Washington State Ferries
Summer Service Plan

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1 Introduction

Summer is Washington State Ferries’ (WSF) busiest season. In addition to regular commuters who use WSF to get to work, school, shopping, and medical appointments, our ferries are enjoyed by visitors from around the world who are taking in Washington’s scenic islands, outdoor adventurers playing in Washington parks and waters with their kayaks and bicycles, and families spending picturesque weekends around Puget Sound. Carrying almost 25 million passengers each year, WSF’s white and green ferry boats have become an iconic symbol of transport in the Pacific Northwest.

However, the incredible popularity of the ferry system and the high demand for ferry service in the summer presents many difficult challenges for WSF. In general, WSF transports 50 percent more people in summer than we do in winter, but with only 18 percent more hours of service. While the ridership climbs each summer, we are unable to proportionally increase the number of boats, terminals, or crew that serve our routes. This puts pressure on the entire ferry system, as riders wait longer to board, crews work longer hours, and maintenance crews have fewer hours available to access and maintain equipment.

This plan focuses on the service disruptions that result when a vessel or terminal has become disabled and can no longer serve passengers. There are numerous reasons a vessel might be taken out of service—not only mechanical issues, but also hard landings, groundings, or propeller shafts getting tangled in crab pot lines. Similarly, a terminal might become inoperable because of mechanical failure of a loading bridge or trestle, electronic malfunction, or even law enforcement activity. Service disruptions can also occur when there is a lack of crew resources dispatched to operate a vessel; however, this issue has largely been resolved in recent years, with minimal trips missed.

The goals of the Summer Service Plan are to:

- provide a measure of predictability about how WSF will manage unplanned vessel or terminal service disruptions and maintain service through the summer season;
- be transparent about decisions, considerations and priorities when service adjustments necessitate unplanned vessel maintenance;
- outline how we will communicate with customers, community members, and other partners.

WSF is the largest ferry system in the United States. We also strive to be the best. As such, we made the Summer Service Plan publicly available for the first time last year in the hopes that our customers and partners gain a better understanding of both the challenges and opportunities that the summer season brings. This year, WSF sought feedback on the plan from its Ferry Advisory Committees and the public; their comments and suggestions are reflected throughout this document.
Lessons Learned

After a difficult summer in 2017—with WSF’s designated standby vessel suffering a major engine failure in May, a second standby vessel later experiencing mechanical issues, and other unexpected service disruptions—WSF reached out to Ferry Advisory Committees (FACs), elected officials, and ferry riders to hear their suggestions and start planning for the future. In preparation for Summer 2018, WSF has implemented a number of measures with the goal of improving service across the system:

- Staff has worked closely with the Department of Fish and Wildlife to educate the public about where to leave crab pots and lines that can entangle a vessel’s mechanical systems and knock the vessel out of service;
- WSF formed a task force comprised of FAC members and ferry riders to discuss operational and schedule improvements to the “Triangle route,” the route between Fauntleroy, Vashon Island, and Southworth terminals;
- After the Anacortes/San Juan Islands/Sidney, B.C. route experienced its highest ridership ever in summer 2017—collecting record sales tax revenue despite service disruptions—WSF Planning staff have been working with the San Juan Island FAC to make schedule adjustments and plan for even higher ridership numbers in 2018;
- In an effort to encourage summertime bicycle ridership and ease congestion on the ferries, WSF developed a guide for passengers who would like to ride their bikes onto Washington State Ferries. An online version of the guide can be found at http://bit.ly/WSFbikes.
- WSF’s IT department has made several upgrades to the agency’s Vehicle Reservation System, allowing Customer Service staff to communicate with affected passengers more easily when a service disruption occurs.

In addition to these external initiatives, WSF is also employing a number of internal improvements to its procedures, processes, and communications channels so that in the event of a service disruption, important information is shared across the agency in a consistent, accessible, and transparent way.

