000 phone calls, with nearly 110,000 requiring operator assistance. Calls were significantly less than in FY 2019 when there were over 215,000 calls, and over 150,000 requiring operator assistance. This is most likely due to increased use of the internet for information and the overall reduction in demand for services due to the pandemic.

In FY 2019, WSF initiated an automated phone survey following each call where the customer can rate their satisfaction with WSF customer service. In FY 2020, there were 1,226 (1.8%) responses¹ out of 69,052² calls with the following results:

- 92% considered their wait time to be very acceptable, acceptable, or neutral
- 93% were either very satisfied, satisfied, or neutral regarding the customer service agent's professionalism
- 97% considered the response or transaction with our staff to be adequate
- 77% had their issue resolved on their first call



- 1. Of the 1226 responses, some callers did not answer all four questions.
- 2. The survey was not offered to all 110,000 customers who required operator assistance.

With over 37.9 million website views, WSF's views were up by nearly 1.5 million from FY 2019 and comprise almost 26% of WSDOT's total web views. Schedule information, reservations, and vessel watch were the most frequently viewed pages on the WSF website. See https://wsdot.wa.gov/ferries to access this information.

Twitter has become a popular method of customer communication, with nearly 3,500 new followers in FY 2020. WSF's tweets appeared on people's feed over 20 million times, up from FY 2019 by over one million. There were over 226,000 times where a user interacted with a WSF tweet.

WSF missed the performance goal of operating costs per passenger mile being within 5% of plan, with cost per passenger mile being 31.21% more than planned.

WSF Goal: Cost per Passenger Mile within 5% of the budgeted plan

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Planned WSF Operating Expenses		\$ 243.22 M	\$ 255.89 M	\$ 269.20 M	\$ 276.88 M
Planned Passenger Miles		190.65 M	192.99 M	195.44 M	196.07 M
Cost Per Passenger Mile		\$1.28	\$1.33	\$1.38	\$1.41

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Actual WSF Operating Expenses		\$ 241.24 M	\$ 258.64 M	\$ 264.00 M	\$ 270.56 M
Actual Passenger Miles		192.46 M	193.09 M	190.97 M	146.36 M
Cost Per Passenger Mile		\$1.25	\$1.34	\$1.38	\$1.85
Variance from Plan	5% or less	-1.75%	1.02%	0.36%	31.21%

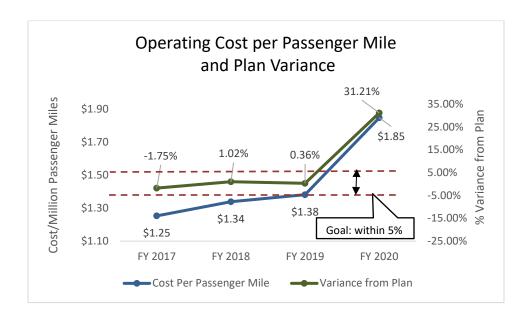
Trend Analysis:

The cost per passenger mile was notably higher in FY 2020 at \$1.85 per passenger mile versus \$1.25 per passenger mile in FY 2017, a 48% increase. Planned passenger miles for FY 2020 were based on a ridership forecast from June 2019. When the COVID-19 pandemic resulted in major shutdowns across the public and private sectors, ridership fell dramatically. This lower ridership translated to many fewer actual passenger miles, 23% less than in FY 2019. Passenger miles are the sum of each passenger's miles traveled per trip. For example, 20 passengers on one vessel traveling 10 miles between terminals equals 200 passenger miles.

The ferry system is a marine highway, part of the state highway system, so service could not be cut to match the decline in ridership caused by COVID-19 restrictions. Ferries provide a transportation lifeline to people living on islands without a land option to travel to the mainland and need to run at regularly scheduled intervals throughout the day. From March through June 2020, WSF stayed on a modified winter schedule with some late-night service cancellations, meaning fewer sailings than the normal spring schedule in place at that time of the year.

For FY 2020 operating expenses were 2.3% less than planned, and passenger miles were 25.4% less than planned. However, the combination of these factors led to cost per passenger mile being 31.21% greater than planned.

In FY 2018 and FY 2019, this trend is partially due to the addition of four new vessels that replaced smaller vessels with the subsequent increased labor and fuel costs.



