



September 13, 2017

The Honourable John Horgan  
Premier, Province of British Columbia,  
Parliament Buildings,  
Victoria, B.C.  
Via Email [Premier@gov.bc.ca](mailto:Premier@gov.bc.ca)

Dear Premier Horgan:

**Re: Proposed bridge replacing the George Massey Tunnel**

BC Nature (the Federation of British Columbia Naturalists), represents more than 50 naturalist clubs and over 6000 members. As an organization which supports efforts to preserve our environment, we commend your government for halting the current bridge construction and for ordering a review of the current situation and of possible solutions.

We acknowledge the traffic bottleneck that the present tunnel creates. Hopefully any future decision will include rapid transit as part of the solution.

We had feared that "The Bridge" as proposed by the Liberal government would open the waterway to ocean-going ship traffic, such as Panamax cargo ships and LNG supertankers, now unable to clear the 12 m deep tunnel. For these ships to pass, the Fraser River would have to be dredged, coupled with dike construction along the shoreline, and rip-rap placement to combat erosion. This would compromise circulation patterns for valuable marshlands. A deeper river would also lead to increased stream velocity and allow greater intrusion of seawater upstream. Such increased river velocity would also increase erosion and silting of the Fraser River delta, with possible severe negative consequences for juvenile salmon and a host of other species that utilize the rich estuary as a nursery and a transition habitat in their migrations. This includes internationally-important migratory birds which comprise part of the Pacific Flyway. These birds, including waterfowl and birds of prey, rest and feed on this delta. This Flyway supports ecological tourism, not only in Canada, but in the USA and other countries which count upon increased revenues from "birding" tourists.

The estuarine ecosystem also links to the apex predators in the Salish Sea: the endangered Southern Resident Orcas. See the appended and edited list of species at risk from the Stewardship Centre of British Columbia, Courtenay BC.

We express concern about the possible ensuing industrialization of delta lands and encroachment onto farmlands in the Agricultural Land Reserve. With our concerns about climate change, we question a future with coal and LNG ports along the banks of a dredged Fraser River.

Counter to regional planning, the greatly increased traffic volume encouraged by The Bridge that had been proposed would likely spur greater suburbanization of Surrey and Delta, leading to further threats to farmlands and important wetland habitats of the delta area, and promoting greater single occupancy car traffic. Higher commuter traffic volume would further slow the bottleneck into Vancouver, with

greater carbon consumption and output from slow-moving and idling vehicles.

We hope that your government's review will include an environmental assessment of construction consequences to riverine and riparian ecosystems. It is also important to consider air quality as part of a solution which respects the environment both for human and other life forms. Our view is that a second tunnel would help to alleviate traffic woes, with minimal negative environmental impact compared to a much more expensive and destructive bridge. But we await your review.

Again, we congratulate you on your government's vision to explore the tunnel/bridge issue in detail.

We look forward to your response to this letter.

Yours truly,



Alan E. Burger, PhD  
President: BC Nature  
(Federation of BC Naturalists)

Cc:

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Appendix: Species at Risk in the Fraser River Estuary

Species		Status	
Total no. of Species at Risk	40	BC Red List	13
Mammals	6	BC Blue List	18
Birds	3	Identified Wildlife	6
Breeding Birds	10	COSEWIC Endangered	11
Reptiles	1	COSEWIC Threatened	13
Amphibians	2	COSEWIC Special Concern	15
Fishes	11	SARA Schedule 1	31
Insects	2	Extirpated from BC	1
Molluscs	3	Extinct	0
Vascular Plants	1		
Mosses	1		
Fungus	0		

Mammals

English Name	Scientific Name	COSEWIC	SARA	BC Status
<a href="#">Killer Whale (West Coast transient population)</a>	Orcinus orca pop. 3	Threatened	Schedule 1	Red
<a href="#">Steller Sea Lion</a>	Eumetopias jubatus	Special Concern	Schedule 1	Blue
<a href="#">Pacific Water Shrew</a>	Sorex bendirii	Endangered	Schedule 1	Red
<a href="#">Killer Whale (southern resident population)</a>	Orcinus orca pop. 5	Endangered	Schedule 1	Red
<a href="#">Harbour Porpoise</a>	Phocoena phocoena	Special Concern	Schedule 1	Blue
<a href="#">Grey Whale</a>	Eschrichtius robustus	Special Concern	Schedule 1	Blue

Birds

English Name	Scientific Name	COSEWIC	SARA	BC Status
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[Red Knot](#) *Calidris canutus* Endangered Schedule 1 Red

