



BRITISH COLUMBIA
FERRY COMMISSION

ORDER
NUMBER: 13-01

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IN THE MATTER OF

A Major Capital Expenditure for Three Intermediate Class Vessels
Proposed by British Columbia Ferry Services Inc.
Pursuant to Section 55 of the *Coastal Ferry Act*

BEFORE: Gordon Macatee, BC Ferries Commissioner
Sheldon Stoilen, BC Ferries Deputy Commissioner

ORDER

WHEREAS:

- A. On May 22, 2013, British Columbia Ferry Services Inc. ("BC Ferries") submitted an application (the "Application") under section 55(2) of the *Coastal Ferry Act* (the "Act") seeking the commissioner's approval of a proposed major capital expenditure for the design and build of three new intermediate class vessels to replace vessels currently operating on route 9 (Tsawwassen-Southern Gulf Islands) and route 17 (Powell River-Comox / Little River);
- B. BC Ferries states in the Application that the vessels to be acquired would replace two existing vessels - the *Queen of Nanaimo* and the *Queen of Burnaby* which are near the end of their economic lives and due to be retired in 2017;
- C. Section 55 of the Act governs the commissioner's consideration of capital deployment and expenditures of ferry operators as follows:
 - (1) "Subject to subsections (2) to (5), before deploying capital assets on, or incurring capital expenditures in connection with, a designated ferry route or terminal, the ferry operator may apply to the commissioner and the commissioner must, within one month after the application, declare whether the capital assets proposed to be deployed on, or the capital expenditures proposed

to be incurred in connection with, the designated ferry route or terminal are reasonably required.

- (2) A ferry operator must not incur a major capital expenditure without first obtaining the commissioner's approval of the expenditure.
- (3) A ferry operator may apply to the commissioner for approval of a proposed major capital expenditure and the commissioner must respond to the application within 2 months after its receipt by the commissioner.
- (4) The commissioner may approve a proposed major capital expenditure if the proposed major capital expenditure is
 - (a) reasonable,
 - (b) prudent, and
 - (c) consistent with
 - (i) the current Coastal Ferry Services Contract, and
 - (ii) any long term capital plan established by the ferry operator.
- (5) For the purposes of this section, a capital expenditure of a ferry operator is a major capital expenditure if it meets the criteria
 - (a) established from time to time by the commissioner, and
 - (b) most recently provided by the commissioner to the ferry operator;”

- D. Pursuant to section 55(5) of the Act, the commissioner established the criteria of a major capital expenditure by issuing Order 12-04 dated September 30, 2012 which defines a major capital expenditure as any capital expenditure which exceeds \$30 million, inclusive of component programs and interest during construction, and irrespective of the level of expenditure, any new vessel or terminal and any vessel life extension which extends the life of the vessel more than five years;
- E. Upon receipt of the Application, the commissioner issued a public notice in relevant media inviting comments or submissions regarding BC Ferries’ proposed major capital expenditure;
- F. BC Ferries conducted information sessions in all communities impacted by the vessel replacement proposal and has provided the commissioner with copies of written comments or submissions for his review;

- G. The commissioner has reviewed the Application and the report prepared for the commissioner by qualified independent consultants;
- H. The commissioner has also reviewed the submissions and comments received as a result of his public notice, as well as the comments and submissions sent to BC Ferries, including the response from BC Ferries to the submissions from the Northern Sunshine Coast, the Southern Gulf Islands and the Saltspring Island Ferry Advisory Committees;
- I. The commissioner has summarized his findings and determinations in the attached Review;
- J. The commissioner is satisfied that:
- a) the current condition of the *Queen of Nanaimo* operating on route 9 and the *Queen of Burnaby* operating on route 17 indicates clearly that both vessels are nearing the end of their economic lives and it is not prudent to life extend these vessels beyond 2016;
 - b) BC Ferries has carefully weighed and considered a number of factors and options in developing a vessel replacement strategy that not only meets its current contractual obligations for routes 9 and 17 but also offers greater fleet standardization, service flexibility and interoperability;
 - c) acquiring three new intermediate class vessels as proposed by BC Ferries in the Application is the preferred option based on the benefits associated with fleet standardization, service flexibility, interoperability and vessel relief strategies;
- K. The commissioner expects that, in the interests of ferry users and taxpayers, BC Ferries will:
- a) follow a procurement process that will mitigate the risks involved in such a large capital project;
 - b) apply best practices in the governance of the capital project;
 - c) put in place safeguards and / or contingency plans in the event of late delivery of the new vessels; and
 - d) structure the procurement process to ensure competitive pricing from a pool of high quality proponents;

L. The commissioner finds the major capital expenditure proposed in the Application to be

- a) reasonable,
- b) prudent, and
- c) consistent with
 - (i) the current Coastal Ferry Services Contract, and
 - (ii) the long term capital plan established by the ferry operator.

NOW THEREFORE pursuant to section 55 of the *Coastal Ferry Act* the commissioner orders as follows:

1. The proposed major capital expenditure for the acquisition of three new diesel-fuelled or liquefied natural gas (“LNG”)- fuelled intermediate class vessels, as generally described in the Application, is approved subject to the following conditions:
 - a) The maximum amount of the major capital expenditure for the three new vessels is set at the amounts stated in the Application which will be confirmed by a separate confidential order to BC Ferries. The maximum amount will remain confidential until completion of the procurement process.
 - b) Prior to issuing a Request For Proposals for the design and build of the proposed new vessels, BC Ferries must satisfy the commissioner that:
 - (i) a fuel efficiency target has been included in the technical specifications for the proposed new vessels and reflected in the procurement documents; and
 - (ii) the concerns of ferry users regarding the open deck design of the new vessels have been taken into account when finalizing the technical specifications for the new vessels and such design will have no significant impact on service levels on the routes where these vessels will be deployed.
 - c) Prior to signing a final contract with a shipyard for the design and build of the proposed new vessels, BC Ferries must:
 - (i) satisfy the commissioner that the actual design of the vessels is as generally as described in the Application and the cost does not exceed the maximum amount approved by the confidential order referred to in

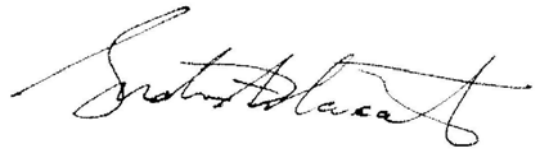
paragraph 1(a) above;

- (ii) obtain the commissioner's approval to select diesel-fuelled vessels rather than LNG-fuelled vessels, and in that event, submit a final comparison of life cycle costs on a net present value basis for the lowest cost diesel-fuelled option and the lowest cost LNG-fuelled option; and
- (iii) provide the commissioner with a contingency plan to mitigate a delay in the delivery of the new vessels beyond the delivery dates proposed in the Application.

2. Ancillary food / retail services to be provided on each vessel must not be subsidized by fare revenues on each route.

DATED at Victoria in the Province of British Columbia, this 19th day of July 2013.

BY ORDER

A handwritten signature in black ink, appearing to read 'Gordon Macatee', written in a cursive style.

Gordon Macatee
BC Ferries Commissioner

A handwritten signature in black ink, appearing to read 'S. T. Stoilen', written in a cursive style.

Sheldon Stoilen
BC Ferries Deputy Commissioner



**Review of BC Ferries' Application for
Approval of a Major Capital Expenditure for
Three New Intermediate Class Vessels**

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Review of BC Ferries' Application for Approval of a Major Capital Expenditure for Three New Intermediate Class Vessels

Background

On May 22, 2013, British Columbia Ferry Services Inc. ("BC Ferries") applied to the commissioner requesting approval of a major capital expenditure for three new intermediate class vessels to replace the *Queen of Nanaimo* operating on route 9 (Tsawwassen-Southern Gulf Islands) and the *Queen of Burnaby* operating on route 17 (Powell River-Comox / Little River) (the "Application"). The Application was submitted in accordance with section 55(2) of the *Coastal Ferry Act*, SBC 2003, c. 14 (the "Act").

Legal Context

Under the Act, the commissioner regulates ferry operators by determining price caps for each performance term and approving major capital expenditures. In determining price caps, the commissioner includes those capital expenditures that are determined to be reasonable, including capital expenditures that have received approval under Section 55.

Section 55 states:

- (1) "Subject to subsections (2) to (5), before deploying capital assets on, or incurring capital expenditures in connection with, a designated ferry route or terminal, the ferry operator may apply to the commissioner and the commissioner must, within one month after the application, declare whether the capital assets proposed to be deployed on, or the capital expenditures proposed to be incurred in connection with, the designated ferry route or terminal are reasonably required.

- (2) A ferry operator must not incur a major capital expenditure without first obtaining the commissioner's approval of the expenditure.
- (3) A ferry operator may apply to the commissioner for approval of a proposed major capital expenditure and the commissioner must respond to the application within 2 months after its receipt by the commissioner.
- (4) The commissioner may approve a proposed major capital expenditure if the proposed major capital expenditure is
 - (a) reasonable,
 - (b) prudent, and
 - (c) consistent with
 - (i) the current Coastal Ferry Services Contract, and
 - (ii) any long term capital plan established by the ferry operator.
- (5) For the purposes of this section, a capital expenditure of a ferry operator is a major capital expenditure if it meets the criteria
 - (a) established from time to time by the commissioner, and
 - (b) most recently provided by the commissioner to the ferry operator.”

By Order 12-04 dated September 30, 2012, the commissioner established the criteria for a major capital expenditure for the purposes of section 55(5) of the Act. That order defines a major capital expenditure "as any capital expenditure which exceeds \$30 million, inclusive of component programs and interest during construction, and irrespective of the level of expenditure, any new vessel or terminal and any vessel life extension which extends the life of the vessel more than five years."

As the proposed capital expenditure exceeds \$30 million, BC Ferries rightly submitted its Application under section 55(2) of the Act.

The commissioner has also published a document titled "Guidelines for British Columbia Ferry Services Inc. Respecting Applications under Section 55 of the *Coastal Ferry Act*" which sets out the information the commissioner requires from BC Ferries when it makes an application under section 55 of the Act (the "Guidelines"). The Guidelines include definitions

of "Reasonable" and "Prudent" that the commissioners will use as a guide in applying the requirements of section 55.

The Act contains a confidentiality provision under section 54. That section provides:

Despite any obligation imposed on the commissioner under this Act to obtain, maintain or make available information or records, the commissioner, every deputy commissioner, every employee of the commissioner and every inspector must not disclose or be compelled to disclose any information or record that is obtained in, or that comes to the person's knowledge during, the course of the administration of this Act or the course of any inspection authorized under this Act, unless and only to the extent that such disclosure is consistent with the *Freedom of Information and Protection of Privacy Act*.

Section 17 of the *Freedom of Information and Protection of Privacy Act*, RSBC 1996, c. 165 states in part:

- (1) The head of a public body may refuse to disclose to an applicant information the disclosure of which could reasonably be expected to harm the financial or economic interests of a public body or the government of British Columbia or the ability of that government to manage the economy, including the following information:
 - a) trade secrets of a public body or the government of British Columbia;
 - b) financial, commercial, scientific or technical information that belongs to a public body or to the government of British Columbia and that has, or is reasonably likely to have, monetary value;
 - c) plans that relate to the management of personnel of or the administration of a public body and that have not yet been implemented or made public;
 - d) information the disclosure of which could reasonably be expected to result in the premature disclosure of a proposal or project or in undue financial loss or gain to a third party;
 - e) information about negotiations carried on by or for a public body or the government of British Columbia;

- f) information the disclosure of which could reasonably be expected to harm the negotiating position of a public body or the government of British Columbia.