Changes in ridership affect the cost per passenger miles as fewer riders means less passenger miles traveled. For operating costs, a fuel hedging program is helping minimize the potential effects of market fluctuations on fuel prices.

WSF met its performance goal of operating cost per revenue service mile by being within 5% or less of plan, with cost per revenue service mile at 2.3% below plan. In FY 2020, the operating cost and both the planned and actual revenue service miles were lower than originally projected due to service reductions from impacts of COVID-19.

WSF Goal: Cost per Revenue Service Mile within 5% of the budgeted service plan

Data for FY 2017- FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Planned WSF Operating Expenses		\$ 243.22 M	\$ 255.89 M	\$ 269.20 M	\$ 276.88 M
Planned Revenue Service Miles		910,270	912,193	911,371	853,456
Planned Operating Cost per Revenue Service Mile		\$267.20	\$280.52	\$295.38	\$324.42

Data for FY 2017- FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Actual WSF Operating Expenses		\$ 241.24 M	\$ 258.64 M	\$ 264.00 M	\$ 270.56 M
Actual Revenue Service Miles		905,802	900,329	903,012	853,612
Actual Operating Cost per Revenue Service Mile		\$266.33	\$287.27	\$292.36	\$316.96

-0.3%

2.4%

-1.0%

-2.3%

Within 5%

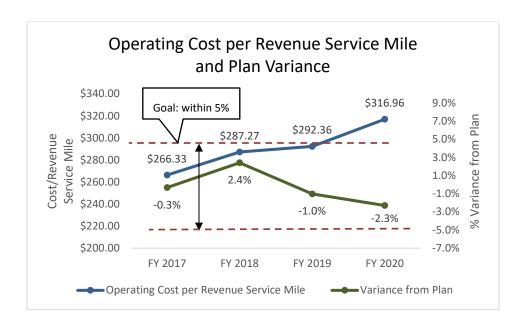
Trend Analysis:

Variance from Plan

Cost per revenue service mile over the past four years has risen from \$266 to \$317 per revenue service mile. Between FY 2017 and FY 2019, this trend was partially due to the addition of four new vessels that replaced smaller vessels and subsequently increased labor and fuel costs. In FY 2020 the cost per revenue service mile (\$317) increased due mostly to a drop in revenue service miles. This was due to planned service reductions under a modified (reduced) winter schedule that was in place from March-June.

Lower than planned revenue miles reflect the extended winter schedule due to impacts from COVID-19. WSF's Automated Operations Scheduling Software (AOSS) tracks multiple operations criteria used the winter schedule to record trips scheduled and performed, resulting in the projected and actual revenue service miles being significantly lower than for previous years.

With fewer vessels sailing, resultant lower labor and fuel costs contributed to the actual operating expense being less than planned.



With a high service reliability achievement (99.4% of scheduled 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.

WSF met the performance goal with overtime as a percentage of straight time being within 1% of plan for FY 2020. Planned overtime as a percentage of straight time was 6.25% with an actual of 6.65%, the variance is 0.4% higher than planned which meets the goal of being within 1% of plan.

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

Data for FY 2016- FY 2019					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Planned Overtime Hours		164,481	165,059	159,997	158,670
Planned Straight Time Hours		2,532,754	2,496,750	2,538,124	2,538,740
Planned Overtime as a percent of Straight Time		6.5%	6.6%	6.3%	6.2%

Data for FY 2016- FY 2019					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Actual Overtime Hours		183,996	183,334	187,431	166,786
Actual Straight Time Hours		2,516,280	2,488,209	2,512,612	2,507,628
Actual Overtime as a percent of Straight Time		7.3%	7.4%	7.5%	6.7%

I valiance nomi rian	1% or less	0.8%	0.8%	1.2%	0.4%
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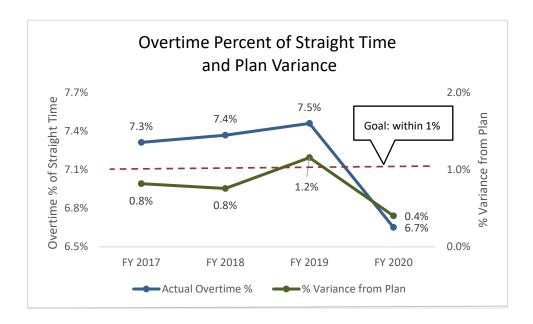
WSF Note: Overtime hours include TA10 (overtime) and TA19 (holiday worked) hours

Trend Analysis:

In FY 2020, due to the reduced sailing schedule because of COVID-19, the number of actual overtime hours is the lowest it has been in four years.

