

# SETTING A COURSE



## **Balfour Ferry Terminal Project** Moving Forward: Setting A Course

**Consultation Discussion Guide**



BRITISH  
COLUMBIA

Ministry of  
Transportation  
and Infrastructure

# WELCOME

Thank you for participating in Moving Forward: Setting a Course consultation for the Balfour Ferry Terminal Project. The Ministry is looking to address challenges at the Balfour Ferry Terminal to improve safety and service for ferry users and we would like to hear your views.

While the Ministry of Transportation and Infrastructure (MOTI) has conducted various transportation studies at the Balfour site for some years, emerging marine safety issues means it is time to take action.

## Why Now?

Making minor improvements to the terminal or doing nothing is no longer an option for the current Balfour ferry terminal.

The narrow navigation channel in the west arm of Kootenay Lake and its shifting, sandy bottom requires careful navigation and is causing local coating breakdown and pitting problems for the MV Osprey hull, as well as propeller damage.

Recently, the Canadian Coast Guard indicated concerns with water depth for the MV Osprey in the west arm—confirming MOTI's initial findings. As a result, the time to act is now. MOTI must determine which course to take in order to maintain the service – make significant improvements at the existing Balfour ferry terminal (marine and land-side) or relocate the ferry terminal to Queens Bay North.

Your input will help inform each of these options and inform the development of a final plan of action.

## PROJECT BACKGROUND

The BC Ministry of Transportation and Infrastructure (MOTI) is responsible for making strategic investments into British Columbia's transportation system to support a safe and reliable transportation system.

Balfour has served as the western terminal of the Kootenay Lake ferry since 1947. The site has been a satisfactory location for the ferry berth and vehicle holding compound for many years, and some amenities have developed around the terminal as the community has grown. Recent studies have revealed significant navigation issues in the west arm that will require dredging. At the same time, ferry and highway traffic has increased to the point that the existing site is experiencing increased pressures - on marine and land-side. This impacts the site's capacity to support the level of demand during peak periods.

## We Want to Hear From You

- It's important for MOTI to set a new course for the ferry terminal now.
- Consultation is taking place between June 15<sup>th</sup> and July 6<sup>th</sup>.

# MOVING FORWARD

The Ministry has been aware of capacity challenges at the Balfour terminal site for many years. Numerous transportation studies have been undertaken over the past 25 years looking at transportation options for the corridor. Most recently, MOTI commissioned a technical feasibility study from SNC Lavalin to conduct an analysis of a number of potential ferry terminal sites, as well as improvements to the existing Balfour site. They completed their study in March 2016.

# SETTING A COURSE

SNC Lavalin undertook a preliminary evaluation of numerous sites that had been identified in previous concept studies. This included two sites at the south end of Queens Bay and two sites at the north end of Queens Bay.

The SNC Lavalin Technical Feasibility Study reviewed each of the locations by considering: location, marine navigation, transit time on the respective routes, the respective highway intersection and traffic transition into the terminal, the vehicle holding compound and property impacts.