Section 21 of the *Freedom of Information and Protection of Privacy Act* states in part:

- (1) The head of a public body must refuse to disclose to an applicant information
 - a) that would reveal
 - (i) trade secrets of a third party, or
 - (ii) commercial, financial, labour relations, scientific or technical information of or about a third party,
 - (b) that is supplied, implicitly or explicitly, in confidence, and
 - (c) the disclosure of which could reasonably be expected to
 - (i) harm significantly the competitive position or interfere significantly with the negotiating position of the third party,
 - (ii) result in similar information no longer being supplied to the public body when it is in the public interest that similar information continue to be supplied,
 - (iii) result in undue financial loss or gain to any person or organization, or
 - (iv) reveal information supplied to, or the report of, an arbitrator, mediator, labour relations officer or other person or body appointed to resolve or inquire into a labour relations dispute

Summary of the Application

BC Ferries supplied a number of documents with the Application. Opinions from outside technical experts were appended to the Application, which contained inspection reports on the condition of the *Queen of Nanaimo* and the *Queen of Burnaby*, financial analyses of various options to life extend or replace these vessels, forecasts of future demand based on demographic trends in the communities served by routes 9 and 17, and optimization scenarios

for different capacity configurations for the replacement vessels. The Application also included copies of all written submissions or comments received by BC Ferries.

The Application as submitted to the commissioner included the total amount of the major capital expenditure for either diesel-fuelled vessels or LNG-fuelled vessels. Due to the commercially-sensitive nature of the information, these amounts have been redacted from the Application as shown on BC Ferries' website to which the commissioner's website provides a link. The commissioner accepts BC Ferries' request to the commissioner to maintain confidentiality of this information in accordance with section 54 of the Act until after the procurement process is completed as disclosure of such information could reasonably be expected to harm the financial and economic interests of BC Ferries pursuant to section 17 of the *Freedom of Information and Protection of Privacy Act*. Accordingly, a separate order will be released to BC Ferries with the maximum amount of the major capital expenditure approved by the commissioner. This separate order shall remain confidential until completion of the procurement process.

In support of the Application, BC Ferries also filed with the commissioner certain supplemental information and other documents ("Supplemental Information") which BC Ferries submits is commercially sensitive and contains confidential information which, if disclosed, would harm the financial and economic interests of BC Ferries pursuant to section 17 of the *Freedom of Information and Protection of Privacy Act* and could harm the business interests of third parties pursuant to section 21 of the same Act. BC Ferries has therefore requested that the commissioner maintain confidentiality over the Supplemental Information in accordance with section 54 of the Act.

The commissioner has reviewed the Supplemental Information and considered BC Ferries request to the commissioner to maintain confidentiality. Based on the information contained in the Supplemental Information, the commissioner is satisfied that disclosure of the information could reasonably be expected to harm the financial and economic interests of BC Ferries and the business interests of third parties. Accordingly confidentiality of that information will be maintained at least until completion of the procurement process.

Scope of the Review

The commissioner's review relies on documents and representations of BC Ferries' management and its consultants as well as comments received from the public. While this review does not involve a detailed assessment of the technical aspects of the design of the proposed vessels, the commissioner will comment generally on two aspects of the proposed vessels: the proposed open deck design and the potential for LNG-fuelled vessels.

It is also outside the scope of the commissioner's review to perform due diligence on the procurement process (e.g. by reviewing contract bid documents) other than commenting on the proposed process.

In reviewing the Application, the commissioner is mindful of his statutory responsibilities under section 38 (1)(a) of the Act to balance the interests of ferry users, taxpayers and the ferry operator "in the manner the commissioner considers appropriate." In the context of reviewing an application for approval of a major capital expenditure the commissioner is of the view that these interests are protected and balanced if the proposed major capital expenditure meets the criteria set out in section 55(4) of the Act.

Review Process

The commissioner engaged PricewaterhouseCoopers LLP ("PwC") to provide technical and expert advice during the review of the Application. PwC in turn engaged as subcontractors, 3GA Marine and Opus International Consulting Inc. to respectively review the naval architectural and demand analyses aspects contained in the Application. The firms were asked to give their opinions as to whether the information provided by BC Ferries in the Application and responses to follow up questions reasonably support the proposed major capital expenditure on three new intermediate class vessels and that such major capital expenditure is reasonable, prudent and consistent with the current Coastal Ferry Services Contract ("CFSC") and the long-term capital plan of BC Ferries.

The consultants were also asked to confirm whether or not BC Ferries had responded adequately in their Application to the Guidelines. The consultants examined the Application including the index or the cross reference of BC Ferries' responses to the Guidelines

contained therein and requested further supplementary information and clarifications. The consultants have advised the commissioner that the explanations and information provided by the company are satisfactory and do support the proposed major capital expenditure.

In conducting this review, the commissioner has carefully considered the opinions of PwC and its sub-contractors in reaching his own conclusions regarding the Application. In accordance with section 55(4), the determinations and conclusion of the commissioner are based on his assessment of whether the proposed major capital expenditure is

- 1) reasonable as defined in the Guidelines,
- 2) prudent as defined in Guidelines,
- 3) consistent with the current Coastal Ferry Services Contract and the long-term capital plan of BC Ferries.

The Guidelines provide that for purposes of applying the requirements of section 55, the commissioners will be guided by the following definitions found at BusinessDictionary.com:

“Reasonable:”

“An intelligent approach supported or justified by reason; fair, proper, sound behaviour that avoids needless error and steers clear of extremes.”

“Prudent:”

“Good judgment or wisdom gained from experience, expressed in a realistic and frugal attitude. Prudence, however, is not the same as grave caution or wariness concerned only with preserving the status quo.”

Issues Raised in the Application

In reviewing the Application, the commissioner identified the following issues that warranted consideration in his determination of whether to approve the proposed major capital expenditure:

- 1) Do the existing vessels operating on routes 9 and 17 need to be replaced?

- 2) Is the preferred option reasonable, prudent and consistent with the current Coastal Ferry Services Contract and BC Ferries' most recent long term capital plan?
- 3) Is the proposed open deck design reasonable and prudent for deployment on routes 9 and 17?
- 4) Is the capacity for the proposed new vessels adequate?
- 5) Should the vessels be diesel or LNG-fuelled?
- 6) Is the proposed procurement process reasonable?
- 7) Is the regulatory principle regarding ancillary services appropriately applied?

Commissioner Findings and Determinations

1) Do existing vessels operating on routes 9 and 17 need to be replaced?

In March 2013, BC Ferries retained ABS Consulting Inc. to conduct visual assessments of the *Queen of Burnaby* and the *Queen of Nanaimo*. A summary of their findings is contained in pages 16 to 19 of the Application.

In general, the hulls of both vessels are reported to be in good condition but the car decks and superstructures are at an end of life state. It is also suggested that a complete renewal of bridge structures is required and the navigation, communication and propulsion control equipment is obsolete. Many mechanical components, the main engines, shafting, propulsion and control systems, pumps, etc. all require renewal due the age of the systems involved.

In addition, the reliability of both vessels has been declining in recent years such that the number of mechanical issues resulting in service cancellations for the two vessels is in excess of two times the average for other comparable vessels in BC Ferries' fleet over the last three years.

Based on the condition of the two vessels as described in the Application and the risk of further declines in the reliability of the vessels, the commissioner is satisfied that the *Queen of Nanaimo* and the *Queen of Burnaby* need to be replaced.

2) Is the preferred option reasonable, prudent and consistent with Coastal Ferry Services Contract and BC Ferries' most recent Long Term Capital Plan?

In the Application, BC Ferries submits that it has developed a vessel replacement strategy that strives to achieve a corporate objective of greater standardization of its fleet and terminals. It submits further that “through standardization, opportunities exist to use vessels and terminals to service multiple routes (referred to as interoperability)” as opposed to their being constrained in use to a single or a limited number of routes. Of particular interest to the commissioner is the assertion by BC Ferries that through standardization, the potential exists for significant cost savings in asset acquisition and other capital costs as efficiencies are realized through a series build program. Operational cost benefits will also be realized due to lower crew training, maintenance and inventory costs due to standardization of parts and critical spares.

BC Ferries also submits in the Application that it has developed a vessel replacement strategy to address the need to replace (or life-extend) 10 vessels over the next seven years. All but one of these vessels will be required for deployment on the Minor Routes. BC Ferries' intent is that all vessels will be designed and built in accordance with their standardization objective that is the foundation of the Company's vessel replacement strategy.

BC Ferries has stated its vessel replacement strategy also has the following objectives:

- i) balance service, capacity and demand
- ii) optimize operating efficiency
 - improve capacity utilization
 - achieve asset flexibility
 - promote interoperability
 - achieve optimal fuel consumption
 - achieve optimal labour costs
- iii) optimize capital investment
 - right size vessels
 - multiple ship build contracts
 - standardize vessels

In the Application, BC Ferries has provided a financial analysis of three options to life-extend or replace the *Queen of Nanaimo* and the *Queen of Burnaby*. The two replacement options included a “modified like-for-like vessels” option which included a 195 AEQ capacity vessel to replace the 192 capacity *Queen of Nanaimo* plus a 125 AEQ vessel intermediate class vessel (ICF) for route 9 and a 145 AEQ ICF vessel to replace the operational 142 AEQ capacity *Queen of Burnaby* for route 17; and a second option of three ICF vessels including a 145 AEQ and a 125 AEQ vessel for route 9 and a 145 AEQ vessel for route 17.

The options were evaluated on the basis of net present value of total life cycle costs including capital and operating costs. The third option to replace the two current vessels with three intermediate class vessels was evaluated assuming either diesel or LNG-fuelled vessels. Based on the financial analysis contained in the Application, which was validated by PwC, BC Ferries’ preferred option is to replace the current vessels with three intermediate class LNG-fuelled vessels as proposed in the Application.

The commissioner has previously encouraged greater fleet standardization because of the impact it has on the capital and operating costs of the ferry system. By lowering capital and operating costs through greater standardization, future increases in price caps and service fees should be lower than they would otherwise be and this undoubtedly would be in the interests of ferry users and taxpayers. Accordingly, in his January 24, 2012 report covering his review of the Act, the commissioner recommended that a long term vision of coastal ferry services be developed by the Province and BC Ferries and that “the vision should speak to the desirability of standardization and interoperability of vessels and terminals and a vessel size policy which will enable flexible deployment of equipment.”

While a long term vision has yet to be developed, in 2012 the Province conducted a community consultation process on coastal ferry service and found through a poll that 83 per cent of respondents either strongly or somewhat agreed with the concept of standardizing vessels.

Needless to say the commissioner strongly supports the greater standardization of vessels as proposed in the Application. He finds that the preferred option of three new intermediate class vessels meets the definition of being reasonable as it is “*an intelligent approach supported or*

justified by reason; fair, proper, sound behaviour that avoids needless error and steers clear of extremes.” The preferred option is an intelligent approach as it is consistent with the objectives of the vessel replacement strategy and is justified by reason given that it is supported by the best practice of a financial analysis based on total life cycle costs.

The commissioner also finds the preferred option meets the definition of being prudent as *“good judgment or wisdom gained from experience, expressed in a realistic and frugal attitude. Prudence, however, is not the same as grave caution or wariness concerned only with preserving the status quo.”* The commissioner is of the view that the preferred option is prudent because it embraces standardization, produces lower life cycle costs and will have a positive impact on future price caps. By not following a replacement vessel strategy of replacing vessels on a like-for-like basis, the BC Ferries has demonstrated good judgment or wisdom by not preserving the status quo of operating several vessels with excessive capacity on certain routes. The status quo clearly does not serve the interests of ferry users and taxpayers by sustaining a ferry system which is not as efficient as it could be in terms of a better matching of capacity with the demand for ferry services. The proposed preferred option is a step in the right direction.

Lastly, the commissioner has considered whether or not the proposed major capital expenditure is consistent with the Coastal Ferry Services Contract and with BC Ferries’ most recent long term capital plan. Schedule A of the CFSC stipulates core service levels for each regulated route expressed as the number of round trips to be delivered per contract year, the minimum number of round trips per day and the minimum hours of operation that BC Ferries must operate. Another requirement is that the capacity provided on each designated ferry route will be sufficient to carry the previous year’s traffic (Appendix 1 of Schedule “A” to CFSC).

