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# *Performance Review of BC Ferries' Homeporting Arrangements*

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*British Columbia  
Ferry Commission*

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# *Executive Summary*

PricewaterhouseCoopers LLP (“PwC”) was engaged by the British Columbia Ferry Commission (the “Commission”) to conduct a performance review of British Columbia Ferry Services Inc.’s (“BC Ferries” or the “Company”) homeporting arrangements.

The Coastal Ferry Act allows for the Commissioner to conduct a performance review of one or more aspects of BC Ferries’ operations. The purpose of the performance reviews is to hold BC Ferries accountable and by doing so to raise public confidence that the company is operating efficiently, making prudent use of its resources, and operating in such a way as to keep ferry fares as low as reasonably possible.

Our performance review included the following tasks:

- Assessing the rationale and efficiency of current homeporting arrangements for vessels; and
- Identifying any alternative arrangements which may enhance the efficiency of homeporting.

We have no major concerns regarding the rationale or efficiency of current arrangements. Many of the Company’s current Points of Assembly have been in place for several decades and would be cost-prohibitive to change. We are satisfied that existing homeports are reasonable and should only be reconsidered when any major capital, service or labour decision is made for the route.

With respect to future homeporting decisions we observe that no formal policy exists around homeporting decision making. We suggest the establishment of a homeporting policy for new routes which provides guidelines to homeporting considerations when major decisions are made on existing routes. We also suggest that crew accommodation be given consideration on any new vessel procurements for the minor and northern routes to provide future flexibility in homeporting.

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## *Notice to Reader*

This Report is issued by PwC for the exclusive use of the Commission in connection with its performance reviews of BC Ferries.

Our work did not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls nor attestation nor review services in accordance with the standards established by the Canadian Institute of Chartered Accountants. Accordingly, we do not express an opinion nor any other form of assurance on the financial or other information, or operating internal controls, of BC Ferries.

PwC did not examine, compile or apply agreed upon procedures to satisfy the requirements of the Canadian Institute of Chartered Accountants to the financial information used in this Report and we therefore are unable to express assurances on such information except where expressly stated in the Report to form part of the scope of our work.

Our work is based primarily on the information and assumptions listed in the body of this Report. While we read information from various sources we did not perform checking or verification procedures except where expressly stated in the Report to form part of the scope of our work. Our work and commentary is subject to assumptions, which may change with the benefit of further detailed information. We make no representation regarding the sufficiency of our work and had we been asked to perform additional work, additional matters may have come to our attention that would have been reported to the Commission.

The outputs of the Report are intended to provide the Commission with information to assist in informing its decision making process pertaining to BC Ferries. PwC accepts no liability in respect of any loss, damage or expense of whatsoever nature caused by any use the reader may choose to make of this Report, or which is otherwise consequent upon the gaining of access to the Report by the reader.

Our Report, including its schedules must be considered in its entirety by the reader. Selecting and relying on specific portions of the analyses, or factors considered by us in isolation may be misleading.

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# *Background*

In April 2003, the Province of British Columbia (the “Province”) established the British Columbia Ferry Authority (the “Authority”), an independent corporation that holds the single issued voting share of BC Ferries.

BC Ferries, as the operating subsidiary of the Authority, provides coastal ferry services on the west coast of British Columbia. With 35 vessels travelling between 47 terminals, on 24 routes, BC Ferries is one of the largest ferry operators in the world, both in terms of fleet size and passengers carried. Its fleet includes a number of older vessels and BC Ferries has undertaken a process to upgrade its fleet and conduct necessary maintenance.

A Coastal Ferry Services Contract existing between the Province and BC Ferries defines service levels on each regulated route and the Commission sets price caps across the route groups every four years. Within its operating framework, BC Ferries can decide on fares, and can access capital markets directly. The Commission is a provincial regulatory agency operating under the Coastal Ferry Act with responsibilities for making regulatory decisions affecting ferry operators in the Province, including BC Ferries.

Under Section 46.1 of the Coastal Ferry Act the Commissioner may conduct a performance review of one or more aspects of a ferry operator’s operations including ancillary services. The purpose of the performance reviews is to identify any opportunities for further efficiencies in the operations of BC Ferries which may be incorporated in the determination of the price caps for future performance terms.

In conjunction with the price cap performance review which commenced early in October 2014, the Commission is conducting performance reviews of several areas including homeporting and has engaged PwC to assist with a performance review.