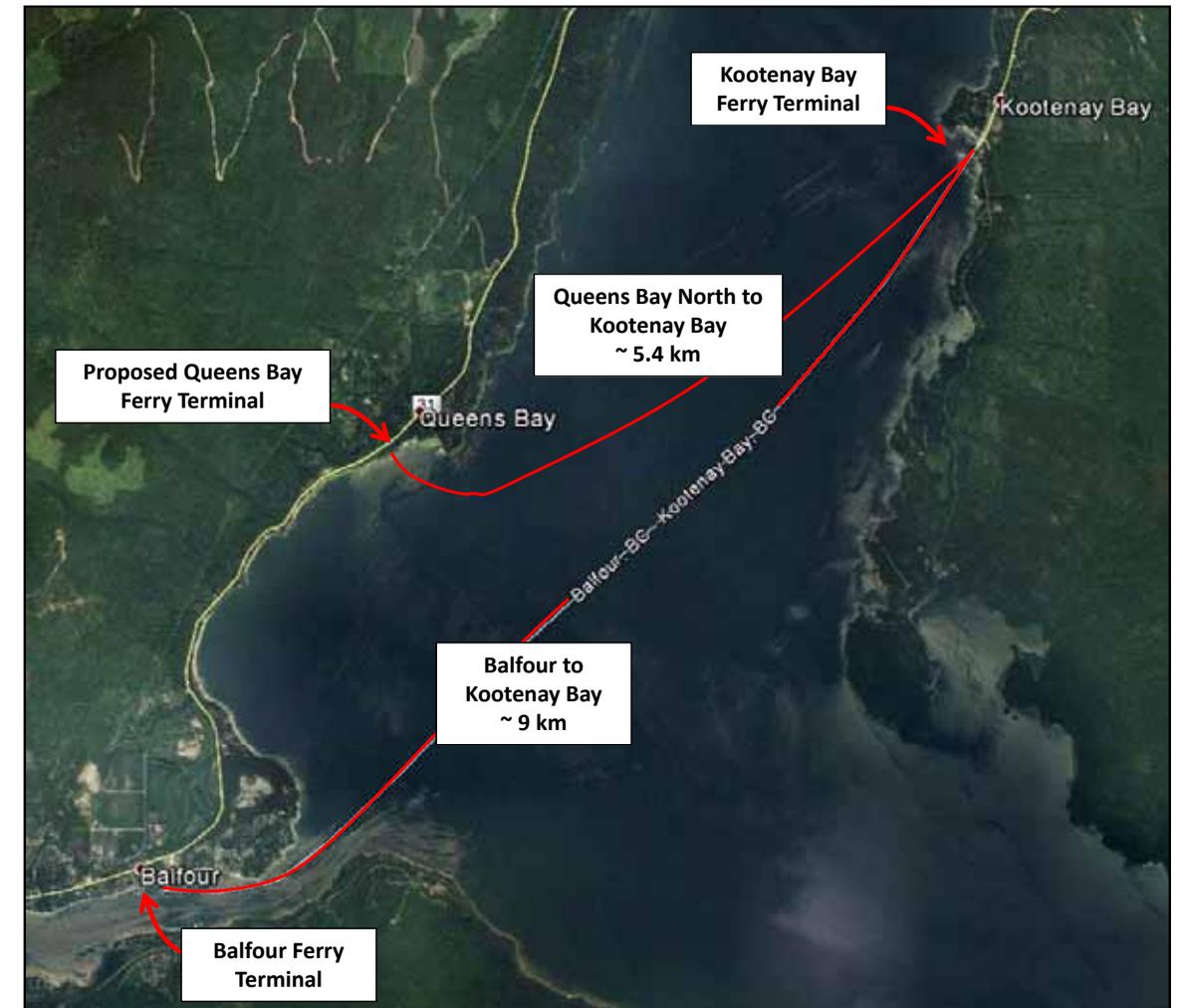
SNC Lavalin found that two options were not technically feasible and narrowed the options down to one site at Queens Bay South and one at Queens Bay North. Then they compared both to the existing Balfour site with significant improvements. The comparison looked at:

- Safety
- Service
- Community and stakeholder impact
- Environmental impact
- Financial considerations

The Ministry, in moving forward, does not consider the Queens Bay South site option viable due to a number of development issues and limited benefits when compared with the site at Queens Bay North, particularly the significant savings in ferry transit time and the increase in level of service.

## The viable options are:

- Remain at Balfour and make improvements
- Relocate the terminal to Queens Bay North

