

## **DRAFT PROVINCIAL PROCESS ORDER**

for the Deltaport 4 Project

Reviewer and organisation: Metro Vancouver

Date submitted to EAO: January 7, 2022

Section	Comment	Comment Rationale/ Additional Resources
	There is a concern around dredging. Previous correspondence with the Port indicated that they were considering using Fraser River dredge sand to expand the area of Deltaport. Dredging on the Fraser alters the scour pattern around MV pipe crossings. Please confirm if the Proposed Deltaport 4 will trigger dredging in the Fraser River.	
	This was captured in previously submitted comments, but to reiterate: A complete review of any proximal impacts to Metro Vancouver's infrastructure must be done within the full boundary of the overall Project and any activities (marine dredging, excavation, preloading, pilings, large equipment, etc.).	

## **DRAFT JOINT GUIDELINES**

for the Deltaport 4 Project

Reviewer and organisation: Metro Vancouver

Date submitted to EAO: January 7, 2022

Section	Comment	Comment Rationale/ Additional Resources
1.2	<ul style="list-style-type: none"> <li>In Section 1.2, <i>Project Location</i>, in addition to a description and location of potable drinking water sources, the location and size of the water service for the site should be identified.</li> </ul>	
2.1.2	<ul style="list-style-type: none"> <li>In Section 2.1.2 <i>Onshore Components</i>, in addition to the source of drinking water, the list should include the <i>change in the amount of drinking water required for both construction and operations</i>.</li> </ul>	
10.3.1	<ul style="list-style-type: none"> <li>In Section 10.3.1 <i>Relevant Statutes, Policies and Frameworks</i>, Metro Vancouver's Proximal Works should be included.</li> </ul>	
10.3.2	<ul style="list-style-type: none"> <li>In Section 10.3.2 Assessment Boundaries, regionally, the Metro Vancouver boundary should be considered.</li> </ul>	
Table A1.5	<ul style="list-style-type: none"> <li>Table A1.5 – to expand on 'domestic water supply', any significant change in domestic water demand should be considered.</li> </ul>	
9.4.3	Key receptors should also include sensitive and vulnerable population and locations such as schools, daycares, senior care facilities, recreation facilities, hospitals etc.	
9.4.3, 11.1, 17	<p>Metro Vancouver is in the process of developing photochemical modelling guidance. Given the size of the project and the associated emissions, the proponent should consider conducting photochemical modelling in order to evaluate the project's contribution to the formation of ground level ozone and secondary particulate matter. This should be considered prior to the air quality assessment work that is done as part of the development of the Application.</p> <p>As the project will emit into the Lower Fraser Valley Airshed, a detailed air dispersion modelling plan should be submitted to Metro Vancouver for review and comments <b>prior</b> to commencing dispersion</p>	

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	modelling. The dispersion modelling must follow the most recent BC Air Quality Dispersion Modelling Guidelines. Special care should be taken in developing a robust receptor grid which includes all relevant sensitive receptors in addition to the standard grid. Coordination between the air quality modelling team and the human health impact assessment team is crucial to ensure that the relevant receptors used by the human health impact assessment are included in the air dispersion model. Metro Vancouver detailed modelling plan template can be found here: <a href="http://www.metrovancouver.org/_layouts/download.aspx?SourceUrl=http://www.metrovancouver.org/services/Permits-regulations-enforcement/PermitRegulationEnforcementPublications/MVDispersionModellingPlan.docx">http://www.metrovancouver.org/_layouts/download.aspx?SourceUrl=http://www.metrovancouver.org/services/Permits-regulations-enforcement/PermitRegulationEnforcementPublications/MVDispersionModellingPlan.docx</a>	
8.3.1	Supply chain emissions (emissions associated with incidental physical activities) should be included in the dispersion modelling as they are a direct result of the project and will have a large contribution to the overall emissions associated with the project. Initial assessment of the project suggests that there will a significant increase in truck traffic, rail and shipping. This should be considered prior to the air quality assessment work that is done as part of the development of the Application.	
8.3.1	The air quality modelling should be set up so that the impact of the different sources can be better understood. For example, NOx emission from tug boats, cargo-handling equipment, marine vessels etc. for each scenario should be run independently to better understand the impact of each of these sources.	
Throughout (e.g. Section 8.8, 8.9, 8.10)	The document refers to several cumulative effect-related guidance documents that are out-of-date. For example, page 45 states that “ The proponent can refer to the approach described in the Agency’s guidance documents related to cumulative effects, including “ <a href="#">Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act (2012)</a> ”. The best practices described in this document also apply to the assessment of cumulative effects under the IAA.” Metro Vancouver requests that the Agency update the guidance documents mentioned as soon as possible to reflect new legislation and the continuous improvement of best practices.	
Section 9.4.4 and Appendix 1	Page 55 states that the Impact Statement must “assess the potential for emissions and resulting air contaminant dry and wet deposition from the project to contribute to acid deposition and exceedances of	