Vessel Considerations

WSF’s vessels operate more than 20 hours each day, 365 days a year. This puts stress on our fleet, which is complicated by additional factors:

- Aging vessels: The fleet has an average age of 30 years. Thirteen of our 22 ferries are more than 30 years old. Of those, five are at least 50 years old. This aging fleet requires more maintenance to deal with problems such as steel corrosion, replacing or repairing obsolete equipment, and preservation projects that have been deferred, leading to a higher risk of vessel breakdown.
- Limited spare vessels: With 19 vessels in service and two vessels rotating out for required annual maintenance, WSF typically has only one funded standby vessel for emergency relief throughout the summer. Unscheduled repairs can quickly consume this extra capacity, and there have been periods during most recent summers when the entire fleet was either in service or out for repairs with no relief vessel available. This is far below the transit industry standard of a 20% spare ratio.
• **Limited slips at terminals:** Twelve of the 20 ferry terminals have only one landing slip for operations. If there are any problems with the single slip, the route is closed; vessels will need to be rerouted to other terminals or service suspended until the landing slip is repaired and returned to service.

When we have an equipment failure during other seasons, we are often able to shift vessels around, juggle maintenance needs, and reallocate resources across the system. However, in the summer when we are stretched thin, taking a boat or dock out of service for repairs is more complicated.

As frustrating as it is when a vessel leaves service, it is important to remember that it is still relatively rare. Our reliability rating is regularly better than 99 percent. Nevertheless, unplanned service disruptions are felt by more customers in the summer and have a negative impact on those businesses who rely on the summer tourism and travel that our ferries provide.

### 4 Terminal Considerations

![Terminal Considerations](image)

While service disruptions resulting from terminal breakdowns are very rare, there are situations that warrant the closure of a terminal or the imposition of weight and load restrictions at terminal facilities. For example, a cable or other mechanical component on a bridge transfer span might break, or a safety system might experience an electrical failure that prevents the transfer span from moving. More commonly, a terminal might experience an interruption in service because of extremely high traffic volumes, construction projects, or law enforcement activity—a suspicious package, a car accident in the holding lanes, or an abandoned vehicle.

When the problem is mechanical or electrical, WSF will dispatch a crew from its Eagle Harbor Maintenance Facility on Bainbridge Island to inspect and assess the situation. In most cases, the problem can be easily fixed, but how quickly the terminal can get back “online” is dependent on a number of factors, including:

- **The distance between Eagle Harbor and the breakdown.** For example, Eagle Harbor crews can reach the Bainbridge Island and Bremerton terminals much more quickly than they can Friday Harbor, which takes about six hours from door to door.

- **Tools and equipment.** Technicians will bring with them a variety of tools and equipment to make terminal repairs, but in the event that a specialized instrument or part is needed, they will have to obtain it from another source.

In the event that terminal repairs cannot be made quickly, WSF must make some difficult decisions about whether it can and should reroute traffic to other terminals. Some criteria to consider include the estimated duration and effects of the disruption; whether there is an alternate route available to customers; the characteristics of the
route; and the availability/suitability of an alternate terminal. The number of slips available for a vessel to dock at plays a huge role in whether or not a terminal is a suitable home for a vessel; see Appendix B for a diagram of terminal locations and features.

Because every situation is highly dependent on a number of variables, it is difficult to predict with complete accuracy how WSF will respond in the event of a terminal closure. However, we can make some educated guesses: With construction currently underway at Seattle’s Colman Dock and vessels operating on a tight construction schedule, it is highly unlikely that WSF would redirect a vessel on a different route to the Seattle terminal in Summer 2018. Or if a train derails in Edmonds and blocks access to that terminal, WSF might decide to return passengers to Kingston so they can take alternate routes. In rare cases, WSF might partner with other public transit agencies or even private transportation providers to help passengers get to their destination. Regardless of the situation, WSF will always put passenger safety at the top of its priorities.

5 Financial Considerations

The level of service that WSF is able to provide is highly dependent on its biennial budget as determined by the state legislature. In addition to providing the funding to operate and maintain particular vessels and set levels of service with the appropriate labor and fuel calculations, the budget also allocates capital funds for vessel preservation, improvements and new construction. Currently, WSF is budgeted to operate 22 vessels, with one vessel on “standby” to act as a service relief vessel.

