

REPORT TO THE LEGISLATURE
on
Diesel Fuel Price Hedging, Fiscal Year 2023

**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
FERRIES DIVISION**

January 29, 2024



Executive Summary

History

Since 2015, the hedging program (“program”) uses financial hedges, specifically called “Swap Contract Agreements” (“swaps”) which is one of the methods authorized for use in RCW 47.60.830.

Prior to 2015, the Washington State Legislature authorized the Washington State Department of Transportation (WSDOT) to enter a distributor-controlled fuel hedging program (2011). Under this program, Washington State Ferries (WSF) worked directly with WSF’s fuel provider. In 2012, the Legislature expanded the authorization to include other methods of hedging approved by the Fuel Hedging Oversight Committee.

The first financial hedges were executed in fiscal year 2015. The objectives of this hedging program are to decrease the volatility of fuel costs and increase the likelihood that actual net fuel cost will remain below the budgeted amount.

FY 2023 Highlights

During fiscal year 2023, the amount contracted (“hedged”)¹ through price swaps totaled 10,794,000 gallons². This amount was 59 percent of budgeted gallons and 71 percent of consumed gallons. WSF had a greater proportion of contracted gallons in the latter three-quarters of fiscal year 2023, as six of the eight price swaps were executed over the course of fiscal year 2023. From October 2022 through January 2023, contracted gallons comprised 56 percent of budgeted gallons and 63 percent of consumed gallons. From February through June 2023, contracted gallons comprised 79 percent of budgeted gallons and 94 percent of consumed gallons.

Of the eight swaps executed for fiscal year 2023:

- All swap contracts were executed with prices below the Washington five-percent biodiesel (B5) forecast price. For these swaps, WSF received \$6,595,970 from the counterparties.

The following discussion includes additional information and looks at the program in various ways (including overviews of the program, price swaps executed, market conditions, and financial performance) to review the many elements considered when executing the program.

¹ The fuel hedging program currently uses financial hedges, or “Swap Contract Agreements” (swaps). Because WSDOT is entering into futures contracts directly with a counterparty, the number of gallons WSDOT is hedging in the swaps are “contracted.” Therefore, throughout this document, gallons that are hedged through financial hedges will be referred to as “contracted gallons.”

² Please see Attachment A for specifics of each swap contract entered for fiscal year 2023.

Fuel Hedging Authority, Policy, and Practice

Fuel Hedging Policy and Committee

During fiscal year 2023, the WSDOT ferries division continued a hedging program for the purpose of stabilizing fuel expense for budget certainty. The statutory authority to conduct swaps is provided in RCW 47.60.830 (Ferry system operation—Fuel purchasing strategies) and is emphasized in the ferries section of the State Transportation Budget in authorizing proviso language. This report is required per RCW 47.60.830.

The Secretary of Transportation's *Executive Order 1078* provides specific direction for implementing a hedging program³. The Executive Order established a Fuel Hedging Oversight Committee ("the Committee") to provide guidance; provides for the use of a hedging consultant to advise on timing, quantities, tenure of hedge contracts; sets maximum hedging limits; and outlines other operating parameters. The Committee consists of the WSDOT Principal Financial Officer, the Assistant Secretary for WSF, a transportation Budget Assistant to the Governor from the Office of Financial Management, and a representative from the Department of Enterprise Services. The Committee meets to receive periodic updates on the status of the market, swaps in place, and future swap plans, or when a need arises to make a policy decision or to set parameters for the program. The Committee is staffed by the Director of Finance and Administration at WSF and receives advisory input from a consultant.

The hedging policy sets forth limitations within which swaps will be executed in terms of maximum quantities, length of contracts, administrative structure, and consultant assistance. The policy states that the purpose of the hedging program is to seek to decrease the volatility of fuel cost and increase the likelihood that actual net fuel cost will remain below the budgeted cost. The Executive Order establishing the policy was changed in August 2014 to authorize hedge contracts at the discretion of the Assistant Secretary for Ferries, provided that the quantities and length of contract were within limits of the "standard recommendation," which can change by action of the Committee. In January 2017, it was changed again to remove this authorization for "standard recommendation." The Executive Order was revised in May 2022 to simplify and update language, but no changes were made to the hedging policy. The limitations established by the Executive Order as of May 12, 2022, are:

Amount Hedged:

- Up to the first twelve months, on a rolling basis, a maximum of 95 percent of the forecasted consumption may be hedged. In addition, hedges will not exceed the forecasted monthly consumption level for any specific month.
- Between the thirteenth and twenty-fourth months, on a rolling basis, the volume of fuel hedged will not exceed 80 percent.
- In times of extraordinary circumstances, the Oversight Committee may decide to hedge fuel in the twenty-fifth month and beyond, at a maximum ratio to be determined at that time by the committee.

³ Please see Attachment B for the full Executive Order.

Fuel Hedging Policy and Committee (continued)

- The Oversight Committee may set lower limits, including in consideration of potential service reductions.

Duration:

- The maximum maturity of any contracts entered in conjunction with the program is twenty-four months. Contract terms may cross biennial lines.
- If extraordinary circumstances warrant longer maximum maturity periods, the Committee may approve hedges that extend the maximum maturity beyond twenty-four months on a case-by-case basis.

Fuel Hedging Practice

Since the Washington State Legislature authorized WSDOT to enter a distributor-controlled fuel hedging program in 2011, the Legislature has expanded the fuel hedging program's authorization to other methods of hedging approved by the Committee. In fiscal year 2015, the hedging program executed its first financial hedges.

With financial hedges, WSDOT enters futures contracts directly, guaranteeing the fuel price in the financial market at a set date in the future. The hedging program does not involve futures contracts or a "locked in" forward price for B5 biofuels⁴. This is because the market for B5 is not "investible" and does not have depth or liquidity comparable to widely traded commodities like gasoline or diesel. Rather, WSDOT employs a derivative security known as a "Swap Contract Agreement," or swap. The Department and a counterparty (usually an investment bank) agree to swap floating prices on a commodity for a fixed price over a set period. The commodity is Ultra Low Sulfur Diesel ("diesel") which is traded on the New York Mercantile Exchange (NYMEX) using standardized contracts and priced at New York Harbor. As noted above, for the hedging program, WSF retains the services of a financial advisor to evaluate swaps⁵.