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	<p>critical loads for terrestrial and aquatic ecosystems” and “assess effects to receiving environment through:</p> <ul style="list-style-type: none"> <li>- comparison with ambient standards, including the CAAQS. The assessment against CAAQS should be based on the principles of “keeping clean areas clean” and continuous improvement, and in the context of air sheds and air zones with the Air Quality Management System;</li> <li>- comparison with critical thresholds (consider current, historical loadings, buffering capacity, including Acid Deposition Critical Loads);</li> <li>- - comparison with sensitive ecological receptors (consider effects thresholds of species in question); and...”</li> </ul> <p>Yet the assessment of air contaminants or acid deposition impacts on the receiving environment are not mentioned under any proposed valued component or element described in Tables A1.1, A1.2, or A1.3. Metro Vancouver requests the addition of ‘the receiving environment’ as an element or valued component.</p>	
Section 9.11.5 Mitigation and Enhancement Measures – Invasive species	<p>Page 80 states: “describe the vegetation standards and controls that will be deployed during construction and operation of the project:</p> <ul style="list-style-type: none"> <li>- describe and justify the measures allowing identification of invasive species or other undesirable introduced species, avoid their propagation and control them during all phases of the project, including the necessity of preconstruction surveys to identify any high density areas;</li> <li>- identify the criteria and circumstances of application of chemical, biological or mechanical control methods as well as the relevant regulations and determine the adverse effects associated with control methods; and</li> <li>- describe the selection of plant species to be conserved and planted in order to promote vegetation communities with low natural growth;”</li> </ul> <p>Metro Vancouver requests the additional of a sub-bullet or rewording the existing bullets to include mention of prevention measures. For example:</p> <ul style="list-style-type: none"> <li>- describe measures that will be taken to <u>prevent</u> the introduction and spread of invasive species (e.g. selection of non-invasive plant species, cleaning and disinfecting equipment, use of weed-free soil).</li> </ul>	

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	Please include reference to local best practices for managing priority invasive species in the Metro Vancouver region: <a href="http://www.metrovancouver.org/services/regional-planning/conserving-connecting/invasive-species/Pages/default.aspx">http://www.metrovancouver.org/services/regional-planning/conserving-connecting/invasive-species/Pages/default.aspx</a>	
Section 11.4 and Appendix 5 – Resources and guidance, Human Health	<p>Page 112 states that “a dedicated Health Impact Assessment must be completed”. Consider adding regional HIA guidance to Appendix 5:</p> <ul style="list-style-type: none"> <li>• <a href="#">Health Impact Assessment (HIA) of Transportation and Land Use Activities: Guidebook</a> provides a structured approach for planners and policy-makers to evaluate the potential health-related outcomes of an activity (i.e., a project, plan, or policy) before it has been built or implemented. The Guidebook also provides links to data sources, local and provincial resources, and examples.</li> <li>• A companion document for the HIA Guidebook, <a href="#">Health Impact Assessment (HIA) of Transportation and Land Use Activities: Toolkit</a> provides templates, checklists and worksheets to streamline the HIA process.</li> </ul>	
Section 17.1	<p>Metro Vancouver staff concurs that regional-scale modelling of traffic-related impacts (congestion, noise, air quality, and associated human, ecosystem health, and economic impacts) associated with road and rail activities outside the proponent’s lease boundaries should be included in the assessment.</p> <p>.</p>	
Appendix 1	<p>Metro Vancouver again requests that air quality be included as a valued component (VC). While human health is often used as the valued component with air quality being an intermediate component, previous assessments have demonstrated the irreversible impacts that air quality has on both human health and the receiving environment. Having only human health as a valued component does not accurately capture the possible impacts of degraded air quality. Metro Vancouver also has a new air quality management plan, the Clean Air Plan, which outlines the various actions related to air quality management that will be occurring in the region over the next decade.</p> <p>Table A1.3 states “Assessed via pathway to Human Health” which Metro Vancouver disagrees with as a reason to exclude air quality as a valued component. For example, degraded visual air quality can have a negative impact on the overall wellbeing of the region but will not be assessed in the human health risk assessment. Air quality also has direct impacts on the broader environment via deposition which can</p>	

