

# WASHINGTON STATE LEGISLATURE JOINT TRANSPORTATION COMMITTEE



## WASHINGTON STATE TRANSPORTATION COMMISSION January 17, 2012

# 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 it important 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 8.

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	
<b>Total</b>	<b>\$3.4</b>	<b>\$1.2</b>	<b>\$2.2</b>

# 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**