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June 15, 2006

Mr. Martin Crilly
British Columbia Ferry Commissioner
PO Box 1497
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Dear Mr. Crilly:

SUBJECT: Fuel Savings Plan

In accordance with the British Columbia Ferries Commissioner's Order 05-06, authorizing an extraordinary price cap increase pursuant to section 42 of the *Coastal Ferry Act*, S.B.C. 2003, c.14, please find attached BC Ferries' fuel consumption reduction plan for 2006/07 and 2007/08.

Yours truly,

A handwritten signature in black ink, appearing to read "William Cottick".

for William Cottick
Executive Vice President, Corporate Affairs & General Counsel

cc: Mike Corrigan, Chief Operating Officer
Cynthia Lukaitis, Vice President & Corporate Secretary
Carol Prest, Director, Economic Regulatory Affairs

Attachment

British Columbia Ferry Services Inc.

Fuel Consumption Reduction Plan

Submitted to: BC Ferries Commissioner

Submitted: June 15, 2006

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Fuel Consumption Reduction Plan

Introduction

This document provides a plan for fuel reduction across BC Ferries operations, and describes our past approaches to reducing fuel consumption. This Fuel Consumption Reduction Plan (the "Plan") will guide BC Ferries in achieving the targets as set out by the BC Ferries Commission in January 2006 under Order 05-06.

On November 28, 2005, BC Ferries submitted an application under Section 42 of the *Coastal Ferry Act* for an extraordinary price cap increase on the basis that an extraordinary situation exists, namely an extraordinary increase in the price of fuel. An extraordinary increase in the price of an uncontrollable input such as fuel is expressly identified in section 42(2)(b) of the *Coastal Ferry Act* to be a basis for an extraordinary price cap increase.

In his Order 05-06 granting the extraordinary price cap increase, the BC Ferries Commissioner required that BC Ferries provide a plan to the Commission by June 15, 2006 identifying fuel saving measures taken and those proposed over the subsequent two fiscal years (2006/07 and 2007/08). As part of these conservation measures, BC Ferries is required to reduce the volume of actual fuel consumption, as adjusted for unusual circumstances in the base year as determined by the Commissioner, from the actual amount of fuel consumed in fiscal 2006.

These targets, a reduction of one percent in fiscal 2006/07 and a further one percent in fiscal 2007/08, are the basis for the fuel consumption savings identified in the Plan.

The Plan specifically describes the measures taken, the measures that are planned, with timeframes, and the quantified benefits in terms of reduced fuel consumption. It also identifies all associated costs, risks and obstacles, as well as the return on investment (if applicable) and finally, provides a ranking of initiatives based on the implementation dates and associated fuel savings.

Situational Analysis

BC Ferries owns and operates 34 vessels and 47 terminals, and carries about 22 million domestic and tourist passengers each year. The services that BC Ferries is required to provide are specified out on a route by route basis in the Coastal Ferry Service Contract (the Contract). This Plan takes into account that BC Ferries will continue to operate in accordance with the terms of the Contract.

BC Ferries consumed over 118 million litres of diesel in fiscal year 2005/06. Fuel is BC Ferries' second largest operating expense.

The price of oil has doubled since 2003 and this extraordinary cost is expected to remain high over the next two years.

Baseline

In order to accurately identify a decrease in fuel use, a baseline must be established against which progress can be fairly and accurately measured. The Plan uses as the base year, BC Ferries' 2005/06 actual fuel consumption, adjusted for unusual circumstances as determined and approved by the Commissioner.

Attached as Appendix A is a baseline measurement of fuel consumption for the 2005/06 fiscal year. Included in the baseline shown in Appendix A are adjustments, proposed by BC Ferries for the consideration of the BC Ferries Commissioner. BC Ferries believes the adjustments meet the criteria of "unusual circumstances" and include:

- Spirit Upgrades. Generally the Spirit of Vancouver Island (SOVI) and the Spirit of British Columbia (SOBC) are in refit each year for 5 weeks. In 2005/06, the SOVI underwent significant modifications including extensive passenger upgrades and was therefore out of service for 3 months, replaced by the V class. V Class vessels typically burn 3000 litres less per round trip than the Spirit Class Vessels. BC Ferries is proposing to normalize the refit of the SOVI for the traditional period of 5 weeks and therefore, the 2005/06 base requires a net increase in consumption on Route 1 by 498,315 additional litres.
- Skeena Queen. There are two adjustments proposed to alter the baseline for the vessel operating on Route 4 (Saltspring to Swartz Bay):
 - The Skeena Queen had one of the Right Angle Drive (RAD)s overhauled. BC Ferries received approval from Transport Canada (TC) to operate on a reduced number of RADs, and therefore was often running on 3 RADs as opposed to 4. Running 3 RADs requires operating only 3 of 4 engines and this translated into a reduction in total fuel consumed. BC Ferries is proposing to increase the 2005/06

fuel consumption base by approximately 30,960 litres to accommodate the Skeena Queen operating on 4 RADs.

- The Bowen Queen, which uses more fuel than the Skeena Queen, was the relief vessel while the Skeena Queen was undergoing an extended refit. BC Ferries is proposing to increase the 2005/06 base by 21,192 litres to normalize the refit period.
- Capilano/Cumberland. The Capilano and Cumberland operate on Route 8 (Bowen Island to Horseshoe Bay) and Route 5 (Swartz Bay to the outer Southern Gulf Islands), respectively. During 2005/06, the Capilano and Cumberland were approved by Transport Canada to operate with 3 RAD units at various times while maintenance and repairs were conducted. The result of this situation was a savings in fuel consumption. A future plan to operate these ships with 3 RAD units in place of 4 RAD units has not been approved by Transport Canada. As a result, fuel consumption is expected to increase on these ships by approximately 5%, or roughly 340,000 litres. BC Ferries is proposing to increase the 2005/06 fuel consumption base by this amount.
- Extended Refit of the Queen of Nanaimo. The Queen of Nanaimo usually operates on Route 9 (Long Harbour, Saltspring Island to the Southern Gulf Islands and Tsawwassen). In 2005/06, the Queen of Nanaimo underwent an extended refit period. This required the Queen of Tsawwassen to backfill the Nanaimo on Route 9 and the Queen of Chilliwack to backfill the Queen of Tsawwassen on Route 7. BC Ferries is proposing to increase the 2005/06 fuel consumption base by 380,000 litres to accommodate the extended refit period.
- Dock Replacement on Kuper Island. In 2005/06, BC Ferries replaced the dock on Kuper Island. No direct service was available while the dock was under construction. In addition, the regular service between Thetis and Kuper triangle route was disrupted. BC Ferries is proposing to increase the 2005/06 fuel consumption base by 4,659 litres.
- Kwuna. The Kwuna operates on Route 26 between Alliford Bay and Skidegate on the Queen Charlotte Islands. BC Ferries has no alternate vessel that can relieve the Kwuna. For this reason, when the vessel is in refit, BC Ferries contracts for a tug and barge service. For the period between October and December 2005 the Kwuna underwent an extended refit and BC Ferries contracted the service. BC Ferries is proposing to increase the 2005/06 fuel consumption base by 79,200 litres.
- Queen of the North. Given the recent loss of the Queen of the North, BC Ferries is proposing to remove the total annual fuel consumption of the Queen of the North from the 2005/06 fuel consumption base. This equates to a reduction of 4,060,000 litres.

- Nimpkish Service. In 2005/06, the Nimpkish did not operate on the mid coast. However, due to the loss of the Queen of the North, the Nimpkish is scheduled to provide support service to the mid-coast communities. BC Ferries is proposing to increase the 2005/06 fuel consumption base by 238,000 litres.
- Easter. In 2005/06, there was no Easter. Given the holiday, BC Ferries regularly provides additional service to accommodate the traffic. For this reason, the proposed 2005/06 adjusted fuel consumption base identifies additional service that will be provided in 2006/07 to address additional Easter service.

