



June 21, 2022

The Honourable Steven Guilbeault, P.C., M.P.
Minister of Environment and Climate Change
House of Commons Ottawa,
Ottawa, Ontario K1A 0A6

Submitted By:

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Board of Directors, Salish Sea Indigenous Guardians Association (SSIGA)

Direct Correspondence to:

Marian Ngo, Executive Director
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4116 Georgia Street
Burnaby, BC V5C 2T4

Re: Request for a Multi-Phase Impact Assessment – Salish Sea

Dear Minister Guilbeault,

On March 31, 2022, the Salish Sea Indigenous Guardians Association (SSIGA) made a request for a Regional Assessment (RA) of the Salish Sea under Sections 92 and 93 of the *Impact Assessment Act (IAA)*. This letter follows up to expand on our position and approach.

SSIGA is an Indigenous-led, non-profit organization established to support informed decision making, and meaningful participation in resource policy for Salish Sea Indigenous communities pertaining to cumulative effects and impacts on their traditional territories. Our organization is not affiliated with any projects or proponents and do not render decisions on any existing or proposed projects. We are focused on data collection that builds baselines for which to adequately gauge impacts and determine avoidance, mitigation, and accommodation measures. Our approach is to amalgamate existing data, bridge the gaps of data, and incorporate holistic perspectives and priorities with western science in ways that support reconciliation and sustainable regional planning.

The mandate for SSIGA came about as an extension of the Squamish Nation process whereby an Indigenous government identified needs, gaps in information, and came up with a process by which to assess a project within their traditional territory. It was, in part, a substituted environmental

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assessment process and was developed in coordination with the timelines of the provincial and federal assessments and was the first of its kind in Canada. Its impact became one of the factors that has led to the new IAA legislation – an acknowledgement that by working more inclusively and respectfully with Indigenous communities, the consultative process can be done better with meaningful and informed participation. Our proposal for RA builds upon these principles of self-determination towards reframing cumulative effects as a tangible, useable, and relevant tool to address the consistent feedback from communities regarding the shortfalls of “consultation” and the need to break the cycle of untenable referrals processes that consume endless resources, yet do not lead to clearer understandings of impacts or sustainable planning.

Background & Historical Context:

Our President is a member of Tsawwassen First Nation and as a fisherman, an active proponent in the protection of the waterways. Our directors are from Semiahmoo and Kwantlen First Nations and represent their Nation’s interests as members of SSIGA. In conversations with other Salish communities, our objective is to establish cumulative data on the health and well-being of the Salish Sea, along with its inner bodies of water, so we can have better accurate condition indicators and work together for sustainable planning.

Since time immemorial, the Salish Sea including its wetlands and tributaries have been essential to the ways of life, and health of the Indigenous communities along its shorelines. It is a significant connecting factor to generations of our communities and our sacred connections with our lands, resources, and each other. However, over the years of continual and relentless industrial development, the traditional land use that included access to clean drinking water, and traditional food sources (bivalve, crab, salmon) were drastically affected and diminished. These impacts cannot be under-estimated, they are absolutely devastating and detrimental to our Indigenous connections to this place, our traditions and way of life. The impacts on the ecosystem from dredging, pollution, increased marine traffic (to name a few) have degraded water quality, eroded riverbanks, damaged fish habitats...etc., effectively destroying our harvests and access to safe and healthy foods. This means Salish Indigenous communities do not have reasonable ability to exercise our traditional rights. The impacts also mean the long-term fragmentation of various aquatic and terrestrial animal populations.

The following impacts, confirmed through rigorous scientific assessment, provides a glimpse into compounding cumulative effects:

- Estuaries are among the most important and productive marine ecosystems on earth – providing critical habitat and food webs essential to biodiversity, vital filtration functions for the health of interconnected water systems, and carbon sequestration and wave energy mitigation important for low-carbon climate resiliency. Yet, given cumulative impacts over the past 150+ years, **these vital ecosystems are now also the most at riskⁱ**.
- the Fraser River Estuary historically supported the largest wild salmon runs in the worldⁱⁱ; yet, as the Pacific Salmon Commission confirms: **Chinook salmon populations are down at least 60% since tracking began in 1984ⁱⁱⁱ** ; and **Southern Resident Killer Whales are declining with no signs**



of recovery – with only 74 whales recorded as of December 2020 (in part due to declining salmon populations along with vessel impacts)^{iv}.