BC Ferries submits that with the proposed three new intermediate class vessels it complies with the current CFSC by being able to operate the core service levels as required under the CFSC. The analysis conducted by Simon Fraser University regarding the capacity of the new vessels appears to support the basis of “right-sizing” the new vessels with enough capacity to carry the traffic over the median term of 10 to 20 years from the in-service date of 2017. BC

Ferries have also provided contingency plans satisfactory to the commissioner should traffic volumes exceed the most optimistic range of the traffic forecast provided in the Application.

On the issue of the proposed major capital expenditure being consistent with its most recent long term capital plan, BC Ferries submitted to the commissioner the details of its March 2013 Five Year Capital Plan. Upon analysis and explanation of minor variances, the commissioner is satisfied that the proposed major capital expenditure is consistent with BC Ferries' most recent long term capital plan.

Accordingly the commissioner finds the proposed major capital expenditure as described in the Application to be:

- (a) reasonable,
- (b) prudent, and
- (c) consistent with
 - (i) the current Coastal Ferry Services Contract, and
 - (ii) any long term capital plan established by the ferry operator.

3) Is the proposed open deck design reasonable and prudent for deployment on routes 9 and 17?

In the Application, BC Ferries has proposed that the three new intermediate class vessels be an open deck design as opposed to the closed deck design of the current vessels. The reasons stated by BC Ferries included capital and operating cost efficiencies through a series build program and greater suitability for other minor routes that are intended to use the same design platform for their replacement vessels. The proposed open deck design has resulted in numerous public comments sent to BC Ferries and included in the Application or in comments sent to the commissioner (See Appendix 1 Summary of Public Comments Submitted to the Commissioner) suggesting such a design is not suitable for crossing the Gulf of Georgia given weather and wave conditions particularly in winter months.

The commissioner specifically asked the naval architect consultant, 3GA Marine, to review this aspect of the new vessels. The following are excerpts from their section of the PwC report under the heading "Open Deck Design Concept:"

“BCFS’ fleet already includes open deck ferries on minor routes which are invariably open bow type structures rather than the open deck envisaged for this project. These vessels are considered acceptable because they rarely encounter waves sufficient to break onto the car deck when in the prevailing sea conditions (although there are frequently spray conditions for the cars at the front of the deck).

BCFS’ Application proposes an open deck vessel which does not have an open bow but is open from above with the vessel sides being high and the bow / ram opening to be closed at sea by a visor of sufficient height that waves will not break over the sides or bow.

From a Naval Architectural perspective, the advantage of an open deck is due to the reduction of steel weight and ship systems that are required for safety and operations in closed spaces.

From a regulatory perspective there is no difference between an open bow and an open deck as they both turn the space into an outside area. The main difference is that vessels with closed sides need to be fitted with drainage (scuppers or freeing ports) to allow any water to escape off the deck.

In a closed deck vessel, however, car decks require large fans and power. Fire fighting systems can be simpler on open decks since there are no sprinklers required and life saving equipment access can be addressed differently. An open vessel’s advantage over closed deck in terms of capital cost also applies to performance and operational costs, since the vessel is lighter.

The approach adopted by BCFS to ensure the open versus closed deck aspect of the design is adequately addressed in the design - build phase of the project is to define environmental conditions in which the vessel is expected to operate in the Statement of Operational Requirements (SOR). This document describes the operational parameters for the service and is based on the in-house database of the prevailing conditions on the routes described. This is the same database that is used to manage the operations of the current vessels with respect to the weather windows of operations.

Performance parameters are set in the Technical Statement of Requirements (TSOR). In this case these will deal with the probability of deck wetness and the natural frequency of motions. Sea conditions are described stochastically as a distribution of wave heights and period. The motions of a ship can be modeled against known regular waves and the overall response to the distribution of sea conditions described in the stochastic model can then be simulated. This analysis gives a probability of an event happening. In this case “deck wetness” will be so modeled which is the probability of a wave exceeding the height of the deck or bulwarks.”

It is BC Ferries’ stated intention that the proposed open deck design will address the major concerns of ferry users and with the proposed SOR and TSOR to be developed the new vessels will not incur any more cancellations due to weather and wave conditions than the present vessels incur. On this basis, plus the substantial cost savings for an open deck design, the commissioner supports the concept of an open deck design subject to being satisfied that the concerns of the ferry users have been incorporated into the SOR and TSOR which will be included in the procurement documents for the new vessels.

4) Is the capacity of the new proposed new vessels adequate?

A number of comments were received by the commissioner with regard to the capacity of the proposed new vessels. This concern was expressed in the submissions received from the Northern Sunshine Coast Ferry Advisory Committee, the Southern Gulf Islands Ferry Advisory Committee and the Saltspring Island Ferry Committee (collectively the “FAC”). Given the common concern regarding the capacity of the proposed new vessels, the commissioner requested a response from BC Ferries addressing the concerns of the FAC. See Appendix 2 for the response and the FAC submissions.

Included in the Application are two reports (Appendices G and H) from Urban Futures examining future demand for routes 9 and 17. The Application also contains separate studies conducted by Simon Fraser University on vessel optimization for the two routes (Appendices E and F). The commissioner has reviewed these reports and studies as well as BC Ferries’ response to the FAC. Assuming the higher range of Urban Futures’ estimate for demand growth over the medium term to 2037, the commissioner believes the capacity of the proposed new vessels can reasonably be expected to meet the demand on the two routes. If growth in demand exceeds what is assumed in Application, which would be a welcome development on

both routes, the commissioner is satisfied that BC Ferries would be able to respond with the additional flexibility the proposed vessels provide. Also by the time the proposed new vessels will be deployed, BC Ferries will be better able to forecast and manage demand as a result of implementing a new point-of-sale and reservation system.

5) Should the vessels be diesel or LNG-fuelled?

In the Application, BC Ferries indicated it is leaning towards LNG-fuelled vessels as long as the financial analysis continues to support this option. This depends largely on future pricing of LNG fuel compared to diesel fuel which dictates that LNG pricing must be sufficiently below diesel fuel to offset that higher capital cost for a LNG-fuelled vessel. In its report PwC has stated that:

“The capital cost estimates derived in the BCFS Application are reasonable and probably represent median values for both the LNG and conventional diesel vessels. However, as estimates in a planning process they may underestimate the price difference in the options because diesel powered vessels may be built in cheaper global regions and there is risk that LNG premiums may be higher.”

PwC goes on to suggest that “ *the net present cost analysis needs to be re-assessed once capital and lifecycle costs have been updated through the procurement process and estimates for diesel and LNG fuel costs are updated.*”

As the economic regulator of BC Ferries, the commissioner believes that in the interest of ferry users he should support the lowest cost option to BC Ferries, be it diesel or LNG-fuelled vessels. The commissioner acknowledges there may be other considerations in selecting the LNG-fuelled vessel option but these considerations are beyond the role of the commissioner. A final determination of the lowest cost option will have to be made once proposals have been received from qualified shipyards and evaluated by BC Ferries.

Regardless of which fuel option is selected in the final analysis, the commissioner is keenly aware that fuel costs are a substantial portion of BC Ferries operating costs and fuel prices are subject to volatility on a global basis. That is why the commissioner in his Order 12-03

requires BC Ferries to submit annual plans for reducing fuel consumption, transitioning to alternate fuels and cost effective fuel procurement. Accordingly, the commissioner needs to be satisfied that an appropriate fuel efficiency target will be included in the technical specifications for the proposed new vessels.

6) Is the proposed procurement process reasonable?

As stated in PwC's report, BC Ferries is planning to follow a number of well accepted practices in the governance of the project and in the procurement process that it has used in the successful acquisition of a number of new vessels since 2003. This includes running a robust international competition that is based on a design-build contract tied to a fixed delivery schedule.

Subject to the approval of major capital expenditure proposed in the Application, BC Ferries intends to pursue a traditional two-step procurement process. The first step would be the issuance of a Request for Pre-Qualifications ("RFPQ") to the respondents of the Request for Expression of Interest ("RFEOI"). Through the RFPQ process, BC Ferries will determine which shipyards are capable of meeting BC Ferries' standards in terms of such things as qualifications, experience, and financial and technical capacity.

Responses to the RFPQ will be evaluated and a short-list of shipyards will be selected for invitation to participate in a subsequent RFP process. Pursuing this two-staged process is expected to provide benefits in terms of ensuring that the right shipyards are invited to participate in the RFP, in addition to providing BC Ferries with information at the RFPQ stage which will be of value as the Company proceeds in its further planning of the project and in the shaping of its RFP documentation. Requirements will be for a design-build contract with BC Ferries maintaining the intellectual property (IP) for the design.

Due to the very early stages of the procurement process and the associated risks with such a process that while the commissioner considers the proposed process to be reasonable he also considers it appropriate that he be satisfied that the RFP include provisions that take into account the concerns of ferry users regarding the open deck design and that BC Ferries should seek final approval at the conclusion of the procurement process.

7) Is the regulatory principle regarding ancillary services appropriately applied?

The Act distinguishes between “core ferry services,” which BC Ferries must provide under the Coastal Ferry Services Contract and “ancillary services,” which are any services not directly related to the transportation of vehicles and passengers (e.g. catering and retail services on board the vessels). Section 38(3) of the Act explicitly prohibits the commissioner from regulating ancillary services. The reason for this is to encourage BC Ferries to be innovative in expanding ancillary services and growing ancillary revenues which in a price cap model have the effect of minimizing the amount of revenues required from fares and service fees to service BC Ferries’ debt obligations.

In the Application, BC Ferries has outlined four levels of food and retail ancillary services that optimize regulatory crewing levels. BC Ferries has not provided a preferred food / retail service for any of the three vessels in the Application. Rather, an analysis has been provided that determines the impact of the various ancillary services. The analysis indicates different levels of service for the two vessels based on the estimated contribution from such services. The commissioner is not prepared to order a prescribed level of ancillary service on each vessel because in his view it would be tantamount to regulating such services. For guidance purposes, the commissioner has in the order reiterated the regulatory principle that ancillary services must not be subsidized by fare revenues on each route.

Conclusion

Based upon his review of the Application, as well as the supporting information supplied by BC Ferries, his review of the report, and opinions of his consultants and the comments received from the public regarding the Application, the commissioner has concluded that the proposed major capital expenditure should be approved subject to the commissioner being satisfied that:

- 1) a fuel efficiency target is included in the technical specifications for the proposed new vessels;
- 2) the concerns of ferry users regarding the open deck design have been taken into account in the technical specifications for the proposed new vessels;

- 3) the actual design is as generally described in the Application and does not exceed the amount approved in the confidential order released to BC Ferries.

In the event BC Ferries intends to select diesel-fuelled vessels at the conclusion of its procurement process, it must seek the commissioner's final approval and submit a final comparison of life cycle costs for the lowest cost diesel-fuelled and LNG-fuelled options for the new vessels.

Finally, BC Ferries must provide the commissioner with a contingency plan to mitigate a delay in the delivery of the new vessels beyond the delivery dates proposed in the Application.

Appendix 1

Summary of Public Comments Submitted to the Commissioner

Public comments received by the commissioner

On May 23, 2013, the commissioner posted a public notice on the commission's website inviting public comments on BC Ferries' Application under section 55 of the *Coastal Ferry Act* to replace the vessels currently operating on routes 9 and 17. The website provided a link to the Application and a link to the Section 55 Application Guidelines. Comments were to be received by email or mail prior to June 17, and it was noted that comments submitted to the commissioner may be published on its website.