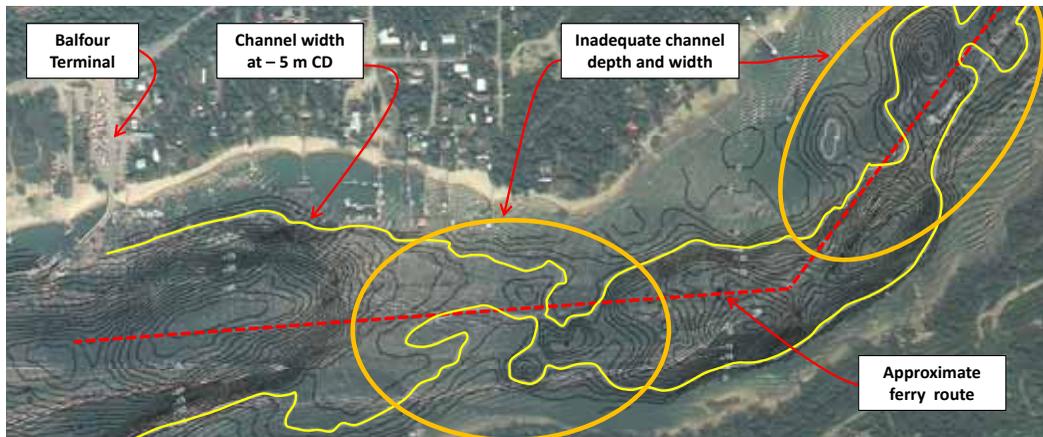


# IMPROVE EXISTING TERMINAL AT BALFOUR

The circumstances at the existing ferry terminal at Balfour means the site is not sustainable over the medium-long term without significant expenditures being made.

## Marine Navigation Challenges

- Shifting sand deposits and currents in the west arm are creating low clearance for navigation
- Canadian Coast Guard recently confirmed the west arm is becoming more shallow
- Minimal vessel draft during low water periods is causing hull and propeller damage of the MV Osprey
- Constricted channel and navigation hazards require ferry to slow in the channel
- Increased congestion from pleasure boats poses risk
- Currents in the channel can be strong, increasing risk of collision or grounding if ferry loses power
- Ferry wake impacts private docks in the terminal area



## Vehicle Holding Compound and Highway Access

The holding compound can accommodate 110 vehicles. This is sufficient to handle the MV Osprey's vehicle capacity (80 vehicles) and have room for 30 additional vehicles. The holding compound's size is limited by businesses, a rest area, private properties, a bus stop and a septic field.

During peak summer months, vehicle traffic exceeds the holding capacity of the compound which:

- Impacts the operational safety and efficiency of the highway system
- Impacts the ability to load and unload the ferry efficiently, resulting in delays



To help ensure the steady flow of traffic, control personnel queue ferry-bound traffic from Highway 3A along the highway shoulder. Ferry-bound traffic from Highway 31 is directed to turn around near Old Wharf Road and join the tail of the queue along Highway 3A. In order to avoid blocking access to residences and businesses, traffic control personnel must draw the queue even further along the highway.

While local residents have become accustomed to these traffic patterns in the busy summer months, this is less than ideal over the long term. When the terminal is full, the management of ferry-bound traffic can lead to safety issues.

## Transit Time

The ferry transit time from Balfour terminal to Kootenay Bay, including loading and unloading is about 50 minutes for each leg, with a return trip time of 100 minutes. The actual crossing takes about 35 minutes.

### Transit Time Segment Durations

#### Balfour to Kootenay Bay

Segment	Description	Duration	Notes
1	Load at Balfour	10	
2	Navigate the channel entrance out of Balfour	10	35 mins. total crossing time
3	Crossing Kootenay Lake (Balfour to Kootenay Bay)	25	
4	Offload at Kootenay Bay	5	
5	Load at Kootenay Bay	10	
6	Crossing Kootenay Lake (Kootenay Bay to Balfour)	25	35 mins. total crossing time
7	Navigate the channel entrance in to Balfour	10	
8	Offload at Balfour	5	
	<b>Total</b>	<b>100</b>	<b>(50 mins per leg)</b>

## IMPROVEMENTS NEEDED

There are a number of significant improvements that would be required to maintain the existing level of service and improve safety and reliability at the existing location.

### Dredging - Improving the Navigation Channel

- The west arm will require a significant, and recurring, dredging effort. The initial dredging estimate is \$3 million.
- Environmental, navigation and regulatory approvals for dredging would be required.
- The frequency of ongoing dredging, how long it will take and the cost is being investigated.
- The ferry may not be able to operate while dredging in the narrow channel takes place.

### Improving Highway and Community Safety

- Highway 3A will require widening and additional right-of-way is needed. Costs will be in the range of \$1 million with only marginal safety improvement.
- There is limited opportunity to improve and expand the holding compound. The terminal rest area can be removed but this would require removing the existing septic field and leave the terminal without a washroom facility. Estimated costs are \$2 million and the terminal will lose its washroom and rest area.