- in total (as of 2020), **102 species in the Fraser River Estuary are at risk of extinction**, threatening the ecological, cultural and economic services they provide^v.
- extending the reference baselines back further reveals even more devastating statistics, as many severe impacts occurred before Western documentation or scientific research even began in the area^{vi}. In many cases cumulative impacts have caused **total declines (i.e. collapses)**; for example, major herring populations collapsed in 1885, eulachon by 1899, and no sturgeon have been reported in the inlet since 1900^{vii}. For all taxa reviewed (save for cod)...it is estimated that current population abundances for key marine species ranges from 50% to 1% of their mid-19th century and pre-contact levels. These impacts in turn, have profound inter-connected and cumulative effects on larger nested ecosystems fundamentally disrupting ecological communities, causing triggering trophic cascades, etc. – the effects of which have yet to be fully characterized / quantified.
- the incremental nature of shoreline development, generally viewed only on a project-by-project basis, further conceals cumulative changes over decades and centuries. In the Burrard Inlet alone, shoreline alternation and development has eliminated 1,214 ha of vital intertidal and subtidal habitat – including **elimination of 55% of intertidal habitat in the inlet and more than 99% in False Creek Flats**^{viii}. This has substantially transformed not only the inlet's physical boundaries and ecosystems, but also First Nations' abilities to practice their way of life^{ix}.
- in terms of contamination, **700 different contaminants have been identified** in Burrard Inlet alone; **at least 56 of these exceed safe thresholds** for marine uses (i.e. protective of defined Water Values); and of these 56, **24 contaminants exceed thresholds protective of human consumption of seafood at rates relevant to coastal Indigenous people** - including lead, mercury, arsenic and many pesticides^x. Of the contaminants that exceeded benchmarks, 27 are included within Province of BC authorizations for wastewater discharges^{xi}. Scientific review identified **over 600 sources contributed contaminants** – further underscoring the need for more holistic scales of consideration and management^{xii}.
- With over half of BC's rapidly expanding urban population depending on these ecosystems, this degradation carries significant ecological, social and economic consequences. Scientists have reported that **"the cost of doing nothing is staggering"**^{xiii} – with the loss of Fraser River fisheries estimated at more than \$300 Million / year^{xiv} (as of 1998), and the loss of whale tourism at \$26 Million / year^{xv}. It is important to also note that *many* costs have yet to be tallied, including: the profound cultural value of various species for Indigenous communities; the cost-saving and value-creating (co)benefits of green / [regenerative infrastructures](#); the cost savings of carbon sequestration and climate adaptation; the number of jobs and tourism revenue created through conservation, eco-tourism, climate mitigation and adaptation, etc.; and the compounding cost-savings and value-adding co-benefits for the health current and future generations.



This very small snapshot of the numerous examples of the interconnectedness of the Salish ecosystem and its implications on traditional ways of life for our communities and general health and sustainability of the region. This story is not new or specific to the Salish Sea; it has been witnessed and highlighted across the country as part of the impacts of development. In fact, the need for proper understanding through an RA has also been raised by the Mohawk Council of Kahnawà:ke in their approved request to you and your Ministry. Instead of a “tipping point” referred to by the Mohawk, our members have been referring to “death by a thousand cuts”, as our known connections to resources around us are so severely impacted that it impacts our long-standing connections to culture and livelihood. This all points to the same questions - *what is the threshold? What should it be and how do we understand impacts to adequately mitigate its affects? Will our children’s access to resources and place be improved or non-existent?*

Rationale for a Regional Assessment (RA):

Approach and Scope:

It has been established that Traditional Rights for Indigenous communities has been infringed upon through industrial development. The consultative process is also inadequate because the information that is compiled for assessments is done by proponents based upon government established processes and based on information scoped solely from the narrow lens of a proposed project description (its scope and timelines).