Breeding Birds

<b>English Name</b>	<b>Scientific Name</b>	<b>COSEWIC</b>	<b>SARA</b>	<b>BC Status</b>
<a href="#">Band-tailed pigeon</a>	<i>Patagioenas fasciata</i>	Special Concern	Schedule 1	Blue
<a href="#">Olive-sided flycatcher</a>	<i>Contopus cooperi</i>	Threatened	Schedule 1	Blue
<a href="#">Barn Swallow</a>	<i>Hirundo rustica</i>	Threatened	None	Blue
<a href="#">Common Nighthawk</a>	<i>Chordeiles minor</i>	Threatened	Schedule 1	Yellow
<a href="#">Western Screech Owl (kennicotti subspecies)</a>	<i>Megascops kennicottii kennicottii</i>	Threatened	Schedule 1	Blue
<a href="#">Short-eared Owl</a>	<i>Asio flammeus</i>	Special Concern	Schedule 1	Blue
<a href="#">Peregrine Falcon (anatum subspecies)</a>	<i>Falco peregrinus anatum</i>	Special Concern	Schedule 1	Red
<a href="#">Marbled Murrelet</a>	<i>Brachyramphus marmoratus</i>	Threatened	Schedule 1	Blue
<a href="#">Great Blue Heron (fannini subspecies)</a>	<i>Ardea herodias fannini</i>	Special Concern	Schedule 1	Blue
<a href="#">Barn Owl</a>	<i>Tyto alba</i>	Threatened	Schedule 1	Blue

Reptiles

<b>English Name</b>	<b>Scientific Name</b>	<b>COSEWIC</b>	<b>SARA</b>	<b>BC Status</b>
<a href="#">Western Painted Turtle (Pacific coast population)</a>	<i>Chrysemys picta pop. 1</i>	Endangered	Schedule 1	Red

Amphibians

<b>English Name</b>	<b>Scientific Name</b>	<b>COSEWIC</b>	<b>SARA</b>	<b>BC Status</b>
<a href="#">Western Toad</a>	<i>Anaxyrus boreas</i>	Special Concern	Schedule 1	Blue
<a href="#">Northern Red-legged Frog</a>	<i>Rana aurora</i>	Special Concern	Schedule 1	Blue

Fishes

<b>English Name</b>	<b>Scientific Name</b>	<b>COSEWIC</b>	<b>SARA</b>	<b>BC Status</b>
<a href="#">Eulachon</a>	<i>Thaleichthys pacificus</i>	Endangered	None	Blue
<a href="#">Coho Salmon (interior Fraser populations)</a>	<i>Oncorhynchus kisutch</i>	Endangered	None	Yellow
<a href="#">Sockeye Salmon (Cultus and Sakinaw Lake populations)</a>	<i>Oncorhynchus nerka</i>	Endangered	Declined	Yellow

<a href="#">Green Sturgeon</a>	Acipenser medirostris	Special Concern	Schedule 1	Red
<a href="#">White Sturgeon (Lower Fraser River population)</a>	Acipenser transmontanus pop. 4	Threatened	Declined	Red

#### Insects

English Name	Scientific Name	COSEWIC	SARA	BC Status
<a href="#">Monarch</a>	Danaus plexippus	Special Concern	Schedule 1	Blue
<a href="#">Dun Skipper</a>	Euphyes vestris	Threatened	Schedule 1	Red

#### Molluscs

English Name	Scientific Name	COSEWIC	SARA	BC Status
<a href="#">Olympia Oyster</a>	Ostrea conchaphila	Special Concern	Schedule 1	Blue
<a href="#">Northern Abalone</a>	Haliotis kamtschatkana	Threatened	Schedule 1	Red

#### Vascular Plants

English Name	Scientific Name	COSEWIC	SARA	BC Status
<a href="#">Streambank Lupine</a>	Lupinus rivularis	Endangered	Schedule 1	Red

#### Mosses

English Name	Scientific Name	COSEWIC	SARA	BC Status
<a href="#">Poor Pocket Moss</a>	Fissidens pauperculus	Endangered	Schedule 1	Red

#### Search Criteria

Taxonomic Group	Mammals,Birds,Breeding Birds,Reptiles,Amphibians,Fishes,Insects,Molluscs,Vascular Plants,Mosses,Fungus
Management Category	Reptile,Habitat Specialist,Songbird,Marine Shellfish,Marine Mammal,Freshwater,Marine Bird,High Sensitivity to Disturbance,Plants, Mosses and Lichens,Birds of Prey and Bats,Amphibious,Marine Fish
Habitat	Beach/Dune/Spit,Estuary,Inshore marine,Intertidal,Large River,Maritime Meadow,Riparian,Wetlands

Pearson, Mike and Healey, M.C.2012. Species at Risk and Local Government: a [Primer for BC](#). Stewardship Centre of British Columbia, Courtenay BC.