### Service – Vessel Replacement

- The MV Balfour was built in 1954 and the vessel is scheduled to be retired in the next few years. Its operating costs are increasing.
- The MV Osprey cannot meet current peak demands. Pressures on service levels will only increase with forecasted growth in ferry use.
- The capital cost to replace the MV Balfour is estimated in the range of \$30 million.

### Environment

- The existing septic system at Balfour is not enough to serve future growth or meet changing environmental regulation requirements. Estimated replacement is \$500,000.

### Cost – Existing Site with Improvements

- Overall estimated costs for upgrading the existing terminal, replacement vessel and dredging would be in the \$36-\$40 million range.



# RELOCATE TERMINAL TO QUEENS BAY NORTH



This is an undeveloped site located on Crown land approximately 3 km north of the Balfour terminal.

## OVERALL BENEFITS

The site being outside the west arm would address the Balfour marine navigation challenges, cut the transit time by 40% to allow for an hourly service and improve marine and highway safety.

There will be no queuing on the highway, no congestion in the compound, no safety issues at the intersection and additional holding capacity during peak periods.

### Marine Navigation

- Access is not limited by a narrow, shallow channel.
- The risk of collision with pleasure craft would be reduced, the ferry would not be required to slow while navigating through a channel and there will be no draft issues for the MV Osprey.
- The location is sheltered from northerly winds due to its proximity to McEwen Point. It is not sheltered from southerly winds.

### Transit Time

The reduction in transit time is substantial. The transit time from Queen’s Bay North to Kootenay Bay, including loading and unloading, would be about 30 minutes as compared to 50 minutes at Balfour – a 40% improvement.

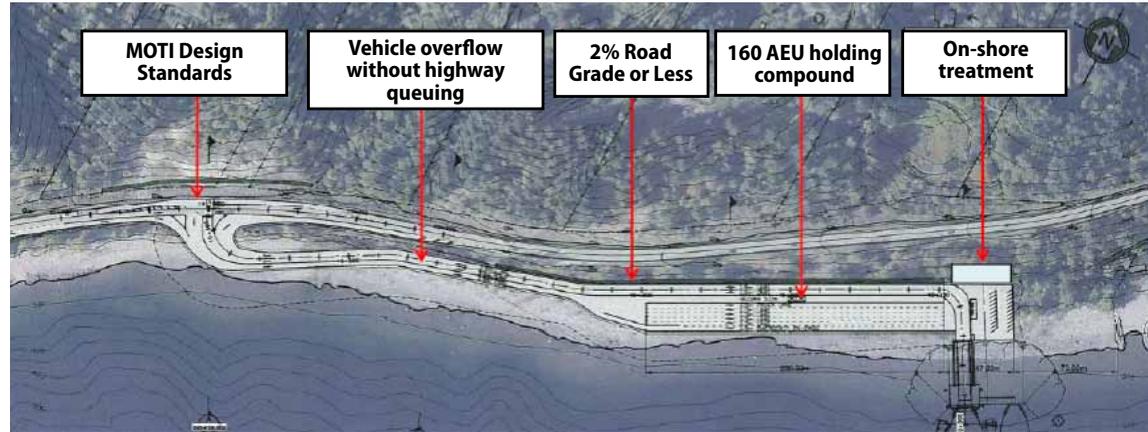
- Crossing time is reduced by 50% to 17 minutes.
- The reduction of transit time would increase capacity on the route by 36% during peak periods.
- Support hourly sailings of the MV Osprey therefore increasing levels of service.
- Improvements in capacity mean this route can be served year round with the MV Osprey only. A back up service, such as a self-propelled barge, could provide temporary service when the MV Osprey is not available.
- The shortened transit distance ensures there are no vessel capacity issues now or during the forecast period to 2065.

