



March 16, 2017

The Honourable Christy Clark,
Premier, Province of British Columbia,
Parliament Buildings,
Victoria, B.C.
Via Email - premier@gov.bc.ca

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

Dear Premier Clark,

BC Nature (the Federation of British Columbia Naturalists), represents more than 50 naturalists' clubs with more than 6,000 members. We wish to raise concerns over the proposed bridge crossing that would replace the George Massey tunnel, and the lack of a comprehensive environmental review encompassing the river and its important and valuable adjacent habitats.

We acknowledge the traffic bottleneck that the present tunnel creates, and we support the previous plan to twin it. We have learned of the seismic integrity of the present tunnel. We oppose the construction of the bridge.

We fear that the bridge would open the waterway to ocean going ship traffic, such as the new Panamax cargo ships and LNG supertankers, now unable to clear the 12m deep tunnel. For these ships to pass, the Fraser River would have to be dredged, coupled with dike construction along the shoreline, and riprap placement to combat erosion. Dikes would compromise circulation patterns for valuable marshlands. A deeper river would lead to increased stream velocity and allow greater intrusion of seawater upstream. We express particular concern for migrating salmon and all that they affect. Seawater contamination of irrigation systems of agricultural lands upstream also concerns us. Furthermore, increased river velocity would increase erosion and siltification of the 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, including internationally important migratory birds. See the appended and edited list of species at risk from the Stewardship Centre of British Columbia, Courtenay BC.

The Fraser River Estuary and surrounding wetlands are ecologically highly complex. Extensive estuarine marshes and waters of prime habitat value exist directly downstream of the proposed bridge. These habitats support Canada's largest wintering habitat for waterfowl and birds of prey: a BirdLife International Important Bird and Biodiversity Area. The estuarine ecosystem also links to the apex predators in the Salish Sea: the endangered Southern Resident Orcas. All this rides on top of the challenges of predicted rising sea levels.

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 this bridge would likely spur greater suburbanization of Surrey and Delta, leading to threats to farmlands and important wetland habitats of the delta area, and ensuing 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 recommend an environmental assessment of construction consequences to riverine and riparian ecosystems. A second tunnel would help alleviate traffic woes, with minimal negative environmental impact compared to a much more expensive bridge.

We look forward to your response to this letter.

Yours truly,



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

cc:

Todd Stone, Ministry of Transportation and Infrastructure - Todd.Stone.MLA@leg.bc.ca

Mary Polak, B.C. Minister of Environment - mary.polak.mla@leg.bc.ca

John Horgan, Leader of the BC NDP - oppositionleader@leg.bc.ca

Andrew Weaver, Leader of the BC Green Party - andrew.weaver.mla@leg.bc.ca

Catherine McKenna, Minister for the Environment & Climate Change -
catherine.mckenna@parl.gc.ca

Claire Trevena, NDP Transportation Critic - Claire.trevena.mla@leg.bc.ca

Alice Wong, MP for Richmond Centre - alice.wong@parl.gc.ca

Joe Peschisolido, MP for Richmond/Steveston - Joe.Peschisolido@parl.gc.ca

John Yap, MLA for Richmond/Steveston - john.yap.mla@leg.bc.ca

Linda Reid, MLA for Richmond East - linda.reid.mla@leg.bc.ca

Teresa Wat, MLA for Richmond Centre - teresa.wat.mla@leg.bc.ca

Malcolm Brodie, Mayor of Richmond - mayorandcouncillors@richmond.ca

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
Killer Whale (West Coast transient population)	Orcinus orca pop. 3	Threatened	Schedule 1	Red
Steller Sea Lion	Eumetopias jubatus	Special Concern	Schedule 1	Blue
Pacific Water Shrew	Sorex bendirii	Endangered	Schedule 1	Red
Killer Whale (southern resident population)	Orcinus orca pop. 5	Endangered	Schedule 1	Red
Harbour Porpoise	Phocoena phocoena	Special Concern	Schedule 1	Blue
Grey Whale	Eschrichtius robustus	Special Concern	Schedule 1	Blue

Birds

English Name	Scientific Name	COSEWIC	SARA	BC Status
Red Knot	Calidris canutus	Endangered	Schedule 1	Red

Breeding Birds

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

Reptiles

English Name	Scientific Name	COSEWIC	SARA	BC Status
Western Painted Turtle (Pacific coast population)	Chrysemys picta pop. 1	Endangered	Schedule 1	Red

Amphibians

English Name	Scientific Name	COSEWIC	SARA	BC Status
Western Toad	Anaxyrus boreas	Special Concern	Schedule 1	Blue
Northern Red-legged Frog	Rana aurora	Special Concern	Schedule 1	Blue

Fishes

English Name	Scientific Name	COSEWIC	SARA	BC Status
Eulachon	Thaleichthys pacificus	Endangered	None	Blue
Coho Salmon (interior Fraser populations)	Oncorhynchus kisutch	Endangered	None	Yellow
Sockeye Salmon (Cultus and Sakinaw Lake populations)	Oncorhynchus nerka	Endangered	Declined	Yellow
Green Sturgeon	Acipenser medirostris	Special Concern	Schedule 1	Red

[White Sturgeon \(Lower Fraser River population\)](#) Acipenser transmontanus pop. 4 Threatened Declined Red

Insects

English Name	Scientific Name	COSEWIC	SARA	BC Status
Monarch	Danaus plexippus	Special Concern	Schedule 1	Blue
Dun Skipper	Euphyes vestris	Threatened	Schedule 1	Red

Molluscs

English Name	Scientific Name	COSEWIC	SARA	BC Status
Olympia Oyster	Ostrea conchaphila	Special Concern	Schedule 1	Blue
Northern Abalone	Haliotis kamtschatkana	Threatened	Schedule 1	Red

Vascular Plants

English Name	Scientific Name	COSEWIC	SARA	BC Status
Streambank Lupine	Lupinus rivularis	Endangered	Schedule 1	Red

Mosses

English Name	Scientific Name	COSEWIC	SARA	BC Status
Poor Pocket Moss	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,Ground Nesting Bird,Butterfly,Vascular 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.