

Fuel Cost Mitigation Plan

A Joint Report on Ferry Fuel Cost Savings Strategies and a Fuel Surcharge Business Plan

Paula J. Hammond, P.E.
Secretary

David L. Dye, P.E.
Deputy Secretary

Steve Reinmuth
Chief of Staff

Richard Ford
Commissioner
Washington State Transportation Commission

David Moseley
Assistant Secretary
Ferries Division

**Senate Transportation Committee
January 14, 2010**



Presentation Overview

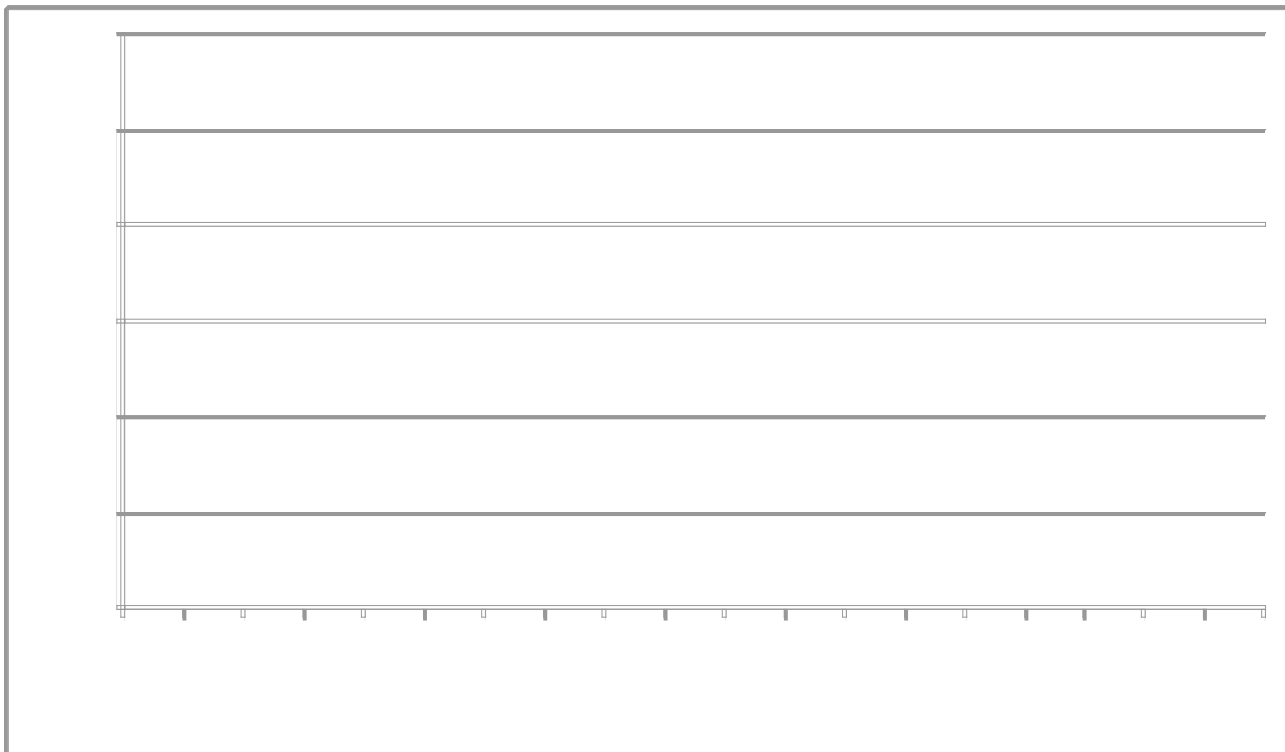
- Legislative budget provisos
- Fuel cost challenge and need for active mitigation strategies
- Recommendations for legislative consideration: A Three-Part Strategy
 - Market exposure – manage price risks
 - Conservation – manage consumption
 - Fuel surcharge – additional revenue enhancement mechanism
- Next Steps

Legislative Provisos

- In the 2009-11 budget, the legislature included two relevant provisos:
 - **For the Department of Transportation – Marine:** If, after the department's review of fares and pricing policies, the department proposes a fuel surcharge, the department must evaluate other cost savings and fuel price stabilization strategies that would be implemented before the imposition of a fuel surcharge.
 - **For the Transportation Commission** – If the commission considers implementing a ferry fuel surcharge, it must first submit an analysis and business plan to the Office of Financial Management and either the Joint Transportation Committee or the Transportation Committees of the Legislature.
- The WSTC Ferry Subcommittee and WSF have collaborated on a joint response that is designed to provide a coordinated set of strategies to manage fuel cost risks.
- Governor's Supplemental Budget includes direction to the Commission to put a fuel surcharge in place by May 1, 2010.