Since the Department enters swaps on the price of diesel at New York Harbor, these swaps do not affect the price that WSDOT pays for its purchases of B10 in Washington State. The only way swaps affect the fuel budget is through their performance. If the price of diesel at New York Harbor goes above the mutually agreed upon fixed price between the WSDOT and a counterparty, the counterparty pays WSDOT the price difference multiplied by the number of contracted gallons. If the price of diesel goes below the contracted price between WSDOT and a counterparty, then the Department pays the counterparty. The net effect of these swap transactions is an addition or subtraction of cash to the fuel account.

⁴ WSF purchases and uses ten-percent biodiesel (B10) throughout its fleet. However, per the contract with its fuel provider, WSF purchases B10 using B5 prices. Therefore, the rest of this document will refer to B5 prices.

⁵ Among other tasks, the financial consultant performs a swap effectiveness test to confirm, essentially, that the swaps are functioning and performing as expected. The results of this test for fiscal year 2023 can be found in Attachment D.

Fuel Hedging Practice (continued)

In its efforts to mitigate the volatility of fuel costs and provide WSF with greater fuel budget certainty, the Department takes on several risks when executing swap contracts, which may incur costs or financial impacts. Specifically:

- As stated above, if the future price of diesel at New York Harbor falls below the contracted diesel price, the Department pays counterparties a settlement amount.
- Because WSDOT enters swaps based, in part, on forecasted B5 prices in Washington State, there is “tracking risk,” wherein forecasted B5 prices in Washington State do not match well with the future prices of diesel at New York Harbor. If there is a mismatch, the Department could pay counterparties a settlement amount.
- There is a timing risk. The Department uses annual average prices from quarterly released B5 price forecasts to help guide whether or not to enter a swap. There are times when the quarterly Washington State B5 price forecast will not have the “best available” information on the future trends of biodiesel or diesel prices. As a result, there could be more risk involved when entering swaps based on forecasts of different commodities (B5 and diesel) and using stale B5 price forecasts to determine the correct time and price to execute swaps. Conversely, it is possible using B5 price forecasts could result in lost swap opportunities if the forecasts are not reflective of an upward market, as forecasts project based on prices from the quarter before the forecast; the Committee has taken steps to mitigate this risk in its review and approval of swap plans.
- There is “counterparty risk.” Current swap contracts do not have a guarantee on the trade. If the counterparty defaults, the Department could lose money. The Department is currently entering into agreements with well-established institutions, such as Merrill Lynch and Cargill, which helps mitigate this risk.

