

Washington State Ferries

Washington State Dept. of Transportation

Ridership Modeling/Forecasting Work Plan Status Update

October 30, 2007



**Washington State
Department of Transportation**



Highlights - Current Forecasting Work Plan

- Purpose
 - Resolve certain issues raised under the 2006 Ferry Finance Study Phase 1
 - Test certain policy interests initiated by the State legislature and WSF
- Better reflect Cross Sound growth in traffic; synchronize impact of a tolled Tacoma Narrows Bridge
- Address demand characteristics unique to each sub-market
- Provide consistency within the modeling process for growth estimation between PSRC- and outlying areas
- Develop an approach to analyze:
 - Variable pricing
 - Time-of-day demand and mode shifts
- Reconcile the two WSF models

Existing Models - Recap

• Revenue model

- Purpose:
 - Budget forecasting
 - input to quarterly revenue updates
- Output
 - Monthly/annual
 - Ridership/revenue

• Planning model

- Purpose:
 - Demand estimation for peak conditions
 - Input to long-range capital/service planning
- Output:
 - Average weekday/PM peak hour
 - Ridership by boarding method; access/egress
 - Post-process peak period ridership to monthly and annual ridership



Goals

- Provide best possible forecasts using the region's, the ferry's and the Department's data systems
 - Re-examine current ferry model approach vs. other approaches
- Improve model consistency with respect to Tacoma Narrows Bridge impacts
- Analyze effects of variable pricing on time-of-day demand and mode shifts
- Improve ability to produce consistent ferry ridership forecasts from the two WSF models

Schedule

Tasks	2007					2008								
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Identify Team of Experts	█	█												
Develop Approach/ Reach Consensus		█	█	█	█									
Prepare Model/Reconciliation Process		█	█	█	█	█	█							
Produce Future Baseline Forecasts (Including Reconciliation with Revenue Forecast)					█	█	█	█						
Define Parameters for Future Options/Scenarios									█	█				
Model Options/Scenarios											█	█	█	█

Current Status

- Assembled a team of technical experts representing the most experienced modelers in the region (Consultants, Sound Transit, WSF, WSDOT, PSRC) to explore improvements in ferry model
- Held a series of work sessions and meetings to address WSF modeling issues
- ✓ Agreed upon a general modeling approach that addresses WSF modeling/forecasting issues

Important Aspects of New Approach

- Tested approach – Similar to that applied at Sound Transit; accepted by national experts and federal funding agencies
- Simplicity of approach; transparency of modeling operations and data sources
- Improved capability to reconcile with revenue model
- Ability to test effects of variable pricing strategies on time-of-day travel demand and mode shifts

Important Aspects of New Approach

- Provides a consistent approach for estimation of growth in ferry travel in all 12 counties
- Supports Ferry Finance Study time frame
- Best approach to take advantage of the 2006 ferry travel survey data

Summary Status

- We're re-examining carefully all issues identified previously under the 2006 Ferry Finance Study
- We're developing consensus and aiming at maximum transparency
- We're on track to deliver Baseline forecasts in February 2008
- Many details to be worked out; they appear solvable and manageable
- Best method to take advantage of the 2006 survey data

Summary Status – Consultant Review

- Positive steps forward. Open and frank communication among technical group members.
- Consensus approach incorporates validated modeling process.
- Solid assessment of current weaknesses in regional model with regard to tariff sensitivity.
- Continuity between short- and long-term models now established, based on the same demographic and economic inputs.
- Overall framework allows for potential enhancements in analyzing fare and operational strategies.