In total, the commissioner directly received 16 submissions including submissions from the Saltspring Island and Southern Gulf Islands Ferry Advisory Committees. The Northern Sunshine Coast Ferry Advisory Committee submission is included in the Application. The commissioner feels the submissions from the three Ferry Advisory Committees generally reflect comments and concerns received from the public. Accordingly, the commissioner requested that BC Ferries respond to the submissions from the three Ferry Advisory Committees. BC Ferries' response and the three FAC submissions are attached as Appendix 2.

The commissioner received very little commentary around amenities, but did receive some lengthy submissions with some detailed suggestions regarding other issues. Some respondents made submissions to both the commissioner and to BC Ferries which were included in the Application.

As per the submissions to BC Ferries, which are summarized in the PwC report, some respondents raised more than one issue and each issue raised has been included in the table below, such that there are a total of 39 comments. The responses have been categorized based on frequency of similar themes in the same categories as for the comments submitted to BC Ferries. Below is a summary of the number of responses by category and by route.

Summary of Issues Raised in Public Comments to Commissioner

	<i>Open deck</i>	<i>Amenities</i>	<i>Capacity</i>	<i>Reliability</i>	<i>Scheduling</i>	<i>Reservations</i>	<i>Pet area</i>	<i>Fares</i>	<i>Other</i>
Route 9	5	1	5	1	2	3	1	4	4
Route 17	0	0	3	1	0	0	1	5	3
Total	5	1	8	2	2	3	2	9	7

The types of comments vary significantly by route, and a short description of general feedback by route is included below. On both routes there are concerns around capacity, demand measurement and vessel design.

Route 9

The most frequent Route 9 comments were around the open deck concept and capacity.

- **Open deck:** concerns about spray on cars and cancellations, suggestion of a risk analysis on this issue
- **Capacity:** some believe demand is not accurately measured and is greater than BC Ferries' numbers show and suggest providing greater overall passenger capacity. Some suggest enabling a reservation system for walk-on passengers

Route 17

There are more concerns around fares on Route 17 followed by issues of capacity.

- **Fares:** people believe that significant fare increases have reduced ridership and that fares should be at a more affordable level, in turn increasing ridership and therefore greater capacity is required on a new vessel
- **Capacity:** some concerns that BC Ferries' measure of capacity is not reflective of expected demand, but rather uses the lowest ridership recorded over the past decade. Some believe that the proposed vessel is too small. Some concerns around lack of consultation with the region for anticipated economic growth in the area.

Appendix 2

- 1. BC Ferries' Response Regarding Concerns of the Northern Sunshine Coast, Southern Gulf Islands and the Saltspring Island Ferry Advisory Committees**
- 2. Northern Sunshine Coast Ferry Advisory Committee Submission**
- 3. Southern Gulf Islands Ferry Advisory Committee Submission**
- 4. Saltspring Island Ferry Advisory Committee Submission**

**BC Ferries' Response Regarding Concerns of the
Northern Sunshine Coast,
Southern Gulf Islands and the
Saltspring Island Ferry Advisory Committees**

**British Columbia Ferry Services Inc.
("BC Ferries" or the "Company")**

**Application to the
British Columbia Ferries Commissioner
(the "Commissioner")**

**Pursuant to
Section 55(2) of the *Coastal Ferry Act***

**For
New Intermediate Class Vessels – Routes 9 and 17
(the "Application")**

RESPONSE TO FERRY ADVISORY COMMITTEES' SUBMISSIONS

**Northern Sunshine Coast Advisory Committee
Southern Gulf Islands Advisory Committee
Salt Spring Island Advisory Committee
("the FACs")**

This document sets out BC Ferries' response to the matters raised in the submissions of the FACs in regard to the Company's Application to the Commissioner. BC Ferries responds to the three principal areas of concern below, in addition to addressing other comments and suggestions of the FACs.

1. Capacity of ICF Vessels

In their submissions, the Northern Sunshine Coast Ferry Advisory Committee and the Southern Gulf Islands Ferry Advisory Committee express concerns about the sufficiency of the capacity of the proposed replacement vessels for the *Queen of Burnaby* and the *Queen of Nanaimo* to meet current and future traffic demand on the route between Comox and Powell River ("Route 17") and the route between Tsawwassen and the Southern Gulf Islands ("Route 9"), and make suggestions for possible modification of the vessels, including increasing their capacity from 145 to 165 AEQs¹, to address these concerns.

Having carefully reviewed the comments and analyses provided by the FACs in regard to this matter, BC Ferries continues to believe that two ICF vessels with 145 AEQ capacity (in addition to an ICF vessel with capacity of 125 AEQ to augment peak season service on Route 9, plus provide refit relief for other vessels, primarily on Route 9 and Route 17) is appropriate.

Sufficiency to Meet Current Demand

The Northern Sunshine Coast Ferry Advisory Committee suggests that a 145 AEQ replacement vessel for the *Queen of Burnaby* is too small to meet demand for Route 17 and the replacement vessel should be lengthened by 40 feet to provide an additional 20 AEQ for a total capacity of 165 AEQ.

¹ AEQ means automobile equivalent, where 1 AEQ slot = 5.34 metres long x 2.60 metres wide.

BC Ferries concurs that there have been sailings on Route 17 in the recent past where capacity has exceeded 145 AEQ, but notes that these occurrences have been rare. In the year ended March 31, 2013 ("FY2013") there were 2,848 sailings on Route 17. Of those, 11 sailings (0.39%) exceeded 145 AEQ and of these, two occurrences were a result of earlier cancellations in the sailing day.

This is similarly reflected in the two earlier fiscal years. In FY2012 there were 2,879 sailings on Route 17. Of those, 13 sailings (0.46%) exceeded 145 AEQ and of these, one occurrence resulted from earlier cancellations in the sailing day. In FY2011, 18 (0.63%) of 2,862 sailings on Route 17 exceeded 145 AEQ.

Appendix 1 shows the occurrences that individual sailing loads on Route 17 exceeded 145 AEQ.²

The Southern Gulf Islands Ferry Advisory Committee is similarly concerned that a 145 AEQ replacement vessel may not meet the unknown demand for Route 9 and would prefer a replacement vessel for the *Queen of Nanaimo* with capacity of 165 AEQ. While BC Ferries is not able to determine the potential sales lost when a vessel on Route 9 is fully reserved, the Company has identified below the approximate percentage of sailings on Route 9³ when a 145 versus a 165 AEQ vessel would be fully booked, based on Route 9 reservation use in FY2013. (See Appendix 2 for additional analysis.)

² The Northern Sunshine Coast Ferry Advisory Committee points out that different *Queen of Burnaby* AEQ capacities have been used at different times. The detailed AEQ utilization figures used in the Fall of 2012 for the Province's BC Coastal Ferries Consultation and Engagement for Route 17 were based on a vessel capacity for the *Queen of Burnaby* of 145 AEQ versus 192 AEQ. BC Ferries understood the sensitivity and importance of this information and wanted to present a more "meaningful" capacity for the *Queen of Burnaby* based on how the vessel is typically used (ie. ramps rarely used). BC Ferries used 145 AEQ to present the utilization percentages fairly and footnotes to this effect were provided in the original versions of these utilization tables. Unfortunately these were inadvertently not carried through to the final version produced. The annual average capacity utilization of 35.2% in the Province's Discussion Guide and Feedback Form is the same figure used for reporting purposes to the Ferry Commissioner. This 35.2% is based on the 192 AEQ stated vessel capacity. The detailed capacity utilization figures are based on the adjusted 145 AEQ vessel capacity. The annual average utilization figure derived from this adjusted capacity is ~44%. Thus, there are two different AEQ capacity numbers implicitly used in the Province's Discussion Guide and Feedback Form. The third AEQ vessel capacity 140 AEQ for the *Queen of Burnaby* that was used in the recent Public Information Sessions on the Intermediate Class Ferry New Build Program was incorrect – the 145 AEQ number is the correct number.

³ Based on redeemed percentage of reservable space, which does not include 'no show' reservations or fully loaded vessels arising from standby traffic. The data for fully booked sailings was interpolated as:

- The *Queen of Nanaimo* 'fully booked' equals 95% or more of redeemed bookings;
- 165 AEQ 'fully booked' equals 90% of the 2013 redemptions; and
- 145 AEQ 'fully booked' equals 80% of the 2013 redemptions.

Departures from Tsawwassen (TSA) fully reserved:

AEQ	Off Peak	Shoulder	Peak	Annual	% of all TSA Departures
Nanaimo	6	19	21	46	5.1%
165 AEQ	8	20	23	51	5.6%
145 AEQ	10	24	26	60	6.6%

Arrivals at Tsawwassen (TSA) fully reserved:

AEQ	Off Peak	Shoulder	Peak	Annual	% of all TSA Arrivals
Nanaimo	8	14	22	44	4.8%
165 AEQ	10	17	23	50	5.5%
145 AEQ	12	22	28	62	6.8%

Based on the considerations above, it is BC Ferries view that in the cases of both Routes 9 and 17, the current utilization data do not support the need for ferries larger than 145 AEQ.

Opportunities to Address Changes in Future Demand

Both the Northern Sunshine Coast Ferry Advisory Committee and the Southern Gulf Islands Ferry Advisory Committee have expressed concern that the capacity of the ICF vessels may be insufficient to meet future traffic demand on Routes 9 and 17.

BC Ferries recognizes the challenges of forecasting traffic demand over the estimated 40 year life of the vessels. The Company's strategy to build a class of vessels, as opposed to purpose-building replacement vessels for specific routes, is one which serves to help mitigate the risk that capacity requirements may change over time.

If the capacity requirements were to increase, the Company would have the option of increasing the capacity of the 125 AEQ ICF vessel to 145 AEQ through the addition of platform decks. If further capacity was warranted, other ICF vessels operating within the fleet could be redeployed or if the total system demand warranted it, another ICF vessel could be built and introduced without additional training, familiarization, maintenance and spare part requirements. Depending on the circumstance, the option would also be available to re-deploy the ICF vessel assigned to the route and replace it with a (larger or smaller) vessel of a different class.

In summary, a common class of vessels should enable more flexibility and efficient deployment of the fleet with greater ease and efficiency in redeploying specific vessels across several routes if unforeseen circumstances arise or if the service needs of the routes change over time.

Implications of Vessel Modifications

As described above, and more fully in the Application, the ICF vessel project presents the opportunity to develop a build program for multiple vessels. In addition to the *Queen of Burnaby* and the *Queen of Nanaimo* replacements, the potential exists for the ICF class of vessels to be used as the replacement vessels for the *Bowen Queen*, the *Mayne Queen*, the *Powell River Queen*, the *Howe Sound Queen*, and eventually, the *Quinsam*, the *Queen of Capilano* and *Queen of Cumberland*. The potential benefits of a series build program are significant and are expected to result in cost savings and enhanced operational safety.

BC Ferries submits that in order to truly remain within a “class strategy” of replacement vessels, it is important that the propulsion system, general hull arrangements, passenger accommodations and bridge be of a standard design. While it might appear that “stretching” the vessel to increase AEQ capacity by 20 would keep to standardization, several important elements of standardization and interoperability would be lost. For example:

- Deck layout would not be the same;
- Larger size ship would most likely require different sized propulsion plants;
- Manoeuvrability of the vessel would vary;
- Interoperability of the vessel would be compromised (with the potential that the vessel could be route specific);
- Most likely two classes of vessels (145-165 AEQ and 85-125 AEQ) would ultimately be required.

In addition to the impacts on interoperability and standardization, stretching or otherwise modifying the proposed ICF vessels would also have a negative impact on capital and operating costs.