As a steward of taxpayer dollars, WSF must make prudent economical decisions based on what is best for the ferry system as a whole—there are several costs associated with activating an alternate plan to minimize service disruptions. When vessels are moved from one route to another, WSF must consider the costs of labor and fuel, including the cost for vessel crew to travel each day that the vessel is away from its “home port” (the terminal where the vessel resides for the biennium). Depending on the length of time the alternate plan is in place, and the size of vessel(s) involved, the cost can be thousands of dollars per day or tens of thousands of dollars per week.

6 Pre-Season Planning

Once the budget is in place, WSF works across departments to determine the vessel’s home port and when that vessel will undergo its required maintenance. Both the “where” and “when” come with a significant number of constraints. For example, a vessel may be too large to physically fit in the dock of a particular port, or a vessel may be too fast or too slow for a particular route, making it not a good fit for that route. (See Table 1 below.)

In addition, WSF vessels are highly regulated by the United States Coast Guard and must meet stringent requirements before they are allowed to carry passengers. Some of these requirements include an underwater inspection twice every five years, an annual safety inspection, quarterly random inspections and additional testing of sprinkler systems and marine evacuation systems. Scheduling these tests and any related maintenance projects is often a delicate negotiation between the vessel’s maintenance needs, its assigned route’s service needs, and the scarce availability of dry dock space in Puget Sound.

Among the policies or assumptions we adhere to during this planning phase:
- WSF commits one vessel to service relief, or "standby."
- WSF schedules no more than two boats to be out for planned maintenance in the summertime.
- WSF tries to avoid situations where two vessels of the largest classes (Jumbo class or Jumbo Mark II class) are out at the same time.

Along with a list of other considerations – including contracting; crewing and training needs; the capacity of WSF’s maintenance facility at Eagle Harbor, budgetary concerns; and public or community commitments, among others – the initial planning process can take some time to complete and involves representatives from all parts of the organization.

Approximately five to six months before the summer season actually begins, WSF planners work with community partners, transit agencies, and technical staff to review the previous year’s ridership and on-time performance statistics, and identify minor changes in the schedule. If a more significant schedule change is implemented, planning may need to begin a year in advance, and the community engagement is more extensive. At least two months before the start of the season, WSF finalizes and posts the sailing schedule in time for reservations to open for the San Juan, Sidney, and Port Townsend routes. It is at this point that the vessel assignments that were used to plan the schedule become the baseline for our summer service.

Each summer, we identify one service relief vessel that can be used in the event a vessel breaks down anywhere in our system. The challenge to WSF is when vessels need maintenance or repairs unexpectedly. As the fleet ages, this is bound to happen more frequently. (See Appendix A for the current summer’s vessel assignments.)

The response to an unplanned vessel outage depends on the expected duration of an outage, its location, and the availability and capacity of the service relief vessel. In some seasons, we have a standby vessel that is rarely put into use. In other seasons, the standby is in use almost the entire season, and WSF makes difficult decisions about how to provide service.
### Table 1: “Fit” of Vessel Classes to Routes

