Comments on the Baynes Sound Connector Review

June 2023

We, a group of concerned citizens from Denman and Hornby Island, submit our comments on and objections to the *Baynes Sound Connector Review*, prepared by BC Ferries, and dated February 16, 2023.

Introduction

The Baynes Sound Connector (BSC) is a cable ferry that operates between Vancouver Island (Buckley Bay) and Denman Island (Denman Island West) since started operating in 2016.

The commissioner approved capital expenses for the project in early 2014, see order 14-01A (https://www.bcferrycommission.ca/commissioner-decisions/major-capital-approvals/vessels/). These initial capital costs amounted to ca. $50 million, including terminal construction.

The BSC's capacity has not been sufficient for the demand. In addition, it has been unreliable.

BC Ferries released its *Baynes Sound Connector Review* to the public on May 18, 2023 (in the following simply referred to as Review). Here, we identify our concerns with the Review and the service itself.

Summary of BC Ferries' Baynes Sound Connector Review

The Review begins by stating that although the BSC meets service requirements, it has faced technical challenges and mechanical reliability issues, particularly related to hull fouling, leading to speed reductions during summer.

Maintenance costs for the BSC have been higher than anticipated, despite various modifications and improvements such as the drive tunnel roller system, hull cleaning robot, and redesign of certain components. BC Ferries' Performance Term 6 submission includes $17.9 million to address remaining

mechanical reliability concerns and expand the BSC's capacity to accommodate anticipated traffic growth.

However, the broader community and stakeholders, including Islanders, the Ferry Commissioner, and the BC Ferry Authority, have expressed concerns about vessel reliability and the proposed investments. To evaluate alternatives and accommodate future demand, BC Ferries engaged a consultant to review vessel operations and assess options.

The Review considers and discusses five alternatives:

1. Deferring expansion until 2034
2. Replacing the BSC with a conventional ferry
3. Supplementing the BSC indefinitely
4. Supplementing the BSC indefinitely (similar to 3, same title)
5. Expanding the BSC in 2034 and supplementing indefinitely

Each option is analyzed based on growth projections and their anticipated capital and operating expenditures.

The Review recommends proceeding with Option 1, 4, or 5. These options defer major capital investment in the BSC for up to 10 years, allowing for operational enhancements and the assessment of using supplemental vessel service on a longer-term basis. If future traffic demand or operational needs require expanded capacity beyond the proposed options, the timing of BSC expansion or deployment of a larger supplemental vessel can be accelerated.

The Review concludes that BC Ferries should pursue immediate maintenance and operational enhancements to the BSC and introduce supplemental vessel service during the upcoming peak season. The chosen options provide flexibility to assess outcomes, feasibility, and suitability before making significant capital investments, while also allowing for future adjustments if needed.

Our comments and objections

1. It is not clear which consultant/consultancy provided the review on which the Review itself is based, nor how they were selected. Who provided the expertise?
2. It is not clear how the five options were selected. Did the consultant develop the list? Or was this list provided for analysis?
3. We have to disagree with the opening statement that the BSC “meets the requirements for service delivery.” The service is unreliable and capacity is insufficient. See appendices.
4. BC Ferries’ initial application in 2013 projected that the BSC would generate average annual savings of $2.8 million over the 40 year life. But, for a recent example, in the 25 months from Oct, 2020 to Oct, 2022, while repair and maintenance were budgeted at 1,336 million, the actual expenditure was nearly double, at 2,501 million, not including the costs for the cable.
5. The review itself does not include a full description of the current demand, and current demand-to-service discrepancy. How can proposed solutions be compared without a workable description of target service levels?
6. The Review does not mention the current operational advantage of the BSC. Because it is a cable ferry, less qualified staff is sufficient, with respect to Canada’s Marine Personnel Regulations (MPR) because the BSC is not self-propelled. Without seeing the working papers, it cannot be ascertained if personnel numbers/variable costs were taken into account in the analysis of various options. The current crew has lower payroll costs than the crew of an equivalent self-propelled vessel.
7. The Review also does not mention upcoming changes to MPR, that may well affect the present advantage. Currently, the BSC requires 3 full crews. If the indicated increases to the MPR are implemented, which require licensed officers aboard sea water cable ferries, this will be a significant cost increase. 3 shift x 2 or 3 officers, each week. An estimate would be $500,000/year in additional payroll.
8. Since the BSC started service in Feb. 2016, BCF has thrown a lot of money and resources at the BSC. First, that was excused with overcoming "birthing issues", but even recently the bull wheels were changed and the cable wrap on the wheels was increased from 2 x 180° to full wraps. This was necessary since the pretension of the cables was decreased to minimize wear. So after more than 7 years, there were still birthing issues. How much more money is BC Ferries willing to throw at a failed project?