Impact of Fuel Costs Have Grown

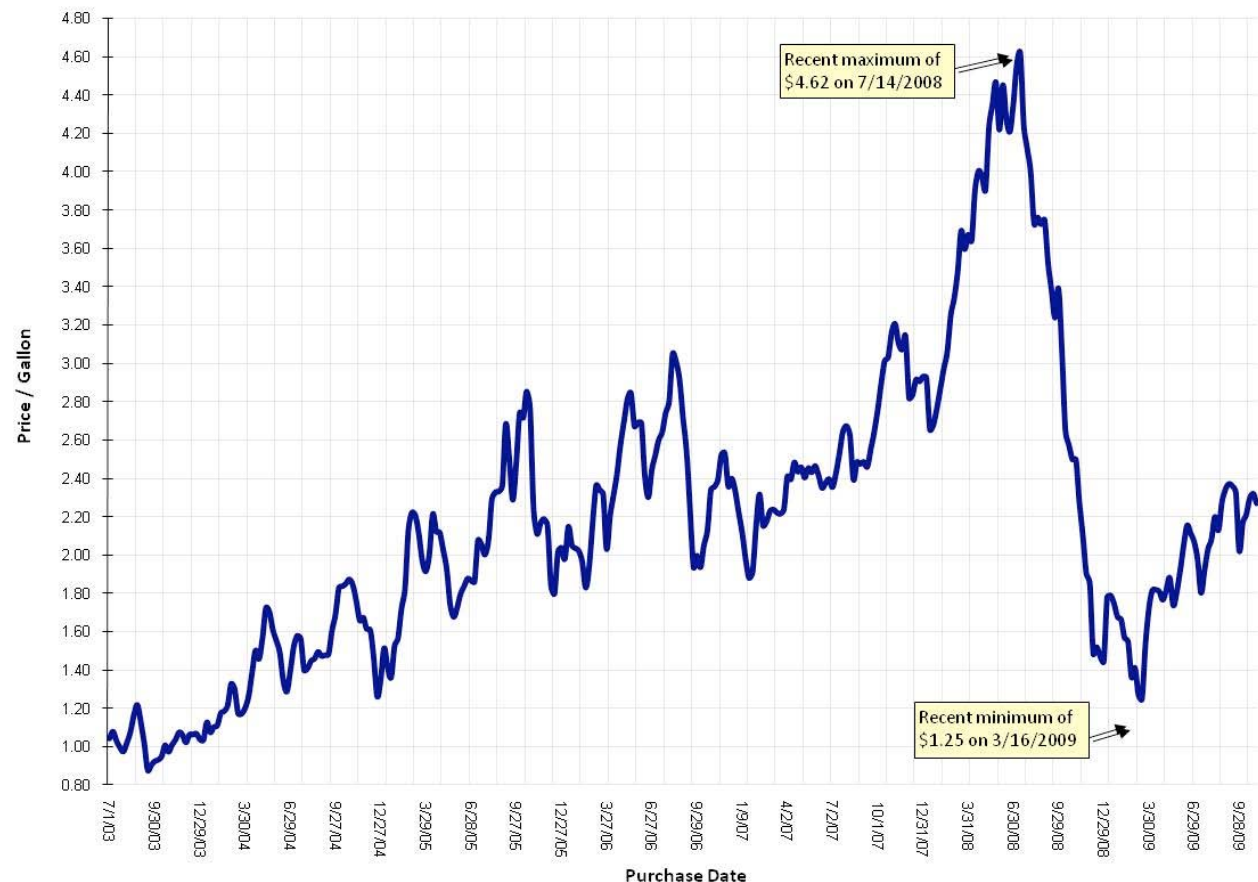
- During the 1990's fuel costs were typically close to \$10M per year and accounted for approximately 10% of WSF operating costs
- Since 2000, the importance of fuel costs has grown dramatically
 - Costs have grown from \$20M per year to more than \$40M per year since 2007
 - Fuel now accounts for 20% or more of WSF operating costs



Price Volatility Adds to the Challenge

- With a much higher share of WSF's budget focused on fuel, price volatility has an even greater impact on overall financial and budget risks
- WSF fuel prices, especially within the last three years have been extremely volatile.
- Volatility is a function of both supply and demand uncertainty
- Market instability and short-term price fluctuations are expected to be the norm going forward.
- 2009-11 Budget passed at the low point of recent fuel prices