<table>
<thead>
<tr>
<th>Size</th>
<th>Class</th>
<th>Veh Spaces</th>
<th>Vessel</th>
<th>Home Port</th>
<th>Route:</th>
<th>South</th>
<th>North</th>
</tr>
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<tbody>
<tr>
<td>Big</td>
<td>Jumbo</td>
<td>202</td>
<td>Tacoma</td>
<td>Seattle</td>
<td>Oversize for route</td>
<td>Oversize for route</td>
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<tr>
<td></td>
<td>Mark II</td>
<td>188</td>
<td>Wenatchee</td>
<td>Seattle</td>
<td>Oversize for route</td>
<td>Oversize for route</td>
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</tr>
<tr>
<td></td>
<td>Jumbo</td>
<td>144</td>
<td>Spokane</td>
<td>Edmonds</td>
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<td>Oversize for route</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td>Seattle</td>
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<td>Oversize for route</td>
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</tr>
<tr>
<td></td>
<td>Super</td>
<td>144</td>
<td>Hyak</td>
<td>Seattle</td>
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<td>More capacity than needed</td>
<td>Good fit for route</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Kaleetan</td>
<td>Seattle</td>
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<td>More capacity than needed</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yakima</td>
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<td></td>
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<td>Anacortes</td>
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<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td>Olympic</td>
<td>144</td>
<td>Tokitae</td>
<td>Mukilteo</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Samish</td>
<td>Anacortes</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chimacum</td>
<td>Seattle</td>
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</tr>
<tr>
<td></td>
<td>Olympic</td>
<td>124</td>
<td>Issaquah</td>
<td>Fauntleroy</td>
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<td>More capacity than needed</td>
<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kitsap</td>
<td>Seattle</td>
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<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kittitas</td>
<td>Mukilteo</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cathlamet</td>
<td>Fauntleroy</td>
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<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chelan</td>
<td>Anacortes</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Good fit for route</td>
</tr>
<tr>
<td></td>
<td>Issaquah</td>
<td>90</td>
<td>Sealth</td>
<td>Fauntleroy</td>
<td>Replace faster Sealth</td>
<td>Replace faster Sealth</td>
<td>Too slow to keep schedule</td>
</tr>
<tr>
<td></td>
<td>E-State</td>
<td>87</td>
<td>Tillikum</td>
<td>Anacortes</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Replace faster Sealth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Klahowya</td>
<td>(ret) Anacortes</td>
<td>More capacity than needed</td>
<td>More capacity than needed</td>
<td>Replace faster Sealth</td>
</tr>
<tr>
<td></td>
<td>Kwa-di</td>
<td>64</td>
<td>Chetemoka</td>
<td>Pt Def</td>
<td>Good fit for route</td>
<td>Lengthy loading &amp; off-loading</td>
<td>Too slow to keep schedule</td>
</tr>
<tr>
<td></td>
<td>Tabil</td>
<td></td>
<td>Salish</td>
<td>Pt Town</td>
<td>Good fit for route</td>
<td>Lengthy loading &amp; off-loading</td>
<td>Too slow to keep schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kennewick</td>
<td>Pt Town</td>
<td>Good fit for route</td>
<td>Lengthy loading &amp; off-loading</td>
<td>Too slow to keep schedule</td>
</tr>
</tbody>
</table>
In the event that a vessel or terminal unexpectedly goes out of service, WSF’s first priority is the safety of our passengers and our crew. If a vessel breaks down in transit, our focus is first moving it to dock as soon as possible so that passengers can disembark. Typically, vessel crew have already been working hard to identify the cause of the problem, and once the scene has been secured, they will contact WSF headquarters to help assess the situation. Crews are often dispatched from WSF headquarters and the Eagle Harbor maintenance facility to help troubleshoot the problem. We also notify the Coast Guard so that they can assess the situation.

Whether WSF can restore service depends on a number of variables, including the nature of the problem, whether WSF has parts available for repair or must purchase them elsewhere, whether the repair will require dry dock space, whether dry dock space is available, the cost of the repair, and more. If it is determined the issue is severe and will last more than a day, our service relief vessel (if available) is dispatched to provide substitute service as soon as possible.

In general, during the first day following a vessel taken out of service, the route where the vessel is assigned will operate without that vessel. The reasons for this are twofold:

- **WSF needs time to make an assessment** as to whether the cause for removal can easily be fixed or will last more than one day. Often, vessels can be repaired the same day.

- **It is a logistical challenge to move a vessel the same day**, especially if it is a mechanical breakdown and occurs on a route far from Eagle Harbor. WSF needs time to assemble crews to move vessels to new routes, and our customers need to plan accordingly.

There are a couple of exceptions to the general rule that vessel reassignments will not occur on the first day of a vessel’s removal from service:

- **WSF cannot strand foot passengers.** On the Seattle/Bainbridge Island and Seattle/Bremerton routes where passenger capacity is an issue, and on the Point Defiance/Tahlequah routes where only one vessel is available to Vashon Island, it is necessary to maintain evening peak passenger capacity to get foot passengers back home.