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	<p>impact marine life, water quality and vegetation. Air quality objectives are meant to be protecting of human health and the environment. Other environmental assessments have included air quality as a Valued Component.</p> <p>Table A1.4: Note that a 10km modelling domain would be considered insufficient for a project of this size. As noted elsewhere, the modelling domain will be determined during the dispersion modelling plan phase of the project. At a minimum, the dispersion modelling domain should include the entire RAA though this should be detailed in the dispersion modelling template. It is not clear from the table what type of analysis will be done in the LAA vs. the RAA.</p>	
Section 9.4.1, page 52	Please include the Metro Vancouver Ambient Air Quality Objectives and Metro Vancouver Dispersion Modelling Plan.	
Section 9.4.3, page 53	Please include reference to the Metro Vancouver Ambient Air Quality Objectives.	
Section 9.4.3, page 53	In the last bullet, include "regional" along with "provincial or federal standards".	
Section 9.4.4, page 55	A detailed dispersion modelling plan should be submitted to the working group for comment <b>prior</b> to conducting any dispersion modelling.	
Section 9.4.4, page 55	In addition to comparisons to CAAQS, comparison to the Metro Vancouver Air Quality objectives should be done as well.	
Scope of the assessment	Metro Vancouver staff concurs that appropriate modelling of impacts associated with shipping activities beyond the 12 nautical mile limit of the territorial sea of Canada should be included in the assessment. For example, greenhouse gas emissions are global and therefore, any GHG-related impacts induced by the project that are outside of the Canadian emissions boundary should still be considered as part of the environmental assessment.	
Scope of the assessment	The DPD outlines the physical activities incidental to the Project, including marine shipping, truck and rail traffic, and short sea shipping. Metro Vancouver would like to see the emissions impact from these activities included in the environmental assessment. While these activities are outside of the direct scope of the Proponent, this project will directly result in increases of emissions from these incidental physical	

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	activities and so the impact should be assessed. Based on the numbers included in the DPD, vessel calls are expected to increase 14%, rail movements by 38%, truck movements by 83% and other road movements by 72%. This will have a significant impact on air quality and GHG within the Metro Vancouver region and it is absolutely critical that these impacts are quantified and understood. The increases in road traffic will likely have an impact on congestion, which has an adverse impact on air quality and GHG emissions. As noted in the DPD, the common truck routes to and from the terminal extend throughout the entire region. Thus, Metro Vancouver requires more information to assess the impact of these physical activities on the health and safety of residents in our region and our airshed.	
9.14 Climate Change	Metro Vancouver had provided comments on December 16 <sup>th</sup> , 2021 regarding the Draft Technical Guide related to the Strategic Assessment on Climate Change, that would be relevant to this project. See comments attached.	(Attached MV comments on strategic assessment on climate change)
9.14.2	Please include "regional" in the bullet of "a description of other relevant emissions targets, including those of a local, provincial, federal or Indigenous government..."	
14	Effects of environmental conditions should be based on Metro Vancouver climate projections ( <a href="http://www.metrovancouver.org/services/air-quality/AirQualityPublications/ClimateProjectionsForMetroVancouver.pdf">http://www.metrovancouver.org/services/air-quality/AirQualityPublications/ClimateProjectionsForMetroVancouver.pdf</a> ) and BC Preliminary Strategic Climate Risk Assessment for British Columbia ( <a href="https://www2.gov.bc.ca/assets/gov/environment/climate-change/adaptation/prelim-strat-climate-risk-assessment.pdf">https://www2.gov.bc.ca/assets/gov/environment/climate-change/adaptation/prelim-strat-climate-risk-assessment.pdf</a> )	
16.3, 17.1.2 and 17.2.2	Suggest that climate change be added to the list of what the Proponent must consider in the effects assessment.	
Table A1.1	"Climate Change and Greenhouse Gas Emissions" should be included as a Valued Component. While MV understands that Section 9.14 is meant to address the impacts of GHG emissions, it would still be advisable to include Climate Change and Greenhouse Gas Emissions as a Valued Component [VC]. "VC's are those components of the environment, economy, social, health and cultural pillars considered to be important and have the potential to interact with the Proposed Project." Climate Change and Greenhouse Gas Emissions definitely fits this description. There also exists a very comprehensive process for the effects assessment of VC's, which should be utilized to evaluate Climate Change and Greenhouse Gas	