In the spirit of reconciliation and within the mandate of the new IAA legislation meant to bridge the gaps of consultation and Indigenous participation, SSIGA as an Indigenous-led organization is looking to have a phased approach to a regional assessment focused first on “data collection and trend analysis”, scoped from Indigenous priorities to support communities as they work on understanding impacts and assessing potential avoidance, mitigation, and accommodation measures. We would gather information that is currently available (some we already have from ongoing work with Elders and Knowledge holders) and fill the gaps that address cultural, historic, environmentally sensitive sites, socio-economic health,...etc. This would serve to support both current referral needs while also building the amalgamated data required for “Thresholds and Standard Mitigation” to address the “tipping point” of where thresholds are and should be. Working together with and in support of impacted communities at each stage to ensure that our mechanisms are relevant and purposeful, the eventual goal is to build a viable “regional development plan” that addresses what “incremental gains” should be required by proposed projects to offset environmental losses and ultimately, lead to sustainable regional planning that can be continually monitored and adjusted according to changing environmental conditions.

Our intention is to work closely and thoughtfully with Salish Indigenous communities (some have already voiced interest, including in publicly posted letters to IAAC) along with NGOs (some have already written their support to you regarding this RA), as well as the provincial government (e.g. regional planning and stewardship, for which there is now a new ministry). We recognize that this would be a multi-year endeavour, therefore, the phased approach will allow us to support Indigenous communities requiring data in the short term, while also incorporating their participation and feedback towards a long term, comprehensive plan that ideally would maximize the efficiency and effectiveness of Environmental Assessments. Therefore, we had used a comparative impact study of the RBT2 and DP4



projects as a starting point – they are large project proposals that have significant impacts to the Salish Sea as a whole and impacted communities have been requesting for more information. It seems to be the most logical starting point to get efforts underway. We would like to ensure that the data best reflects accounts for the interconnectedness of the ecosystem, the needs of those that are impacted, and that it informs not only the Environmental Assessments but, is also factored into the permitting and decision-making processes of other agencies such as DFO, so that nothing is issued in isolation.

The RA scope, based on feedback we have received from Indigenous communities is the entirety of the Salish Sea (both Canada and the US), includes its inner bodies of water (which are condition indicators on fish population) along with the traditional fishing territories of Treaty Nations. The initial focus would be impacts upon Traditional Food Sources (e.g. salmon, bivalve, crab) factoring in the effects of water quality. These parameters also directly tie into the health of other marine and terrestrial mammals that rely on these food sources. Existing infrastructure, marine traffic, along with ongoing and foreseeable projects in the next 5 to 10 years would all be factored into the regional impact assessment for this identified geographic area. These projects include, but are not limited to:

Canada

- Burnco Aggregate
- Centerm Expansion and South Shore Access Project
- Comox Valley Water Treatment facility
- Deltaport Expansion – Berth 4
- Duke Point expansion
- George Massey Tunnel Replacement
- Iona Waste Treatment facility
- Port Alberni Cogeneration
- Roberts Bank Terminal 2 expansion
- Tilbury Pacific Marine Jetty
- Tilbury Phase 2 LNG expansion
- Transmountain pipeline expansion
- Woodfibre LNG

United States

- Marine Highway Designation, M-5 Coastal Connector
- Bellingham Shipping Terminal Upgrade
- Norton Terminal Development
- Puget Sound Energy LNG

An RA will provide Salish Indigenous communities with context and meaningful information, such as a regional baseline based on historical (pre-development) conditions from existing marine activities and infrastructure, to consider cumulative effects of proposed projects. Project proponents are limited, and do not have the requisite responsibility, to undertake a comprehensive analysis of regional cumulative effects. It is the role of government to coordinate initiatives, set targets and develop thresholds for



consideration in future development. Without this direction, meaningful consultation is extremely futile and referrals will continue to be untenably resource intensive without addressing what an assessment is meant to do - to “meaningfully inform” decisions. This too is not new, and part of the ongoing feedback from communities has also led to many legal disputes.