- **WSF can rearrange some schedules on multi-destination routes with more than two vessels.** In the San Juan Islands and on the Fauntleroy/Vashon/Southworth route, alternate schedules are in existence that allow WSF to reassign existing vessels to cover important connections to island communities.
In general, on the second day after a vessel has been taken out of service and when a relief vessel is available, the relief vessel will be put into service. The flow chart shown in Figure 1 in Appendix C illustrates the actions for a service disruption on Day 1 and Day 2, given the vessel availability for the current year.

When a relief vessel is not available, WSF must make difficult decisions about reallocating its service. To do this, WSF does its best to take into consideration a number of factors, including:

- **Minimal Service.** A minimum of one vessel needs to remain on any given route to maintain basic transportation connections.

- **Alternative Routes.** WSF considers whether an impacted route has an alternative route via another ferry or a drive-around/bridge access.

- **Traffic/Ridership.** WSF considers how many people use the route, its utilization rate, and mix of traffic. On routes with higher commuter traffic, a service disruption on a weekend is more tolerable than a service disruption on a weekday. On some routes serving recreational destinations, it is often more crucial to maintain full capacity on weekends.

- **Percent of Service Loss.** If a route with two vessels loses a vessel, it represents a 50% loss of service. If a route with more than two vessels loses a vessel, the percentage of service loss is smaller—e.g., the loss of one vessel on a three-vessel route is 33%, the loss of one vessel from a five-vessel route is 20%.

- **Special Events.** Community events and their economic impacts (e.g., Seahawks games, summer festivals).

- **Reservations.** WSF's current reservation system does not allow it to redistribute reservations to other sailings. WSF may temporarily adjust the reservation system's business and operational rules to address the issue until normal service is restored and resulting traffic impacts are mitigated. To the extent possible, WSF will prioritize travel for customers holding a reservation for any sailings during the service day over customers traveling from the same terminal without a reservation.

- **Liferafting.** The capacity of vessels to routes.

- **Resources.** Crew availability; the ability of other vessels to operate safely and efficiently on other routes; availability of maintenance resources (Eagle Harbor, drydock).

- **Costs.** Where the vessel's home port is relative to where it might be moved. It typically costs $14,000 per boat move, plus additional costs to operate vessels away from their home port.

- **Other Impacts.** Terminal construction work, nearby highway projects, etc.

- **Duration of Disruption.** Has a direct impact on all other factors: traffic/ridership, resources, reservations, costs, etc.

Each service disruption involves a different mix of factors that will shape our response. To assist WSF in deciding on the most cost-effective, least disruptive response to a service outage, staff uses a “Service Impact Response Form” to analyze and compare the various service options. (See Appendix D.)
8 Operational Adjustments

Aside from major disruptions, downsizings or breaks in service, any delays or changes in schedule impact our customers and have a ripple effect throughout the service day. Customers consistently tell us that predictability is extremely important to them, as they depend on the ferry system for their travel needs and they want every assurance we do everything we can to adhere to the printed schedule.

In the event vessels are off schedule, the following operational tactics will be implemented to mitigate further delays:

- Vessel and terminal crews will strive to minimize loading and unloading “dwell time” by calling for traffic immediately after the vessel’s security sweep.
- Vessel crews will position themselves on the car deck to help maximize the vessel’s vehicle capacity, including allowing 12 inches or less between bumpers, and loading three motorcycles per vehicle space (except when more space is required to allow ADA access and egress).
- Terminal employees will lower the transfer span and apron on each arrival and raise the bridge after departure to adjust for the tide in between vessels arrivals.
- Once the terminal has sent a standard number of vehicles for a typical load, the vessel loader will make an educated count of vehicles to be loaded at the end of the vessel (no secondary count will be permitted).
- Staff will limit the number of cross-traffic interruptions at intersections under WSF control when loading and off-loading.
- Crews will delay walk-on traffic until the end of the loading period (for terminals that load through the auto deck only).
- Crews will cancel a mid-load bicycle break (where the onloading of vehicles is paused midway through to allow bicycles to load).

