

# WSDOT Ferries Division

## Building Blocks for the Long Range Plan

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# Building the Long Range Plan

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## Responding to ESHB 2358

- Maximize existing capacity.
- Efficiently use existing assets.
- Adaptive management practices.
- Continuous quality improvement.

## Long Range Plan Elements

- Base conditions – what it will take to maintain current program.
  - Operate the “current” service plan.
  - Maintain, preserve and replace existing capital facilities.
- Identify & analyze options to address growth and operational improvements.
  - Strategies.
    - Reservations
    - Pricing
    - Transit enhancements
    - Other.
  - Service options.



# Approach to Meeting Growth Needs

ESHB 2358 requires that the Ferries Division pursue operational and pricing strategies as a way to manage demand before adding capacity to meet future system needs.

The Ferries Division shared over 90 individual operating and pricing strategy concepts with stakeholders at public meetings held in June 2008.

After incorporating feedback and conducting further analysis, the following strategies present the greatest potential to affect demand:

- Reservations for vehicles
- Pricing strategies
- Transit enhancements

Addressing growth and operational challenges in each route/corridor will require a package that will include some combination of these strategies plus, where necessary, changes to service levels.



# Where are the Key Operational Challenges?

Using, as a starting point, the current level of service (LOS) standards for vehicle congestion, the following are the key future service challenges.

Route	Challenge
Fauntleroy-Vashon-Southworth	Southworth traffic currently exceeds standard, substantial growth expected
San Juan Domestic	Summer traffic currently at the standard, substantial growth expected
Edmonds-Kingston	Standard exceeded by 2015, both summer and May
Mukilteo-Clinton	Standard exceeded in summer by 2013 and 2026 in May
Seattle-Bainbridge	Standard exceeded in 2018 for summer and 2023 in May
Seattle-Bremerton	Standard exceeded year-round 2025
Port Townsend-Keystone	Standard exceeded in summer in 2028



# Vehicle Reservation System:

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Why would vehicle reservations be a key strategy?

A reservation system for vehicles would allow the Ferries Division to operate with the smallest possible terminal facilities and maintain a high level-of-service. This is only possible if the majority of the vehicle space is reserved during peak periods to reduce the number of vehicles arriving at a terminal for any one sailing. Benefits include:

- Vehicles arrive in waves equal to or smaller than the capacity of the vessel.
- Minimal queuing impacts in terminal communities.
- High degree of customer predictability.
- Already successfully implemented on two WSF routes and most ferry systems in the world currently have extensive reservation systems.
- System can be flexible to match demand and supply in a targeted manner – i.e. can focus capacity on certain sailings to particular markets:
  - Visitors can be offered reservations far in advance, but early reservations could be limited to certain sailings.
  - Local residents can be given priority at other times and for “commute-heavy” sailing.



# Vehicle Reservation System:

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## Preliminary Policy Framework for Reservations

### General policy parameters:

- Reservations would require some form of pre-payment, likely all or part of the vehicle fare.
- Pre-payment may be forfeited if customer does not complete trip.
- Amount of reserved space and type of space will vary by route, time of day, day of year.
- 10-15 minute advanced arrival required for most routes, 20-30 minutes for the San Juan Islands and International routes.
- Reservations available on an availability basis up to 30 minutes before sailing.
- Customer can cancel or change reservation up to 30 minutes before a sailing – late cancellation or no-show would result in loss of some or all pre-payment amount.
- Vast majority of vessel vehicle capacity is reserved during peak periods (up to 90%) to reduce the number of vehicles arriving for a sailing.
- There would be a limited number of standby spaces available – once standby space is full, no more traffic accepted at the terminal.
- A portion of each sailing is unreserved to deal with emergency situations.



# Vehicle Reservation System:

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## Preliminary Policy Framework for Reservations

### What happens when a customer misses a sailing/reservation?

- If there was advance notice (30 minutes or more), the customer may transfer the reservation to another sailing, have a credit for a future sailing, receive refund, or arrive for next sailing with priority status in standby lane.
- Without notice (or miss arrival time cutoff) customer moved to standby and can travel on next available sailing with no cost penalty.
- No notice and trip not completed within same day would result in a loss of some or all pre-payment.

### What happens when the Ferries Division cancels a sailing?

- All reservations are cancelled for the duration of the service disruption.
- Where possible, customers are diverted to alternate routes.
- Where reservations cannot be completed, refunds or credit would apply.
- When service is restored, boarding will be based on order of reservations with earliest having priority over reservations for later sailings.