Strategy Development

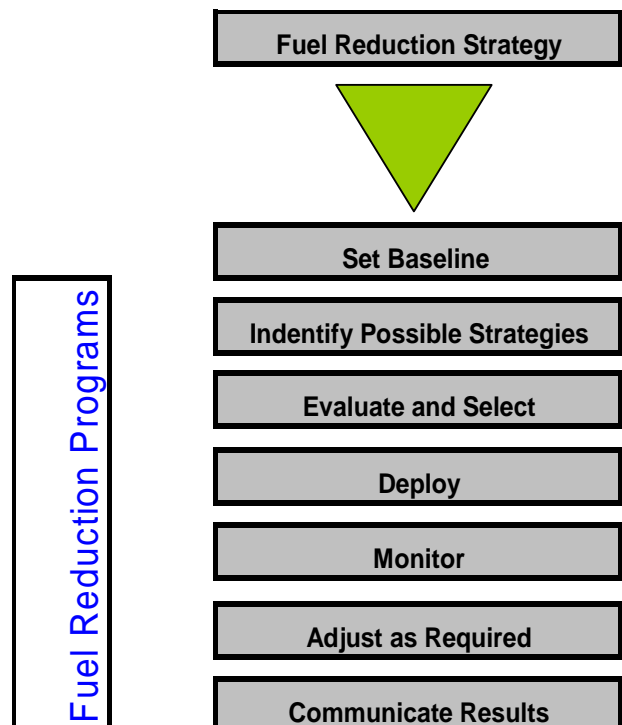
In achieving the fuel reduction strategy, BC Ferries first set the baseline information, as identified above. A team from the environmental, operations, engineering and planning departments then identified and explored possible opportunities for reducing fuel consumption.

There are several challenges in implementing a fuel reduction strategy and achieving consumption savings. Ensuring that communication channels are reliable, that data compilation and analysis is accurate and that specific targets can be realized without impacting mechanical and/or vessel deployment or on time performance are paramount.

The team was tasked with evaluating the opportunities that were the most promising.

Prior to exploring ideas, the team developed the following principles to guide decisions and analysis regarding whether to pursue specific strategies. These principles were adopted and have been followed in considering the implementation of all fuel consumption reduction initiatives:

- That the method has the support of both the Board and the Commissioner,
- That the method captures fuel information in a timely manner,



- That the results will provide information to the Board and Commissioner clearly illustrating fuel consumption performance,
- That the proposal does will not be harmful to the engine/s or in any way limit or void a manufacturer's guarantee/warranty,
- That the proposal will not be harmful to the environment, and,
- That the proposal does not limit the flexibility of operational planning.

Given these principles, a number of options for fuel consumption savings were identified, but not all options were adopted. For example, options regarding fuel additives were considered due to the potential enhancement of overall engine performance through increased viscosity and combustibility. However, engine manufacturers may not continue to warrant their engines, so unless an engine manufacturer approves a particular fuel additive, BC Ferries is not pursuing these ideas and they are not included in the Plan.

Fuel Consumption Model

Attached as Appendix B is a Fuel Consumption model illustrating, on a corporate level, the 2005/06 fuel consumption base and the fuel savings anticipated in each fiscal year.

Each initiative, identified as a separate line item, provides a fuel consumption reduction target. This creates a benchmark against which to track actual consumption against the expected targeted reduction.

Appendix B identifies each initiative, the timeframe for deployment, the targeted fuel reduction, the risks and the return on investment recognized by the payback timelines. Finally, each initiative is ranked based on the implementation dates and associated fuel savings.

Initiatives to Achieve Fuel Savings

BC Ferries has been actively promoting and exploring opportunities for fuel savings over the past several years. In accordance with the Commissioner's Order 05-06, below is a list of fuel saving measures that have been implemented and those that are proposed to be implemented in 2006/07 and 2007/08.

The initiatives that BC Ferries will implement to achieve the 1% savings in each of 2006/07 and 2007/08 over the actual adjusted 2005/06 fuel consumption base are quantified and will be measured over the next two years.

Past Fuel Saving Measures Implemented

In accordance with the Commissioner's Order 05-06, below is a list of fuel saving measures taken over the past four years. These initiatives have been successful in reducing overall corporate fuel consumption, as is illustrated in the table below.

	2002/03	2003/04	2004/05	2005/06
Actual Fuel Consumption	125.1 million litres	122.6 million litres	122.2 million litres	118.0 million litres ³

Specific programs and initiatives previously introduced by BC Ferries that have successfully reduced fuel consumption and emissions include:

Engineering/Technical

Vessel Re-engining:

The largest savings in specific vessel fuel consumption has been achieved by replacing old engines with new engines thereby incorporating state-of-the-art engine technology. Over the past few years, BC Ferries has undertaken to re-engine certain classes of smaller vessels.