9. We are aware of some additional background to this Review: On Dec.10th, 2020, Mark Collins, BC Ferries' CEO at the time, instructed COO Corinne Storey and VP Brian Anderson to task Bruce Paterson and his design team to look into the possibility of stretching the BSC (23-009,part2, page 350/351). Paterson had been kicking the idea of increasing capacity around for a while. But now the "BSC Asset Betterment Project" was to become official. So, less than 5 years after the BSC started service, Collins realised that his pet project was not up to capacity requirements. The idea to lengthen the BSC was soon replaced with widening the ferry with one additional lane on both sides for 10 AEQ each, bringing the total capacity to 66.

10. During 2020 the plastic-coated cables were replaced with bare steel cables and soon some additional wear (steel on steel) was discovered and led to upgrades to the bull wheels in 2021.

11. In March 2021, the idea became a new capital project with Brian Anderson as sponsor (23-009,part1,page268). A lot of activity on the level of Directors, Managers and Superintendents started (see 23-009, a total of 700 pages). It is noteworthy that none of this was included in this Review.

12. Issues with the angle of the ferry to the dock had been a problem all along. Now, with the decreased cable tension, that has become a bigger concern, especially after widening. So, at best, even with considerable new investment in alterations, the "best day" scenario is a 66 AEQ vessel. Experiential residents/users of the route are calling for a vessel size of 80-100 vehicles to serve the 2500 residents and thousands of annual visitors.

13. The Review does not address cable wear and damage to the cables. Please see (23-029, page 113) where the consultant 3GA observes, that cable damage found through the electro-magnetic scans coincide with known features on the seabed. It seems very unlikely that BCF can remedy that, given environmental concerns. There is also mention that the mud, picked up by the cables, acts as an abrasive (23-029, page 135) and this will only become worse with the increased cable wraps.

14. B.C.Parks is invested $11.2 million in late 2021 to expand the Tribune Bay Provincial Park. On the Parks website (https://bcparks.ca/tribune-bay-park/) it states: *Boasting close to 1 km of fine white sand beach, the south-facing Tribune Bay is easily one of the most spectacular on the east side of Vancouver Island. Here, shallow waters meet near tropical temperatures during the summer and the bay is considered to be one of the warmest salt water swimming areas in B.C.* With this type of Provincial investment, and marketing, to attract visitors to

Hornby Island, it is counter-intuitive to have such limitations placed on ferry capacity.

15. Since BC Ferries has not provided the worksheets used for the Review, with assumptions and calculations, it is impossible to comment on the accuracy of the five options presented and the associated cost in more detail.

16. In general, the lack of a Vice President of Engineering at BC Ferries is a major shortcoming. Engineers on the Director level have been clear that it is their job to make the BSC work, not question the ideas of their superiors.

BC Ferries own analysis and projections for the value of the BSC have proven wrong in the past; what would make this Review more valuable?

Appendix 1

Problems with carrying capacity

Since inception in 2016, the Baynes Sound Connector has offered the Islands less service. The previous vessel on the route was the Quinitsa. Although the 50 AEQ carried was equal, other measurements of service were not. The BSC has carrying capacity for Gross Vehicle Weight of 190 tonnes, a reduction from the carrying 220 G.V.W. carrying maximum for the previous vessel. When the cable ferry replaced the free moving vessel, the 300 passenger capacity was reduced to 150 passenger capacity. Both of these metrics relate directly to weight capacity. It is a grave concern that increasing the weight of the BSC, which will happen with any type of deck expansion, will have a negative implication for the composition profile of traffic carried. Additionally, the BSC has poor tolerance in storms/winds, unlike a traditional vessel that turns the bow into waves, the BSC is on a fixed route. If the wind is blowing broadside there is no maneuvourability to handle it. An April, 2022 BCF directive states that sailings are to be cancelled when wind gusts reach 39 knot at Sisters Island (the windiest location in the geographic area).