From FY 2017 to FY 2019, the increased use of overtime was 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 U. S. 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 expected increase in the rate of employees eligible for retirement is an emerging challenge in this area. 12.4% of employees are eligible to retire, and within the next five years, 26.3% are eligible to retire. It can take up to 10 years for an entry level Ordinary Seaman to earn a Master's license, so a multi-year lead time is needed to facilitate knowledge transfer needed to fill some positions.



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, which can lower the rate of overtime.

WSF did not meet the performance goal with fuel consumption per revenue service mile (20.0 gallons per mile) being within 5% of plan or less (-9.4%) for FY 2020. Performance was affected by impacts of COVID-19 on the level of ferry service.

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

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Planned Fuel Consumed (gallons)		18,233,702	18,885,742	18,929,582	18,882,350
Planned Revenue Service Miles		910,270	912,913	911,371	853,456
Planned Fuel Consumed per Revenue Service Mile (ga	allons)	20.0	20.7	20.8	22.1

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Actual Fuel Consumed (gallons)		18,754,812	18,863,387	18,766,723	17,102,927
Actual Revenue Service Miles		905,802	900,329	903,012	853,612
Actual Fuel Consumed per Revenue Service Mile (gal	lons)	20.7	21.0	20.8	20.0
Variance from Plan	Within 5%	3.4%	1.3%	0.1%	-9.4%

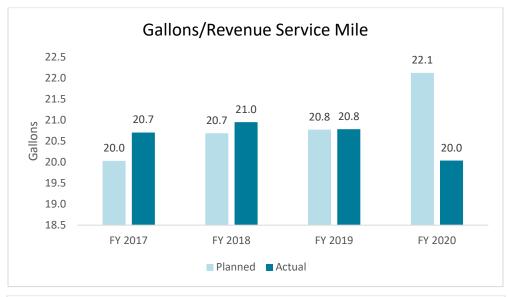
Trend Analysis:

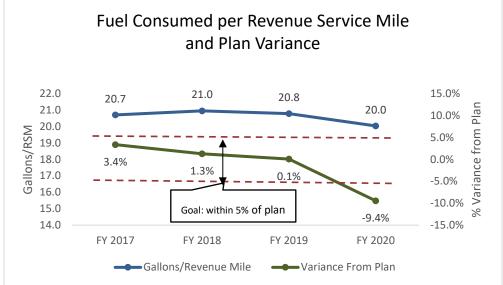
Fuel consumption has ranged from 18.75 million gallons in FY 2017 to 17.10 million gallons in FY 2020. Actual fuel consumed in FY 2020 was 1,779,423 gallons less than planned. The significant decrease in FY 2020 was due to fewer sailings as WSF reduced service beginning in March 2020 due to COVID-19 impact on the number of passengers and impacts to crew resources as many crew were not able to work due to being in high risk groups. Overall, there were over 6,500 fewer trips scheduled in FY 2020 than the prior year.

The actual gallons per revenue service mile has remained consistent, ranging between 21 gallons in FY 2018 and 20 gallons in FY 2020.

The extension of the winter schedule from March 2020 through the end of the fiscal year meant there was only one boat on the Port Townsend route and no international service to Sidney, BC. Starting the end of March, the Seattle/Bainbridge Island, Seattle/Bremerton, and Fauntleroy/Vashon/Southworth routes were reduced by one boat each. The vessels normally assigned to these routes are some of the larger boats that consume the most fuel.

Over the four year timeframe, reduced fuel use has been 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.





WSF continues to make fuel conservation efforts through vessel modifications and changes in operating procedures. When regularly assigned vessels are taken out of service for maintenance, fuel consumption can remain relatively stable if the planned mix of ferries serving the routes continue. In FY 2020, five vessels were taken out of service due to reduced ridership demand and insufficient staff to operate the vessels related to the effects of COVID-19.