- Re-engining 3 vessels in the Bowen class; the replacement engines consume 17.5% less fuel in comparable service⁴;
- Re-engining 3 vessels in the "K" class; with operating reductions in fuel consumption that range between 6% and 30%.

Hull Re-surfacing:

Resurfacing a vessel's hull results in reduced friction and therefore less power is required to move a vessel through the water. The following vessels have had hull resurfacing as part of the mid-life upgrades:

- Queen of Oak Bay
- Queen of Cowichan
- Queen of Coquitlam

Operational

Operational Scheduling:

- BC Ferries crews have taken steps with respect to managing fuel consumption. Crews are operating the vessels with the propellers at a reduced pitch and reducing the RPM.
- For summer 2005, BC Ferries adjusted schedules around the fleet in order to maximize fuel efficiency. For example, the schedule for the route operating between Horseshoe Bay and Nanaimo was changed to allow more time in

³ Re-adjusted fuel volumes are identified in Appendix A

⁴ Absolute savings on the applicable routes were not as significant as 17.5% due to changes to operating and service profiles once the vessels returned to service.

dock and in transit. This had the benefit of allowing the vessel to operate at slower speeds while maintaining on-time performance. Fuel savings were significant. However, there were some additional operational costs that were incurred due to crew overtime.

- Fuel meters (which indicate the level of fuel – much like a car's gas metre) monitor fuel consumption and allow the vessel's operator(s) (Master and Engineer) to observe the impact of their actions on vessel fuel consumption. The meters were implemented on the Spirit vessels and the "V" class.
- BC Ferries developed and implemented a post-refit engine test program that determines specific fuel consumption. This information provides the vessel operators with the best information about efficient ship speeds.

Maintenance Undertaken:

In addition to the initiatives referenced above, BC Ferries' regular maintenance programs have incorporated the following procedures to reduce engine loads and therefore save fuel:

- More efficient propellers were fitted on two smaller vessels; and
- Engine maintenance procedures emphasize the need to reduce fuel consumption.

The initiatives undertaken in this fiscal year have resulted in BC Ferries achieving a further reduction in fuel consumption to 118 million litres to March 31, 2006.⁵ Notwithstanding the reductions in this fiscal year, BC Ferries remains committed to undertaking further improvements in fuel efficiency for future years.

Fuel Saving Measures Proposed

BC Ferries proposes the following initiatives to continue to improve and achieve further fuel savings.

Listed below is a description of the specific initiatives that have been identified to meet the fuel reduction target of 1% in each of 2006/07 and 2007/08. The specific reduction targets for each of the initiatives are identified in Appendix B.

Engineering/Technical

Engine Betterments

During the November 2005 refit, the Queen of New Westminster had two main engines upgraded. This upgrade resulted in noticeable fuel savings. The two remaining engines will be overhauled during the next refit in November 2006. Simultaneously, capital betterments to the main engines will be made, including the replacement of turbochargers, camshafts, cylinder liners and pistons. These betterments will further improve the overall efficiency of the engines, and therefore, the fuel efficiency.

⁵ Prior to 2005/06 baseline adjustments

Engine Replacements

Replacements of engines generally provide greater fuel savings due to new state-of-the-art technology being employed. For fiscal 2006/07, BC Ferries will be re-engineing the Quinitsa (the vessel operating between Denman Island and Vancouver Island). All 4 engines will be replaced in December 2006.

Propeller Replacement

The influence of computer modeling and improved (ex naval) test facilities has dramatically improved the design of propellers in the last decade. The suppliers of the original Spirit propellers have stated that, with the replacement of the Spirit's set of blades, the vessel would be 2-5% more efficient, and hull-induced vibration from the propellers would be significantly reduced. Currently computer modelling and testing is underway to determine expected savings.

Replacing propeller blades has been scheduled for the Spirit of British Columbia in February 2008.