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# *Scope and Approach*

The scope of the performance review includes the following:

## **1. Assessing the rationale and efficiency of current homeporting arrangements for vessels**

We assessed the rationale by:

- Reviewing current practices and the history of homeporting;
- Reviewing any proposed changes to homeporting; and
- Discussing with BC Ferries management issues regarding homeporting.

We assessed efficiency by considering:

- Service level impacts;
- Requirements for Certifications and other crew requirements;
- Cost and efficiency tradeoffs;
- Proximity to urban areas and access to local labour;
- Terminal access;
- Access to refuelling, power supply, pumping ashore, sewage, electrical supplies;
- Access to emergency repairs and maintenance and other services; and
- Local economic benefits.

## **2. Identifying any alternative arrangements which may enhance the efficiency of homeporting**

We assessed the efficiency of alternative arrangements by:

- Considering the impact of liveaboard vessels on homeporting; and
- Considering the impact of conversion to LNG fuelling on homeporting.

Our work is based on interviews with BC Ferries' management and addressing a set of formal questions to the Company, the responses to which were comprehensively addressed by the Company.

# Current Homeporting Arrangements

## Current and Future Strategy of Homeporting

For the purposes of this report we have used the term homeport to mean the **Point of Assembly (POA)** which is the location to which staff report for their shifts. This is not necessarily the same location as location of the overnight berthing of each vessel.

BC Ferries does not have a formal homeporting policy, but it states that its current and future strategy is, wherever possible, to structure assembly points to its largest urban centres, such as Vancouver Island and the Lower Mainland, since these tend to be the most desirable locations for employee resourcing, including attracting and retaining crew, and the availability of resources ashore for maintenance and bunkering of fuel.

The following map shows the locations of the current homeports.



Two of the existing routes operate with liveaboard vessels. These routes are in the north. To augment its strategy and provide for maximum flexibility in the future, BC Ferries is building the new intermediate class ferries (“ICF”) with liveaboard crew accommodations.

## History Relating to Homeport Determination

Homeporting issues have been reviewed at the inception of a route or on an ongoing basis as service, labour and capital decisions arise. The homeports evolved during the 1960's, when service was consolidated under BC Ferries, or were inherited in 1985 when various routes that had been run by the Ministry of Transportation and Highways were transferred to BC Ferries. BC Ferries does not have corporate records documenting criteria for decisions for the existing homeports.

For the reasons listed above and the logistical advantages of locating first sailings on largely commuter routes at the point of origin of commuters, many of the existing homeports are located on the more

remote side of the route, rather than the least remote. The following table shows the remoteness of current homeports.

<b>Homeport in More Remote Location</b>	<b>Homeport in Least Remote Location</b>	<b>Homeport on both sides</b>
Route 3 - Langdale/Gibsons	Route 5 - Swartz Bay/Victoria	Route 1 - Swartz Bay/Tsawwassen
Route 4 - Saltspring Island	Route 7 - Powell River	Route 2 - Horseshoe Bay/Nanaimo
Route 6 - Saltspring Island	Route 8 - Horseshoe Bay/Vancouver	Route 30 - Tsawwassen/Nanaimo
Route 9 - Saltspring Island	Route 17 - Comox/Courtenay	Route 10 - Prince Rupert/Port Hardy
Route 18 - Texada Island	Route 10S - Bella Coola	Route 11 - Prince Rupert/Skidegate
Route 19 - Gabriola Island		
Route 20 - Thetis Island		
Route 21 - Denman Island		
Route 22 - Hornby Island		
Route 23 - Quadra Island		
Route 24 - Cortes Island		
Route 25 - Alert Bay/Cormorant Island		
Route 26 - Alliford Bay/Sandspit		



# *Assessment of Alternative Arrangements*

There are many considerations for choosing the most efficient homeport on a particular route. On a new route we would expect the most appropriate location at the time of establishment will be selected taking all the relevant factors into consideration. However once a homeport is already in operation there are higher cost-barriers which need to be weighed against the benefits in any decision on an alternative homeport.

In this section we first address the general attributes to consider in selecting the location of a homeport (whether new or existing). We then outline the relevant considerations on a route basis for select routes for which the general public have raised questions around an alternative homeport.