WSF FUEL PRICE HISTORY
7-1-2003 to 11-2-2009



Mitigating Fuel Cost Risks

- A Three-Part Strategy is proposed to improve fuel budget stability by actively managing fuel cost risks – two parts are focused on cost management, the third adds a new revenue enhancement tool:
 - **Market exposure risks (price).** Develop fuel price hedging strategies to manage WSF's exposure to price swings **and** change budgeting practices to minimize effects of volatility in forecasts.
 - **Conservation (consumption).** Continue to implement current fuel efficiency measures and explore new ways to conserve fuel, including looking at tradeoffs involving reduced service levels.
 - **Fuel surcharge (revenue).** Implement a fuel surcharge mechanism in the WAC, designed to manage risks between budget setting opportunities and recover a portion of fuel costs if hedging cannot fully mitigate unexpected spikes in actual fuel prices.
- Each of these elements alone will help mitigate future risks, but they are primarily designed to work together to minimize the impact of fuel price volatility on WSF's budget.

Market Exposure: Price Hedging

- Hedging is a strategy to improve budget stability by minimizing the effects of short-term price volatility – it will not provide a long-term, sustainable reduction in fuel costs.
- It is common for businesses where fuel expenses account for a sizeable share of operating costs to engage in price hedging (for example shipping lines, airlines, trucking operators and large public transit agencies).
- The Legislature passed House Bill (HB) 2746 during the 2008 legislative session, authorizing WSF to explore and implement fuel purchasing strategies such as price hedging to reduce the overall cost of fuel and mitigate the impact of market price fluctuations.
- Efforts are underway to develop a hedging policy for WSF, identify the most appropriate hedging technique(s), and gather information needed to make a decision on how to proceed with this strategy option.
- This issue will be comprehensively addressed in a Fuel Hedging Policy and Program document that is still in development.
- At this point, however, hedging appears to be a promising option for WSF and a way to significantly improve budget stability in the future.

Market Exposure: Budgeting

- Changing budgeting practices would also manage price exposure risks.
- Forecasting fuel is difficult and forecasts can change quickly, but currently a single current forecast is used to establish the budget, which ensures high volatility.
- To minimize the impact of volatility in forecasts, budget practices should be reviewed and possibly modified to reduce the risks inherent in price forecasting.
- Options that might be considered:
 - Incorporate other forecasts into a “consensus forecast” approach
 - Consider a weighted or straight average of the four most recent forecasts
 - Consider using pricing data from the futures market to gauge and adjust near-term pricing expectations (3-24 months)
 - Once hedging is underway, a portion of future fuel costs will be “known” and should also be factored into the budget
- Propose developing a new fuel budgeting approach in 2010 for use in the 2011-13 Budget process.

Conservation: Fuel Saving Strategies

- A key to minimizing the overall impacts of fuel costs is to ensure that WSF is managing its consumption effectively.
- Toward this end, a number of strategies are being pursued.

Vessel Investment Strategies

Jumbo Mark II	Operate on two engines – done so except during landings	540,000 gal/year for 3 ferries Implemented.
Jumbo Mark I	Upgrade control systems to run vessel on 3 engines instead of 4	142,000 gal/year for 2 ferries Await sea trials & establishment of operational procedures.
Super Class	Upgrade engines and associated systems to enable running on 2 engines instead of 4	540,000 gal/year for 3 ferries In Engineering Design phase.
Issaquah Class	Running in split plant mode where viable	Not yet determined . To be investigated through operational testing.
Issaquah Class	Use waste heat recovery to heat vessel	Up to 61,000 gal/year per vessel. Investigating whether installation cost can be reduced