### Transit Time Segment Durations

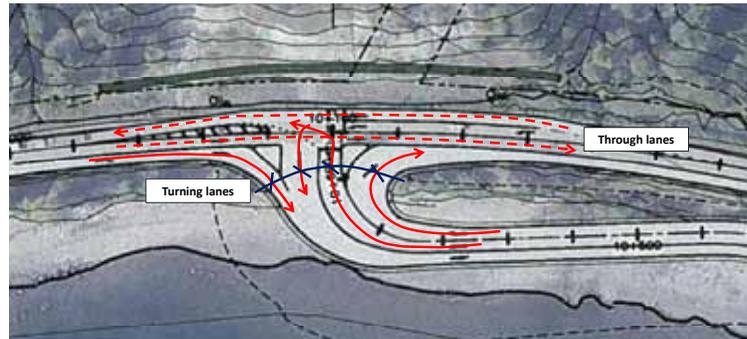
#### Queens Bay North to Kootenay Bay

Segment	Description	Duration	Notes
1	Load at Queens Bay North	8	
2	Crossing Kootenay Lake (QBN to Kootenay Bay)	17	17 mins. total crossing time
3	Offload at Kootenay Bay	5	
4	Load at Kootenay Bay	10	
5	Crossing Kootenay Lake (Kootenay Bay to QBN)	17	17 mins. total crossing time
6	Offload at Queens Bay North	3	
	<b>Total</b>	<b>60</b>	<b>(30 mins per leg)</b>

## Vehicle Holding Compound and Highway Access



- The proposed terminal site would be accessed from Highway 31.
- This site is large enough to accommodate a vehicle holding compound for 160 vehicles and an access road that could accommodate an additional 60 vehicles. Highway queuing would be eliminated.
- A proposed intersection from Highway 31 would allow left and right turn lanes into and out of the ferry terminal and one highway through lane in each direction.
- A traffic analysis indicates there would be minimal risk of traffic growth outpacing the capacity of the intersection before the horizon year of 2065.
- The intersection could include cable ducting to allow for future installation of a traffic light if desired.



## Property Impacts

- The proposed terminal site including the access road and vehicle holding compound are located on Crown Land.
- There are fewer properties in the north Queen's Bay than in the south.
- The Ministry would consider potential property impacts in the design development phase.

## Environment

- A preliminary overview assessment indicates there is no critical habitat or species at risk at the site.
- Environmental and Archaeological Impact Assessments will be undertaken at the site.

## Cost – Queens Bay North

- Overall conceptual estimates put the new terminal in the \$25-\$30 million range.
- The move would provide a modern terminal that would serve the community for the next 50 years while providing an increased level of service.
- With this option, the Ministry would incur significantly lower operating costs.

## Study Recommendations

The SNC Lavalin Technical Feasibility Study concluded that the Queens Bay North site was not only technically feasible, it was the recommended option, as it would result in a safer, more efficient and sustainable ferry terminal for the Kootenay Lake ferry service.

# COMMUNITY CONSIDERATIONS

While the technical feasibility study examines the terminal location from a number of technical, safety and financial perspectives, it does not evaluate the full range of impacts on the community.

If the terminal is relocated, there will be impacts on businesses and amenities that have developed around the terminal. How will these impacts be addressed?

If the terminal is relocated, what will happen to the Balfour ferry terminal property? Will the community have a say in its future use and development? Who will manage the property in future?

These issues and others require consultation with the broader community and specific stakeholders. It is recognized that a decision to relocate will have both positive and negative consequences. Community input is an important part of weighing the options before making a final decision and proceeding to further development.

## Having Your Say

We want to hear what you have to say about these two ferry terminal site options. What do you believe are the most important considerations in evaluating the options? What are the impacts on you and your community?

We have included a set of questions that we would like you to answer. Your feedback will be taken into consideration as decisions are made.

An open house will allow residents to look at the two site options, understand the emerging marine safety issues in more detail, and ask questions of engineers and other technical experts about the options.

We will also be conducting meetings with key stakeholders in the area to discuss potential solutions.

## Next Steps

Major capital projects such as the Kootenay Lake Ferry Terminal take years to plan and deliver. They include technical and financial analysis, environmental and archaeological assessments, and consultation before proceeding to procurement and construction.

A lot of work has already gone into evaluating project options and this consultation is part of an effort to make the best decisions to benefit the community and all British Columbians.

The Ministry will review and prepare a summary report of this consultation to be made available to project planners and the public. The report along with further technical, archaeological and environmental analysis will be used to make a decision.



