

WASHINGTON STATE LEGISLATURE JOINT TRANSPORTATION COMMITTEE



JOINT TRANSPORTATION COMMITTEE January 4, 2012

Fare Media ■ Fare Structure ■ Interoperability ■ Implementation

PURPOSE

Joint Transportation Committee (JTC) directed to:

- Conduct a study of the Washington State Ferry (WSF) fares that recommends the most appropriate fare media for use with the reservation system and the implementation of demand management pricing and interoperability with other payment methods
- Include direct collaboration with members of the Washington State Transportation Commission (WSTC) (Transportation Budget)

SUMMARY OF LONG-TERM CONCLUSIONS

Account-based fare collection system

- Best meet the needs of WSF's diverse customers
 - Ability to consolidate a household's WSF fare products & vehicle reservations into a single account
- Flexible – will work with a wide range of current and new fare media
- Support vehicle reservations & demand management pricing
- Interoperable with ORCA, *Good To Go!*, & emerging new payment systems (i.e. cell phones, etc.)

Study recommendations

- Move towards an account-based system in 2018 and beyond

SUMMARY OF LONG-TERM CONCLUSIONS

Alternative for Some Routes - *Good To Go!*

- 3 routes – terminals unable to support vehicle reservations
 - Triangle route: Fauntleroy-Southworth-Vashon
 - Pt. Defiance – Tahlequah
 - Mukilteo-Clinton
- For Triangle route, *Good To Go!* potentially best fare system
 - Potential to solve intractable problems
 - Require complete re-structuring of fares to mirror highway tolls
 - Potential for two other non-reservation routes

A one-size fits all fare collection system may not be the best option for WSF

DEFINITIONS

Interoperability

Degree to which the fare collection system accepts fare media of other systems and vice versa

Fare Media

The products that are accepted for payment

Fare Structure

The structure and policies setting the fares & to whom they are charged

CUSTOMERS

The central focus of the study is the WSF customer

Fare media, interoperability, fare structure, reservations, & demand management pricing are *interrelated* and *affect* the customer experience, customer satisfaction, and ultimately WSF's ridership.

WSTC Study Survey

- Approx. 2,000 respondents
- Ferry Riders Opinion Group

WSF SYSTEM

WSF unique in providing two transportation services

- Tolled marine highway
- Transit service

WSF service – 10 routes in 4 distinct travel sheds

- Central Sound - Edmonds-Kingston, Seattle-Bainbridge, & Seattle-Bremerton
- North Sound - Mukilteo-Clinton & Port Townsend-Coupeville
- San Juan Islands - Anacortes-San Juan Islands (Lopez, Orcas, Shaw, Friday Harbor), Anacortes-Sidney, & Interisland
- South Sound - Triangle route (Fauntleroy-Vashon-Southworth) & Point Defiance-Tahlequah

RIDERSHIP AND CUSTOMERS

Ridership. Measures the total number of trips taken by customers

Customers. Individuals who take at least one trip on WSF

Customers make household buying decisions – decisions that may result in a single ride a year or in 500+

WSF tracks ridership not customers – as do most transit agencies

WSTC Survey

Most WSF customer households have more than one person who is a WSF rider

- # of Household Riders
 - 1 – 14%
 - 2 – 55%
 - 3 – 15%
 - 4 – 12%
 - 5+ – 4%

Households with more than 1 WSF rider have both frequent & infrequent riders in the household

RIDERSHIP AND CUSTOMERS

From 2000 to 2008

Ridership *Decreased 13%*

Customers *Increased 10% to 22%*

More *customers* are using the system – but *riding* less often

- Estimate 20% drop in rides per customer

WSF served approx. 300,000 customers in 2008/23.3 million riders

WSF Customers Highly Segmented by:

Travel Shed

- WSTC survey - 75% to 80% of travel shed customers travel only within that shed

Trip Purpose

- Regular commuters
- Regular non-commuters
- Tourist/recreational
- Commercial

Frequency of Travel

- Declining frequent riders

Ferry Access

- 72% access ferry by car (driver or car passenger)

FARE MEDIA/ WAVE2GO

Current Fare Media

- *Wave2Go* – WSF’s electronic fare system
- ORCA – One Regional Card for All
- WSF Commercial Accounts

Wave2Go – Fare Products

- Fare products – vehicle & passenger single ride and multi-ride cards, passenger monthly passes
- Customer households use multiple *Wave2Go* fare products

Wave2Go Fare Products Used by WSF Customer Households in a Year

1 –	7%
2 –	31%
3 –	27%
4 –	21%
5+ –	14%

ORCA

ORCA

- 7 Puget Sound transit agencies – including WSF
- WSF fares on ORCA
 - Passenger monthly passes
 - Single rides
 - WSF allows employer purchase
- Large percentage of WSF customers who most frequently use routes within ORCA transit districts have an ORCA cards
- Important to WSF customers who are ORCA cardholders that they be able to store their multi-ride card(s) on ORCA

ORCA Card % Have

- Central Sound – 52%
- South Sound – 48%
- North Sound – 31%
- San Juans – 10%

ORCA Card Holders Multi-Ride Card Important

- Central Sound – 44%
- South Sound – 54%
- North Sound – 44%
- San Juans – 37%

GOOD TO GO!