NOTE: BIODIESEL USE

At the start of FY 2020, WSF transitioned to using 10-percent biodiesel (B-10) as the standard fleetwide fuel. WSF had previously been using 5-percent biodiesel (B-5) fleetwide. Prior to FY 2020 WSF completed a pilot test of B-10 on one of WSF's largest vessels, the M/V Tacoma. The pilot test was successful as there were no deleterious effects from using a higher blend of biodiesel. From July to December of 2019 the composition of B-10 in WSF's total fuel purchases increased from 22% to over 99% and almost all fuel used is B-10.

For terminal engineering, WSF's performance goal is to have preliminary engineering (PE) costs for FY 2020 to be no more than 14.7% of total project costs. In FY 2020, WSF did not meet the goal with PE costs being 26.7% of total project costs.

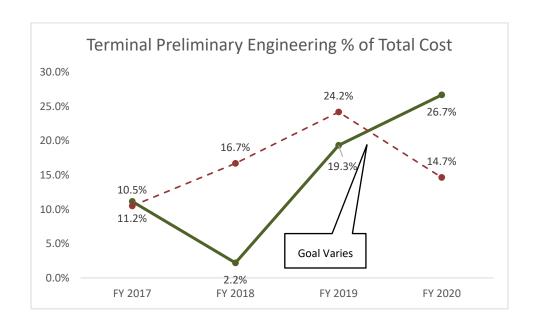
WSF Goal: Preliminary Engineering percent below guidelines - Terminals

Terminals Data for FY 2017 - FY 2020				
Terminal Engineering	FY 2017	FY 2018	FY 2019	FY 2020
Preliminary Engineering Costs	\$ 1,911,648	\$ 8,074	\$ 92,185	\$ 1,603,800
Total Project Costs	\$ 17,132,504	\$ 367,452	\$ 476,563	\$ 6,006,698
PE% of Total Project Costs	11.2%	2.2%	19.3%	26.7%

Goal (Weighted average by project type per				
WSDOT Estimating Manual)	10.5%	16.7%	24.2%	14.7%

Trend Analysis - Terminals:

Terminal PE costs as a percentage of total project costs met the goal two of the last four years. The 26.7% in FY 2020 was significantly higher than the 19.3% in FY 2019. The goal varies each year based on WSDOT Estimating Manual guidelines; the guidelines establish expected PE costs depending on the complexity of each project. The terminal projects tracked for this measure in FY 2020 are the same projects reported on in the on-time and on-budget measures (#1 and #2). One project combined construction work for economy of scale but had individual PE costs that pushed the actual PE ratio higher.



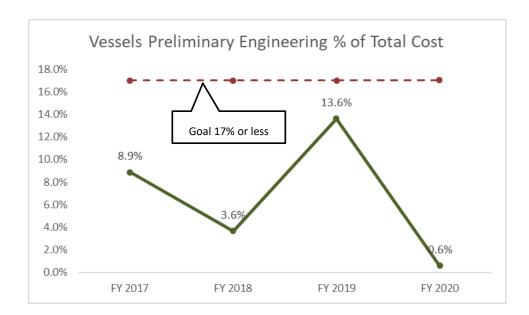
For vessels, WSF's performance goal is to have PE costs be no more than 17% of total project costs. In FY 2020, WSF met the goal with PE costs at 0.6% of total project costs.

WSF Goal: Preliminary Engineering percent below guidelines - Vessels

Vessels Data for FY 2017 - FY 2020				
Vessel Engineering - Existing Vessels	FY 2017	FY 2018	FY 2019	FY 2020
Preliminary Engineering Costs	\$ 1,409,993	\$ 1,253,741	\$ 1,458,485	\$ 44,296
Total Project Costs	\$15,906,109	\$34,352,317	\$10,731,032	\$ 7,558,595
PE% of Total Project Costs	8.9%	3.6%	13.6%	0.6%
Goal	17.0%	17.0%	17.0%	17.0%

Trend Analysis - Vessels:

Vessel Preliminary Engineering costs on projects in FY 2020 have continued the trend of spending below the goal since FY 2015. The 0.6% PE costs in FY 2020 was a decrease from the 13.6% in FY 2019. Vessel projects tracked for this measure in FY 2020 are the same 4 projects reported in the on-time and on-budget measures (#3a and #4a). Typically, the larger the total project costs are in a year the lower the PE percentage will be for vessel work.



In FY 2020, WSF met the goal of having vessels out-of-service for less than 8.0 weeks per vessel, with vessels averaging 7.2 weeks of out-of-service time per vessel.