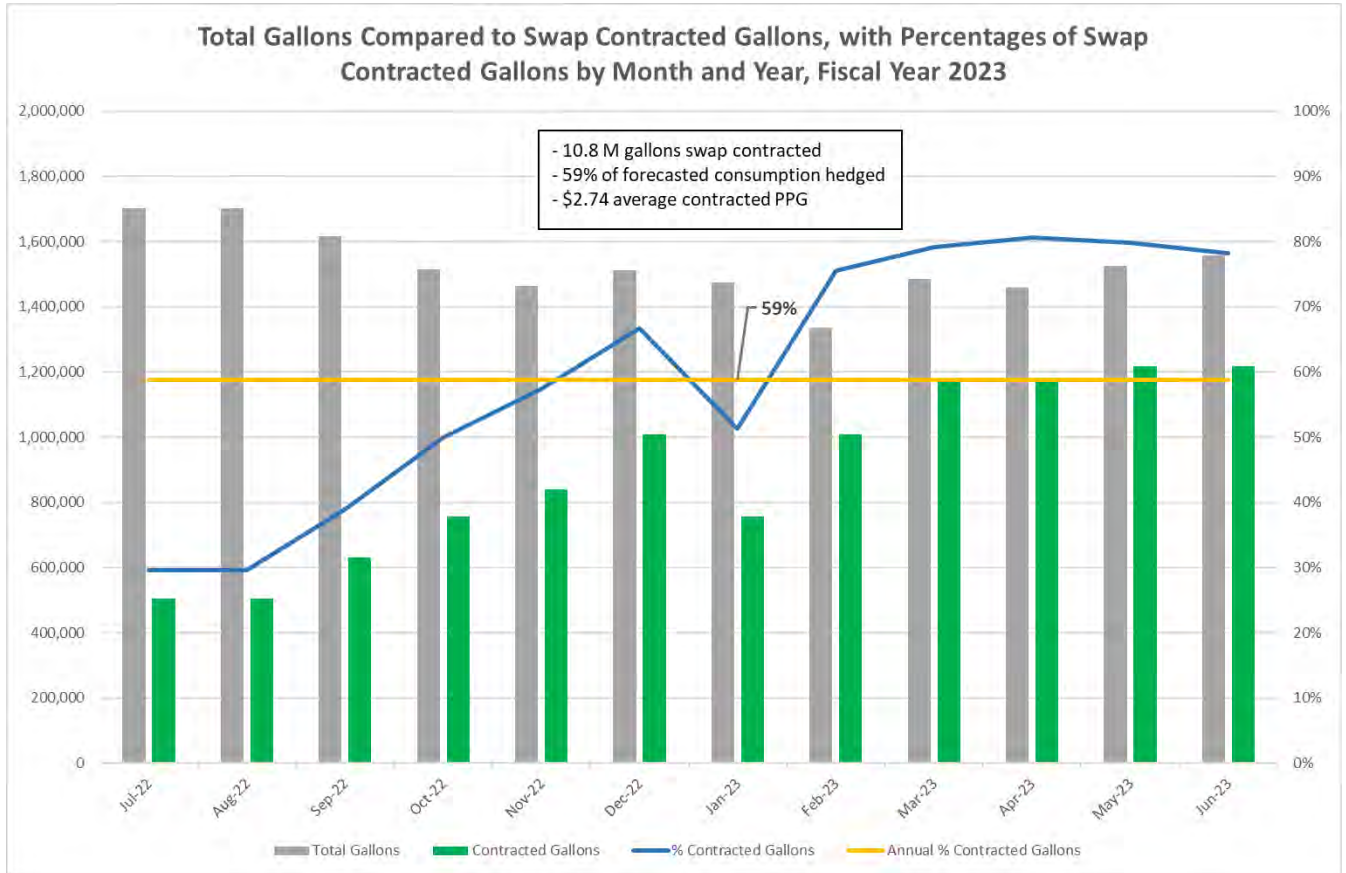
Swaps in Fiscal Year 2023

Fuel Budget Portion Entered in Swaps

For fiscal year 2023, the amount of fuel entered in eight swaps totaled 10.8 million gallons, which represents 59 percent of budgeted gallons, or 71 percent of consumed gallons. The average price of the swaps in fiscal year 2023 was \$2.74 per gallon. WSF executed six of the eight swaps over the course of fiscal year 2023, meaning a greater proportion of budgeted and consumed gallons were contracted in the latter three-quarters of the fiscal year. Half of budgeted gallons in October 2022 were contracted, compared to 30 percent of budgeted gallons at the start of fiscal year 2023. In addition, the six swaps executed over the course of the fiscal year were of different lengths and sizes. The longest swap contracted 252,000 gallons per month for six months; the shortest swap contracted 84,000 gallons for the first month and 252,000 gallons for the second month. The varying lengths and sizes of the executed swaps reflected a change in strategy for the program, as WSF worked to maximize short-term budget certainty in a volatile, high-price market. This information is summarized in Figure 1 on the next page. Detailed information regarding the executed swaps can be found in Attachment A.

Fuel Budget Portion Entered in Swaps (continued)

Figure 1



Price History, Fiscal Year 2023

Russia’s invasion of Ukraine in late February 2022 contributed to price spikes and a high-price environment at the start of the fiscal year. By the second half of the year, however, prices stabilized as the global economic outlook improved and the market adjusted to the state of war in Ukraine. Fuel prices were more volatile and, on average, higher than the year before.

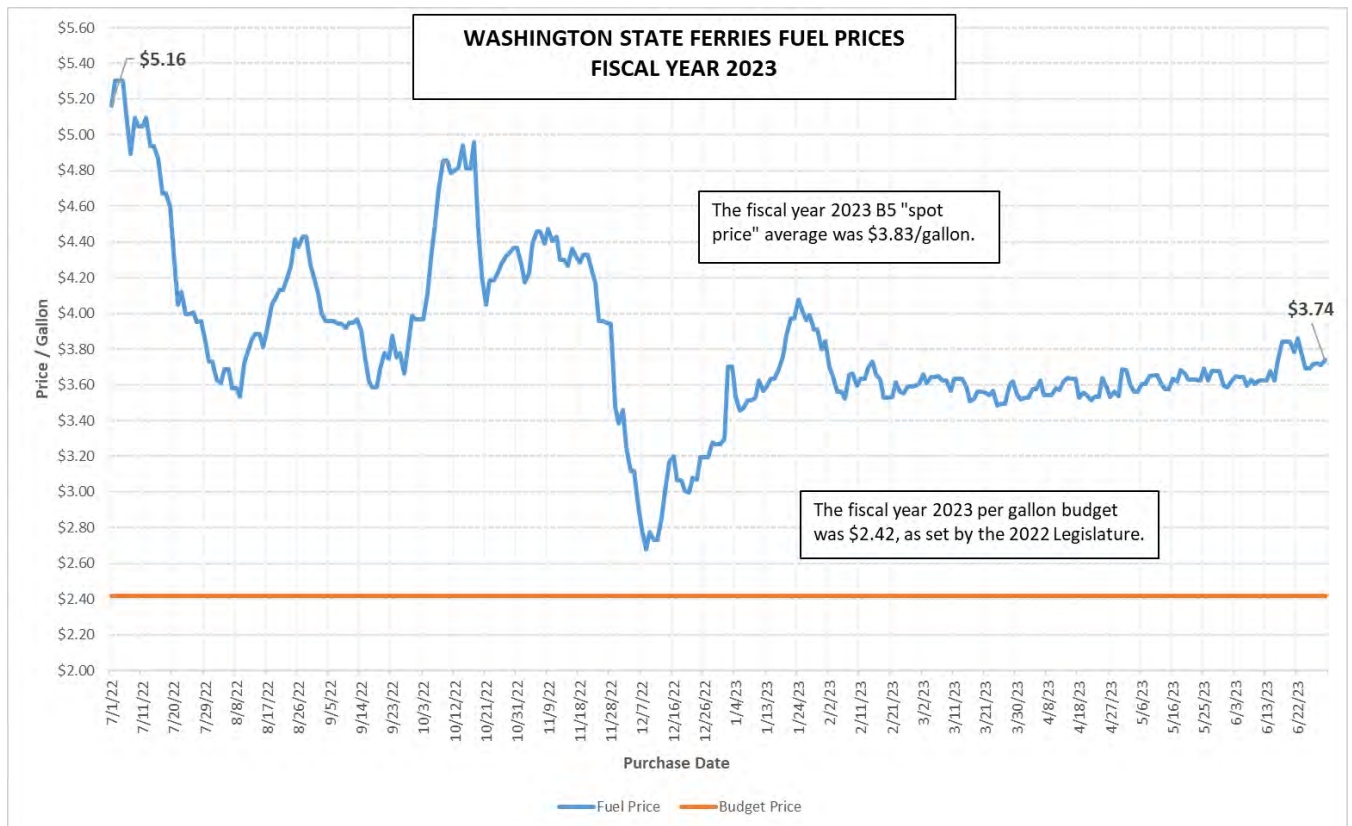
In fiscal year 2022, prices rose from around \$2.46 per gallon at the start of the year to \$5.11 per gallon by fiscal year close. Prices gradually increased in the first half of the year as world economies generally expanded economic activity despite periodic waves of coronavirus variants. However, the Russian invasion of Ukraine in late February 2022, and subsequent sanctions imposed by North Atlantic Treaty Organization countries, greatly increased volatility and uncertainty in the petroleum market and resulted in dramatic price increases to close the year. During the beginning of fiscal year 2023, prices remained highly volatile. Starting at \$5.16 per gallon in July, prices fell to almost \$3.50 per gallon in early August; rose to over \$4.40 per gallon by the end of August; fell to below \$3.60 per gallon in mid-