## *General Attributes for Consideration*

The key considerations for selecting an appropriate homeport are:

- Staff costs (affected by preference of staff to live in a location)
- Access to fuel supply
- Access to sewage pump ashore facilities
- Access to maintenance crews and contracted services
- Appropriate docking facilities for vessels
- Security of vessels

## *Considerations for Relocation of Homeports*

In order to relocate any homeports from their current locations, the benefits must outweigh the costs.

Staffing and relocation costs are very significant considerations which must be mitigated by reductions in operating costs when relocating homeports. In particular:

### *Personnel Related Costs*

#### *Relocation Costs*

These include severance, relocation, training and 'bumping' (bargaining unit employees 'bump' others from their positions based on seniority). The result of bumping can have a cascading effect and result in additional costs; where the affected employee is senior enough, they can 'bump' a more junior employee who, in turn, can 'bump' someone more junior to them. This cascading effect would disrupt the lives of several employees and add to costs for training and relocation.

#### *Staffing Costs*

- Establishing employee resources at a new homeport, including administration, recruiting, new hire training, current employee relocation and financial incentives.
- Recruiting full-time employees to transfer to a new, more remote location. It is routine for employees to take positions at a remote location with the intent of staying there for a short period in order to obtain seniority that accelerates their career progression (increased turnover). The employees achieve their goal of obtaining a regular job at an urban location and the Company is compelled to delay, and then allow, their relocation without having first recruited to the emerging vacancy. When they eventually move to a new position it may take many months

for the Company to backfill their position with someone willing to move (even temporarily) to the remote location. This has a tendency to double the cost of filling the vacant position since the Company has to pay living-away expenses of hotel accommodation, meals, incidentals and overtime for travel for staff while it is attempting to backfill the vacant position. Alternatively it leads to dissatisfaction for the employee who cannot be released to the new position to which they have been promoted. As these types of experiences are vocalized amongst the employee group, it compounds the problem of getting employees to accept positions at remote locations because of the fear they will be 'trapped' there. This is primarily acute with respect to highly-skilled, licensed individuals from varied ethnic backgrounds who fulfill key operating positions on board the vessels (e.g. Masters, Chief Engineers). These individuals have been hesitant to relocate where there is not a significant cultural network, or they may temporarily locate to a smaller island but then typically request to return to major centres where they have family and community support. This results in extra costs for training and difficulty in attracting skilled workforce to join the Company.

- The difficulties in attracting full-time or a pool of part-time relief employees in locations that can be expensive and have high living costs. In particular, BC Ferries has heard from several employees that the costs of housing (purchase or rental costs) on Bowen Island and Salt Spring Island are very high and they cannot afford to relocate there. An employee may take a position at a remote location with no intention of permanent relocation, and do so by renting at the remote location while still maintaining their home (and family) at another location. This is not uncommon and adds to the difficulties of attracting employees to remote locations (e.g. this is particularly acute in Langdale).
- Recruiting part-time, relief ships' officers to a new homeport. This is currently a significant challenge within the Company for north and south Gulf Islands based routes. The lack of officer resources on island-based routes is an emerging concern that has led to sailing cancellations. As noted above many employees will rent at a remote location and then go to their primary home elsewhere on their days off. As they do not or will not permanently relocate to a remote location, in the event of an emergency backfill need (short notice illness, injury), these employees are not physically at the location and not available to bring in even at overtime rates.
- Increased training costs for crew in isolated areas that typically see higher staff turnover.
- Increased relief crew at populated centres for relief needs at an increased number of isolated homeports.
- Paying expenses to crew to work at new unsupported, isolated homeports.

### *Crew Accommodation*

Under the Collective Agreement between the Company and the BC Ferry and Marine Workers' Union, employees who are required to work away from their home points of assembly are entitled to expenses related to travel and accommodations. The Collective Agreement covers travel expense specifics respecting kilometre differential, travel time differential and daily per diems for meals, etc. Employees stay at Company-approved hotels / motels or bed & breakfasts, and the costs for these accommodations are paid for by the Company on a pre-arranged cost basis negotiated by the Company. BC Ferries also provides trailers for employee accommodations at Alliford Bay and Denman West.

### *Other Costs*

- Access to fuel supply – scheduled lay-by could be required during the day (increasing costs) to facilitate fuel bunkering if the overnight location is not on Vancouver Island or a Mainland port;
- Access to sewage pump ashore facilities – scheduled lay-by during the day (increasing operating costs) to facilitate sewage pump ashore – typically Vancouver Island / Mainland ports;

- Access to maintenance crews and contracted services – based on Vancouver Island or on the Mainland;
- Night tie up and dock modifications to secure the vessels; and
- Security of vessels and new costs for infrastructure (e.g. fencing, CCTV).