When the cable ferry was introduced, then BC Ferries vice president of engineering Mark Wilson promised: *"The vessel is designed to operate in sustained wind conditions for four hours or more of 55 knots sustained, gusting to over 85 knots, and that's a higher standard than much of the rest of the fleet*."

The 4 haulers on Denman collective GVW have approx. 130 tonnes, which is before other commercial and regular vehicles enter the picture. We have reports that the BSC is often overloaded due to weight in the mornings from Buckley Bay. The inability to carry all the commercial traffic is a severe limitation on service provided. There are also BSC overloads most mornings year-round from Denman West[2], (especially the 9 am sailing) and overloaded from Buckley Bay often in the afternoons year-round (especially the 4 pm sailing).

The constant presence of a BCF maintenance vehicle taking up deck space is indicative of systemic problems; even less of the public's vehicles are able to load.

Appendix 2

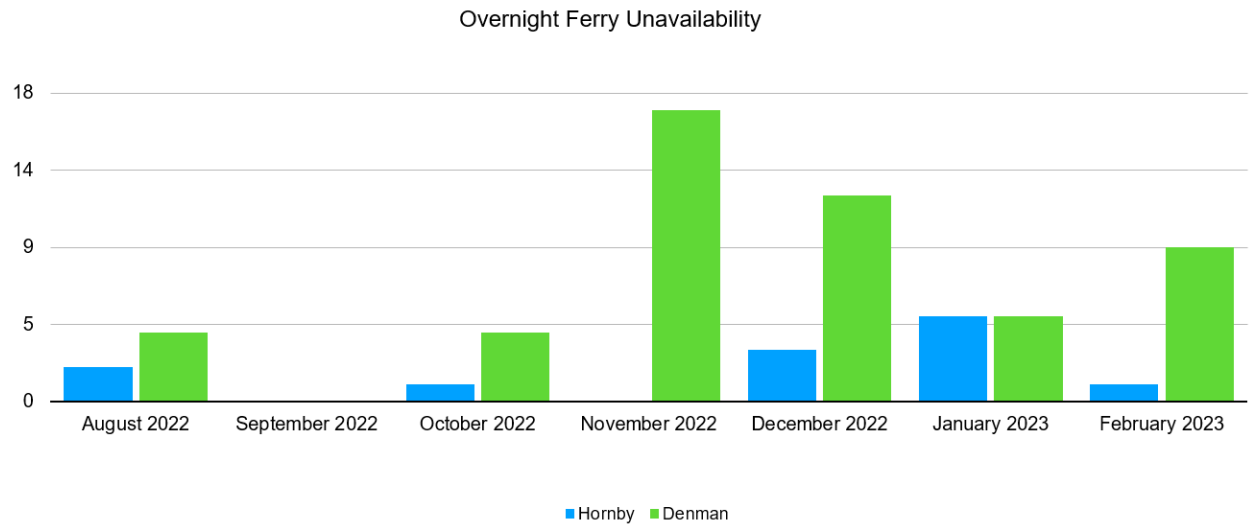
Non-Availability After-Hours

This table outlines the after-hours **non-availability** of night time ferry access for both Routes 21 and 22.

Table 1

	Hornby	Denman	
August 2022	2	4	
September 2022	0	0	
October 2022	1	4	
November 2022	0	17	
December 2022	3	12	
January 2023	5	5	
February 2023	1	9	

To put it another way, the graphic comparison between access to the traditional ferry on Hornby vs. the BSC on the Buckley Bay to Denman run, is drastically different.



The comparison is not limited to showing the mechanical difference between the cable ferry and a self propelled ferry, it also indicates the management nightmare in trying to keep a "one off" vessel as part of a fleet whose expertise is with self-propelled vessels. This will not change with more fiddling, expansions, and excuses. The BSC will never be part of the interoperable fleet. The sunk cost fallacy should be considered with this financial decision. Don't throw good money after bad, is another way of saying that.

The impact to our ferry dependent communities on lack of 24/7 access to service is of huge concern, as this is the lifeline for access of our residents to medical and emergency services.