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

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Jumbo Mark II (3 vessels)		125	138	156	212
Jumbo (2 vessels)		248	232	57	39
Evergreen State (1.5 ¹ vessels in FY17; 1 in FY18, FY19, and FY20)		31	54	21	3
Issaquah (6 vessels)		391	402	688	385
Super (4 vessels in FY17 , FY18, and FY19; 2.25 ² in FY20)		329	308	430	144
Kwa-di Tabil (3 vessels)		175	193	220	119
Olympic (2 vessels in FY17; 3 in FY18; 3.75 in FY19; 4 ³ in FY20)		100	179	325	162
Total Days Out of Service		1,399	1,506	1,897	1,064
Total Number of Maintained Vessels		21.5	22	22.75	21.25
Weeks Out of Service per Maintained Vessel	8.0	9.3	9.8	11.9	7.2

^{1. 1.5} vessels means one of the vessels was in service for only half the year

Trend Analysis:

There was a decrease in average vessel out-of-service time from FY 2017 at 9.3 weeks per year to FY 2020 at 7.2 weeks per year, in part due to a renewed focus on regularly scheduled maintenance versus breakdown maintenance. FY 2020 was the first time in six years that the performance goal was met. Given the average age of the fleet, annual maintenance exceeding eight weeks per vessel may continue.

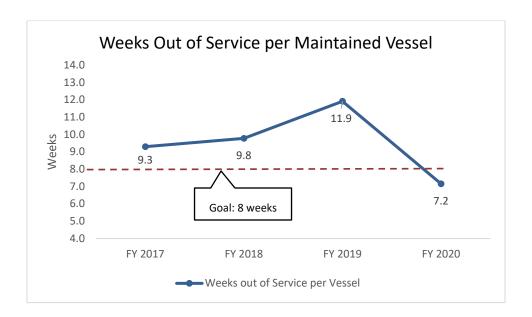
In March 2020, when the Governor's mandate to "Stay Home, Stay Safe" was initiated, work on five vessels already undergoing maintenance was put on hold for a total of 246 service days. These days were not included in the calculations for the table above and the chart on the next page because this work stoppage was out of the control of WSF. If these days on hold were counted as part of the vessel out of service time, the average weeks out of service would be 8.8 weeks, still better than the performance of the past three years.

The *M/V Elwha* represents the 25% of the year in service as noted under the Super class; the remaining three quarters of the year were not included in the out of service time as it was tied up and taken out of service awaiting full decommissioning.

For the Olympic class, the increase from two vessels to four represent the *M/V Chimacum* which began service in FY 2018 and the *M/V Suquamish* which entered service after the first quarter of FY 2019.

^{2. 2.25} vessels reflects decommisioning one vessel at year end FY 2019 and of MV Elwa's decommisioning after the first quarter of FY 2020

^{3.} The increased number of vessels is due to two new vessels placed in service, one in FY 2017 and one in the first quarter of FY 2019



When the "Stay home, stay healthy "initiative allowed organizations to resume maintenance operations, most had been idle for 8 weeks. Upon employee return to the maintenance facilities, with COVID-19 Safety Protocols in place to enforce social distancing, progress resumed on a slow basis for all projects between May and the end of FY 2020.

The USCG was also impacted by the COVID-19 related shutdown, and was unable to conduct in person inspections. WSF initiated a Streamlined/Self Inspection Program (SIP) that was approved by the USCG but resulted in a longer period for annual inspections.

- During routine maintenance in August of FY 2020, a very large amount of deteriorated steel was found on the passenger deck of the *M/V Elwha*. Due to the high cost of steel replacement as compared to the remaining expected service life of the vessel, WSF elected to decommission the vessel rather than repair the deck.
- The *M/V Wenatchee* was out for more than 15 weeks when inspections of the car deck revealed a significant amount of steel needing replacement. A five-week extension was necessary to complete the steel replacement.
- The *M/V Tacoma* was out for 8.5 weeks due to social distancing requirements that limited the number of people who could work on the vessel at one time, which slowed work.
- The M/V Samish and M/V Issaquah both experienced extended maintenance time due to adherence to COVID-19 safety protocols.
- The M/V Sealth was out for almost 8 weeks due to an emergency repair of the Main Engine (ME) No. 1 when a
 crankshaft broke. This required removing and reinstalling the main engine block for overhaul, installing new
 crankshaft, and rebuilding the engine.