Price History, Fiscal Year 2023 (continued)

September; and spiked to almost \$5.00 per gallon in mid-October. By early December, prices had fallen to less than \$2.70 per gallon amid high inflation and fears of a global recession. However, as China began to re-open its economy, and the war in Ukraine became normalized, by the end of January the market ultimately stabilized, with prices generally fluctuating between \$3.50 per gallon and \$3.70 per gallon for the remainder of the fiscal year. The US dollar decreased in value over the latter half of fiscal year 2023, which is generally positive for price. US domestic petroleum inventories increased over the course of fiscal year 2023, which is generally negative for price. Levels of speculation decreased during fiscal year 2023 as investors exited the market after realizing profits at the start of the year.

Figure 2 provides a Washington State B5 price history for fiscal year 2023.

Figure 2



Swaps Compared to B5 Budget and Forecast Prices

In Figure 3, a horizontal line represents the Washington State B5 forecast price in place for the fiscal year 2023 enacted budget; vertical bars represent the annual B5 price forecasts for fiscal year 2023 in place at the time swaps were executed; and diamond-shaped markers represent the New York Harbor diesel prices at which the swaps were executed. Note that the enacted budget is from the 2022

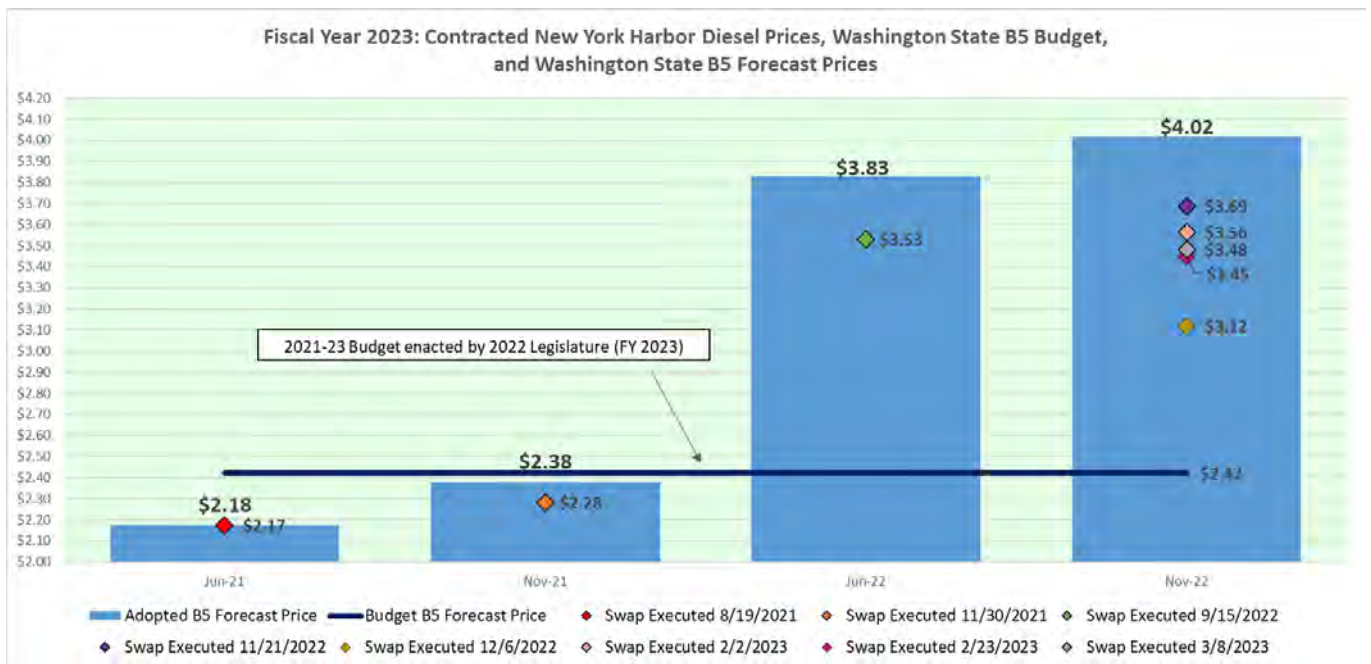
Swaps Compared to B5 Budget and Forecast Prices (continued)

Legislature. This number is used because that was the budget environment under which WSF, and the Committee, were operating when six of the eight swaps were executed.

For fiscal year 2023, two swaps were executed prior to the start of the fiscal year, and the remaining six swaps were executed over the course of the fiscal year, from September 2022 to March 2023. The first two swaps were executed below the eventual budget price (\$2.42 per gallon) and below the most recent forecast prices (the June 2021 and November 2021 adopted forecasts, respectively). The swaps were executed for budget certainty and preceded Russia’s invasion of Ukraine. The remaining six swaps were executed above the budgeted price but below the most recent forecast prices for fiscal year 2023 (the June 2022 and November 2022 adopted forecasts, respectively). These swaps were executed for budget stability and price certainty, amid a volatile market and high-price environment.

All swaps for fiscal year 2023 were executed within parameters approved by the Committee.

Figure 3



Price Swaps Financial Performance in Fiscal Year 2023

As mentioned previously, the objectives of the WSDOT hedging program are to decrease the volatility of fuel costs and hopefully increase the likelihood that actual net fuel cost will remain below the fuel budget for ferries; price savings is secondary. At the start of fiscal year 2023, WSF had 6.0 million contracted gallons, with the swaps executed prior to Russia invading Ukraine. As prices spiked and remained above the fiscal year budgeted price, WSF executed six additional swaps to provide WSF

Price Swaps Financial Performance in Fiscal Year 2023 (continued)

greater budget certainty. As previously noted, there are several risks associated with executing swaps that can result in WSDOT incurring additional costs from its fuel account to pay a counterparty. In fiscal year 2023, the first three executed swaps resulted in WSF receiving payment from counterparties. The remaining five swaps resulted in WSF paying counterparties.