BC Ferries estimates that the additional incremental project capital costs, on a net present value basis, of acquiring two ICF vessels with capacity of 165 AEQ as opposed to 145 AEQ, would be in the order of \$12.0 million. This estimate is considered to be conservative in that it does not assume any increase in crew profile complement for the additional capacity or any changes in fuel efficiency. While it is assumed that additional tariff and ancillary revenue would be generated as a result of the larger vessels, such benefit would be offset by the incremental costs to build the larger vessels and the loss of the series build discount on the 125 AEQ ICF vessel. While not factored into the above analysis, it is anticipated that higher life cycle costs would also result due to such things as:

- More crew familiarization being required due to a reduction in the number of standardized vessels (i.e. more vessel classes versus fewer);
- More spares for propulsion systems being required as not all systems would be the same size (engines and propulsion would be most likely sized differently); and
- Different simulation profiles would need to be built for vessels as the hull profiles would vary.

2. Reliability of Service

The FACs have expressed the importance of continued reliability of service, including in heavy weather conditions. BC Ferries concurs and remains committed to ensuring the new vessels maintain a high standard of operational availability.

As a general comment, the safety of employees and the travelling public is the Company's first priority. Like all vessels in BC Ferries' fleet, the ICF vessels will be required to meet or exceed the requirements for safe operation as set out in the *Canada Shipping Act* and pursuant Transport Canada regulations.

The vessels will also operate in accordance with the Company's comprehensive heavy weather protocol, which includes a decision matrix for Masters with clear sailing guidelines taking into consideration forecasted weather conditions, the vessel's mechanical status, passenger and crew comfort, the vessel's load and tidal

conditions. Currently, the *Queen of Burnaby* operates under a restricted weather matrix due to port shaft pitch issues. The new vessels will meet the full matrix. There will be design criteria set out in the Technical Statement of Requirements for the ICF vessels respecting loading turnaround times, speed, sea keeping abilities and performance criteria to ensure schedules can be met and service continues to be reliable, including in heavy weather conditions.

3. Overspray on an Open Deck Vessel

In conjunction with the comments about the need for continued reliability of service, the FACs have expressed concerns about an open deck vessel design as it relates to the possibility of spray and water conditions on the deck. BC Ferries acknowledges these concerns and confirms that there will be design criteria set out in the Technical Statement of Requirements for the ICF vessels that will ensure that the final vessel will have engineered measures in place to minimize water on the deck and sea spray for all operational parameters.

4. Other Matters

The Salt Spring Island Ferry Advisory Committee made suggestions in the following areas:

- **Visibility and observation by passengers of scenic coastal areas**

The Committee suggests that the vessel design include a high standard for effective visibility and observation of geographic attributes/scenery as a means of enhancing tourism and traffic

- **Ancillary services**

Given the heavy tourist presence on these routes, the Committee recommends that provision for full ancillary services (level 4) be incorporated into the plans for both ships. The Committee comments further that it may make financial sense to reduce the actual level of service during the off-season but the facilities for full level 4 service should be available when required.

BC Ferries commits to undertaking further public consultation on the ICF vessel project and welcomes input such as this to include as part of its planning process.

Appendix 1

Occurrences when Route 17 Sailing loads Exceeded 145 AEQ

Fiscal 2013				
Greater than 145 AEQ				
		Dept Time	Loaded AEQ	
Sunday	May 13, 2012	19:15:00	154	
Tuesday	July 03, 2012	10:10:00	152	Canada Day Long Weekend - Bike Race
Monday	August 06, 2012	12:00:00	172	BC Day Long Weekend
Friday	August 10, 2012	12:00:00	151	
Thursday	August 16, 2012	10:10:00	148	Cancelled Sailings - 1st sailing to depart
Monday	August 20, 2012	15:15:00	149	
Monday	October 08, 2012	15:15:00	152	Thanksgiving Long Weekend
Saturday	November 17, 2012	10:10:00	155	Cancelled Sailings - 1st sailing to depart
Thursday	December 27, 2012	12:00:00	155	
Thursday	December 27, 2012	15:15:00	151	
Friday	December 28, 2012	12:00:00	157	

Fiscal 2012				
Greater than 145 AEQ				
		Dept Time	Loaded AEQ	
Monday	April 25, 2011	12:00:00	150	Easter
Friday	May 13, 2011	17:15:00	148	
Thursday	June 02, 2011	12:00:00	148	
Sunday	June 05, 2011	19:15:00	150	
Friday	July 01, 2011	12:00:00	147	Canada Day - Cancelled sailings - 2nd sailing to depart
Friday	July 08, 2011	15:15:00	154	
Friday	July 29, 2011	12:00:00	150	
Monday	August 01, 2011	12:00:00	148	BC Day
Monday	August 15, 2011	15:15:00	150	
Sunday	August 21, 2011	12:00:00	146	
Friday	August 26, 2011	12:00:00	148	
Friday	December 23, 2011	15:15:00	149	
Tuesday	December 27, 2011	12:00:00	153	

Fiscal 2011				
Greater than 145 AEQ				
		Dept Time	Loaded AEQ	
Monday	May 24, 2010	12:00:00	152	May Long Weekend
Sunday	June 13, 2010	19:15:00	147	
Friday	July 09, 2010	12:00:00	147	
Friday	July 23, 2010	12:00:00	154	
Wed	July 28, 2010	12:00:00	155	
Friday	July 30, 2010	15:15:00	147	
Friday	July 30, 2010	17:15:00	151	
Monday	August 02, 2010	12:00:00	154	BC Day
Friday	August 13, 2010	12:00:00	153	
Friday	August 20, 2010	15:15:00	149	
Sunday	August 22, 2010	12:00:00	150	
Thursday	August 26, 2010	12:00:00	151	
Wednesday	September 15, 2010	12:00:00	165	
Friday	September 24, 2010	12:00:00	151	
Monday	October 11, 2010	15:15:00	162	Thanksgiving
Monday	October 11, 2010	12:00:00	150	Thanksgiving
Friday	December 24, 2010	19:15:00	189	Cancelled Sailings - 1st sailing to depart
Monday	December 27, 2010	12:00:00	148	

Appendix 2 Route 9 Additional Analysis

Distribution of fully reserved traffic across the calendar week is:

DISTRIBUTION of Occurances of Fully Reserved Sailings Across the Year

TSAWWASSEN DEPARTURES:

Queen of Nanaimo

	Occurrences:			Distribution of All Occurrences of Fully Reserved Departures:			
	Off Peak	Shoulder	Peak	Off Peak	Shoulder	Peak	D.O.W.
FRIDAY	3	12	14	6.5%	26.1%	30.4%	63.0% (Peak and Shoulder Fridays)
SATURDAY		2	2		4.3%	4.3%	8.7%
SUNDAY							
MONDAY							
TUESDAY							
WEDNESDAY							
THURSDAY	3	5	5	6.5%	10.9%	10.9%	28.3%
Seasonal	6	19	21	13.0%	41.3%	45.7%	100.0%

DISTRIBUTION of Occurances of Fully Reserved Sailings Across the Year

TSAWWASSEN ARRIVALS:

Queen of Nanaimo

	Occurrences:			ANNUAL	Distribution of All Occurrences of Fully Reserved Arrivals:			
	Off Peak	Shoulder	Peak		Off Peak	Shoulder	Peak	ANNUAL
Friday								
Saturday								
Sunday	1	6	9		2.3%	13.6%	20.5%	36.4% Peak and Shoulder Sunday
Monday	5	5	9		11.4%	11.4%	20.5%	43.2% Holiday Mondays
Tuesday	1	3	4		2.3%	6.8%	9.1%	18.2%
Wednesday	1				2.3%			2.3%
Thursday								
Seasonal	8	14	22	44	18.2%	31.8%	50.0%	100.0%

The proportion of departures and arrivals which are fully reserved measured against total arrivals/departures in the year, by day of the week are:

PROPORTION of All Tsawwassen (TSA) Departures that are Fully Reserved

TSAWWASSEN DEPARTURES:

Queen of Nanaimo:

	TOTAL TSA Departures				Proportion of All TSA Departures Fully Reserved:			
	Off Peak	Shoulder	Peak		Off Peak	Shoulder	Peak	
Friday	87	39	30		3.4%	30.8%	46.7%	18.6%
Saturday	93	33	30			6.1%	6.7%	2.6%
Sunday	93	33	40					
Monday	67	24	26					
Tuesday	64	22	18					
Wednesday	64	20	20					
Thursday	60	26	20		5.0%	19.2%	25.0%	12.3%
Seasonal	528	197	184	909	1.1%	9.6%	11.4%	5.1%

PROPORTION of All Tsawwassen (TSA) Arrivals that are Fully Reserved

TSAWWASSEN ARRIVALS:

Queen of Nanaimo:

	TOTAL TSA Arrivals				Proportion of All TSA Arrivals Fully Reserved:			
	Off Peak	Shoulder	Peak		Off Peak	Shoulder	Peak	
Friday	87	39	30					
Saturday	93	33	30					
Sunday	93	33	40		1.1%	18.2%	22.5%	9.6%
Monday	67	24	26		7.5%	20.8%	34.6%	16.2%
Tuesday	64	22	18		1.6%	13.6%	22.2%	7.7%
Wednesday	64	20	20		1.6%			1.0%
Thursday	60	26	20					
Seasonal	528	197	184	909	1.5%	7.1%	12.0%	4.8%

Dates of Seasons:

PEAK - June 27- Sept 3

SHOULDER - Sept 4- Oct 8, May 18 - June 26, and Thurs & Fri of Easter Holiday (April 5, 6, and Mar 29, 30)

OFF-PEAK - Oct 9 - May 17, excluding Thurs & Friday of Easter holiday (April 5, 6, and Mar 29, 30)

(NOTE: Shoulder season is unofficially defined by the "Shoulder Friday" schedule dates, but is officially included in the off-peak season)

The Southern Gulf Islands Ferry Advisory Committee raised the following points in respect of capacity utilization figures which are contained in Appendix B of the Application:

1. *The utilization tables show two Sunday sailings from Southern Gulf Islands to Tsawwassen through the off peak season when in fact there are three: two from Salt Spring, and a short haul from Mayne Island:*

The utilization tables only show 'round trips' defined by the Coastal Ferry Services Contract, which defines a round trip as being trips between Long Harbour through to Tsawwassen and return. This occurs twice on off-peak Sundays; the leg from Mayne Island to Tsawwassen is not counted as a round trip.

2. *Friday night sailings from Tsawwassen in the off-peak season show an average utilization of 64.7%, which masks those weekend sailings in the shoulder season that are fully booked. As presented, the average utilization is misleading, understating the demand for the dozen or so shoulder season weekends.*

The number of 'non-summer' (off peak & shoulder) fully reserved sailings into or out of Tsawwassen that occurred on a Friday are presented in the tables above.

3. *The averages for the peak season tend to understate the number of sailings that are completely sold out. This needs attention as those are the sailings that determine how well the capacity matches demand.*

The number of 'peak' fully reserved sailings that occurred into or out of Tsawwassen on a Friday are presented in the tables above.

4. *Are through-fare trips to and from the islands counted? If they haven't been included, they should be as they are part of the demand.*

Through fares travelling to Salt Spring Island using Route 1 (Tsawwassen to Swartz Bay) and Route 4 (Swartz Bay to Fulford Harbour) or Route 5 / 5A (Swartz Bay to South Gulf Islands) have not been counted. A through fare is a viable alternative service option available to customers and the need to have inefficient excess capacity on the Route 9 vessel cannot be justified.

5. *As indicated in the utilization tables, not all sailings on any given day are equally utilized. That is the result of both sailing departure/arrival times and the islands served on specific sailings. With one or two vessels generally making two round trips per day and serving four destinations, it won't be possible to perfectly align capacity with demand, inevitably resulting in underutilized capacity, even at the busiest times.*

BC Ferries agrees that it would not be possible to perfectly align capacity with demand without committing to excessive cost which would have a deleterious effect on fares.