WSF did not meet the performance goal (95% on-time) for FY 2020 with 92.0% of trips on time.

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

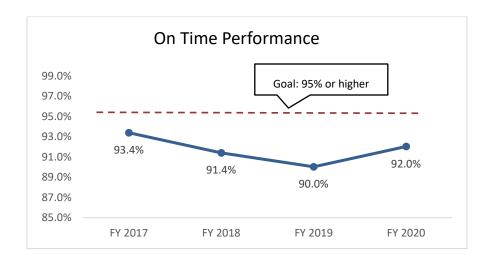
Data for FY 2017 - FY 2020									
	Goal	FY 20	017	FY 20	018	FY	2019	FY 2020	
Route	On-Time %	Actual On- Time Trips	On-Time %	Actual On- Time Trips	On-Time %	Actual On-Time Trips	On-Time %	Actual On-Time Trips	On-Time %
San Juan Domestic*		23,199	87.1%	20,482	80.5%	20,648	78.7%	20,220	79.9%
San Juan International		650	88.9%	580	84.0%	464	72.7%	455	67.6%
Edmonds - Kingston		16,572	96.7%	16,332	95.3%	16,205	94.6%	16,164	96.9%
Fauntleroy-Vashon-Southworth		36,542	91.8%	35,819	91.5%	36,110	91.6%	35,034	94.1%
Port Townsend - Coupeville		8,189	95.2%	7,526	93.4%	7,648	93.8%	7,917	97.0%
Mukilteo - Clinton		25,506	96.0%	25,372	95.9%	25,059	94.7%	24,270	95.2%
Point Defiance - Tahlequah		13,541	99.0%	13,114	98.3%	13,360	96.9%	12,179	97.7%
Seattle - Bainbridge Island		15,167	92.2%	14,738	89.8%	13,763	84.9%	12,653	89.4%
Seattle - Bremerton		10,388	96.0%	9,889	92.4%	9,936	91.2%	8,836	94.6%
On-Time Totals	95.0%	149,754	93.4%	143,853	91.4%	143,194	90.0%	137,727	92.0%

Trend Analysis:

In FY 2020, on-time performance (92.0%) continued a trend where the goal (95%) was not met, however on-time performance increased in FY 2020 from 90.0% in FY 2019.

All but one route had an improvement in on-time performance, with the largest increase on the Seattle/Bainbridge route (4.5%). With ridership so low during the last four months of FY 2020, loading and unloading took significantly less time than normal, which boosted the overall performance for the year on most routes. The San Juan International route does not run on the winter schedule. Therefore, there were no gains in OTP in the last four months of the year in contrast to all the other routes; thus, the San Juan International route had a decrease in on-time performance in FY 2020 as compared to FY 2019.

After implementing the "Stay Home, Stay Healthy" mandate ridership dropped by 48% in March, 73% in April, and climbed slowly back to 51% less than normal by June. With fewer cars and passengers, this decreases dwell time for loading and unloading and is likely the main reason for improvements in on-time performance.



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 impact on-time performance as additional time is needed to load and unload vessels. Since all routes for the last four months had extremely low ridership because of impacts from COVID-19, ridership had less of an effect in FY2020.

WSF met the service reliability performance goal with 99.4% of planned trips completed, which exceeded the goal (99.0%).

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

Data for FY 2017 - FY 2020					
	Goal	FY 2017	FY 2018	FY 2019	FY 2020
Route	% Completed Trips				
San Juan Domestic*		99.7%	98.9%	99.6%	99.9%
San Juan International		100.0%	96.3%	93.7%	90.3%
Edmonds - Kingston		99.9%	99.9%	99.8%	99.7%
Fauntleroy-Vashon-Southworth		99.7%	99.0%	99.2%	99.3%
Port Townsend - Coupeville		96.5%	91.4%	92.2%	97.8%
Mukilteo - Clinton		99.7%	99.7%	99.7%	99.2%
Point Defiance - Tahlequah		98.0%	99.7%	99.8%	99.7%
Seattle - Bainbridge Island		99.7%	99.8%	99.8%	99.9%
Seattle - Bremerton		99.6%	98.8%	99.7%	99.9%
Trip Reliability Totals	99%	99.4%	98.9%	99.2%	99.4%