Table 1 depicts the payments received and paid by WSF, by month, for the eight swaps executed for fiscal year 2023. In total, WSF received \$6,595,970 from counterparties for the eight swaps. For the swaps executed prior to the start of fiscal year 2023, WSF received \$3,607,304 and \$3,284,644, respectively. For the swap executed in September 2022, WSF received \$291,299. WSF paid counterparties for the other five swaps, in amounts ranging from \$66,041 for the swap executed in November 2022, to \$162,288 for the swap executed in March 2023. Further details on price swap performance can be found in Attachment C.

Table 1

Price Swap	Jul-2022	Aug-2022	Sep-2022	Oct-2022	Nov-2022	Dec-2022	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	FY 2023 Total
Swap 1	\$ 432,533	\$ 420,563	\$ 374,472	\$ 511,006	\$ 411,541	\$302,375	\$328,532	\$ 227,884	\$ 204,574	\$ 164,153	\$ 106,268	\$ 123,404	\$ 3,607,304
Swap 2	\$ 405,644	\$ 393,674	\$ 347,584	\$ 484,117	\$ 384,653	\$275,486	\$301,644	\$ 200,995	\$ 177,685	\$ 137,264	\$ 79,380	\$ 96,516	\$ 3,284,644
Swap 3	\$ -	\$ -	\$ 15,838	\$ 194,519	\$ 95,054	\$ (14,112)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 291,299
Swap 4	\$ -	\$ -	\$ -	\$ -	\$ (2,335)	\$ (63,706)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (66,041)
Swap 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$112,342	\$ 11,693	\$ (11,617)	\$ (52,038)	\$ (109,922)	\$ (92,786)	\$ (142,330)
Swap 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (8,215)	\$ (31,525)	\$ (71,946)	\$ -	\$ -	\$ (111,686)
Swap 7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,416	\$ (16,531)	\$ (55,121)	\$ (43,697)	\$ (104,933)
Swap 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (91,140)	\$ (71,148)	\$ (162,288)
FY 2023 Total	\$ 838,177	\$ 814,237	\$ 737,894	\$ 1,189,642	\$ 888,913	\$500,044	\$742,518	\$ 432,356	\$ 349,532	\$ 160,902	\$ (70,535)	\$ 12,289	\$ 6,595,970

Fuel Consumption – Fiscal Year 2023

Fuel Consumption and Efficiencies

In April 2018, the WSF Operational Efficiency Working Group introduced a directive to reduce maximum speeds for vessels. This directive is intended to encourage fuel savings and decrease CO₂ emissions as part of WSF's ongoing efforts to transition to a zero-carbon-emission ferry fleet, as mandated by Governor Inslee's Executive Order 18-01. Due in part to this identified efficiency, WSF fuel consumption was 162,859 gallons below budget for fiscal year 2019.

For fiscal year 2020, WSF consumed 17,102,927 gallons, or 1,779,423 gallons below budgeted gallons. This consumption underrun was primarily due to pandemic-related service reductions implemented by WSF at the end of March 2020. These service reductions continued into fiscal year 2021. While some service was gradually restored, pandemic-related service reductions, and limited crew availability because of the pandemic, resulted in WSF consuming 15,391,626 gallons, or 2,954,912 gallons below budgeted gallons. In fiscal year 2022, in addition to pandemic-related service reductions and limited crew availability, two Olympic Class vessels (large consumers of fuel) were unexpectedly out of service for extended periods of time. As a result, WSF consumed 14,980,387 gallons, or 3,366,548 gallons below budgeted gallons. In fiscal year 2023, all but four routes were restored to full service, pushing consumption close to the fiscal year 2021 level. For the year, WSF consumed 15,295,136 gallons, or 3,048,474 below budgeted gallons.

Fuel Consumption and Efficiencies (continued)

Table 2

WSF X PROGRAM AUTO FERRY FUEL CONSUMPTION – BUDGETED VS. ACTUAL

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	FY23 Totals
Budgeted Gallons	1,701,287	1,701,800	1,616,878	1,514,344	1,463,528	1,511,346	1,473,079	1,334,428	1,485,021	1,458,398	1,525,282	1,558,219	18,343,610
Actual Gallons	1,245,611	1,320,509	1,221,350	1,338,252	1,355,311	1,354,192	1,284,942	1,169,098	1,322,806	1,243,868	1,241,859	1,197,338	15,295,136
Variance	455,676	381,291	395,528	176,092	108,217	157,154	188,137	165,330	162,215	214,530	283,423	360,881	3,048,474
Percent Variance	26.8%	22.4%	24.5%	11.6%	7.4%	10.4%	12.8%	12.4%	10.9%	14.7%	18.6%	23.2%	16.6%