Northern Sunshine Coast Ferry Advisory Committee Submission

QUEEN OF BURNABY REPLACEMENT

Ferry Commissioner Section 55 Process

May 12, 2013

Northern Sunshine Coast Ferry Advisory Committee Section 55 Submission

Summary

The Northern Sunshine Coast Ferry Advisory Committee (NSCFAC) met on May 7th with 100% attendance and full consensus on the following submission concerning BC Ferries proposed vessel replacement for the Queen of Burnaby. There are three main areas of concern that need to be considered by the Ferry Commissioner. The detailed rationale for these concerns can be found in the **Discussion** section and has resulted in the following recommendations:

1. The proposed vessel is too small and should be lengthened by 40 feet to provide an additional 20 AEQ for a total capacity of 165 AEQ.
2. The proposed vessel design should result in a continuing reliability of service improvement by reducing sailing cancellations due to heavy weather.
3. The proposed open deck vessel design should minimize overspray on the car deck so as not to adversely impact reliability of service.

Discussion

1. Proposed replacement vessel AEQ capacity

The information BC Ferries provided during the Public Information Sessions on the Queen of Burnaby replacement indicated that the Burnaby has a current '140 AEQ real working capacity' and not the 192 AEQ capacity that is stated in their fleet information and used in their annual 'sailing data' spreadsheets. An AEQ of 192 is also used in the BCF Annual reports to the Commissioner. The 140 AEQ number appears to have been utilized as one of the determining factors in the design of the replacement vessel which, as a result, has a recommended 145 AEQ capacity. The NSCFAC feels the proposed replacement vessel AEQ is too small based on the data presented below.

Attached are two excel spreadsheets showing route 17 sailings in Fiscal 2011 and Fiscal 2012; sorted to show those sailing with a loaded AEQ equal to or greater than 140. In fiscal 2011, 16 Burnaby loaded AEQ's were greater than or equal to 140 with a maximum loading of 191 AEQ for one sailing. In fiscal 2012, 32 Burnaby loaded AEQ's

were greater than or equal to 140 with a maximum loading of 157 AEQ for one sailing. BC Ferries data demonstrates that the 140 'real working capacity' is not correct. BC Ferries has also used another AEQ number in their reporting to ferry users. In this case a 145 AEQ was used to provide the detailed average of vehicle utilized capacity on page 24 of the appendix to the Province's Discussion Guide and Feedback Form used during the BC Coastal Ferries Consultation and Engagement in the fall of 2012. This same document uses 192 AEQ on page 7 where an annual average vehicle utilization rate of 35.2% is shown for Fiscal 2012. (35.2% is consistent with the data in the BCF annual report to the Commissioner for Fiscal 2012). This use of various Queen of Burnaby AEQ capacities only became known to the NSCFAC after the vessel replacement information session held May 1, 2013 and this use of three different AEQ capacity numbers is concerning to NSCFAC members.

Also attached to this submission is Route 17 Vehicle Average Vehicle Utilization by departure time and day of week for the PEAK period (July and August) for both Fiscal 2011 and Fiscal 2012. This data was developed by the NSCFAC from BC Ferries annual sailing data (with 192 AEQ) using the pivot table function in Microsoft Excel. The information boxes shown with these two spreadsheets show that if the 'average utilization' is adjusted from 192 to either 140 or 145 AEQ that several sailings approach 100 % average utilization. This means that many individual sailings in the peak periods and holiday weekends would have overloads and ferry users will be left behind with a 4 hour wait or perhaps having to stay overnight. (Note that this data is reasonably consistent with the BCF data referenced above on page 24 of the appendix provided in the Provincial Consultation process) The NSCFAC contends that this data demonstrates that a 145 AEQ replacement vessel for the Queen of Burnaby is too small and should be changed to a 165 AEQ vessel for route 17. This can be done adding an incremental 40 feet in length, same beam, and picking up an additional 12 AEQ on the main car deck and 8 AEQ on the galleries.

The NSCFAC also points out the data used above represents a period, Fiscal 2012, when BC Ferries experienced a 20 year record low ridership, in part caused by fares at or above the tipping point of affordability. The NSCFAC feel it is important that the replacement vessel for the Queen of Burnaby be sized to handle ridership that may well increase significantly in 2016 if the overall economy improves and/or fares become more affordable. The replacement vessel at 145 AEQ in this case will be too small from day 1 and certainly over the 40 year expected life and will negatively impact the Northern Sunshine Coast from a ferry user, business and economic development perspective.

2. Reliability of Service in Heavy Weather Conditions

There has been a marked change in Route 17 weather cancellations over the past 7 years. From Fiscal 2007 through Fiscal 2010 the average cancellations due to heavy weather were 11 per year. Following a procedural change to utilizing a heavy weather matrix to help decide whether or not to sail in adverse weather conditions, cancelled sailings increased to 50 and 85 for Fiscal 2011 and 2012 respectively. Fiscal 2013 has seen a reduction to 36 cancellations YTD to January, based on data provided to the NSCFAC in April of this year. Reliability of service is important to all Northern Sunshine Coast ferry users and there is a concern that the Queen of Burnaby replacement is a smaller vessel which may result in more heavy weather sailing cancellations. BC Ferries has assured us in the May 1, 2013 Public Information Meeting that this will not be the case and that the proposed replacement vessel will operate with same heavy weather matrix and the current reduction in sailing cancellations should continue.

The NSCFAC recommends that the Ferry Commissioner consider the above concern and ensure that the replacement vessel will indeed not result in more heavy weather cancellations. Reliability of service is extremely important over the life of this replacement vessel from a ferry user, business and economic development perspective.

3. Possible impact of overspray on an open deck vessel

During the May 1, 2013, Public Information Meeting, the NSCFAC, and many of the ferry users present, expressed a concern about the potential for overspray on an open deck vessel. This concern, in part, is based on route 17 ferry user experience with an open deck vessel many years ago. The NSCFAC shares this concern primarily from a reliability of service point of view and recommends that the open deck design include features to minimize the overspray in adverse weather conditions. Overspray should not become a factor in potential sailing cancellations.

The NSCFAC recommends that the Ferry Commissioner consider the above concern and ensure the replacement vessel include the appropriate design features to minimize overspray and not adversely impact service reliability.

Respectfully submitted,

Northern Sunshine Coast Ferry Advisory Committee

Comments on Traffic Data

Scheduled sailing times listed in the data may differ from the published sailing schedule. This may occur when sailings are rebuilt, during refit relief, vessel operating in shuttle mode, ambulance runs, service recovery etc...

Round trip number is an approximation based on the number of sailings throughout the day. When sailing times are not as originally scheduled the round trip numbers may be inconsistent.

For multi port routes (i.e. routes 5, 9, 20, 25, 10, 40) traffic from all sailings inbound, or all sailings outbound, will need to be considered when determining capacity utilization.

For multi port routes (i.e. routes 5, 9, 20, 25, 10, 40) the data provided allows one to identify the demand from each island for each sailing. This data looks at all possible ports of call for each departure (as per schedule). Due the nature of the multi-destination traffic data single departure overload information can not be calculated for each port.

During Service recovery situations charter vessels are used. A charter vessel could be a flight, a tug & barge and/or a water taxi. The capacity of each charter vessel is not listed and is not distinguished in the data.

- e.g. Route 19 August/September 2011; Route 17/18 February 2012

Vessel	Year	Length	Comissioner Reporting Vessel Capacity	Pax	Knots
Alberni, Queen of	1976	457`0 (139m)	275	1200	21
Bowen Queen	1965	278`9 (84.96m)	70	400	14.5
Burnaby, Queen of	1965	426'0 (129.97m)	192	904	16.5
Capilano, Queen Of	1991	314`11 (96.0m)	85	457	12.5
Chilliwack, Queen Of	1978	375`11 (114.58m)	115	400	12.5
Coastal Celebration	2008	525'0 (160.0m)	370	1604	23
Coastal Inspiration	2007	525'0 (160.0m)	370	1604	23
Coastal Renaissance	2007	525'0 (160.0m)	370	1604	23
Coquitlam, Queen of	1976	457`0 (139m)	362	1494	20.5
Cowichan, Queen of	1976	457`0 (139m)	362	1494	20.5
Cumberland, Queen of	1992	314`9 (96.0m)	127	462	12.5
Howe Sound Queen	1964	241`0(73.46m)	70	300	12.5
Island Sky	2008	335' (102m)	125	462	15.5
Kahloke	1973	179`6(54.70m)	30	200	10
Klitsa	1972	155`8(47.46m)	22	200	9
MV Kuper	2006*	203' 8(52.21m)	32	269	9.75
Kwuna	1975	235' 4(71.64m)	26	154	10
Mayne Queen	1965	278' 9(84.96m)	70	400	14.5
North Island Princess	1958	200`3(61.04m)	49	150	13
Nanaimo, Queen of	1964	426`5 (129.97m)	192	1004	16.5
New Westminster, Queen of	1964	426`4 (130.m)	275	1332	20
Nimpkish	1973	111`4(33.93m)	16	125	11
Northern Adventure	2004	383' 6 (117.0m)	101	638	21
Northern Expedition	2009	492' 0 (150.0m)	130	600	21
Oak Bay, Queen of	1981	457`0 (139.m)	362	1494	20.5
Powell River Queen	1965	278`8(84.96m)	70	400	14.5
Quadra Queen II	1969	162`9(49.64m)	30	150	13
Quinitsa	1977	244`5(74.52m)	50	300	9.75
Quinsam	1982	284`11(86.85m)	70	300	12
Skeena Queen	1996	360`8 (110. m)	100	450	14.5
British Columbia, Spirit Of	1993	549`5 (167.5m)	400	2100	20
Vancouver Island, Spirit Of	1994	549`5 (167.5m)	400	2100	20
Surrey, Queen of	1981	457`0 (139.m)	362	1494	20.5
Tachek	1969	162`6(49.56m)	30	150	13
Tenaka	1964	154`6(47.09m)	30	150	12.5

AEQ conversion factors

Vehicle Type	Major Routes	Minor & Northern Routes
Under height	1	1
Over height	1.5	1.5
Semi/Commercial	3.75	2.5
Bus	3	3

Route 17 Fiscal 2010/11 Utilization PEAK - (summer schedule)

Average of Vehicle utilized Capacity (%) - Burnaby AEQ 192

Average of Vehicle	Day of Week							
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Grand Total
6:30:00 AM	6%	32%	36%	45%	33%	35%	20%	30%
8:10:00 AM	33%	45%	45%	55%	51%	52%	49%	47%
10:10:00 AM	33%	39%	45%	44%	42%	46%	41%	42%
12:00:00 PM	52%	67%	56%	69%	65%	72%	47%	62%
3:15:00 PM	61%	61%	57%	57%	63%	68%	43%	59%
5:15:00 PM	46%	40%	43%	56%	54%	64%	28%	47%
7:15:00 PM	49%	39%	33%	36%	39%	48%	26%	39%
8:45:00 PM	13%	9%	11%	12%	11%	10%	9%	11%
Grand Total	37%	42%	41%	47%	45%	50%	33%	42%

Adjustments to the average utilization for Burnaby AEQ of 140 and ICF Vessel AEQ of 145

Fiscal 2011 BCF report to the Commissioner

Burnaby 192 AEQ utilization is reported as 34.3%

Burnaby 140 AEQ utilization would be 47%

Route 17 utilization understated by 13%

Examples of **average utilization** shown above **adjusted** for 140 and 145 AEQ

Adjusted for the Burnaby at 140 AEQ

PEAK schedule **overall average** becomes 58% from 42%

Friday noon PR sailing average becomes 99% from 72%

Friday 3:15 LR sailing average becomes 93% from 68%

Monday noon PR sailing average becomes 92% from 67%

Monday 3:15 LR sailing average becomes 84% from 61%

Adjusted for the proposed ICF vessel at 145 AEQ

PEAK schedule **overall average** becomes 56% from 42%

Friday noon PR sailing average becomes 95% from 72%

Friday 3:15 LR sailing average becomes 90% from 68%

Monday noon PR sailing average becomes 89% from 67%

Monday 3:15 LR sailing average becomes 81% from 61%

Bottom Line with a 145 AEQ vessel as compared to the Burnaby

Many overloads during the summer schedule and holiday weekends

Significantly more ferry users forced to wait 4 hours for the next sailing or stay overnight