Good To Go!

- WSDOT highway tolling system
- Not accepted on WSF
- One-third of WSF customers near *Good To Go!* tolled facilities have a transponder
- Majority of those with *Good To Go!* transponders think is it important to be to be able to use them on WSF
- Additional one-third of customers near tolled facilities planning on getting transponder
 - More likely to get transponder if can use on WSF

Good To Go! % Have

- Central Sound – 31%
- South Sound – 34%
- North Sound – 5%
- San Juans – 6%

% Good To Go!

Customers Important to Use on WSF

- Central Sound – 59%
- South Sound – 64%
- North Sound – 81%
- San Juans – 50%

Good To Go! Plan To Get Transponder

- Central Sound – 32%
- South Sound – 38%
- North Sound – 28%
- San Juans – 31%

FARE MEDIA AND INTEROPERABILITY

***Good To Go!* and WSF – Two Options**

Accept *Good To Go!* as a form for payment

- Transponders used to pay tolls calculated at the vehicle toll booth
- No change in fare structure required
- *Good To Go!* cannot support until 2013-14 time period

***Good To Go!* as the only means of payment at tollbooths**

- Transponders and license plate recognition equipment used exclusively to collect fares at vehicle tollbooths
- Significant changes to fare structure required
 - Mirror highway tolls
 - Vehicles only charged – not passengers
- *Good To Go!* cannot support until 2017-18 time period

FARE STRUCTURE – LEGISLATIVE POLICY

Legislative Direction on Fares Changed in 2007

WSF must:

- Recognize each travel shed unique
- Use data from current WSTC survey
- Be developed with input from public hearings and Ferry Advisory Committees
- Generate revenue required by biennial budget
- Consider impacts on users, capacity & local communities
- Keep fare schedules simple

And must consider:

- Options for using pricing to level vehicle peak demand &
- Options for using pricing to increase off-peak ridership

WSF AND WSTC POLICIES

THREE GUIDING PRINCIPLES FOR BASE FARE STRUCTURE

CUBE	Tariff Route Equity	Relationship Passenger/Vehicle Fares
Vehicle Rates	Vehicle Rates Passenger Rates	Vehicle Rates Passenger Rates
Fees based on space occupied Height, width & length	Price relationship between routes based on service time/ sheds	Vehicles cost 3.4 times > passengers
Discounts		Surcharges
Senior, Disabled & Medicare		Peak Season – Full fare vehicles
Youth (6-18)		Bicycles
Frequent Vehicle		Overheight
Frequent Passenger		Fuel
RVs - Sidney		Vessel Replacement Fund
Director's (Passengers Free Interisland– Frequent Commercial)		

DISCOUNT SURCHARGE CHANGES

Have Particularly Affected Frequent Passengers

- Passenger multi-ride card
 - 40% discount 1997 – effective 2003 20%
 - Monthly passes – improved to provide 5 more free round-trips at same time
 - No refunds on unused portion – effective 2001
- Passenger monthly pass
 - 40% discount 1997 – effective 2003 20%
 - 2006 – limit to 31 rides
- *Wave2Go* enforcement of 90 day limit on multi-ride products
 - Contributed to drop-in frequent vehicle ridership in 2007-08

TRAFFIC IMBALANCE

Toll Collection & Tacoma Narrows Bridge

- Tacoma Narrows Bridge – tolls collected eastbound
- WSF vehicle fares – tolls collected westbound & eastbound
- WSF passenger fares – tolls collected westbound only

Traffic Imbalance Result – More WSF riders east than westbound

- 25% more Fauntleroy-Southworth
- 16% more Bremerton

CURRENT TICKET SYSTEM 643 FARE TYPES

643 Unique Fare Types

- Most of the fare types for San Juan Island routes & Sidney
 - 204 or 32% - Sidney
 - 199 or 31% - San Juans
- Most are vehicle fare types (580 or 90%)

12 Fare Groups

Travel Shed/Route	# Fare Groups	Travel Shed/Route	# of Fare Groups
Central Sound	1	Mukilteo-Clinton	1
Vashon Island	1	San Juans & Sidney	8
Triangle Route Port Townsend	1		