Attachment A

Fiscal Year 2023 Swap Contracts

Swap #33 Executed 8/19/2021			Swap #35 Executed 11/30/2021			Swap #37 Executed 9/15/2022			Swap #38 Executed 11/21/2022		
<u>FY2023</u>			<u>FY2023</u>			<u>FY2023</u>			<u>FY2023</u>		
	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	
7/1/2022	252,000	2.1738	252,000	2.2805							
8/1/2022	252,000	2.1738	252,000	2.2805							
9/1/2022	252,000	2.1738	252,000	2.2805	126,000	3.4697					
10/1/2022	252,000	2.1738	252,000	2.2805	252,000	3.5497					
11/1/2022	252,000	2.1738	252,000	2.2805	252,000	3.6197		84,000	3.8205		
12/1/2022	252,000	2.1738	252,000	2.2805	252,000	3.4497		252,000	3.6443		
1/1/2023	252,000	2.1738	252,000	2.2805							
2/1/2023	252,000	2.1738	252,000	2.2805							
3/1/2023	252,000	2.1738	252,000	2.2805							
4/1/2023	252,000	2.1738	252,000	2.2805							
5/1/2023	252,000	2.1738	252,000	2.2805							
6/1/2023	252,000	2.1738	252,000	2.2805							
	<u>3,024,000</u>		<u>3,024,000</u>		<u>882,000</u>		<u>336,000</u>				
Swap #39 Executed 12/6/2022			Swap #40 Executed 2/2/2023			Swap #41 Executed 2/23/2023			Swap #42 Executed 3/8/2023		
<u>FY2023</u>			<u>FY2023</u>			<u>FY2023</u>			<u>FY2023</u>		
	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	<u>Gallons</u>	<u>Price</u>	
7/1/2022											
8/1/2022											
9/1/2022											
10/1/2022											
11/1/2022											
12/1/2022											
1/1/2023	252,000	3.0412									
2/1/2023	252,000	3.0324	252,000	3.5114							
3/1/2023	252,000	3.1262	252,000	3.6052	168,000	3.4181					
4/1/2023	252,000	3.0957	252,000	3.5747	168,000	3.3876					
5/1/2023	252,000	3.1573			168,000	3.4492		294,000	3.4311		
6/1/2023	252,000	3.2601			168,000	3.5520		294,000	3.5339		
	<u>1,512,000</u>		<u>756,000</u>		<u>672,000</u>		<u>588,000</u>				

Attachment A

Swaps #33, #35, #37, #38, #39, #40, #41 and #42

Executed 8/19/2021, 11/30/2021, 9/15/2022, 11/21/2022, 12/6/2022, 2/2/2023, 2/23/2023, 3/8/2023

	Contracted Gallons	Average Price	Budgeted Gallons	Consumed Gallons	Contracted Gallons % of Budget	Contracted Gallons % of Consumed
7/1/2022	504,000	\$2.23	1,701,287	1,245,611	30%	40%
8/1/2022	504,000	\$2.23	1,701,800	1,320,509	30%	38%
9/1/2022	630,000	\$2.64	1,616,878	1,221,350	39%	52%
10/1/2022	756,000	\$2.67	1,514,344	1,338,252	50%	56%
11/1/2022	840,000	\$2.97	1,463,528	1,355,311	57%	62%
12/1/2022	1,008,000	\$2.89	1,511,346	1,354,192	67%	74%
1/1/2023	756,000	\$2.50	1,473,079	1,284,942	51%	59%
2/1/2023	1,008,000	\$2.75	1,334,428	1,169,098	76%	86%
3/1/2023	1,176,000	\$2.92	1,485,021	1,322,806	79%	89%
4/1/2023	1,176,000	\$2.90	1,458,398	1,243,868	81%	95%
5/1/2023	1,218,000	\$2.90	1,525,282	1,241,859	80%	98%
6/1/2023	1,218,000	\$2.96	1,558,219	1,197,338	78%	102%
	10,794,000		18,343,610	15,295,136	59%	71%

Source: Budget Office, Washington State Ferries



**Washington State
Department of Transportation**

**Secretary's Executive Order
Number: E 1078.07**

Signature on file

**Roger Millar, PE, FASCE,
FAICP**
Secretary of Transportation

May 12, 2022

Date

Fuel Hedging Program

I. Introduction

A. Purpose

This Secretary's Executive Order informs employees how to administer fuel hedging in the Ferries Division.

B. Background

In 2011 the Washington State Legislature authorized the Washington State Department of Transportation (WSDOT) to enter into a distributor-controlled fuel hedging program for the biennium of 2011-13. In 2012 the Legislature expanded this authorization to include other methods of hedging approved by the fuel hedging committee. The department is required to consult with the Department of Enterprise Services' Master Contracts and Consulting Program on strategies to reduce the overall cost of fuel and mitigate the impact of market fluctuations and pressure on short-term and long-term fuel costs to the Ferries Division.

C. Definitions

Forward Pricing Period – The term of any fuel hedging contract.

Fuel Hedging – A contractual tool used to reduce exposure to volatile and potentially rising fuel costs. Fuel hedging results in price stability, not necessarily budget savings.

Fuel Hedging Program – The fuel price risk management program.

Hedge Ratio – The ratio of hedged fuel compared to total fuel purchases projected for a certain period of time.

Maximum Maturity – The maximum length of time that a fuel price contract may be extended.

D. Supersession

This Secretary's Executive Order supersedes and replaces the prior version with the same title, dated January 6, 2017. All references to the superseded E 1078.06 now reference E 1078.07.

E. What Has Changed

- In Section II, this revision adds language to clarify the last program strategy bullet.
- In Subsection III.B, this revision adds a new Fuel Hedging Oversight Committee member and simplifies the language.
- In Subsection III.H, this revision adds language to reflect updates to the physical fuel supply priced and received by the Ferries Division.
- In Section VI, this revision adds language about leadership review.

II. Secretary's Executive Order

The Assistant Secretary for the Ferries Division or designee is directed to establish and maintain a fuel hedging program with the primary purpose of managing price risk on fuel used by the Ferries Division. The fuel hedging program will be carried out by the Ferries Division, executing the appropriate transactions at the appropriate times and prices to create the desired effect within policy constraints.

The objectives of the fuel hedging program are to:

- Decrease the volatility of fuel cost.
- Increase the likelihood that actual net fuel cost will remain below the budgeted cost.

Immediate cost savings is secondary to managing overall price risk.

Specific fuel hedging program strategies may include:

- Entering into financial contracts with hedge providers for specific quantities of fuel at specific times, using a specific index.
- Using price contracts with fuel distributors for quantities to be delivered at fixed times.
- Mitigating transaction timing risk by making numerous small volume transactions as opposed to large transactions at a single point in time.
- Continually monitoring the market and assessing program effectiveness.
- Addressing market opportunities and market risks based upon budget goals, such as minimizing WSDOT's budget request for fuel.