SSIGA is aware that other existing or planned initiatives are in place that could relate to and support this proposed RA. Many of these initiatives are disparate and do not, on their own and independent of one another, meet the level of integrated regional planning that we are requesting. We see an opportunity to unify them in the context of the Salish Sea.

The Salish Sea Initiative (SSI)

- Along with programs such as IAMC, this is *an accommodation* for the Transmountain pipeline project (which SSIGA also receives funding)
 - Accommodation measures are not cumulative effects programs
 - Funding is for individual communities towards marine stewardship activities on cumulative effects, but funding is only until 2024 with Arms Length funding being fairly limited
 - Information can be usable if shared, but data gaps would need to be bridged during data amalgamation and trend reporting
- **Canada-US Cooperation in the Salish Sea, 2021-2024 Action Plan**
 - This program is effectively promoting the exchange of cross-border data to identify priorities and opportunities for effective coordination and cooperation
 - Information is limited to the scope of the data available and limited in Indigenous perspectives (data gaps still need bridging)
 - Coast Salish Gathering feedback can be used in determining phase 2 and 3 of regional assessment (mitigation and planning)
 - Information can still be complementary and usable for Regional Impact Assessment
 - **Oceans Protecting Plan**
 - Transport Canada initiative that highlights the Canadian Government’s new direction on marine safety and shipping
 - Focused on marine transportation and safety – lacks information on health of ecosystem, cumulative data etc.
 - **Quiet Vessel Initiative**
 - Short term initiative – 5 years
 - Mainly focused on technology specific to noise impacts with require much more comprehensive studies than \$26M
 - **Enhancing Cetacean Habitat and Observation (ECHO) Program**



- Vancouver Fraser Port Authority-led initiative aimed at understanding the impact of shipping activities on at-risk whales throughout the southern coast of British Columbia
 - 2 Nations participated, but information can be complementary to regional assessment
- **Various Guardians Programs**
 - Various communities have their own data, but it is limited in geographic region
 - Information and initiatives would be helpful when building the regional assessment

In both SSIGA's own conversations as well as IAAC's recent engagement processes pertaining to projects currently undergoing the Environmental Assessment, Indigenous representatives and stakeholders have voiced interest in a regional assessment to inform impact assessments of future development and to help address cumulative effects in the region. In the same vein to what Semiahmoo First Nation sent in their letter supporting an RA, it makes sense to let those that are to be consulted determine what they need to meaningfully participate, otherwise the process will never be satisfactory. We would also like to stress that we are requesting for this to be a multi-phased process that layers all 3 levels of Regional Impact Assessment and for it to be SSIGA-led in partnership with our member communities, other impacted Salish communities that have voiced interest, along with other stakeholders, NGOs, the Province of BC, and your Ministry. It is important that Indigenous perspectives and priorities are factored in at each stage of work.

Conclusion

SSIGA believes that its request for a multi-phase Regional Assessment of the Salish Sea is very necessary to the understanding of the health of the Salish Sea, responsible development, and stewardship as well as in support of reconciliation and (a starting point) in addressing the issues inherent to the consultative process. It will enable a path forward that is more respectful and meaningful for incorporating traditional knowledge and values of sustainability for a better future for all. Similar to, the request by the Mohawk Council of Kahnawà:ke, we too are looking to "understand the past, current and future effects of anthropogenic activity...so that future development within the area could focus on compensation/offsetting efforts on improving the environment beyond the status quo." It will take some time and effort but now is the time to focus efforts on understanding and defining cumulative effects, instead of referencing a vague concept that cannot be applied. Now is the time to work together towards improving ineffective processes pertaining to Indigenous engagement and participation, efforts by which would also offer project proponents more certainty when asked to consult Indigenous communities. The continual concerns, requests for information and infringements to Indigenous rights needs to be addressed and the impacts to the environment require effective offsets and net gains. We believe that a phased Regional Impacts Assessment will provide more fulsome data now to support current needs while working towards more effective joint efforts for mitigation and stewardship planning and be significantly more effective than environmental assessments – and



ultimately, would lead to a better understanding of both current and longer-term future environmental health and needs. We look forward to hearing from you and are eager to get much needed efforts going.