9 Service Disruption Communications

In the interest of transparency and accessibility, WSF works hard to communicate any service disruptions to the traveling public and to the broader community. As soon as is practicable after a service disruption occurs, our Customer Service staff or a member of our Operations staff (in the overnight hours) will send an email service alert to those who have subscribed for this service at http://bit.ly/WSFalerts. The email alert automatically populates the WSF website and sends a Tweet via the WSF Twitter feed. Affected legislators, local elected officials, and Ferry Advisory Committee representatives are contacted as well.

For most minor disruptions, email alerts and website updates will suffice. For longer-term disruptions, WSF employs a more comprehensive communications strategy that may include printed materials that can be distributed on the vessels and at terminals, media outreach, or community meetings. Customer Service staff also have the ability to update messages on the Highway Advisory Radio System (HARS) and the Variable Message Systems (VMS) that are accessible from the highway.
The WSF Customer Contact Center is open 7 days a week from 7 a.m. until 5:30 p.m. and can be reached by calling 206-464-6400 or 888-808-7977; or by dialing 511 from within the state of Washington. Agents are also available to respond to emails at wsfinfo@wsdot.wa.gov.

10 Conclusion

WSF understands the significant challenges that service disruptions present to its passengers, especially those who live in ferry-dependent communities and rely on WSF as their only mode of transportation. Despite these challenges and the many operational and financial constraints facing our ferry system, WSF makes every attempt to maintain service for as many people as possible in a service disruption scenario. We do this by putting the safety of our passengers first, and then by considering a number of factors, including the health of our publicly-owned assets, the costs to taxpayers of implementing an alternate service plan, and other operational concerns. While service disruptions are an inevitable reality of most mass transit systems today, WSF hopes that this Summer Service Plan offers passengers some predictability and insight into the many trade-offs that WSF must balance in a service disruption and how these difficult decisions are made.
## Appendix A: Summer 2018 Vessel Assignments

<table>
<thead>
<tr>
<th>Route</th>
<th>Vessel Position</th>
<th>Primary Assignment</th>
<th>Substitute Assignment*</th>
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<td>Vessel Name</td>
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<td><strong>Primary Assignment</strong></td>
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<td>Anacortes - San Juans - Sidney</td>
<td>ANA-SID 1</td>
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<td>ANA-SJ 2</td>
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<td>144</td>
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<td>Samish</td>
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<td>ANA-SJ 5</td>
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<td>Port Townsend - Coupeville</td>
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<td>Pt. Defiance - Tahlequah</td>
<td>PD-TAL 1</td>
<td>Chetzemoka</td>
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<td>Seattle - Bainbridge</td>
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<td>SEA-BR 2</td>
<td>Chimacum</td>
<td>144</td>
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<td>Service Relief (standby)</td>
<td>Kaleetan (144) 6/24-7/8, Kitsap 7/9-9/9</td>
<td>124</td>
<td>Elwha</td>
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<tr>
<td>Maintenance Reserve</td>
<td>Elwha</td>
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<td>Steel Replacement</td>
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<td>Retired Vessels</td>
<td>Klahowya</td>
<td>87</td>
<td></td>
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</tbody>
</table>

* as of the date when summer season reservations went live, 4/24/2018
Appendix B: Terminal Features

Anacortes: 2 Vehicle Slips, 2 Tie-Up Slips, Overhead loading
Slip 1 or 2 Use other drive-on slip, delays when vessels conflict. Nighttime: 4 slips needed for vessel tie-up.

Bainbridge: 2 Vehicle Slips, 1 Tie-Up Slip
If system fails use other slip, move passengers onto car deck for overhead failures.

Bremerton: 2 Vehicle Slips

Clinton: 2 Vehicle Slips
Use other drive-on slip. Will need alternate for tie-up if not available

Coupeville: 1 Vehicle Slip
Consider canceling sailings until repairs complete.

Edmonds: 1 Vehicle Slip

Fauntleroy: 1 Vehicle Slip
Consider moving service to Seattle.

Friday Harbor: 1 Vehicle slip, 1 Tie-up Slip
If breakdown of Slip 1, then passenger traffic could be accommodated until repaired. Vessel tie-up in tie-up slip.

Kingston: 2 Vehicle Slips, 1 Tie-Up Slip
If system fails use other slip, move passengers onto car deck for overhead failures.