III. Policy

A. Program Administered by Ferries Division

The Assistant Secretary for the Ferries Division is responsible for administration of the fuel hedging program. The Assistant Secretary or designee may enter into hedge contracts that meet the Oversight Committee's approval.

B. Fuel Hedging Oversight Committee

The Fuel Hedging Oversight Committee shall meet at least quarterly and includes the Assistant Secretary for the Ferries Division, the Chief Financial Officer, a representative from the Office of Financial Management (OFM), and a representative from the Department of Enterprise Services (DES). The committee provides recommendations to the Assistant Secretary for the Ferries Division regarding hedge contracts.

Ferries Division staff coordinate times, locations, and agendas for the committee. The committee reviews performance reports and policy and strategy recommendations from Ferries Division staff. The committee directs Ferries Division staff to provide additional information on program operations.

Hedge committee members may each appoint a designee to receive recommendations and take action on potential hedges in their absence.

C. Fuel Hedging Program Advisor (Consultant)

The Fuel Hedging Program Advisor is selected by the department through a competitive process and will:

- Provide contracted services for a time period established by the department.
- Recommend an execution strategy.
- Generate monthly reports on the program's status and results.
- Monitor the program and energy markets.

The costs associated with the program advisor consultant position will be budgeted and accounted for separately from fuel purchases, but will be considered as part of Ferries Division's fuel budget.

D. Qualified Independent Representative

The Assistant Secretary for the Ferries Division or designee will designate one or more persons or entities that represent or otherwise demonstrate that they meet the requirements of a qualified independent representative as set forth in Title 17 Code of Federal Regulations (CFR) [§23.450\(b\)\(1\)](#) adopted by the Commodity Futures Trading Commission (CFTC) under the Dodd-Frank Wall Street Reform and Consumer Protection Act. Ferries Division staff will review at the time of each fuel hedge transaction whether the persons or entities continue to represent or otherwise demonstrate that they meet these requirements. These requirements may be satisfied through representations or other evidence that the qualified independent representative (which may be the Fuel Hedging Advisor to the

extent the Fuel Hedging Program Advisor provides these representations or other evidence):

- Has undertaken a duty to act in the best interests of the Ferries Division.
- Has sufficient knowledge and capability to independently evaluate Fuel Hedging.
- Has appropriate risk management and valuation policies and procedures under which the representative evaluates risks with regard to the relevant trade or trading strategy involving Fuel Hedging and the fair pricing and appropriateness of Fuel Hedging transactions.
- Has conflict of interest policies and procedures reasonably designed to manage and mitigate material conflicts of interest.
- Provides appropriate and timely disclosures to the Ferries Division, including disclosure of all material conflicts of interest that could reasonably affect the judgment or decision-making of the representative with respect to its obligations to the Ferries Division.
- Is independent of counterparties to Fuel Hedging transactions, and agrees to comply with restrictions on political contributions (if and when imposed by the CFTC).

E. Maximum Hedge Ratio

Ferries Division fuel consumption is highly predictable and without significant variability over time within a given service, schedule, and fleet. Given this predictability, the maximum hedge ratio will be:

- Up to the first twelve months, on a rolling basis, a maximum of 95 percent of the forecasted consumption may be hedged. In addition, hedges will not exceed the forecasted monthly consumption level for any specific month.
- Between the thirteenth and twenty-fourth months, on a rolling basis, the volume of fuel hedged will not exceed 80 percent.
- In times of extraordinary circumstances, the Oversight Committee may decide to hedge fuel in the twenty-fifth month and beyond, at a maximum ratio to be determined at that time by the committee.
- The Oversight Committee may set lower limits, including in consideration of potential service reductions.

F. Biodiesel Hedging

Hedge ratios may be adjusted if Ferries Division's planned percentage of biodiesel changes significantly from a level of five percent, or if the price correlation between diesel and biodiesel diverges more than five percent from its historical average.

G. Maximum Maturity

To allow the establishment of cost certainty in current and future budget periods, the maximum maturity of any contracts entered into in conjunction with the program is twenty-four months. If extraordinary circumstances warrant longer

maximum maturity periods, the Oversight Committee may approve hedges that extend the maximum maturity beyond twenty-four months on a case-by-case basis. Contract terms may cross biennial lines.

H. Physical Fuel Supply

The physical supply of fuel will continue according to the current process of Ferries Division under the Department of Enterprise Services contract. Under this contract, the Ferries Division purchases ten-percent biodiesel at the price of five-percent biodiesel. The physical supply price is based on the Oil Price Information Service (OPIS) index for ultra-low sulfur diesel and five-percent biodiesel for Portland, Tacoma, and Anacortes, with taxes and other costs determined by the supply contract.

I. Reporting Responsibilities

1. Ferries Division staff, along with the Program Advisor, will:
 - a. Generate for the Assistant Secretary for the Ferries Division semiannual updates on the status and results of the Program. These updates will include:
 - The cost of fuel as delivered by the fuel supplier compared to prices that would have been available on the spot market.
 - Year to date and biennium to date performance of fuel expenses relative to the budget (including hedged purchases).
 - Any recommendations for changes in policy or strategy. These will also be reported by the Assistant Secretary for the Ferries Division to the Deputy Secretary for concurrence.
 - b. Compile annual reports. Periodic reports are required per Revised Code of Washington ([RCW](#) 47.60.830). The reports will be distributed to the Oversight Committee prior to submittal to the state legislature and the Department of Enterprise Services.
 - c. Generate for the Fuel Hedging Oversight Committee quarterly updates on the status and results of the Program. These updates will include:
 - Details of hedge contracts entered into to include the transaction amount, gallons hedged, transaction price per gallon, variance between transaction price per gallon and budgeted price per gallon, and variance between transaction amount and budgeted amount.
 - Comparison of projected fuel usage and actual fuel usage in gallons.
 - Current energy market conditions.
2. Accounting and Financial Services Division staff will:
 - a. Review the accounting and financial reporting for derivative instruments for compliance with Governmental Accounting Standards Board (GASB) standards.
 - b. Make appropriate entries to record deferred inflows and outflows of resources related to financial contracts.