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	Emissions, such as a cumulative effects assessment, identifying residual effects and a clean-up or mitigation strategy. Therefore, it is strongly recommended that Climate Change and Greenhouse Gas Emissions be included as a Valued Component.	
Table A1.4	Climate Change needs to be added into the table with spatial boundaries that would include all incidental physical activities.	



## **DRAFT JOINT PERMITTING REGULATORY COORDINATION PLAN**

for the Deltaport 4 Project

Reviewer and organisation: Metro Vancouver

Date submitted to EAO: January 7, 2022

Section	Comment	Comment Rationale/ Additional Resources
Page 18	<p>Verify with FLNRORD on the chemical control item. The provincial <i>Weed Control Act</i> (WCA) requires land owners/operators to control noxious weeds listed in Schedule A of the Weed Control Regulation. The WCA does not specify control techniques (e.g. prevention, chemical, biological, manual, mechanical, etc.). The provincial <i>Integrated Pest Management Act</i> (administered by the Ministry of Environment and Climate Change Strategy) outlines prohibitions and authorizations associated with chemical control in BC. In some situations, a permit may not be needed, provided the product has been approved for use in Canada (under the federal <i>Pest Control Products Act</i>) and the directions on the product label are followed. Herbicide application near waterbodies may require a pesticide use permit, depending on the active ingredient and distance from high water mark.</p> <p>Some invasive species can be effectively controlled without the use of pesticides. Local best management practices have been developed for the Metro Vancouver region.</p>	<p><a href="#"><u>Weed Control Act</u></a></p> <p><a href="#"><u>Weed Control Regulation – Schedule A</u></a></p> <p><a href="#"><u>Integrated Pest Management Act</u></a></p> <p><a href="#"><u>Pest Control Products Act</u></a></p> <p><a href="#"><u>Best management practices for invasive species in the Metro Vancouver region</u></a></p>

December 16, 2021

File: CP-10-01

Environment and Climate Change Canada  
Strategic Assessment of Climate Change – Draft Technical Guide  
351 boul. St-Joseph, 12th floor  
Gatineau, QC K1A 0H3  
**VIA EMAIL: [escc-sacc@ec.gc.ca](mailto:escc-sacc@ec.gc.ca)**

Dear Sir/Madam:

**Metro Vancouver Staff Comments on Environment and Climate Change Canada's Technical Guide  
on the Strategic Assessment of Climate Change**

Metro Vancouver staff are pleased to submit comments on Environment and Climate Change Canada's Technical Guide on the Strategic Assessment of Climate Change.

**Air Quality Planning and Management in Metro Vancouver**

Metro Vancouver manages air quality and the discharge of air contaminants in the Metro Vancouver region under authority delegated by the Province of British Columbia. Under that authority, Metro Vancouver develops and implements plans, policies, regulations, and projects that improve air quality and reduce greenhouse gas emissions. Metro Vancouver's *Clean Air Plan*<sup>1</sup>, adopted in September 2021, is the regional plan for managing air quality and greenhouse gases over the next 10 years, and in doing so, will support the 30-year commitment to a carbon neutral region by 2050. Regional plans and policies are supported by comprehensive monitoring of outdoor air quality and tracking of emissions in the Lower Fraser Valley, which is an air zone under the Canadian-Wide Air Quality Management System.