Lopez Island: 1 Vehicle Slip
If breakdown no service until repaired.

Mukilteo: 1 Vehicle Slip
Consider moving service to Edmonds.

Orcas Island: 1 Vehicle Slip
If breakdown no service until repaired.

Port Townsend: 2 Vehicle Slips
Use alternate slip. Note that 2 vessels need tie-up so may have to move a vessel if tie-up cannot occur.

Seattle: 2 Vehicle Slips (through construction)
Use other slip until repaired. If overhead loading use other slip but may need to go to car deck at some point.

Shaw Island: 1 Vehicle Slip
If breakdown no service until repaired.

Sidney, BC: 1 Vehicle Slip
Consider no service until repairs complete.

Southworth: 1 Vehicle Slip
No service until repaired, possible route to Bremerton for long term.

Vashon Island: 2 Vehicle Slips, 1 Tie-up Slip
Use other slip until repaired, reduced sailings.

Tahlequah: 1 Vehicle Slip
No service until repaired.

Point Defiance: 1 Vehicle Slip
No service until repaired.
Appendix C: Service Plan Flowchart

**DAY 1**

- **Bremerton or Bainbridge**
  If breakdown occurs after AM commute, standby vessel is assigned or a vessel moved from Fauntleroy or Edmonds to get foot passengers home

- **Fauntleroy and San Juan Islands**
  - 2 boat schedule at Fauntleroy
  - Reschedule San Juan vessels if possible

- **Edmonds, Mukilteo**
  One vessel service

- **Port Townsend, Sidney, BC**
  Cancel sailings unless specialized vessel is available

**DAY 2 AND BEYOND**

- **Bremerton**
  Kitsap to Bremerton

- **Bainbridge**
  Kitsap to Bremerton, Walla Walla to Bainbridge

- **San Juan Islands**
  Kitsap to San Juans as #2

- **Fauntleroy**
  Kitsap to Fauntleroy

- **Edmonds**
  Kitsap to Bremerton, Chimacum to Edmonds

- **Mukilteo**
  Kitsap to Bremerton, Chimacum to Mukilteo

- **Sidney**
  No service 6/24-9/9; Elwha to Sidney 9/10-9/30

- **Port Townsend**
  Kitsap to FVS, Sealth to Point Defiance, Chetzemoka to Port Townsend

- **Point Defiance**
  Kitsap to FVS, Sealth to Point Defiance

*Figure 1: Summer 2018 Service Plan Flowchart*
Appendix D: Service Impact Response Form

Situation: 

Date: 

SERVICE IMPACT RESPONSE (SIR FORM)

The following factors *(outlined in the WSF Summer Service Plan)* are to be considered and weighed in advance of any unplanned boat moves; departments are assigned as leads to facilitate timely response. If alternative boat move scenarios are available, list them and compare best options *across that category only*.

<table>
<thead>
<tr>
<th>Factor (Dept. Lead)</th>
<th>Option 1:</th>
<th>Option 2:</th>
<th>Option 3:</th>
<th>Best Option #</th>
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<tr>
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<td>Crew Availability (Operations)</td>
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<td>Life-rafting/COI staffing (Operations)</td>
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<td>Traffic/Rider Impact (Comm. Svcs. &amp; Planning)</td>
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<td>Reservations Impact (Comm. Svcs. &amp; Planning)</td>
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<td>Special Events/Economic Impact (Comm. Svcs. &amp; Planning)</td>
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<td>Alternate Routes (Comm. Svcs. &amp; Planning)</td>
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<td>Costs (Finance)</td>
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### Duration of Disruption
*(Vessels, Comm.Svcs. & Planning)*

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<tr>
<th>Department</th>
<th>Comments/Option # Chosen</th>
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<tr>
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### Other Factors
*(Comms., Govt. Affairs, Safety & Security)*

**DEPARTMENT INPUT.** Department directors or designees to provide additional input and a recommendation after reviewing all of the factors above above.

WSDOT Assistant Secretary, Ferries Division (or designee) to fill out:

- Approved ☐
- Disapproved ☐

Date: ___________

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*Washington State Ferries: Summer Service Plan*