### Scheduling

Schedules play an important role in user satisfaction. For new routes the following need to be considered:

- Customers' individual needs;
- Commercial and service customers' business practices and needs;
- Communities' long-established travel patterns for work, school, and appointments; and
- Tourism travel patterns.

For existing routes homeporting changes will result in sailing schedule alterations that will either improve or degrade the service offering.

### Coastal Ferry Service Contract

The Coastal Ferry Services Contract ("CFSC") requires a minimum number of departures from specific ports on Routes 5, 9, 20, and 25; therefore, any change to service levels (round trips, minimum hours of operation) that result from a change to the route's homeport cannot be done unilaterally and require agreement between the Company and the Province.

### Operational Benefits

In order for BC Ferries to move any homeport location any operating savings of relocating homeports must overcome the incremental relocation, staffing and other costs (described above). The opportunities for operating savings are:

- Reduced operating labour costs within the scheduled service (e.g. shorter service day); and/or
- Increased capacity utilization either through an increase in traffic or a decrease in the number of sailings.

We have viewed drafts of discussion papers, briefing notes and detailed business cases associated with proposed changes to the Point of Assembly for selected routes. In some cases there was financial analysis completed and financial and non-financial implications were assessed for each option. Although the socio-economic benefits to local communities are not a driver of homeporting decisions, we note that public opposition is considered as part of the risk mitigation strategies within the analyses.

The individual elements particular to each of Routes 8, 10, 17, 21 and Salt Spring Island are addressed below.

## Impact of Relocating Homeport: Bowen Island – Horseshoe Bay (Route 8)

Current Point of Assembly: Horseshoe Bay

Relocating this route's homeport from Bowen Island from Horseshoe Bay would be expected to see higher labour costs, more complex logistics (bunkering, sewage, maintenance) and uncertain service level benefits (deadhead sailing reductions or more sailings), and would include the following considerations:

Consideration	Impact	Details
Expected community response in current homeport	/	Neutral
Expected community response in new homeport	+	Positive; 2014 submission from Bowen Islanders for ferry fairness outlined a comparison of home-porting options to achieve ferry sustainability indicating their preference for homeporting on Bowen Island
Relocation/severance costs	-	Up to \$1.75m for up to 35 employees
Staff preferences	-	Lack of incentive for full-time and part-time employees to move to an isolated location with high costs and/or distinct community attributes
Incremental staffing costs	-	Living-away expenses and overtime for crew shortages due to isolated location
Service level impact	/	Uncertain; Service levels are dependent on CFSC amendments and whether reductions of the deadhead sailings would be used to offset increased labour costs or to reinstate service level reductions. The deadhead sailings currently occur between 05:00 and 05:30 between Horseshoe Bay and Bowen Island each weekday (Monday to Friday, not including statutory holidays). These sailings are not advertised and rarely carry vehicles or passengers as there is no demand for this 'time of day' service and the sailing therefore serves to reposition the ship to Bowen Island. Deadhead sailing reductions have been linked to homeporting as a means of increasing the number of vehicle/passenger sailings
Maintenance and bunkering logistics	-	Incremental logistical challenges of overnighting for maintenance, sewerage and bunkering
Other	-	Offsetting incremental labour savings only if the length of the operating day is reduced (limiting service improvements tied to removal of deadhead sailing)
Consideration given by BC Ferries		BC Ferries representatives met with a group from Bowen Island in 2014 to review the challenges that moving the Route 8 homeport would have with respect to recruitment, relief, etc. The Company has not found scheduling advantages or clear cost savings for BC Ferries on Route 8. As a result, there is no definitive reason for change. The Company has not ruled out moving the homeport but noted it would need to be considered on in a larger rethink of Horseshoe Bay redevelopment and Route 8 vessel replacement.