All our relations,

Sləq̓sit , Steven Stark (Tsawwassen First Nation member)

President, SSIGA

<Original signed by>

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Xwopokton, Chief Harley Chappell (Semiahmoo First Nation)

Vice President, SSIGA

<Original signed by>

spalə́, Tumia Knott (Kwantlen First Nation)

Treasurer & Secretary, SSIGA

<Original signed by>

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ⁱ Kehoe, L. J., J. Lund, L. Chalifour, Y. Asadian, E. Balke, S. Boyd, D. Carlson, J. M. Casey, B. Connors, N. Cryer, M. C. Drever, S. Hinch, C. Levings, M. MacDuffee, H. McGregor, J. Richardson, D. C. Scott, D. Stewart, R. G. Vennesland, C. E. Wilkinson, P. Zevit, J. K. Baum, and T. G. Martin. 2020. Conservation in heavily urbanized biodiverse regions



requires urgent management action and attention to governance. Conservation Science and Practice. Retrieved from: <https://doi.org/10.1111/csp2.310>.

ⁱⁱ Kehoe, et al.; 2020.

ⁱⁱⁱ Retrieved from: <https://www.epa.gov/salish-sea/chinook-salmon>

^{iv} Retrieved from: <https://www.epa.gov/salish-sea/executive-summary-health-salish-sea-report>

^v Kehoe, et al.; 2020.

^{vi} Morin, J., and Evans, A.B. 2022. Historical Ecology in Burrard Inlet: Summary of Historic, Oral History, Ethnographic, and Traditional Use Information. Fisheries Centre Research Report 30 (2); p5. Retrieved from: <https://fisheries.sites.olt.ubc.ca/files/2022/03/FCRR30-2-CollatedM3b.pdf>

^{vii} Ibid (Morin and Evans, 2022).

^{viii} Taft, S., Oldford, G., Lilley, P.L., Oetterich, S.B., Morin, J., George, M., George, M., and Christensen, V. (2022). Reconstructing the pre-contact shoreline of Burrard Inlet (British Columbia, Canada) to quantify cumulative intertidal and subtidal area change from 1792 to 2020. Fisheries Centre Research Report 30(1); p4. Retrieved from: <https://fisheries.sites.olt.ubc.ca/files/2022/03/M8-FCRR30-1-Collated.pdf>

^{ix} Ibid (Taft, et al., 2022) and as summarized by the Tsleil-Waututh Nation here: <https://twnsacredtrust.ca/wp-content/uploads/2022/03/Overview-of-recent-research-on-cumulative-effects-in-Tsleil-Waututh-territory-March-2022-2.pdf>

^x Rao, A.S. (2022). A review of Burrard Inlet water quality data to understand the impacts of contamination on Tsleil-Waututh Nation's safe harvesting practices. Tsleil-Waututh Nation Research Report; p12. Retrieved from: https://twnsacredtrust.ca/wp-content/uploads/2022/03/20220210_Contaminants-impacts-on-TWN_Formatted.pdf

^{xi} Ibid (Rao, 2022; p12).

^{xii} Ibid (Rao, 2022; p14)

^{xiii} <https://www.taramartin.org/research/fraser-river-estuary-priority-threat-management/>

^{xiv} Marshall, D. (1998). Watershed management in British Columbia: The Fraser Basin experience. In *Environments* (Vol. 25, p. 64). Geography and Environmental Studies: Wilfrid Laurier University.

^{xv} Raincoast Conservation Foundation. 2016. Our Threatened Coast: Nature and Shared Benefits in the Salish Sea. Retrieved from: <https://www.raincoast.org>