

A Better Alternative to the Horseshoe Bay/Langdale Ferry

There are many good and obvious reasons why bridges are built to replace ferries. Looking around the planet, one can see that some nations (in Europe and the Far East) are building phenomenal bridges to streamline their transportation systems, and these projects reflect positively on their societies. These beautiful structures are, to many people, destinations in themselves. Advances in technology and construction materials are making possible longer bridge spans than ever before.

The usual mode of transportation to and from the Sunshine Coast is by BC Ferries. This ferry service comes at a high cost to our environment, not to mention the ever-increasing fares and the inconvenience factor for people who need to use this service. Following are some points to highlight why this particular ferry run should be replaced with a fixed link.

Reducing carbon emissions is a principle we can agree on... Here we have an opportunity to not only reduce pollution, but vastly improve transportation between Vancouver Island and the Mainland, and make better use of the Sea to Sky Highway (that underwent a major upgrade for a two week event in Whistler in 2010.)

Ferries vs. Road Access, a Comparison

Let's look at the numbers:

The Queen of Surrey Ferry burns approx. 1300 liters of diesel fuel for each one-way trip between Langdale and Horseshoe Bay. At maximum capacity (362 vehicles onboard) that amounts to 3.6 liters per vehicle. 3.6 liters of fuel is equal to 40 kilometers of road travel for the average vehicle. (average midsize car burns 9 liters per 100 km). If a road connection was made across Anvil Island (see attached illustrations) the approximate distance would be 50 kilometers by road between Langdale and Horseshoe Bay. The numbers would indicate that, when running at **100%** capacity the ferry fuel use is equal to what 362 vehicles would use traveling 40 KM.

But the Sunshine Coast Ferry runs on average at 51.7% of vehicle capacity: In 2015 the Ferries that service the Sunshine Coast made a total of approx. 5840 trips and carried 1,072,364 vehicles (based on 8 return sailings each day) . That is an average of 184 vehicles per trip...which equals 7 liters of diesel fuel per vehicle transported by ferry. And that's almost twice the fuel a car would consume traveling by road. 50 Km = 4.5 L gasoline.

And what is worse, marine engines have significantly higher rates of pollution than auto engines (as there have been significant improvements made to automobile engine emissions over the past decades, while marine engines have not kept pace).

By implementing a fixed link we conserve over **2.7** million liters of fuel each year (not counting fuel used at the terminals) and better still: we reduce carbon emission and improve the health of the Planet.

The cost of maintaining a ferry service between Horseshoe Bay and Langdale is already a mammoth expense, and ticket sales cannot cover that at present, hence the operation is heavily subsidized by the taxpayer. And, because ferries need to be maintained, and replaced, and wages don't go down , the cost of operation will continue to escalate !

In the event of a major earthquake, a recent engineering study shows that the existing ferry terminals are likely to be rendered useless, leaving thousands of people stranded, and without supplies, that are typically transported by ferries.

Consider the possibility of extending the Trans Canada Highway to the Sunshine Coast and linking to the Sea to Sky Highway. Anvil Island could be the cross-over point with two bridges and a tunnel. The tunnel would provide construction aggregate, and minimize the expropriation of private property on Anvil Island. Each bridge span would be about 1.7 km in length. **The Sunshine Coast ferry can then be used for Vancouver Island service** (Langdale to Nanaimo). Travelers from the north and east would then have a choice between Fraser Valley Trans-Canada route or the shorter Highway 99 (Sea to Sky) route through Cache Creek, Lilloette and Whistler. Travelers can choose between a 100 minute ferry run to Nanaimo from the **over-crowded Horseshoe Bay terminal**, or an approx. 80 minute ferry run from the Langdale terminal.

In summary some of the advantages of a road connection are:

1. Much less carbon and sulfur emission than ferries, a positive measure towards a cleaner environment with less global warming
2. Reduction in fuel consumption (at today's prices that's a savings of about \$6 million/year)
3. Less crowding at Horseshoe Bay Terminal
4. Shorter ferry route to Vancouver Island from Langdale (and with a shorter crossing, less pollution and less fuel expense)
5. No wasted time waiting at ferry terminals (this can amount to say one-half hour wait per vehicle multiplied by 1,050,000 vehicles carried last year = 502,500 hours, and that is 57 years of wasted time every year sitting in a ferry parking lot.
6. Fewer large scale accidents (BC Ferries do not have a good record here)
7. Emergency Vehicles and others will have 24-7 access to the Lower Mainland.
8. Employment opportunity for local construction companies and crews to build the new route is obvious.
9. Bridges require less maintenance, do not pollute, and unlike ferry boats, rarely need to be replaced.
10. Bridges are usually attractive, a delight to both residents and visitors.

Disadvantages?

1. **None** apparent

This is obviously not meant to be an engineering analysis, rather a simple observation. Much of this information has been extracted from public sources.

Financial Strategy:

One way to finance a bridge link to the Sunshine Coast (and shorten the ferry run to Vancouver Island) could be to issue a **Bridge Bond**: say a \$100 Bond maturing in about 30 years, issued by the Federal and or the BC Governments. A bridge construction department would have to be set up with public oversight to ensure absolute transparency. Bridge toll, not to exceed a reasonable amount, would pay for the project in time. **This is a guaranteed investment in infrastructure providing thousands of jobs for Canadian Companies and Workers... a win win win project we could all be proud of.**



*Possible road connection to the Sunshine Coast from the
Sea to Sky Highway via Anvil Island.*
This is one of the two spans, looking south with Anvil Is. on the right
more info: ArraStudio.com/ferrymap.htm
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