## Impact of Relocating Homeport: Powell River – Comox (Route 17)

Current Point of Assembly: Comox

Homeport relocation to Powell River would be expected to see higher costs, more complex logistics, degraded commercial service and uncertain daytrip service improvements, and would include the following considerations:

Consideration	Impact	Details
Expected community response in current homeport	-	Negative
Expected community response in new homeport	+	Positive
Relocation/severance costs	-	Up to \$5.0m for up to 100 employees
Staff preferences	-	Lack of incentive for full-time and part-time employees to move to a remote location with distinct community attributes (e.g. schools, medical services, recreational options)
Incremental staffing costs	-	Incremental staffing costs for living-away expenses, enhanced salary for ships' officers and overtime for crew shortages due to the isolated region (this is very difficult in isolated areas such as Powell River);
Service level impact	-	Service level degradation for commercial carriers who rely on the 06:30 sailing from Comox to provide services and supplies to Powell River and return on the 12:00 sailing for a 14:30 arrival in Comox – these commercial users typically constitute half the traffic on the 06:30 sailing from Comox to Powell River. Similarly, Powell River based day-trippers who now typically catch 08:00 sailings from Powell River arriving Comox at 09:45 for medical appointments and shopping with a mid-afternoon or early evening returns would, under revised homeporting, have a choice of very early or mid- morning departures and mid-afternoon and early evening sailings without late night return sailings (e.g. affecting sports teams)
Maintenance and bunkering logistics	-	As bunkering and sewage pump ashore is provided from Vancouver Island, there would be incremental weekly logistics costs for labour, as full operating crews would be on board during these activities versus only nighttime caretaking crew
Other	-	The location of a Powell River homeport leads to berthing restrictions with one dock serving two routes, which increases risk that service or mechanical disruption on Route 17 will block Route 18 (Powell River to Texada Island) sailings
Consideration given by BC Ferries		The BC Government undertook to relocate this route's homeport from its current location in Comox to Powell River in 1991. This initiative was abandoned in favour of earlier sailing times to accommodate day trips to the Courtenay area from Powell River

## ***Impact of Relocating Homeport: Denman Island – Buckley Bay (Route 21)***

*Current Point of Assembly: Denman Island*

Relocating the homeport from Denman Island to Buckley Bay would be expected to result in similar operating costs, less complex logistics, and uncertain service improvement, and would include the following considerations:

<b>Consideration</b>	<b>Impact</b>	<b>Details</b>
Expected community response in current homeport	-	Significantly negative
Expected community response in new homeport	+	Minimally popular
Relocation/severance costs	-	Up to \$1.0m for up to 18 employees
Staff preferences	-	Lack of incentive for full-time and part-time employees to move to a remote location with distinct community attributes
Incremental staffing costs	+	Small staffing savings as population densities in the Buckley Bay area are similar to Denman Island; therefore, living away expenses would be offset by increased daily overtime travel costs for relief crew coming from either Courtenay or Nanaimo areas
Service level impact	/	Service impacts would be likely minimal due to short crossings and the time-in-service day
Maintenance and bunkering logistics	+	Logistical improvements with overnight access for maintenance and bunkering
Other	-	
Consideration given by BC Ferries		In 2007 a detailed business case was completed to move the Point of Assembly from Denman to Buckley Bay but it was decided that while analysis regarding the new cable ferry was ongoing a decision would be deferred. It should be noted that with the introduction of the cable ferry BC Ferries has made a commitment to the community not to change the homeport

## Impact of Relocating Homeport: Salt Spring Island (SSI)

**Swartz Bay – Fulford Harbour (Route 4)**

**Crofton – Vesuvius (Route 6)**

**Tsawwassen – Long Harbour (Route 9)**

*Current Points of Assembly: All on Salt Spring Island (Fulford Harbour, Vesuvius and Long Harbour)*

Relocating SSI routes to other homeports (Swartz Bay, Crofton or Tsawwassen) would be expected to result in lower costs, less complex logistics and uncertain service improvement or degradation, and would include the following considerations:

Consideration	Impact	Details
Expected community response in current homeport	-	Significantly negative for all 3 routes
Expected community response in new homeport	/	Neutral for Vancouver and Victoria, positive for Cowichan Valley
Relocation/severance costs	-	Up to \$9.0m for up to 180 employees <ul style="list-style-type: none"> <li>Route 6: up to \$2.0m for up to ~40 employees</li> <li>Route 9: up to \$5.0m for up to ~100 employees</li> <li>Route 4: up to \$2.0m for up to ~40 employees</li> </ul>
Staff preferences	+	Staff prefer the larger, less remote communities
Incremental staffing costs	+	There would be incremental staffing savings as recruitment and retention in Vancouver, Victoria and the Cowichan Valley are less problematic, turnover is lower and ultimately staffing is less costly
Service level impact	/	Service impacts are expected to be: <ul style="list-style-type: none"> <li>Route 4: Slightly negative with regard to commuter-based demand off SSI (maybe offset by higher commercial demand);</li> <li>Route 6: Benign as commercial traffic will be offset by commuter and school travel;</li> <li>Route 9: Uncertain as the route is highly integrated with Routes 5 &amp; 5A (Swartz Bay to Gulf Islands) and has high weekend and summer season demand from off-island</li> </ul>
Maintenance and bunkering logistics	+	Logistical improvements due to ready access to bunkering, maintenance crews and sewage pump ashore
Other	+	Overnight berths are available at Swartz Bay, Tsawwassen and Crofton
Consideration given by BC Ferries		As outlined in its Efficiency Plan filed with the Commissioner in the Performance Term Four submission, BC Ferries is committed to a full review of service opportunities in the Southern Gulf Islands which may be afforded by the introduction of the new Intermediate Class Ferries on Route 9. The intent is to identify potential

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efficiencies in operations and long term sustained cost savings. BC Ferries will explore potential efficiency opportunities including rationalizing the number of terminals on Salt Spring Island, which would have implications for routes 4 and 6 and therefore may affect homeports of all or any of the routes to Salt Spring Island

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## ***Impact of Relocating Homeport: Bella Coola – Shearwater/Bella Bella (Route 10S)***

*The crew members working on Route 10S come from the Prince Rupert POA and are assigned to report to a homeport in Bella Coola.*

Relocating the homeport from Bella Coola to Shearwater or Bella Bella would be expected to result in uncertain incremental staffing costs, reduced service level (which would require CFSC amendments), maintenance, and bunkering logistics, and would include the following considerations:

<b>Consideration</b>	<b>Impact</b>	<b>Details</b>
Expected community response in current homeport	-	Negative due to lost tourist and commercial revenue.
Expected community response in new homeport	+	Positive
Relocation/severance costs	/	No relocation or severance costs expected as the crew are housed at company expense while on duty.
Staff preferences	/	No preference from crew
Incremental staffing costs	/	Uncertain
Service level impact	-	Negative due to an increase in operation time as the vessel would have to sail an extra leg to Bella Coola from Shearwater or McLoughlin Bay twice per week.
Maintenance and bunkering logistics	-	Fueling has been inconsistent and the quality of fuel cannot be guaranteed.
Other	/	-
Consideration given by BC Ferries		On hold pending further investigation of whether there is a service offering that provides the same or better service levels and yields efficiencies in crew travel and overtime costs.

A summary of the analysis is shown in the following table.

## Summary of Relocating Homeports on Selected Routes

Route	8	17	21	4,6,9	10S
Current homeport	Horseshoe Bay	Comox	Denman Island	Salt Spring Island	Bella Coola
Alternative homeport	Bowen Island	Powell River	Buckley Bay	Vancouver Island, Tsawwassen	Shearwater / Bella Bella
<b>Expected community response in current homeport</b>	/	-	-	-	-
<b>Expected community response in new homeport</b>	+	+	+	/	+
<b>Relocation/severance costs</b>	-	-	-	-	/
<b>Staff preferences</b>	-	-	-	+	/
<b>Incremental staffing costs</b>	-	-	+	+	/
<b>Service level impact</b>	/	-	/	/	-
<b>Maintenance and bunkering logistics</b>	-	-	+	+	-
<b>Other</b>	-	-	/	+	/
<b>Overall relocation outcome</b>	Negative	Negative	Neutral	Positive	Negative

Consideration

## Impact of LNG on Homeporting Decisions

Bunkering access is limited to Vancouver Island and the Mainland and it is doubtful at this time that LNG could be delivered to BC Ferries vessels at remote locations. In February 2015 BC Ferries awarded a long-term contract to FortisBC to supply LNG to the three LNG fuelled ICF vessels which are currently under construction. These vessels will operate on Routes 17 and 9 and the third will augment peak and shoulder season service on the Southern Gulf Islands route as well as providing refit backup to the fleet.

FortisBC has plants at both Tilbury in Delta and Mt. Hayes near Nanaimo and will supply LNG fuel to the ships in the traditional manner that BC Ferries takes on diesel fuel, with trucks making deliveries to the vessels during non-operational periods. Routes with Gulf Island homeports would require LNG bunkering on Vancouver Island or Mainland terminals during the service day with full crews versus overnight marine diesel fuel bunkering on the Gulf Islands with caretaking crews, thereby increasing operating costs and creating possible delays.