System Wide Operational Strategies

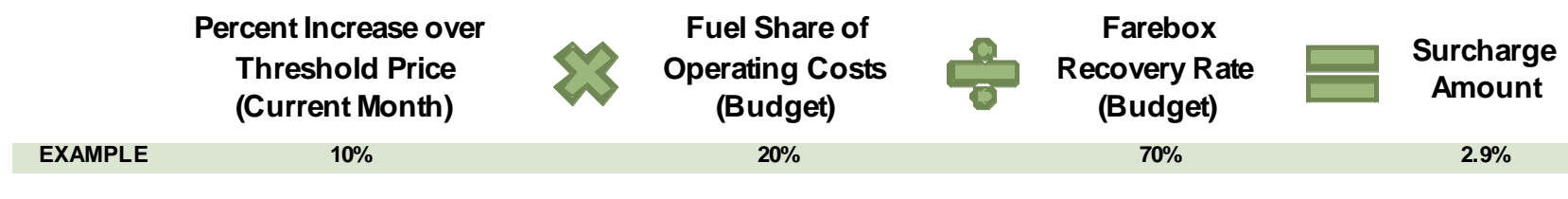
	Develop alternate tie-up method(s) for vessels, allowing a reduction in shaft speed while docked	Up to 145,000 gal/year per vessel depending on vessel & location . Await approval of grant request for pilot project.
	Slow Vessels down 0.5 to 1.0 knots	Up to 2.5% savings for 0.5 knot reduction and 5% for 1.0 knot reduction. Assessing service impacts at route level .
	Improve loading and unloading times	Not yet determined

Fuel Surcharge

- A fuel surcharge is a temporary increase in fares to provide additional revenue to address unpredicted increases in fuel costs.
- As with hedging, fuel surcharges are common for organizations where fuel costs are a prominent component of operational costs.
- A fuel surcharge mechanism is proposed that would be:
 - Automatic and based on a formula and framework put in place by the Transportation Commission and codified in rule form in the WAC.
 - An additional protection against WSF's exposure to the effects of fuel price volatility between budget setting opportunities that are not fully managed from hedging activity alone.
 - Transparent and simple to calculate.
 - Separately identified from regular fares and the revenues would be segregated and used solely to defray fuel costs.
 - Based on monthly indexes of Tacoma and Anacortes diesel fuel price data, adjusted for effects of hedging activities.
 - Updated as frequently as **monthly**, where warranted by price changes.

Surcharge Determination

- The proposed fuel surcharge would be an automatic formula-driven process, that would determine if and how much a surcharge would be.
- Calculating the surcharge would follow a four step process:
 1. Calculate average actual market price of diesel fuel for the previous month, using monthly indexes made up of daily Tacoma and Anacortes diesel fuel prices weighted by WSF purchasing volumes;
 2. Adjust the average monthly market price for the effects of hedging activities over the corresponding period;
 3. If the hedging-adjusted price is greater than the “threshold price of fuel” then a fuel surcharge amount is calculated as:



4. If the surcharge amount is greater than 2.5% then a surcharge would be applied at the next fare change opportunity.
- Once a surcharge amount is established, then it would apply to all fare categories and rounded to the nearest nickel.

Setting the Threshold Price of Fuel

- The Intent of a fuel surcharge is to provide additional revenue in situations of extraordinary and unpredicted fuel price increases.
- The key decision is how to set the **threshold price of fuel**, which defines the baseline price above which a surcharge would apply.
- A number of options were considered, but the recommended approach is to use the budgeted price of fuel as the threshold price.
 - **Benefits:** it is simple to use and explain, and uses a single price that is based on the price expectations in the WSF budget.
- The surcharge would be a tool that would help manage price volatility risks between budget setting opportunities.
- It would produce revenue when prices exceed budget expectations even beyond WSF's ability to hedge the price risk.
- This is consistent with the goal of making cost management strategies the primary focus for budget stability.

Implications of a Fuel Surcharge

- To illustrate the potential price impacts, the current proposed budget for FY2011 is used (\$2.58 per gallon).
- The surcharge would apply to all applicable fares and rounded to the nearest nickel.

Threshold Price of Fuel equal to \$2.58 (Proposed Budget for FY2011)

			Seattle-Bainbridge Island y (Full Fare Car & Driver)y		Mukilteo-Clinton (Full Fare y Car & Driver)y		Anacortes-Friday Harbor y (Full Fare Car & Driver)y	
Hedging- y	Increase y							
Adj. Actual y	over y	Surcharge y	Fuel	Total Pricey	Fuel	Total Pricey	Fuel	Total Pricey
Fuel Pricey	Thresholdy	Amounty	Surcharge		Surcharge		Surcharge	
\$2.58y	0.0%y	0.0%y	\$0.00	\$11.85y	\$0.00	\$6.85y	\$0.00	\$37.90y
\$2.75y	6.6%y	1.8%y	\$0.00	\$11.85y	\$0.00	\$6.85y	\$0.00	\$37.90y
\$3.00y	16.3%y	4.3%y	\$0.50	\$12.35y	\$0.30	\$7.15y	\$1.65	\$39.55y
\$3.25y	26.0%y	6.9%y	\$0.80	\$12.65y	\$0.45	\$7.30y	\$2.60	\$40.50y
\$3.50y	35.7%y	9.5%y	\$1.15	\$13.00y	\$0.65	\$7.50y	\$3.60	\$41.50y