More ferry users will feel compelled to add the cost of a reservation to their ferry fare

Route 17 Fiscal 2011/12 Utilization PEAK - (summer schedule)

Average of Vehicle utilized Capacity (%) - Burnaby AEQ 192

Average of Vehicle	Day of Week							
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Grand Total
06:30	7%	33%	36%	43%	33%	35%	23%	30%
08:10	30%	44%	47%	53%	56%	52%	45%	47%
10:10	31%	38%	42%	39%	40%	49%	40%	40%
12:00	56%	69%	58%	68%	65%	74%	45%	62%
15:15	62%	61%	58%	56%	62%	67%	44%	59%
17:15	46%	42%	44%	45%	57%	54%	29%	45%
19:15	47%	36%	35%	37%	42%	46%	24%	38%
20:45	11%	11%	10%	10%	11%	8%	6%	9%
Grand Total	36%	42%	41%	44%	46%	48%	32%	41%

Adjustments to the average utilization for Buraby AEQ of 140 and ICF vessel AEQ of 145

Fiscall 2012 BCF report to the Commissioner

Burnaby 192 AEQ utilization is reported as 35.2%

Burnaby 140 AEQ utilization would be 48%

Route 17 utilization is understated by 13%

Examples of **average utilization** shown above **adjusted** for 140 and 145 AEQ

Adjusted for the Burnaby at 140 AEQ

PEAK schedule **overall average** increases to 56% from 41%

Friday noon PR sailing average becomes 101% from 74%

Friday 3:15 LR sailing average becomes 92% from 67%

Monday noon PR sailing becomes 95% from 69%

Monday 3:15 LR sailing becomes 84% from 61%

Adjusted for the proposed ICF vessel at 145 AEQ

PEAK schedule **overall average** increases to 54% from 41%

Friday noon PR sailing average becomes 98% from 74%

Friday 3:15 LR sailing average becomes89% from 67%

Monday noon PR sailing becomes91% from 69%

Monday 3:15 LR sailing becomes 81% from 61%

Bottom Line with a 145 AEQ vessel as compared to the Burnaby

Many overloads during the summer schedule and holiday weekends

Significantly more ferry users forced to wait 4 hours for the next sailing or stay overnight

More ferry users will feel compelled to add the cost of a reservation to their ferry fare

Southern Gulf Islands

Ferry Advisory Committee Submission

Response to BCF s.55 Application of 22 May, 2013, to Replace the *Queen of Nanaimo*

Introduction:

The s.55 application for replacement of the *Queen of Nanaimo* represents a major improvement in providing more efficient, better balanced capacity on the route, and a much-needed boost to capacity in the shoulder season. Route 9 is a difficult route to serve, given its seasonal and day-of-the-week peaks and valleys, and its two separate and distinct clienteles. The idea of using a common platform reflects past practice with the V-class vessels, the C-class ferries and the Mayne Queen trio of ferries. It just makes sense. That said, we have some concerns about vessel sizing and the validity of some of the supporting documentation.

Comment:

The combined vehicle capacity of the two ferries, at 270 AEQ, is just eight vehicles more than the present capacity of the *Queen of Nanaimo* and the *Bowen Queen*, now serving the route in the summer. Notwithstanding expectations of greater efficiency, it appears the combined capacity will prove to be less than adequate. Accordingly, we are recommending a capacity increase of 20 AEQ on the larger vessel. Building the vessel 40 ft longer, with proportional extension of the galleries and platforms, could provide this added capacity.

Rationale:

1. **Starting point:** It's the view of many islanders that the starting point for traffic projections has been substantially depressed over the past decade. This is felt to be largely a result of fares increasing to a point where they now constitute a barrier, poor value, for anyone contemplating a trip to the islands. Not necessarily unaffordable for all; just not worth the money. People who must travel do so less frequently and many who have other choices for their discretionary dollar no longer travel on this route at all. In the past decade, passenger traffic has declined 13.3% (1.57% p.a.), vehicle traffic 14.6% (1.74% p.a.), while fares have increased 79% (6.68% p.a.). See attachments 1 and 2. In real dollar terms, a round trip fare for car, driver and passenger has increased from \$84.25 in FY2004 to \$150.80 in FY2013. The cause and effect is self-evident.

It's anticipated that, at some time in the future, fares will be returned to a reasonable level, and route 9 traffic will rebound from its current depressed level. The 23% increase in over-height vehicle traffic upon removal of the over-height fare surcharge demonstrates this recovery capacity.

2. **Unknown demand:** Rte 9 is unique in that the vessel(s) may be 100% committed to vehicle reservations. This frequently happens on Friday and Sunday sailings in the shoulder and summer seasons. As a result, BCF Reservations ends up turning away potential travelers once the vessel is fully booked. There is no record of how many potential sales are lost or what the potential travelers did in the alternative (cancel the trip, delay it, travel via through-fare). As well, this 'full' status is advertised on the website and announced as part of travel advisories over local radio stations. Thus there are a variety of means by which potential weekend travelers are turned away without there being any record, and consequently with there being no measure of unmet demand, once the capacity is fully booked. A better measure of utilization than

that presented would be 'how many, or percentage, of Friday PM sailings are determined to be fully booked in the off-peak, shoulder and summer seasons. The only thing known now is that there is unmeasured, unmet demand for those weekend sailings.

There is presently an unknown amount of unmet demand for weekend sailings for about 24 weekends in the year. With the proposed vehicle capacity about the same as presently available, it appears that this unmet demand will remain unmeasured and unmet.

Context:

Route 9 is unusual, perhaps unique in the system, in that it serves two separate and very different client bases. One is the residents and businesses of the gulf islands that tend to travel on weekdays for business in Metro Vancouver. The other group is residents of the lower mainland and tourists from outside the lower mainland. This group includes people with recreational property on the islands; people visiting permanent or part time residents and tourists. This second group tends to concentrate their travel on weekends, outbound to the islands on Fridays and returning on Sundays. Many are employed and/or have children in school and aren't able to travel during the work-week.

The needs of the first group could probably be easily met with the single 145 AEQ vessel. These needs are generally reasonably uniform throughout the year. The needs of the second group are hugely more volatile, reflecting the interests and whims of the major urban center. Good weekend weather forecast? Let's go visit the grandparents; let's gather the group and cycle one of the islands. Visitors in town? Let's go explore Salt Spring.

Trying to relate the behavior of one group to the other is like trying to plan for a ship designed to transport copper from Chile and pineapples from Costa Rica. Aside from coming from Spanish-speaking countries, the demand for each product is entirely independent of the other. Same thing with mainland- and island-based route 9 traffic.

Is it practical, even responsible, to try to accommodate the absolute summer weekend traffic peaks? Probably not. Thus the 100% reservation system will remain a necessity.

On the other hand, it would be tragic to build two vessels that will one day prove to be regrettably undersized, vessels that were designed based on artificially low traffic forecasts and an unknown level of unmet demand.

Options and Opportunities:

- 1. Add the platforms to the 125 AEQ vessel at build.** This would provide 20 additional AEQ capacity, but would remove the built-in future growth opportunity for this vessel. Better to hold it in reserve to be used as may be needed some time in the future.
- 2. Build the 145 AEQ vessel about 40 ft longer providing the extra length in the car deck, the galleries and the platforms.** Much has been said about the benefits of commonality in the application, and it's all valid. However, the rationale, as presented, seems to carry the implicit assumption that commonality must include vessel length. In fact, almost all the benefits of commonality can be retained while making the vessel just a little longer. This has been amply demonstrated in the stretching of the V-class vessels and the Mayne Queen trio.

3. **Design the vessels to be able to be stretched if needed.** We are told the *Cumberland*, unlike the *Mayne Queen*, cannot be stretched by virtue of its design. Presumably the *Capilano* is similarly constrained. Building in the capacity to stretch these vessels would allow the capacity of either of them to be increased relatively economically in the future if required, as was done with the V-class ferries.
4. **Stretch the passenger lounge.** If the decision is taken to stretch the 145 AEQ ferry at build, it may well make sense to stretch the passenger lounge, expanding passenger capacity proportionately. The maximum combined capacity of 1200 passengers is less than the current 1400. With the two ferries committed to specific islands, excess demand on one vessel won't be able to be accommodated by the other vessel. While passenger and vehicle traffic are both dropping on this route, there is a migration from vehicles to passenger traffic that's been underway since FY2008. See attachment 3. We believe this to be reaction to the barrier level fares. In the absence of passenger reservations, there remains an increasing likelihood of passengers being turned away at the gate.
5. **Faster ships, shorter turnaround times.** We're told, and expect it to be the case, that less time in transit and in port, and two-port scheduling, will mean more service in the form of more sailings within normal shift times. That remains to be seen once some potential schedules are produced. We are reminded that we presently have two vessels in service in the summer, with similar opportunity for specific port scheduling.

But . . .

Route 9 traffic has been steadily dropping over the last decade. If, as we believe, the principal cause of this decline is the high fares, then that decline will continue into the future until such time as a fundamental government funding policy is substantially altered. If there is no alteration to the policy, then traffic will continue to drop, and capacity won't be a problem. The impact on the economic, social and cultural well-being of the island communities will be crippling. But that's another issue. It is 'surprising' that the Urban Futures report acknowledges long term declining traffic on route 9, but confidently predicts sustained traffic increases to and from all the islands, starting this year. We suggest that forecast to be optimistic in the extreme. We would like to see it happen, but can't imagine reversing a ten-year trend in the absence of a profound change in government philosophy. Or a miracle.

An Elephant in the Room. All of us who have endured rough winter crossings will need assurance that this vessel, substantially smaller than the *Nanaimo*, will be able to handle the stormy seas with no less discomfort, and no more missed sailings, than presently experienced. More information on performance in adverse conditions in European service would be useful. Videos? Comparative statistics on sea conditions and passenger response, cancelled sailings, etc?

Some smaller points.

1. The utilization tables show two Sunday sailings from the SGI to Tsawwassen through the off-peak season. In fact there are three sailings taking weekenders back to the mainland; two from Salt Spring, and the third, a short haul from just Mayne Island. It's unclear how these three trips are accounted for, if in fact they are, in the utilization graphics.
2. Friday night sailings from Tsawwassen in the off-peak season, presumably September to June, show average utilization of just 64.7%. Unfortunately this masks those weekend sailings in the shoulder season that are fully booked. Better to show stats that indicate how many sailings are fully reserved, or even better, a linear utilization graph indicating proportion of those sailings in each 5% or 10% utilization

range. As presented, the average utilization is misleading, understating the demand for the dozen or so shoulder season weekends.

3. As above, the averages for the peak season tend to understate the number of sailings that are completely sold out. This needs attention as those are the sailings that determine how well the capacity matches demand.
4. There is no indication how, or even if, through-fare trips to and from the islands are counted. Many of these would return to route 9, if sailing times become more viable. If they are counted, the data should so indicate. If they haven't been included, they should be, as they are part of the demand.
5. As indicated in the utilization tables, not all sailings on any given day are equally utilized. That is the result of both sailing departure/arrival times and the islands served on specific sailings. With one or two vessels generally making two round trips per day and serving four destinations, it won't be possible to perfectly align capacity with demand, inevitably resulting in underutilized capacity, even at the busiest times. This happens now, with the *Bowen* more heavily utilized than the *Nanaimo*, according to the utilization graphics.

In Summary . . .

The proposed replacements for the *Queen of Nanaimo* represent a major improvement. We have some concern about the capacity of these vessels to handle the winter seas we experience. While we'd like to see increased traffic for the health of our islands, we don't see it happening while fares remain at their current level and/or continue to increase. Although ambivalent about the need for more capacity in the near future, we do believe that at some point, with the population of the lower mainland continuing to grow, there will be a need for more capacity than that provided by these two vessels. We would prefer to see the larger ship with slightly greater capacity, or at least the means provided that would economically permit it to be achieved when the need is clearer.