Hull Re-surfacing

Resurfacing of a vessel's hull results in reduced friction and this results in less power required to move a vessel through the water. Hull resurfacing is generally incorporated into a vessel's scheduled dry-docking program. The Quinitsa is scheduled for hull re-surfacing in 2006 and the Quinsam will undergo hull re-surfacing in 2007.

Bulbous Bow

The SOVI and the Spirit of British Columbia (SOBC) each have a bulbous bow. The bulbous bow is a large bulb on the front of the vessel designed to 'break' the water before the hull. Work is currently underway to modify this bow. The replacement of the existing bulbous bow with a modified version is anticipated to allow vessels to cut more cleanly through the water, reducing drag and thereby increasing efficiency.

Operational

Electronic speed control - ESP 1000 fuel monitors

To increase the fuel efficiency on major vessels, BC Ferries will be installing a fuel monitor that automatically controls engine pitch to optimize fuel efficiency. A fuel monitor can save fuel by providing constant acceleration during departure rather than overloading the engines all at once. It is most effective under conditions when the Captain has the ability to slow the vessel during transit, normally on longer routes. The reduction of 1-2 knots can save considerable fuel.

The Queen of Alberni has undergone a trial system for new fuel monitor technology using the ESP 1000 fuel monitors. The results have been positive. The following vessels will have new fuel monitors installed in 2006/07: Queen of Alberni (completed

in 2005/06), Queen of New Westminster, Queen of Cowichan, Queen of Coquitlam, Queen of Oak Bay, Queen of Nanaimo, Queen of Chilliwack, SOVI and the SOBC.

Development of Vessel and Route Specific Best Operating Practices (BOP's)

BC Ferries intends to develop route specific best operating practice and vessel specific best operating practices to enable the knowledge of operators to be shared and results optimized to ensure routes and ships are run efficiently. Once the BOP's are developed, BC Ferries will assess how to roll out the findings to other vessels and routes. While each route poses different challenges and opportunities, there are commonalities that can be shared among routes.

Fleet wide Reductions

The following initiatives are difficult to quantify individually so, instead, these initiative are grouped into one category titled "Operating Practices".

Schedule Changes

Operational schedules have been reviewed and, where possible, reductions within the parameters outlined in the *Coastal Ferry Act* and the Collective Agreement are proposed. The schedules for the following routes have been changed to improve fuel consumption:

- For summer 2006, BC Ferries has once again adjusted schedules on the routes operating between Horseshoe Bay and Nanaimo (Route 2), Horseshoe Bay and Langdale (Route 3) and Horseshoe Bay and Bowen Island (Route 8). These schedules were changed to allow more time in dock and in transit. This will have the benefit of allowing the vessel to operate at slower speeds, thereby saving fuel while maintaining the on-time performance.
- Again for summer 2006, BC Ferries has adjusted the schedules for the routes operating between the southern Gulf Islands. The changes for Routes 9 and 9a (Saltspring Island, the Gulf Islands and Tsawwassen) and Routes 5 and 5a (Swartz Bay and the Gulf Islands) will allow additional time during peak periods to transit, load and unload the vessels thereby reducing fuel consumption.

Super C Program

With the three new Super C class vessel slated to be introduced into service in 2006/07 and 2007/08, fuel savings are expected to be achieved. This is largely due to the vessels running new engines. However, actual reduction in fuel consumption depends on deployment of the vessels and the class of vessels to be replaced. This has not been finalized, but fuel reduction will be a priority in vessel deployment.

On-Time Performance

BC Ferries is continually working to meet or exceed customer expectations and improving on-time performance is one of the ways the Company is focused in this regard. As noted above, the increase in percentage of on-time departures has

resulted in decreased fuel usage as ships are not running at full speed trying to catch up and remain on schedule. The savings in fuel achieved from fuel management has been quite extensive and is expected to provide further savings. However, optimal consumption will likely be achieved in the short term and further gains will be minimal.

Risks

While these initiatives are anticipated to achieve the 1% savings in each of 2006/07 and 2007/08, monitoring will be critical to ensure savings are being achieved.

Each initiative will be reviewed on an on-going basis against the targets identified and this information will be relayed to both the operations and engineering teams. Progress updates will be provided to the executive. If there is concern regarding whether an initiative will meet its target, further analysis and development of options will be contemplated, and where required, action taken.