**Comments on the Technical Guide**

The attached comments present the views of Metro Vancouver staff, and have not been reviewed or endorsed by the Metro Vancouver Board of Directors. Metro Vancouver appreciates the opportunity to provide feedback on "Environment and Climate Change Canada's Technical Guide on the Strategic Assessment of Climate Change" and hopes Environment and Climate Change Canada will give consideration to these comments.

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<sup>1</sup> <http://www.metrovancover.org/services/air-quality/AirQualityPublications/Clean-Air-Plan-2021.pdf>

If you have any questions, please contact Shelina Sidi, Senior Project Engineer, Air Quality and Climate Change, by phone at <sup><contact information removed></sup>, or by email at <sup><email address removed></sup>.

Sincerely,

<Original signed by>

Conor Reynolds, P.Eng.  
Division Manager, Air Quality and Climate Change Policy

CR/sms

Attachment: Metro Vancouver Comments on Environment and Climate Change Canada's first draft technical guide on the Strategic Assessment of Climate Change (SACC) (Doc# 49358606)

## ATTACHMENT

### **Metro Vancouver Comments on Environment and Climate Change Canada's first draft technical guide on the Strategic Assessment of Climate Change (SACC)**

- It is suggested that downstream emissions should be included within the scope of the SACC. While these emissions may not impact Canada's ability to meet its climate change commitments, it can impact the ability of Canadian provinces, territories, and municipalities, as well as other nations to meet global climate change commitments, and therefore, the reduction of adverse effects associated with these emissions are in the Canadian public interest.
- It is suggested that additional requirements be included when allowing proponents to develop a net-zero plan in accordance with their operation capacity versus their maximum design capacity. The proponent must reasonably demonstrate that they would not reach their maximum design capacity during the lifetime of the project, and the emission controls they propose should reflect this requirement. The proponent must also justify reasons or provide evidence that maximum design capacity of the project would unlikely be reached, and therefore, a net-zero plan based on operation capacity would reasonably consider the maximum amount of greenhouse gas emissions resulting from the proposed project.
- It is suggested that the avoided domestic greenhouse gas (GHG) emissions not be factored into the net GHG emissions calculation, and should instead be considered in a more qualitative manner, similar to how a discussion of how a project could impact global GHG emissions is included in Section 5.1.3 of the SACC. Climate policy is continually evolving and it is becoming increasingly difficult to determine what actions would be incremental to the existing policy framework. Taking the example where emissions reductions from replacement of existing equipment with more energy-efficient equipment on the project site would be counted towards the avoided domestic GHG emissions total: given that the federal government has signaled a plan to increase the carbon tax to \$170/tonne, industrial facilities will already be looking for ways to reduce their energy use to mitigate the impacts of the increasing carbon tax on their operations. In this example, it would be very difficult to assess whether the proponent would have completed equipment upgrades to mitigate the impacts of increasing carbon tax regardless of their proposed project, or whether they are truly completing equipment upgrades because they are attempting to balance their emissions from their proposed project. In the case of the former, there would be double-counting, as these emission reductions would already be accounted for within *A Healthy Environment and a Healthy Economy* plan, and would hinder the Government of Canada's ability to meet its commitments with respect to climate change. While it is acknowledged that the proponent is required to "take into account announced measures and market conditions", the burden of analysis required to validate a proponent's assertions regarding whether emissions are additional is high, and difficult for technical advisors to undertake. This could lead to emission estimates that are overly optimistic, which is counter to the SACC principle that emissions estimates should strive to be conservative.
- It is suggested that additional requirements be added to verify carbon capture and storage amounts during the life of the project. If the actual sequestration is less than originally estimated by the proponent, there needs to be a mechanism to ensure that the proponent reduces their emissions appropriately over the life of the project to make up for any gap.
- It is suggested that corporate-level initiatives should not be factored into offset measures. The standard of proof required of offset credits cannot be replicated for corporate-level initiatives

and therefore, should not be treated as an equivalent measure to offset emissions. Similar to the comment above regarding the difficulties around verifying whether avoided domestic GHG emission projects are additional, it is also difficult to assess whether corporate-level initiatives are additional or not.