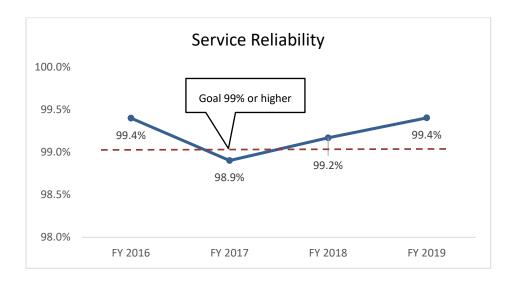
^{*} Includes Anacortes - San Juan Island and the San Juan inter-island routes.

Trend Analysis:

WSF met the service reliability goal of 99% in three of the past four years, missing the goal by 0.1% in FY 2018. Service reliability in FY 2020 declined on four of nine routes, with all other routes improving or maintaining the status quo as compared to FY 2019.

The largest increase in service reliability was on the Port Townsend/ Coupeville route with an increase of 5.6%.

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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.

FY 2020 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, 2019 through June 30, 2020			
Total Number of Projects Completed	0	3	3
Percent of Projects Completed Early or On-Time	NA	100%	100%
Percent of Projects Completed Under or On-Budget	NA	67%	67%

Project Details – Terminals

	FY 2020 Terminal Projects - Improvement						
	Original Actual Original Cost at						On
PIN	Project Title	OC*	oc	Budget *	Completion	Time	Budget
903543A	SR 304/Bremerton Trm - Olympic Class Dolphin Modifications	9/24/2019	9/24/2019	\$ 1,249,000	\$ 1,083,603	٧	٧
903631A	SR 525/Ferry Dock Rd - Passenger Drop-Off & ADA Improvements	9/30/2019	9/30/2019	\$ 3,029,000	\$ 3,231,358	٧	-
903310A	SR 20 Spur/Anacortes Trm - Replace Building & Site Improvements	5/18/2020	5/19/2020	\$ 1,764,000	\$ 1,691,736	٧	٧

 $^{^{*}}$ - Original OC and Original Budget data are from the last approved legislative budget & detail plan (20WSFLFC)

	FY 2020 Terminal Projects - Preservation						
		Original		Original	Cost at	On	On
PIN	Project Title	oc *	Actual OC	Budget *	Completion	Time	Budget
	NO PROJECTS					-	-

^{* -} Original OC and Original Budget data are from the last approved legislative budget & detail plan (20WSFLFC)

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, 2019 through June 30, 2020			
Total Number of Projects Completed	4	0	4
Percent of Projects Completed Early or On-Time	100%	NA	100%
Percent of Projects Completed Under or On-Budget	75%	NA	75%

Project Details - Vessels

FY 2020 Vessel Projects - Improvement											
		Original	Current	Original	PIN Cost at	On	On				
PIN/WO	Project Title/Work Description	OC *	OC	Budget *	Completion	Time	Budget				
	NO PROJECTS					ı	-				

^{* -} Original Budget data are from the last approved legislative budget (20WSFLFC) and Original OC data are from the July 2, 2019 Vessel Maintenance Lay-up Schedule

FY 2020 Vessel Projects - Preservation												
PIN/WO	Project Title/Work Description	OC *	OC	Budget *	Completion	Time	Budget					
982040H	MV Elwha Preservation (19-21)	9/20/2019	9/28/2019	\$ 1,558,000	\$ 1,299,259	٧	٧					
9444	Abrasive blast paint off lower vehicle deck for steel inspection, replacement, and preservation.											
983020G	MV Kittitas Preservation (19-21)	11/24/2019	11/15/2019	\$ 2,696,000	\$ 2,714,486	٧	٧					
9467	USCG regulatory inspection of hull and internal structure, controllable pitch propellor overhaul, deck steel replacement, piping replacement, structural preservation and other miscellaneous inspections and work; also for emergent work that could not have been identified prior to start of work											
983040I 9478	MV Cathlamet Deferred FY 19 work and Emergent Steel Work (19-21) Repairs to solarium steel and paint; additional work	12/1/2019 needed for ex	12/2/2019 tra steel repla	\$ 622,000 cement, vessel t	· · · · · ·	√ mp insert.	-					
983050G	MV Chelan Drydocking (19-21)	2/7/2020	2/18/2020	\$ 2,917,000	\$ 1,965,589	٧	٧					
9498	USCG regulatory inspection of hull and internal structure, controllable pitch propellor overhaul, replacement of fire alarm System, renewal of hull paint, bilge paint and other miscellaneous work.											