VEHICLE DEMAND MANAGEMENT

Current Planned Approaches

- Vehicle reservations
- Increasing walk-ons to vessels/transit enhancements

Demand Management Pricing

- Summer surcharge
- Potential use in the future

VEHICLE RESERVATIONS

Planned Vehicle Reservation System

- Planned for Central Sound routes, Port Townsend & San Juans with commercial reservations on all routes
 - 2012 – new system Port Townsend & Sidney
 - 2014 – San Juans
 - 2016 – Central Puget Sound

Customers

- Customers on routes that would be new to reservations vary in how likely they are to make a reservation

Likely to make a reservation

- San Juans – 76%
- Edmonds – 51%
- Bainbridge – 48%
- Bremerton – 33%

FARE REVENUE

70% (FY 2010) of Operation Funds

Vehicle fares (driver + vehicle) – 75% of revenue

- Standard vehicles – 67%
- Commercial & oversize – 8%

Passenger fares – 25% of revenue

Single trip fares more revenue than multi-ride

- 68% of revenue
- Revenue from multi-use products down despite fare increases
 - \$12.9 million in FY 2006 to \$10.9 million in FY 2010

FARE POLICY RECOMMENDATIONS

Recommendation 1.

WSF and WSTC should continue to modify their fare policies to bring the fare structure into alignment with legislative fare policies and with legislative direction to use adaptive management practices.

- Legislative adaptive management direction
 - Process for continually improving by learning from outcomes of decisions & adapting them to improve customer service
 - For fares – adaptive management places greater emphasis on the ***desirable outcomes*** of fare rules (WSF Long-Range Plan)
- Some fare policies have been counterproductive
 - Changes in frequent passenger products – make it less rather than more likely that customers will walk-on

FARE POLICY RECOMMENDATIONS

Recommendation 2.

WSTC's annual market surveys should include questions on customer households and the household's likely response to fare changes.

- This is the first study to focus on customers and customer households in addition to ridership
- Important to understand households and buying decisions
 - Effect of fare changes on total household purchasing

Core question: Why are customers increasing – but frequency so far down that ridership is dropping

FARE INTEROPERABILITY, STRUCTURE, AND MEDIA RECOMMENDATIONS

Recommendations based on

Customers

- Adapt to needs of segmented customer base

Marine highway and transit service

- Compatible with WSF provision of tolled marine highway and transit services

Legislative direction

- Fare policy and adaptive management

Phasing – synchronize with

- New vehicle reservation system
- Availability of *Good To Go!* system support

LONG-TERM FARE SYSTEM DIRECTION

Recommendation 3.

In the long-term, WSF's fare collection system should be adapted to the needs of its travel sheds/routes and its customers with consideration of two fare collection systems:

- 1. Account-based system.** *Wave2Go* should be replaced with an account-based fare collection system that offers customers a variety of fare media products and interoperable payment options through *Good To Go!*, ORCA, and emerging payment technologies.
- 2. *Good To Go!* as the Only Payment Method.** Some routes, particularly those without vehicle reservations, may best serve their customers by using the *Good To Go!* tolling system exclusively.

TWO IMPLEMENTATION PHASES

Phase One (2012-2017)

Fare structure meet legislative directions

Vehicle fare structure - transition to a per foot basis

Discounted WSF/transit pass - reinstate pass

Sidney - fares streamlined

Improve interoperability options for customers

Good To Go! - accept as a method of payment

ORCA - allow purchase of multi-ride cards

Phase Two (2018+)

New System(s)

Account-based system
&/or

Good To Go! only on
some routes

PHASE ONE – FARE STRUCTURE CHANGES

Recommendation 4.

WSF's vehicle fare structure should be based on a per foot charge.

- **Requires – Automatic Vehicle Length Measuring Devices**
- **Cost \$0.9 million (FY 2012 \$)**
- **Consider appropriation 2011-13 biennium**

- Recognizes length more important than height to maximize car deck space
- Resolves operational problems – inconsistent application of overheight charges & delays in vehicle processing
- Understandable to customers –small car cutoff length concerns
- Reduces number of fares – from 643 to 245 – by eliminating length categories which are not as refined as per foot charges

PHASE ONE – FARE STRUCTURE CHANGES

Recommendation 5.

WSF should reinstate discounted joint passes with transit agencies on routes with significant numbers of commuter customers.

- **No legislative action required to implement**
- Encourages walk-on customers
- WSTC March 2011 survey (not for this study) found customers more likely to walk-on if there were a discounted joint pass

PHASE ONE – FARE STRUCTURE CHANGES

Recommendation 6.

WSF should streamline Sidney fares by establishing a single Sidney-Anacortes fare with the ability to stop in the San Juan Islands and by eliminating the separate commercial and RV fares.