- c. Prepare notes to the Comprehensive Annual Financial Report (CAFR) for financial hedging contracts as required by GASB 53.

Contact for More Information

For more information on the Fuel Hedging Program, please contact the Director of Finance and Administration of the Ferries Division at 206-515-3403.

References

- [17 CFR §23.450\(b\)\(1\)](#) *Requirements for swap dealers and major swap participants acting as counterparties to Special Entities*
- [RCW 47.60.830](#) *Ferry system operation — Fuel purchasing strategies — Report*

Review and Update Requirements

When changes are necessary to update this document, inform the Chief Financial Officer. The Chief Financial Officer reviews this document periodically and proposes updates for leadership review and approval by the Secretary of Transportation.

Americans with Disabilities Act (ADA) Information

This material can be made available in an alternate format by emailing the Office of Equal Opportunity at wsdotada@wsdot.wa.gov or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Attachment C

Fiscal Year 2023 Monthly Reconciliation of Fuel Price Swaps

Monthly Market Compared to Contract - Amount of Money Received or Paid to Counterparties														
Counterparty/Date of Contract	Contract Price (\$/gallon)	Jul-2022	Aug-2022	Sep-2022	Oct-2022	Nov-2022	Dec-2022	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	Total
Cargill (Aug. 19, 2021)	\$1.92	\$ 432,533	\$ 420,563	\$ 374,472	\$ 511,006	\$ 411,541	\$ 302,375	\$ 328,532	\$ 227,884	\$ 204,574	\$ 164,153	\$ 106,268	\$ 123,404	\$ 3,607,304
Merrill Lynch (Nov. 30, 2021)	\$2.03	\$ 405,644	\$ 393,674	\$ 347,584	\$ 484,117	\$ 384,653	\$ 275,486	\$ 301,644	\$ 200,995	\$ 177,685	\$ 137,264	\$ 79,380	\$ 96,516	\$ 3,284,644
Merrill Lynch (Sept. 15, 2022)	\$3.18	\$ -	\$ -	\$ 15,838	\$ 194,519	\$ 95,054	\$ (14,112)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 291,299
Merrill Lynch (Nov. 21, 2022)	\$3.38	\$ -	\$ -	\$ -	\$ -	\$ (2,335)	\$ (63,706)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (66,041)
Merrill Lynch (Dec. 6, 2022)	\$2.78	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 112,342	\$ 11,693	\$ (11,617)	\$ (52,038)	\$ (109,922)	\$ (92,786)	\$ (142,330)
Cargill (Feb. 2, 2023)	\$2.86	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (8,215)	\$ (31,525)	\$ (71,946)	\$ -	\$ -	\$ (111,686)
Cargill (Feb. 23, 2023)	\$2.67	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,416	\$ (16,531)	\$ (55,121)	\$ (43,697)	\$ (104,933)
Cargill (March 8, 2023)	\$2.66	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (91,140)	\$ (71,148)	\$ (162,288)
Grand Total Difference (\$)		\$ 838,177	\$ 814,237	\$ 737,894	\$ 1,189,642	\$ 888,913	\$ 500,044	\$ 742,518	\$ 432,356	\$ 349,532	\$ 160,902	\$ (70,535)	\$ 12,289	\$ 6,595,970

Source: WSDOT - Accounting Referenced Market: New York Mercantile Exchange (NYMEX) Commodity: Ultra Low Sulfur Diesel Heating Fuel

Terms: 252,000 gallons per month

Price Swap and Price Differential Effectiveness Test

Written by Jeffrey R. LeMunyon with Linwood Capital, LLC.

The hedge effectiveness test is established by Government Accounting Standards Board Statement No. 53 (GASB 53) and serves to ensure that the hedging activity of a governmental or public entity is producing the desired effect which, in this case, is to offset increases and decreases in diesel fuel costs in order to make future diesel costs more certain and manage fuel budget risk. The effectiveness test requires the hedging instrument index, in this case the rolling spot-month diesel fuel futures price, to exhibit a minimum level of statistical relationship to WSF's fuel cost in terms of correlation, regression slope, and F-Statistic confidence and is typically performed using 36 months of historical data on WSF fuel cost per gallon and the hedging index price.

Although the regression analysis for the hedge effectiveness test is prepared by the hedging consultant, the department ensures that the results fall within the acceptable categories of an effective hedge.

The test is performed to ensure that the hedge is operating and performing as expected and desired. Generally speaking, the test is to answer the question, "is the hedge doing what it should be doing and what it was expected to do?" If the test determines that the hedge is effective, the department can include the results of the hedging activity on its income statement as an element of cost of the hedged item, in this case diesel fuel. When the hedge is effective and there are hedge gains, this is accounted for as a negative fuel cost. When there are hedge losses, positive fuel cost. If there were a situation where the hedge was determined to be not effective, then, according to GASB 53, the financial effects of the hedge could not be included in the income statement and would have to be accounted for as a change in asset value on the balance sheet. This is an extremely remote possibility for WSF.

The hedge effectiveness test is performed annually and is included in annual financial statements.

Hedge effectiveness analysis for the three years ending June 30, 2023, shows that the department's hedges fall within the acceptable tolerance level. The data analysis compared WSF average fuel cost per gallon on a monthly basis to the monthly average settlement price for the nearest diesel fuel futures contract which is the index upon which WSF hedges are based.

The WSF statistical results for FY 2023, compared to GASB 53 rules:

- The R-squared statistic must be greater than 0.8000 and the WSF result is 0.9297.
- The regression slope must be between -0.80 and -1.25 and the WSF result is -0.8276.
- The F-statistic must be significant within a 95 percent confidence interval, which it is.

With these statistical tests, WSF hedging is effective, according to GASB 53 rules.

The current three-year average differential between WSF diesel cost per gallon and diesel futures price per gallon (fiscal year 2021 – fiscal year 2023) is now \$0.5396 per gallon, compared to the previous three-year differential (fiscal year 2020 – fiscal year 2022) of \$0.3888.