On-going monitoring will ensure that BC Ferries will be in a position to modify the Plan if fuel savings targets are not achieved in a timely manner.

Fuel Savings Measures Requiring Further Review

Lastly, BC Ferries continues to analyse and review creative alternatives to fuel consumption. This means exploring less traditional options of either consuming fuel or using alternative fuels. Certain alternatives may present future opportunities to further reduce fuel consumption including:

1. Ongoing Review of Alternative Fuel/Energy Sources

Review of alternative fuel sources such as Bio diesel and Compressed Natural Gas (CNG) has not shown this to be a viable option for BC Ferries at this time due to technical challenges. Nor does bio-diesel offer any significant cost reduction. However, these sources will continue to be assessed as new concepts develop.

2. Fuel additives

Fuel additives may enhance overall engine performance through increased viscosity and combustibility. As previously stated, this is not something BC Ferries is exploring until engine manufacturers support these initiatives.

3. Combustion Optimization Retrofits

Potential optimization can be achieved by installing newer technology that is added on to an engine. Again, until engine manufacturers support this, it is not something BC Ferries would contemplate.

Conclusion

Full implementation of the fuel consumption reduction plan will result in an estimated reduction of 1.2 million litres in 2006/07 and a further reduction of 1% for a total of 2.4 million litres in 2007/08.

2005/06 Base Year Fuel Consumption Adjustments

	ROUND TRIPS	CONSUMPTION PER ROUND TRIP		
ACTUAL 2005/06 LITRES			118,015,796	
CHANGES FROM REGULAR OPERATIONS:				
ROUTE 1:				
SPIRITS - Add Round Trips to Normalize due to extended Refit in 05/06	139	8,400	1,167,600	
SAANICH - Remove Round Trips (fill in for Spirit)	(139)	4,815	(669,285)	
ROUTE 4:				
Skeena-Operating on 3 RADs	258	120	30,960	3 RADs in operations for 258 trips
Skeena - Skeena out for extended refit - increase fuel due to Bowen Queen relieving	104	112	21,192	Based on Bowen Queen for 104 trips
ROUTE 5:				
Cumberland - increase due to vessel operating on 3 instead of 4 RAD's	1,239	121	150,000	Based on documented period of reduced RADs
ROUTE 7:				
Extended refit of Queen of Nanaimo - Tsawwassen relieving for the Nanaimo and Chilliwack relieving for TSA (see Rte 9)	778	103	80,000	Increase in operating days for Queen of Chilliwack
ROUTE 8:				
Capilano - increase due to vessel operating on 3 instead of 4 RADS	1,406	135	190,000	Based on days operating on reduced RADs per SCE at reduced fuel burn
ROUTE 9:				
Extended refit of Queen of Nanaimo - Tsawwassen relieving for the Nanaimo (see Rte7)	198	1,515	300,000	Increase in refit period from normal at reduced fuel consumption for vessel
ROUTE 20:				
Kuper to Thetis	14	111	1,554	No direct run while dock not in service
Triangle run Chemainus/Kuper/Thetis	135	23	3,105	Reduction in triangle run while dock not in service
ROUTE 10/11:				
Queen of the North			(4,060,000)	Net operating impact for Rtes 10/11
ROUTE 10a:				
Nimpkish			238,000	Based on planned schedule to support NC schedules
ROUTE 26:				
Kwuna-refit	1,200	66	79,200	Based on days Kwuna not in operation on route and avg fuel consumption per
NORMALIZED 2005/06 LITRES OF FUEL			115,548,122	
CHANGES FROM 2006/07 FISCAL YEAR *:				
ROUTE 1:				
EASTER BREAK - Two days for Easter in 2006/07 (no Easter in 2005/06)	12	5,225	62,700	
ROUTE 2:				
EASTER BREAK - Two days for Easter in 2006/07 (no Easter in 2005/06)	6	6,900	41,400	
ROUTE 3:				
EASTER BREAK - Two days for Easter in 2006/07 (no Easter in 2005/06)	2	2,510	5,020	
Proposed 2005/06 Base			115,657,242	
* Note: BC Ferries may propose further adjustments and request exemptions as operational changes require				

