

Situation Assessments: Level of Service and Operational Strategies

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Purpose

- Situation assessments will be completed for the following Ferry Bill work elements:
 - Re-establish Vehicle Level of Service (LOS) Standards [*Complete ✓*]
 - Operational Strategies [*Complete ✓*]
 - Pricing Strategies [*under internal review*]
 - Terminal Design Standards [*under internal review*]
- The situation assessments provide a baseline understanding for staff and public. Included in the assessments are:
 - Summary of new legislative requirements and direction
 - Current situation and historical context
 - Relevant findings from recent studies
 - Areas for further study and what needs to be done to meet legislative intent
 - Criteria for evaluating choices and assessing potential impacts of changes

Vehicle Level-of-Service (LOS)

- Standards have been defined as the minimum acceptable level-of-service
- Current LOS standards are generally focused on peak weekday afternoon overloads

Route	Current Vehicle Boat-Wait Standard	Actual Average Boat Wait as of May 2003
Mukilteo-Clinton	2	0.9 *
Port Townsend-Keystone	1	0.6
Edmonds-Kingston	1	0.6
Seattle-Bainbridge	2	0.8
Seattle-Bremerton	1	0.5
Fauntleroy-Vashon	1	0.9
Fauntleroy-Southworth	1	0.8
Pt. Defiance-Tahlequah	1	0.6

** Boat waits for Mukilteo-Clinton were measured through 2007, with 1.2 being the actual average boat wait on this route in 2007.*

Existing LOS Standards for San Juan Island routes:

- In March, less than 20% of sailings should be overloaded
- In August, less than 25% of sailings should be overloaded

Actual LOS measurements for San Juan Island routes in 2006 and 2007:

- In March, 15.3% (2006) and 14.6% (2007) of sailings were overloaded
- In August, 26.5% (2006) and 22% (2007) of sailings were overloaded, with the existing LOS standard exceeded in August of 2006.

Vehicle Level-of-Service (LOS)

- Why revise LOS standards?
 - Not revised since 1994
 - Exceeding LOS standard triggered service expansion
 - ESHB requires pro-active management
 - Need to track progress and success of demand management strategies
- Legislative Requirements
 - GMA
- Potential impacts of changes to LOS standards
 - Updates to local Comprehensive Plans may be required

Vehicle LOS – Areas for Further Study

- Consider standards in terms of both individual routes and travel sheds
- New Approaches/Metrics: LOS as a set of performance measures
 - Measure of Demand on the system (volume-to-capacity)
 - Measure of the customer experience in wait minutes (spread and frequency of trips, peak period wait times)
 - Measure the effectiveness of pricing and operational strategies & relationship to strategies such as reservations designed to reduce wait times
 - Others?
- Revisit Standards and “Trigger Points”
 - Consider a standard that would trigger the implementation of pricing and operational strategies to manage demand
 - Consider a standard beyond which the need for service expansion should be considered (after implementation of demand management strategies)
- Monitoring Requirements
 - Develop a methodology for monitoring LOS
 - Identify operational impact and cost of monitoring LOS, if any

Operational Strategies

- Legislative Direction: Demand management to ensure existing assets are fully utilized.
- Specific strategies identified by the Ferry Bill for further study
- Evaluation of potential strategies must consider impacts on the following categories:
 - Ridership demand
 - Customer service
 - Revenue generation
 - Users and communities
- Potential Operational Issues
 - Staff and labor impacts
 - Service and schedule impacts
 - Terminal and facilities impacts
 - Systems impacts (i.e. ability of EFS or Smartcard to implement)

Operational Strategies – Areas for Further Study

Operational Strategies to be Considered	Questions
<p>Congestion Pricing: As applied to WSF, congestion pricing might include a surcharge during peak periods or lowering fares during non-peak periods that could vary by route. Would be applicable to vehicles since they are the constraint on the system</p>	<ul style="list-style-type: none"> • Implications for terminal size and operations? • Variations by travel shed? • What to do with frequent user discounts?
<p>Reservation System: Electronic reservation system, allowing customers to reserve a certain percentage of a boat's capacity for auto use</p>	<ul style="list-style-type: none"> • Percentage of reserved space per vessel? • Reservation fee? • Cancellation policy? • Differentiate by user type (commuter vs. tourist)?
<p>High-occupancy vehicle toll (HOT) Lanes: Hybrid system that charges a toll for assured passage and gives preference to HOVs</p>	<ul style="list-style-type: none"> • Terminal design impacts? • Fee for assured loading? • Relationship to reservations?
<p>Mode Shift: Through pricing and availability of transit connections, encourage passengers to use modes other than vehicles (walk-on, bike, etc.)</p>	<ul style="list-style-type: none"> • Are there coordinating transit connections? • What is the best corresponding pricing strategy?
<p>Others:</p> <ul style="list-style-type: none"> • Ticketing Operations (eTicketing, tandem ticketing, fare structure simplification) to improve efficiencies • Increased holding facilities (remote locations, physical expansion, etc.) to better manage vehicle traffic • Entry and exit queuing and metering • Scheduling (8-hour shifts) • Any other strategy which might modify operations to improve cost efficiencies and asset utilization 	

Next Steps

- Finalize pricing and terminal design situation assessments.
- Identify the “universe of options” for each work element. Look at innovative practices in other cities and transportation industries.
- Determine which practices and strategies may be applicable to WSF. Develop a “long list” of options.
- Based on a high-level assessment of costs and potential effectiveness of the strategies, develop a “short list” of preferred options.
- Engage in an iterative process that includes ridership forecasting and thorough analysis of pricing and operational strategies.

Questions?

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