### For more information:

Web: [www.gov.bc.ca/balfourterminal](http://www.gov.bc.ca/balfourterminal)

Email: [balfourterminal@gov.bc.ca](mailto:balfourterminal@gov.bc.ca)

# QUESTIONNAIRE

## Balfour Ferry Terminal Project

This survey is voluntary and a response is encouraged, not required. Please do not provide any personal information or third-party information (i.e., talk about others by name) in your responses to the survey. Every reasonable step will be taken to keep your responses confidential and to ensure that any personal or third party information is not collected.

**1.) In evaluating the various ferry terminal site locations planners had five major considerations. Numbering 1 – 5, how would you rank these considerations in terms of priority with 1 being most important and 5 being least important?**

- 1  2  3  4  5 Community Impact
- 1  2  3  4  5 Environmental Impact
- 1  2  3  4  5 Financial Considerations
- 1  2  3  4  5 Safety (Marine and Vehicle)
- 1  2  3  4  5 Service Level

**2.) Have you ever been impacted by ferry traffic parking on the Highway?**

- Y Yes  N No

**3.) Is the prospect of reduced crossing time from 35 minutes to 17 minutes important to you?**

- Y Yes  N No

**4.) Would hourly ferry service be of value to you?**

- Y Yes  N No

**5.) If you have to travel an additional 3 km to a new terminal site will this be an inconvenience for you?**

- Y Yes  N No

**6.) After reviewing the results of the technical feasibility study do you favour a particular location?**

- Y Yes  Balfour  Queens Bay North
- N No

**IF BALFOUR CHOSEN: Is there a reason you favour this site?**

**Please rank in order of importance, where 1 is most important and 6 is least important**

- 1  2  3  4  5  6 Established community around terminal
- 1  2  3  4  5  6 Familiar with route and travel times
- 1  2  3  4  5  6 Local businesses would be affected if terminal moved
- 1  2  3  4  5  6 Loss of tourists through established business area
- 1  2  3  4  5  6 Travel patterns are established (for residents)
- 1  2  3  4  5  6 Other: please specify \_\_\_\_\_

**IF QUEEN'S BAY NORTH CHOSEN: Is there a reason you favour this site?**

**Please rank in order of importance, where 1 is most important and 7 is least important**

- 1  2  3  4  5  6  7 Improved traffic and marine safety
- 1  2  3  4  5  6  7 More capacity at peak travel times
- 1  2  3  4  5  6  7 Most cost effective option
- 1  2  3  4  5  6  7 More frequent sailings
- 1  2  3  4  5  6  7 New, improved modern facility
- 1  2  3  4  5  6  7 Shorter crossing time
- 1  2  3  4  5  6  7 Other: please specify \_\_\_\_\_

7.) What amenities do you think are most important for a new or expanded ferry terminal?  
(where 1 is most important and 6 is least important)

- 1  2  3  4  5  6 Mobile food/coffee truck(s)
- 1  2  3  4  5  6 Play area
- 1  2  3  4  5  6 Public parking
- 1  2  3  4  5  6 Public washrooms
- 1  2  3  4  5  6 Transit (bus stop)
- 1  2  3  4  5  6 Other (please specify) \_\_\_\_\_

8.) If the ferry terminal is relocated which of the following uses of the vacant property would you like to see? (where 1 is most important and 7 is least important)

- 1  2  3  4  5  6  7 Business/commercial use
- 1  2  3  4  5  6  7 General community use
- 1  2  3  4  5  6  7 Marina use
- 1  2  3  4  5  6  7 Mixed residential/commercial use
- 1  2  3  4  5  6  7 Preserve as a public park
- 1  2  3  4  5  6  7 Residential use
- 1  2  3  4  5  6  7 Other (please specify) \_\_\_\_\_

9.) What area do you live in?

- Ainsworth Hot Springs
- Balfour
- Crawford Bay
- Gray Creek
- Harrop
- Kootenay Bay
- Longbeach
- Procter
- Queens Bay
- Riondel
- Other: \_\_\_\_\_

10.) Do you have additional comments, questions or concerns you would like to share with us?

We look forward to your feedback or comments...

Public and stakeholder feedback will be received until July 6, 2016.  
You can return completed feedback forms by:

**Mail:**  
Ministry of Transportation – Marine Branch  
PO Box 9850 Stn Prov Govt  
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**Email:**  
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