# Vehicle Reservation System:

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## Preliminary Policy Framework for Reservations

### How will reservations work for commuters and regular users?

- It will be possible to have a resident and/or frequent user program to give priority for high demand and commute sailings.
- A share of each sailing could be set aside for the regular user program.
- If enrolled in a resident/frequent user program, can make multiple reservations at a time.
- Pre-payment and no-show/cancellation policies would apply.

### How could commercial vehicles participate?

- Commercial vehicle reservations already exist in the San Juan Islands and Port Townsend-Keystone.
- Would extend the Ferry Division ability to work directly with commercial carriers to match trips with sailings and offer guaranteed passage.
- Could focus the commercial vehicles at times that work for the customer and minimize the impacts of large vehicles during peak periods.



# Vehicle Reservation System:

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## Preliminary Implementation

To be successful and provide the terminal and community impact benefits, implementation of a large-scale reservation system should follow some key guidelines:

- Implemented once the “right” technology has been identified.
- Facility improvements to accommodate reservations must be made first.
- Routes will be added gradually as the system is deployed and operational issues are identified and resolved.
- Once a route begins a reservations system it will only be for specific sailings, with reservations added to sailings gradually over time.
- Full system roll out, including ramping up the percent of peak sailings that would be available for reservation, would likely take several years.
- Before proceeding with phased implementation, there needs to be firm funding commitment to adequately fund the full program.
- Pending funding approval, the Ferries Division would target adding reservations to one or two routes in the next few years, in addition to Port Townsend-Keystone and the International route.



# Transit Enhancements:

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Why would transit enhancements be a key strategy?

Most frequently cited factors in why customers would be more willing to shift from driving to walking on the ferry during commute periods:

- Focusing on improving the walk-on customer experience will be necessary to achieve meaningful shifts away from driving during the peak.
- Improvements will need to focus on both ends of the trip and on the connections at ferry terminals.

There are several challenges that Ferries will need to address to pursue these strategies

- The Ferries Division does not control the transit side of the trip. In fact, on many trips there will be at least three public transportation providers – transit operator on the west side, the Ferries Division and transit operator on the east side.
- The Ferries Division will likely need to invest in its own facilities to support this strategy.
- Source of funding for expanded transit services is unknown.



# Transit Enhancements:

## Gaps in Transit Services and Supporting Facilities

Extensive review of transit connections at all ferry terminals identified gaps in levels of service necessary to support walk-on shifts. Needs were identified in the following areas:

Transit Service	Facility Needs	Non-Motorized Facilities
<ul style="list-style-type: none"><li>• Better park &amp; ride connectors</li><li>• More frequent service during peak</li><li>• More night and midday service</li><li>• New routes and better connections</li><li>• Better timing with vessel arrivals and departures</li><li>• Hold buses until boat arrives</li></ul>	<ul style="list-style-type: none"><li>• Overhead loading, new or improved</li><li>• Covered walkways</li><li>• Sheltered bus stops</li><li>• Improved pedestrian crossings</li><li>• Preferential access for buses</li><li>• More park &amp; ride locations away from terminal</li><li>• Improved wayfinding through terminal</li></ul>	<ul style="list-style-type: none"><li>• Covered and secure bike storage at terminal</li><li>• Car sharing locations at ferry terminals</li><li>• Trails and dedicated pedestrian and bike paths to connect with terminals</li></ul>



# Pricing Strategies:

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Why would pricing strategies be considered?

Identified in ESHB 2358 “ferry financing” legislation

Pricing strategies offer the best opportunity to influence demand and shift travel in ways that allow the Ferries Division to make best use of its facilities and existing capacity.

The assessment of pricing strategies concluded that the following could be included in the Long Range Plan:

- Peak period congestion pricing for vehicles, higher prices during high demand periods (exempt registered carpools and vanpools).
- Change frequent user vehicle discount policy to incorporate peak period pricing.
- Off-peak vehicle discounts to encourage travel during low demand periods.
- Small vehicle incentive pricing to encourage customers to shift from larger vehicles to smaller ones, effectively increasing the vessel capacity.
- Lower fares for passengers to encourage walk-ons, carpools.

As with reservations, pricing strategies would be phased-in over time as demand warrants. Public process required for any fare changes.



# Pricing Strategies:

## Peak Period Congestion Pricing

Research suggests the single most effective demand management strategy is to implement a more targeted vehicle congestion pricing strategy:

- Charge variable vehicle prices based on time-of-day and increase fares during high demand periods.
- Consider refinements to or elimination of, the peak season. Pricing would adjust based on demand year round.

Analysis suggests peak period vehicle congestion pricing alone would:

- Shift customers from vehicles to other times and modes.
- Total vehicle travel would decline.
- Result in higher revenues.