- It is suggested that a comprehensive risk analysis, which would include analysis of probability and severity of event, as well as climate projections, accommodate the “Possible Accident or Malfunction” section. As climate change impacts grow in severity and frequency, potential for accidents or malfunctions will increase and this needs to be considered as part of the project impact assessment.
- It is suggested that the Government of Canada provide a list of technologies and practices that should be included in the BAT/BEP Step 5 by default, after conducting stakeholder engagement on this list. This will minimize the level of effort for the BAT/BEP determination process required of proponents and give an opportunity for stakeholders and subject matter experts to provide input on the best available emission reduction technology and market trends. While it would be difficult to catalogue all the technologies from every possible application, some technologies are relatively common and commercially proven, such as electric heating and electric compressors, which can reduce emissions in areas of the country where the grid has a low emissions factor.
- It is suggested that within the economic feasibility assessment, one of the benchmarks used for assessing economic feasibility is the social cost of carbon, which is currently being updated by the Government of Canada. As noted in the Regulatory Impact Assessment of the Clean Fuel Standard, the Government of Canada noted that academic literature has estimated the social cost of carbon between \$135 and \$440/tonne CO<sub>2</sub>. As the social cost of carbon is an estimate of the societal damages associated with a tonne of carbon emissions, it would be fair, and true to the principle of polluter pays, to require that proponents invest in technology that reduces carbon at equivalent to or less than the social cost of carbon, in order to avoid the societal damages that would be caused by their emissions.
- It is recommended that the net-zero plan require that projects are net-zero at commissioning, and not by 2050. Canada has made significant emission reduction commitments, including a 40-45% reduction target by 2030. This is already a very difficult task, without addition of any new, significant emission sources. Any new projects that add GHG emissions will likely hinder Canada’s ability to meet its 2030 target, as they will add to Canada’s total emissions inventory. While technology does not exist to decarbonize all emission sources, proponents should be doing all that is technically feasible, and offset any remaining emissions, starting from when the project is operational. Only in this manner would new emission sources not hinder Canada’s ability to meet its commitments to 2030 and 2050 targets.
- It is suggested that in Section 3.4.4 and 3.5.4 – GHG Legislation, Policies and Regulations, municipal and regional GHG legislation be added to the list.
- It is recommended that the Net-Zero Plan should apply to upstream emissions. If a project is indirectly contributing to significant upstream emissions, the Proponent should also be then working on actions that reduce the impact of those emissions, as it will hinder the Government of Canada’s ability to meet its commitments with respect to climate change. Assuming the upstream emissions are associated with sources within Canada, the proponent should be looking at ways to reduce those emissions to 0 tonnes CO<sub>2eq</sub> as part of their Net-Zero plan to meet Canada’s net-zero commitment.

- It is recommended that the upstream GHG threshold of 500 kt CO<sub>2eq</sub>/year for 2020-2029 be reduced. Projects will emit for at least 10 years and therefore upstream emissions need to be assessed relative to greenhouse gas reduction targets in 2030. In BC, modelling for BC's sectoral targets project that with aggressive climate policy in place, emissions from the oil and gas sector will be 7.9 Mt CO<sub>2eq</sub> in BC. A GHG threshold of 500 kt CO<sub>2eq</sub>/year equates to 6.3% of the targeted oil and gas sector emissions in 2030. This would be a significant amount of emissions from a single project that would not be considered as part of the impact assessment. A more appropriate GHG threshold would be 1% of the targeted sector's emissions in 2030, which would be ~79,000 tonnes CO<sub>2eq</sub>/year in the case of the oil and gas sector in 2030. This amount should decline appropriately to a threshold of 0 kt CO<sub>2eq</sub>/year by 2050 and beyond.