- **No legislative action required to implement**

- Tourists still encouraged to stop in Islands
- Clarifies fares for tourists
- Simplifies fares – additional 73 fares reduced
- Would require Island residents to pay Anacortes-Sidney fare unless trip arranged with trip to Island – unknown customer effect

PHASE ONE – INTEROPERABILITY CHANGES

Recommendation 7.

WSF should allow its passenger multi-ride cards, and if operationally feasible its vehicle multi-ride cards, to be purchased and loaded on ORCA cards.

- **Cost - \$0.3 million for system integration**
 - **Consider appropriating in the 2011-13 biennium**
-
- Survey – customers have ORCA and would like to use it for their multi-ride cards

PHASE ONE – INTEROPERABILITY CHANGES

Recommendation 7.

WSF should implement *Good To Go!* as a form of payment at vehicle tollbooths.

- **Cost - \$2.2 million in FY 2012 dollars**
 - **Consider appropriating in the 2013-15 biennium**
-
- Survey – 1/3 of customers have *Good to Go!* transponders and another 1/3 plan to get them
 - More likely to get a transponder if it can be used on WSF

PHASE ONE – SUMMARY

Customers Benefits

- Expanded payment options that allow consolidation of transportation fare media products including highways, transit and ferries.
- Tourists in Sidney route – encouraged to stop in Islands

Fare Structure Simplified

- From 643 fares to 175

Improve Demand Management

- Incentive to bring smaller cars on ferries
- Encourage transit use and walk-on ridership

New Vehicle Reservation System

- Changes synchronize with introduction of new system

PHASE ONE – SUMMARY

Issue

- Setting per foot vehicle fares may be contentious
 - Small car owners happy
 - Longer car owners unhappy
- Proposed measure for one year to gather relevant data

Capital Cost (\$ millions, FY 2012 dollars)

	Total	2011-13 biennium	2013-15 biennium
Vehicle per foot charges	\$0.9	\$0.9	
Discounted WSF/transit pass			
Sidney fare streamlined			
Good To Go! as payment	\$2.2		\$2.2
ORCA Integration	\$0.3	\$0.3	
Total	\$3.4	\$1.2	\$2.2

PHASE TWO – ACCOUNT-BASED SYSTEM

Recommendation 9.

WSF should replace *Wave2Go* with an account-based system in the 2018 and beyond time period.



PHASE TWO – ACCOUNT-BASED SYSTEM

Customers

- Customers likely to use - further consolidate household WSF fare media
- WSF could offer more fare media options – including discounts for frequent riders that do not require pre-payment of fares
- Reservations – could be made with the same system
- Commercial accounts – could be integrated
- Demand management pricing – could be implemented

Wave2Go

- Most likely will need to be replaced by 2018 or beyond

Likely to participate in a combined account

- South Sound – 71%
- San Juans – 66%
- North Sound – 62%
- Central Sound – 61%

System Implementation Options

- Part of *Good To Go!* Customer Service Center
or
- WSF independent

Cost-Replace *Wave2Go*

- Rough estimate \$23 million in FY 12 dollars

PHASE TWO – GOOD TO GO! OPTION

Recommendation 10.

WSF should consider *Good To Go!* as the exclusive payment option for fares on the Southworth-Vashon-Fauntleroy route (and possibly for other routes that will not have a full reservation system) in the 2018 and beyond time period.



PHASE TWO – GOOD TO GO! OPTION

Fauntleroy-Southworth-Vashon

- Southworth customers regularly use *Good To Go!*
 - 79% of Southworth-Fauntleroy customers have transponders
 - 60% of Southworth-Vashon customers
- Route customers are primarily frequent customers
 - Little seasonal variation
 - Primarily drive-on
- Fauntleroy terminal operations - complex
 - Small holding area
 - Sailings with mixed destinations

Required Fare Structure Modification

- **Charge for vehicles only at vehicle tollbooths**

Implications

- **Vehicle fares mirror highway tolls**
 - Transponders – least cost
 - License plate recognition – higher cost
- **No charge for passengers**
 - No charge walk-ons
 - Concern – casual carpooling if charge walk-ons and not passengers in vehicles

PHASE TWO – GOOD TO GO! OPTION

Fauntleroy-Southworth-Vashon

- Traffic imbalance
 - 25% more eastbound than west
 - To correct – need to charge both directions
 - *Good To Go!* allows without adding toll infrastructure on Vashon (currently none)
- Demand management pricing
 - *Good To Go!* – can support if implemented
- Encourage walk-on passengers
- Potential operation cost saving
 - Estimate \$1.0 million per year
 - Depends on Alternative Security Plan staffing requirement

Likely very controversial

- **How distribute revenue change?**
- **Impact on other routes**
- **Perceived fairness of free walk-ons, if that is implemented**
- **Change in per foot charges – affect on single occupant vehicles**