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## *Vessels with Crew Accommodations*

The three new ICFs being built for Southern Gulf Islands and Comox-Powell River will have crew accommodations. These vessels are part of the standardization strategy.

Offering service with liveboard vessels eliminates the need for crew members to commute to/from work on a daily basis and allows for the 'service day' to start from or finish at any location that has secure berthing available.

Decisions for use of the liveboard accommodations will be based on service provision analysis currently being undertaken and would largely rely on restructuring the Southern Gulf Islands service in a way that effectively supports the start and finish of the service day in an isolated location (e.g. Saturna).

In addition to full crew living aboard the vessel on a full-time basis, liveboard accommodations provide two other operational advantages:

- **Partial liveboard** – the ability to provide scarce crew resources directly onto the vessel, e.g. assign engineering officers only as liveboard crew to meet crewing requirements in areas where these positions are difficult or impossible to source.
- **Temporary liveboard** – the ability to crew the vessel when it sails on a new route for a short duration (e.g. refit relief), the cost of training local crews is prohibitive, there is no time to train, or there are insufficient resources to train and/or crew the ship.

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# *Conclusions and Recommendations*

Based on our findings as presented in this report, we believe that it is reasonable to leave the current homeports as they are until any future major decisions regarding service, labour or capital on any route need to be addressed.

We reviewed BC Ferries current homeports, the reasons they exist as they are, and the relevant factors to consider in selecting a homeport.

Generally BC Ferries aims to structure assembly points to its largest urban centres, such as Vancouver Island and the Lower Mainland, since these tend to be the most desirable locations for employee resourcing, including attracting and retaining crew. These also provide the best access to fuel.

The main considerations for selecting a homeport are staff and relocation costs, CFSC requirements, access to fuel supply, sewage pump ashore facilities, maintenance crews and contracted services, appropriate docking facilities and security for vessels.

Although the current arrangements are often not at the largest urban centres for historical reasons, the cost to move each existing homeport to its alternative is generally prohibitive.

Additional flexibility in future homeporting decisions arises where crew accommodation can be made available, for instance, with new vessels like the Intermediate Class Ferries (ICFs). However, the use of LNG for new vessel procurement (while it has many benefits) provides the same or fewer opportunities as the existing diesel fuel in terms of bunkering which limits homeporting options.

We were asked to consider specific routes which the public have raised concerns about. In our analysis of the relevant considerations for seven selected existing routes we were satisfied with BC Ferries current homeports.

<b>Route</b>	<b>Alternative Homeport</b>	<b>Overall Relocation Outcome</b>
<b>8</b>	Bowen Island	Negative
<b>17</b>	Powell River	Negative
<b>21</b>	Buckley Bay	Neutral
<b>4,6,9</b>	Vancouver Island, Tsawwassen	Positive
<b>10 supplementary</b>	Bella Bella or Shearwater	Negative

Three of the routes selected for analysis had a general bias towards not being moved and one had a neutral impact. Of all the routes selected for analysis the only ones to have a marginally positive bias towards homeport relocation are the Salt Spring Island routes. The efficiency of these routes is already being considered as part of an overall strategy for the Southern Gulf Islands network of routes, which is intended to identify potential efficiencies in operations and long term cost savings, as described in the *Strategies for Enhanced Efficiency in Performance Term Four and Beyond* submission to the Commissioner on September 30, 2014. This strategy is dependent upon the introduction into service of the new ICFs in 2016 and 2017 so no savings are assumed in PT4, but implementation of this strategy could bring savings in PT5 and beyond.

With any new vessel procurements, consideration should be given to liveaboard capacity to give additional flexibility which enhances interoperability of vessels amongst different routes, especially for the minor and northern routes which operate in more remote areas.

We have no major concerns regarding the rationale or efficiency of current arrangements. We suggest that a formal policy could be developed for the establishment of new homeports with regard to efficiency. If there are changes to routes in the Southern Gulf Islands decisions will need to be made around the establishment of new homeports. The Commission's mandate is to balance the sustainability of the ferry operators and the interests of taxpayers and users. Based on our performance review BC Ferries is giving due consideration to financial implications in keeping homeports as they are and only move them where it makes sense financially. These financial considerations are also in the interests of the taxpayers and ferry users who pay for the system.