			Seattle-Bainbridge Island y (Full Fare Passenger)y		Mukilteo-Clinton (Full Fare y Passenger)y		Anacortes-Friday Harbor y (Full Fare Passenger)y	
Hedging- y	Increase y							
Adj. Actual y	over y	Surcharge y	Fuel	Total Pricey	Fuel	Total Pricey	Fuel	Total Pricey
Fuel Pricey	Thresholdy	Amounty	Surcharge		Surcharge		Surcharge	
\$2.58y	0.0%y	0.0%y	\$0.00	\$6.90y	\$0.00	\$4.10y	\$0.00	\$10.10y
\$2.75y	6.6%y	1.8%y	\$0.00	\$6.90y	\$0.00	\$4.10y	\$0.00	\$10.10y
\$3.00y	16.3%y	4.3%y	\$0.30	\$7.20y	\$0.20	\$4.30y	\$0.45	\$10.55y
\$3.25y	26.0%y	6.9%y	\$0.50	\$7.40y	\$0.30	\$4.40y	\$0.70	\$10.80y
\$3.50y	35.7%y	9.5%y	\$0.65	\$7.55y	\$0.40	\$4.50y	\$0.95	\$11.05y

Note: Assumes minimum surcharge of 2.5% before implementation, based on current fares

Fuel Price Review & Surcharge Implementation

- WSF would create a monthly process to review actual fuel prices and hedging results – the status of the fuel surcharge would be adjusted accordingly, based upon the Commission methodology & formula.
 - WSF must implement price changes on the first of the month, per its agreement with its regional transit partners.
 - Based on the notification requirements, the shortest practical lag between price impact and surcharge will be approximately six weeks.
 - To minimize the lag effects, fuel prices will be tracked monthly from mid-month to mid-month (16th of the previous month through the 15th of the current month).
 - To minimize the number of price changes that might result from surcharges, the surcharge amount would need to change at least 2.5% to trigger a revision to the surcharge.
- While a monthly review process is proposed, it would also be possible to operate on a quarterly basis (without the minimum trigger for changes).
- There will be minimal administrative and IT costs associated with implementation of the surcharge

Fuel Mitigation Strategy - Implementation

- Based on current legislative and regulatory authority, the recommended strategies are proposed to be implemented as follows:
 - **Hedging:**
 - Balance of 2010, develop policy and program
 - Include in 2011-13 Budget proposal, start in FY 2011
 - **Revised budgeting practices:**
 - Balance of 2010, work with OFM and Transportation Revenue Forecast Council to develop new budgeting and forecasting practices
 - Base the 2011-13 Budget proposal on new practices
 - **Conservation** – WSF is actively engaged in evaluating fuel saving strategies and implementing its fuel conservation program
 - **Fuel surcharge** – Transportation Commission is able to implement the fuel surcharge mechanism as early as May 1, 2010, pending legislative direction.

Surcharge Rulemaking - Next Steps

The Commission is poised to move forward on its rule making, pending legislative direction.

The rule making timeline for implementing a surcharge follows, using the Governor's May 1, 2010 date as an assumption to demonstrate the process:

- **On December 23, 2009:** Public notice was provided for a potential surcharge amendment sometime this year pending legislative direction (*CR 101 filed*)
- **February 16, 2010:** WSTC meets to finalize rule language and issues formal proposal for public review (*CR 102*)
- **March 2010:** Public meetings held and comments gathered on fuel surcharge proposal
- **March 23rd – 30th, 2010:** Commission holds final public hearing on proposal and adopts final rule - filed no later than March 31st (*CR 103*)
 - Legislative session ends on March 11th, so there is an opportunity for legislative direction to be incorporated before final adoption
 - Once adopted, WSF would begin monthly fuel price tracking and review process
- **May 1, 2010:** Surcharge mechanism is codified in WAC and in full effect

Questions?

For more information on the WSDOT Ferries Division Fuel Cost Mitigation Strategies, please contact:

David Moseley, Assistant Secretary
Ferries Division, at
(206) 515-3401 or MoseleD@wsdot.wa.gov

For more information on the WSTC Fuel Surcharge, please contact;

Reema Griffith, Executive Director
Washington State Transportation Commission, at
(360) 705-7070 or griffir@wstc.wa.gov