# Pricing Strategies:

## Adjust Vehicle Frequent User Policies

To maximize the TDM benefits of congestion pricing there will need to be changes to the vehicle frequent user policies.

- Modifications could include:
  - Discount based off of time-of-day pricing but not seasonal pricing; or
  - Discount based off of time-of-day pricing and seasonal pricing.

Analysis suggests that changing frequent user policies to include peak period vehicle congestion pricing would:

- Shift some vehicle customers to other times and modes.
- Total vehicle travel would decline.
- Result in higher revenues.
- Varying price with seasonal surcharges would have a much greater impact than an approach that only focused on time of day variation.



# Pricing Strategies:

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## Off-Peak Discount Vehicle Pricing

Off-peak discount vehicle pricing would be designed to:

- Encourage existing vehicle travelers to use lower demand sailings and take pressure off peak periods.
- Grow ridership among certain markets, such as commercial vehicle traffic, which can make use of lower demand periods but may be priced out of the system today.

Analysis suggests off-peak vehicle discounts alone would:

- Have a minimal impact on time-of-day shifts.
- Grow total ridership in off-peak periods.
- Result in lower revenues.



# Pricing Strategies:

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## Small Vehicle Pricing

The Ferries Division already charges based on size of vehicle, though with small vehicle strategy there would be particular focus on:

- Increase the effective vessel capacity by reducing the average vehicle size – could be coupled with higher fares for larger vehicles.
- Provide a lower cost option that still offers a demand management benefit for regular vehicle commuters.

Analysis suggests small vehicle discounts alone would:

- Shift vehicle mix toward smaller cars.
- Shift would be both during the peak and throughout the day.
- Result in lower revenues.



# Pricing Strategies:

## Passenger Fare Discounts

Passenger fare discounts would be designed to achieve two principal objectives:

- Attract more passengers to the system – from other modes during the peak, and more generally throughout the day.
- Provide some cost relief for ferry-dependent customers who might be negatively affected by congestion pricing.

Analysis suggests passenger discounts alone would:

- Have a modest impact on mode shift.
- Attract new riders to the system.
- Have a significant negative impact on revenues.



# Pricing Strategies:

## Route-level Pricing Packages

The five major pricing strategies are combined into pricing packages which are designed to:

- Maximize positive shifts in travel patterns.
  - Shift vehicles to off-peak.
  - Shift to walk-ons.
  - Encourage more small vehicle usage during the peak.
- Achieve at least revenue neutrality.
  - Focus at this time is on the transportation demand management effects and not raising revenue.
- Minimize the negative cost impacts on certain customer groups.
  - Balance of higher fares at certain times with lower fares for passengers and off-peak travel.
  - Small vehicle pricing offers peak drivers a lower price option.



# Ferry Service Changes:

What if strategies are not enough to address 2030 growth?

A range of potential service changes are identified and analyzed for each route/corridor:

Route	Level I	Level II
Fauntleroy-Vashon-Southworth	Break up triangle, direct services out of Fauntleroy	Break up triangle, take Southworth to Colman Dock
San Juan Domestic	5-boat schedule summer only Plus extend service hours	6-boat schedule summer only 5-boat schedule Fall/Spring
Edmonds-Kingston	Add 3 <sup>rd</sup> boat (less than 100 cars)	Add 3 <sup>rd</sup> boat (more than 100 cars)
Mukilteo-Clinton	Substitute larger boat in summer	Add 3 <sup>rd</sup> boat summer only
Seattle-Bainbridge	No change	No change
Seattle-Bremerton	Add sailings to fill in schedule	Add 3 <sup>rd</sup> boat year round
Port Townsend-Keystone	Extend hours in summer	Maximum hours in summer
Pt Defiance-Tahlequah	Operate a 64-car vessel	Operate 87-car with more hrs
International	(No change)	(No change)



# Next Steps:

## Develop the Draft Long Range Plan

Review route-level package options at community meetings in September and October:

- Feedback: (1) strategy proposals; (2) tradeoffs among and within packages; and (3) costs, impacts to customers/communities and benefits of each package.

Integrate the route-level efforts into systemwide Plan options.

- Evaluate and prioritize among route-level packages to develop systemwide packages of strategies, services and investments.
- Systemwide packages will be developed as a series of funding levels (similar to decision packages).
  - Begin with the minimum proposed needs to operate, maintain, and preserve the Ferry System.
  - Incrementally add improvements to show how additional funding would be prioritized and what benefits are gained.

Release Draft Long Range Plan in Mid-November for JTC, FAC, stakeholder and public review.



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