^{* -} Original Budget data are from the last approved legislative budget (20WSFLFC) and Original OC data are from the July 2, 2019 Vessel Maintenance Lay-up Schedule

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GLOSSARY

<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, vessel miles traveled, cancellations, etc.

<u>Federal Transit Administration (FTA)</u> - FTA is a part of the United States Department of Transportation. It provides grant to transit agencies and administers the National Transit Database.

<u>Ferry Riders Opinion Group (FROG) Survey</u> - the FROG Survey is performed by the Washington 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 <u>Gray Notebook</u> 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 billions of FTA funds to transit agencies.

<u>Operationally Complete</u> - the transportation capital project 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.

<u>Overhead Loading</u> – walkway that allows passengers to transfer from the terminal to the passenger level of the vessel, which allows simultaneous boarding/deboarding of passengers and vehicles.

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.

United States Coast Guard (USCG): the government agency that sets standards that all ferries must adhere to.

<u>Vehicle Transfer Span (VTS)</u> – The portion of the terminal car lane that connects with the vessel to allow vehicles to move on and off the vessel.

FY 2020 Ferries Performance December 2020 Page 49

DATA SOURCES BY MEASURE

#1 Percent of Terminal Capital Projects Completed On Time

- a. Milestones: 20WSFLFC (Detailed version of Legislative budget)
- b. Actual Milestones: Terminal Engineering Confidence Reports

#2 Percent of Terminal Capital Projects Completed On Budget

- a. Milestones: 20WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: COGNOS (Financial Datamart query)
- c. Actual Milestones: Terminal Engineering Confidence Reports

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

- a. Milestones: 20WSFLFC (Detailed version of Legislative budget) and Vessel Layup Schedule (July 2, 2019)
- b. Actual Milestones: WSF Vessel Position Reports, Vessel Layup Schedule (June 30, 2020), and WSF Green Sheet based on the year end layup schedule

#3b Percent of New Vessels Completed On Time

a. Not applicable; no new vessels in FY 2020

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

- a. Budget: 20WSFLFC (Detailed version of Legislative budget)
- b. Expenditures: COGNOS (Financial Datamart query)

#4b Percent of New Vessel Projects On Budget

a. Not applicable; no new vessels in FY 2020

#5 Passenger Injuries per Million Passenger Miles

- a. Ridership: FY 2020 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. Not applicable; Washington State Transportation Commission (WSTC) 2020 WSF Winter Ferry Performance FROG Survey was not completed due to COVID-19 restrictions

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

a. Not applicable; Washington State Transportation Commission (WSTC) 2020 WSF Winter Ferry Performance FROG Survey was not completed due to COVID-19 restrictions

#9 Passenger Satisfaction with Responses to Requests for Assistance

a. Not applicable; Washington State Transportation Commission (WSTC) 2020 WSF Winter Ferry Performance FROG Survey was not completed due to COVID-19 restrictions

#10 Operating Cost per Passenger Mile

- a. Planned Operating Expenses: WSF FY 2020 Budget (June 2019)
- b. Actual Operating Expenses: Transportation Reporting and Accounting Information System (TRAINS) (Financial Datamart query)
- c. Planned Passenger Miles
 - i. FY 2020 Ridership Forecast (June 2019)
 - ii. Route Miles: WSF Operations Department
- d. Actual Passenger Miles:
 - i. FY 2020 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 2020 Budget (June 2019)
- 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: AOSS 'Mileage by Route' Report

#12 Overtime as a Percentage of Straight Time

- a. Planned Straight Time and Overtime Hours: WSF FY 2020 Budget (June 2019)
- 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 2020 Budget (June 2019)
- 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: AOSS 'Mileage by route' Report

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

a. Expenses: COGNOS (Financial Datamart query)

#15 Total Vessel Out-of-Service Time

a. Actual Milestones: WSF Vessel Position Reports, Vessel Layup Schedule (June 30, 2020) and WSF Green Sheet based on the year end layup schedule

#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