Fuel Savings Initiatives

	Initiative	Vessels	Description	Estimated Potential fuel saving	Deployment Date	Quantity of Reduced Fuel (litres/yr)	Risks/Obstacles	Est. Simple Payback	2006/07 Litre Savings	2007/08 Litre Savings	1% of 2005/06 (proposed)
1	Operating Practices	All Vessels	Encourage best operating practices with emphasis on fuel savings. This initiative has and will continue to impact overall fleet fuel consumption. Specific emphasis on On-time performance is expected to reduce fuel consumption.	0.35%	Present	405,000	Risks in communication, consistency, establishing clear and effective methodologies.	n/a	405,000	405,000	
2	ESP 1000 Fuel Monitor	Alberni/New West/ Cowichan/Coquitlam/Oak Bay/Nanaimo/Chilliwack/SOVI/SOBC	Equip 9 major vessels with ESP 1000 systems that automatically control engine pitch/engine speed etc. to optimize fuel efficiency. These systems are expected to compensate with wind/tide variables and allow for constant fuel delivery increasing fuel efficiency.	1-2.5%	2006 see below	1,244,000	The primary risk is the degree of fluctuation in fuel savings. It is hard to estimate what the savings will be as this is relatively unproven technology.	2	603,000	1,244,000	
		Alberni (Pilot project)			Jun-05					-	
		New Westminster			Jul-06	222,000			166,500	222,000	
		Coquitlam			Aug-06	148,000			98,000	148,000	
		Cowichan			Sep-06	215,000			125,000	215,000	
		Oak Bay			Oct-06	195,000			97,500	195,000	
		Nanaimo			Nov-06	56,000			23,000	56,000	
		Chilliwack			Dec-06	74,000			24,000	74,000	
		SOVI			Jan-07	167,000			41,000	167,000	
		SOBC			Feb-07	167,000			28,000	167,000	
3	Engine Betterment	New Westminster	Upgrade the two remaining main engines (Port Outboard, Starboard Inner) from regular to low NOx models by replacing the turbochargers, camshafts, cylinder liners, and pistons. Modifications will be made to the cylinder heads, fuel pumps, fuel injectors and the timing gears. Together, these initiatives will result in improved fuel efficiency.	5.0%	Nov-06	555,700	Fuel Savings estimates are approximate for a costly capital investment.	2	231,000	555,700	
4	Hull Resurfacing	Quinitisa	Clean the hull, sandblast all debris and repaint with a friction reducing coating to reduce drag and fuel use.	1.0%	Dec-06	4,600	Limited payback as the fuel consumption is not high in relation to the fleetwide consumption. In addition, savings will decline over time.	260	1,500	4,600	
5	New Engines	Quinista	Replace four main engines to increase fuel efficiency	5.0%	Dec-06	23,100	High fuel savings on the vessel but low impact on overall fleetwide consumption savings.	33	7,700	23,100	
2006/07 Strategy									1,248,200	2,232,400	1,156,572
6	Propeller Upgrades	SOBC	Replace propeller blades with updated design to increase the thrust capability and overall efficiency of vessel operation.	2%	Feb 08	334,000	Capital cost risk and actual quantity of fuel savings is yet to be determined.	4		55,700	
7	Bulbous Bow	SOBC	Replace the bulbous bow to allow the vessel to cut more cleanly through the water, reduce drag, and thereby increase efficiency. The bulbous bow is a large bulb on the front of the vessel designed to 'break' the water before the hull. SOVI scheduled for Feb 2009.	4%	Feb-08	668,000	The primary risk with the bulbous bow project is the high capital cost of the project combined with the timeframe in testing and ultimately deploying the technology onto the vessels. The project will not proceed if feasibility is not confirmed in tank testing/modelling.	3		55,700	
8	Hull Resurfacing	Quinsam	Clean the hull, sandblast all debris and repainting with a friction reducing coating is expected to reduce drag and impact fuel use.	1%	Apr-07	11,000	Limited payback as the fuel consumption is not high in relation to the fleetwide consumption.	165		11,000	
									2006/07 Savings	2007/08 Savings	1% of Normalized
TOTAL SAVINGS 07/08									1,248,200	2,354,800	1,156,572