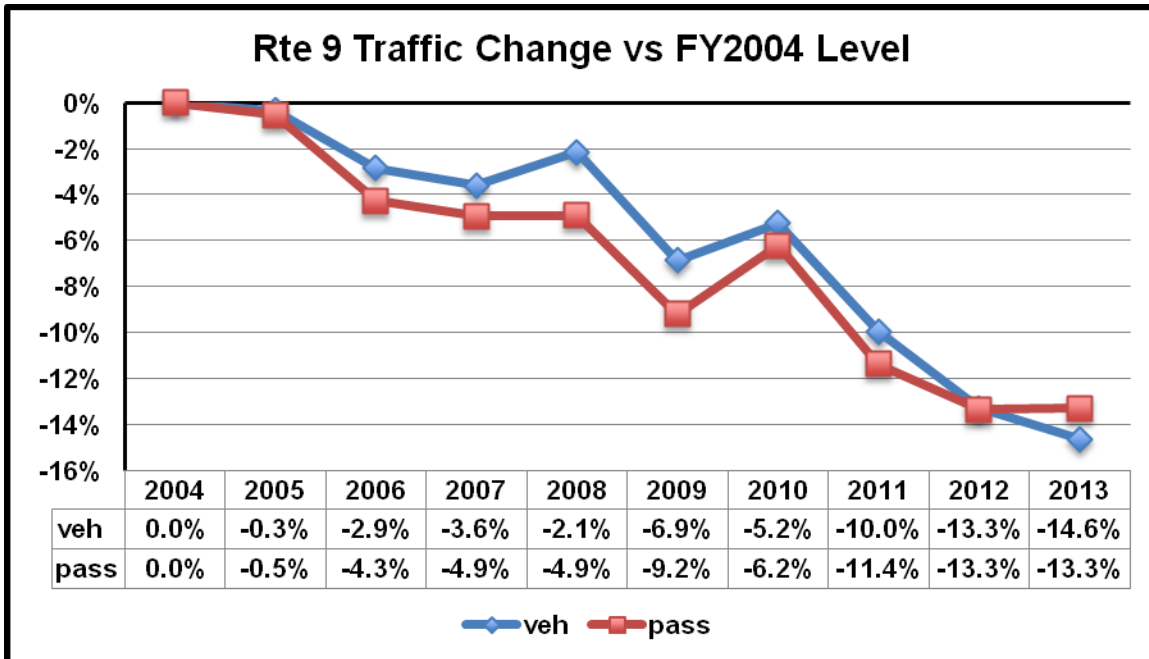
Overall, we compliment BCFerries staff for their thorough presentation of a well thought out plan to serve what has to be the most complicated, volatile route in the system.

Southern Gulf Islands Ferry Advisory Committee

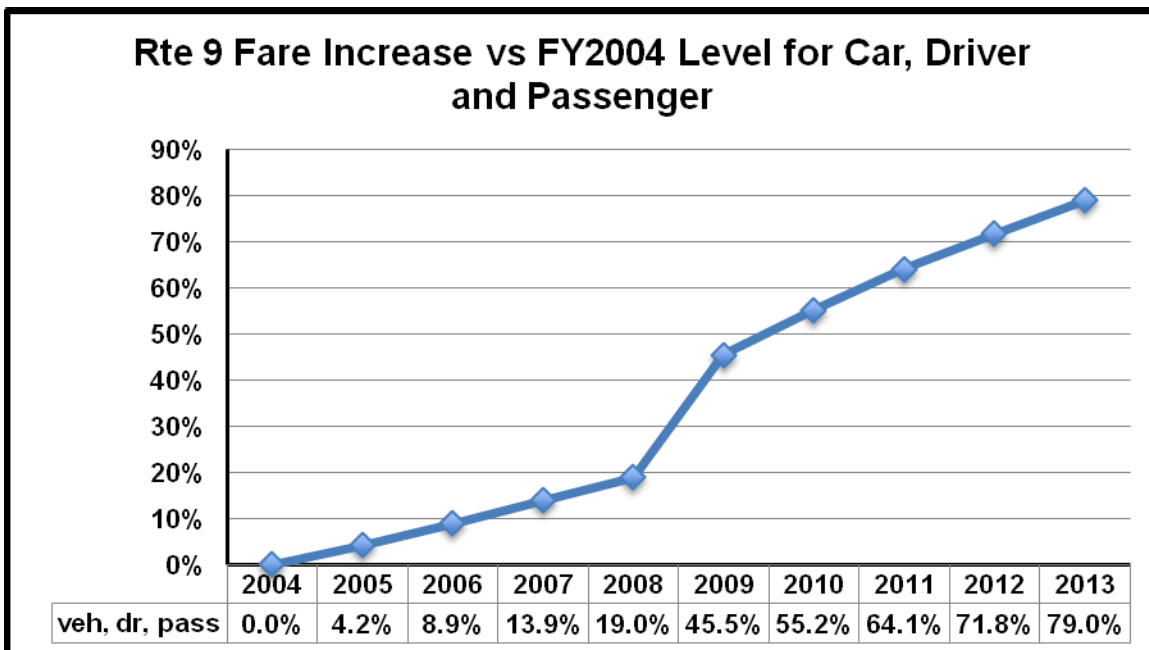
01 June 2013

(3 attachments)

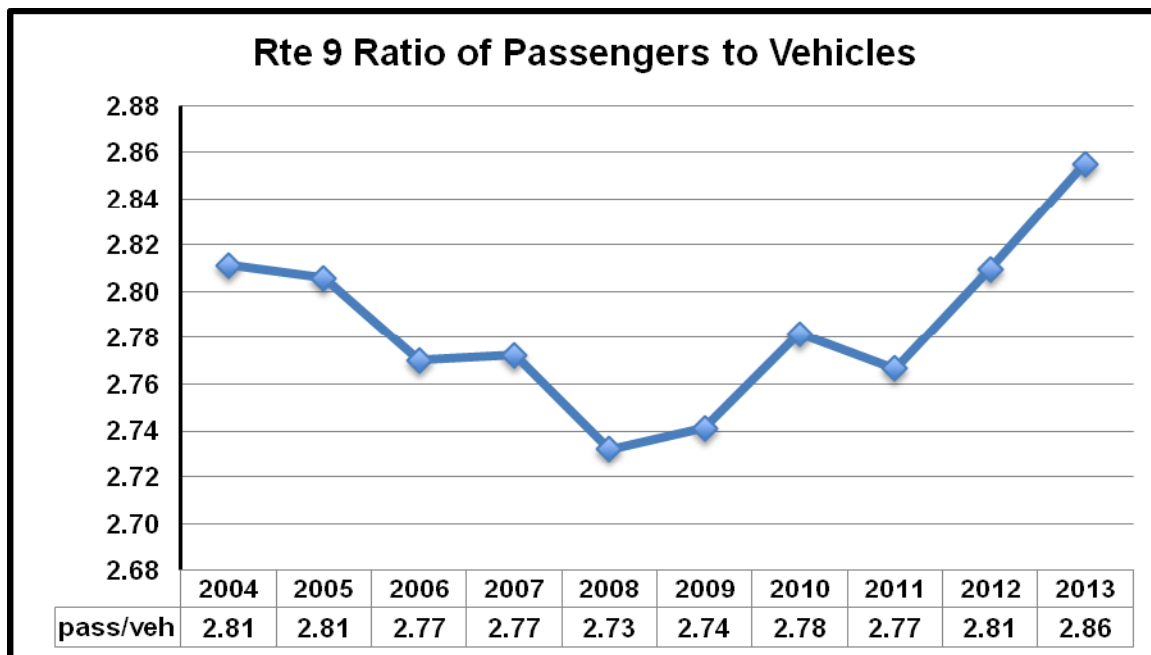
Attachment 1: Route 9 Travel Decline



Attachment 2: Route 9 Fare Increases



Attachment 3: Route 9 Ratio of Passengers to Vehicles



Saltspring Island Ferry Advisory Committee Submission

From: Harold Swierenga
Sent: Monday, June 10, 2013 9:41 PM
To: info@bcferrycommission.com
Subject: Fwd: Section 55 application re replacement of current vessels on routes 9 and 9a.

Gentlemen; (Gordon and Sheldon)

The Salt Spring Ferry Advisory Committee (SSIFAC) is very supportive of the application of BC Ferries under section 55 regarding the replacement of the vessels on routes 9 and 9a. The application deals in a very positive fashion with the "right-sizing" of capacity on this route, with a somewhat smaller year-round ship operating year-round from LHR and a significantly larger ship operating on what is essentially the 9a route but over a lengthened summer/shoulder season. The scope offered for more flexibility regarding more direct sailings, faster turn-arounds with fewer ports per sailings, and shorter round trips in the crucial summer and shoulder tourist season is very welcome and should have a very positive effect on the efficiency of the routes.

In a more general sense, we strongly endorse the intent of BC Ferries to standardize to a much greater extent the basic platforms of the mid-size ferries, resulting in efficiencies in crew training, parts inventories, capital costs of construction, standardization of berths and flexibility in shifting ships to different routes as needed. This long term objective will go a long way to overcome the disadvantages inherent in the rather diverse collection of vessels built in a different era and, in some cases, inherited from the Ministry in 1985.

The SSIFAC does, however, have some specific concerns regarding certain aspects of the application.

a) Although route 9 does not experience the amount of "bad" weather seen on route 17, the SSIFAC is concerned that the "open deck" concept be modified sufficiently to reduce the possibilities of salt water spray over the decks and vehicles. During the summer months, as the Bowen Queen on route 9a has shown, wind driven spray is rarely an issue but the winter months are a potential problem and a traditional open deck ferry could lead to more sailing cancellations. A middle ground between increased costs of modifying deck protection and accepting a certain level of risk of spray and/or cancellations would have to be found.

b) Particularly during the "tourist" season, route 9/9a is considered to be a jewel among ferry trips and an almost perfect method of showcasing the geographic attributes of the southern British Columbia coastal area. The Coastal class vessels set a high standard for effective visibility and observation by passengers and this quality must be built into the new 9/9a vessels. The scenery is there at no cost and the effective presentation of it to the tourist trade can only be advantageous to traffic levels on these ships.

c) Both new vessels will transit Active Pass up to a potential six times daily. The tidal flow is active between 15 and 20 hours per day depending on the tidal range. Flow rates peak at 6.5 knots and average about 4 knots. As route 9 connects with route 5/5a, schedule integrity is paramount. The operating speed of the new vessels should be sufficient to maintain this schedule integrity.

d) There is a need to consider revenue at all stages of the voyage. The ability to efficiently and quickly add and drop off vehicles at the various islands, particularly at a potential Village Bay hub is critical to these routes and must be considered at the design stage. This characteristic is unique among all cross-strait routes and the proto-type Island Sky did not have to allow for this.

e) Given the heavy tourist presence on these routes, the SSIFAC would highly recommend that the service level 4 option be incorporated into the plans for both ships. It may make financial sense to reduce the actual level of service during the off-season but the facilities for full level 4 service should certainly be available when required.

f) Not being accomplished in the field, we make no technical comment on the choice of fuels but would obviously support the lowest cost long-term option.

g) We are somewhat concerned that the decisions regarding the nature of the new vessels may be overly affected by the current financial positions of both BC Ferries and the provincial government. As the ferries are expected to have a minimum forty year life span, it would be unfortunate if new ferries were built to a current financial level of affordability rather than to an optimum level of long term utility.

In summary, the SSIFAC considers the general thrust of the application to be a major step forward in the modernization and improvement of service on route 9/9a and, with the above concerns, strongly endorse the BCF Section 55 application.

Harold Swierenga

Chair, SSIFAC