



Environmental Protection Operations Directorate
Pacific and Yukon Region
101-401 Burrard St
Vancouver, BC V6C 3R2

August 10, 2020

Quincy Leung
Project Manager, Impact Assessment Agency of Canada
210A – 757 West Hastings Street
Vancouver, BC V6C 3M2

Dear Mr. Leung:

Re: Surrey Langley SkyTrain – Designation Request Federal Authority Advice Record

Environment and Climate Change Canada (ECCC) received a request from the Impact Assessment Agency of Canada (the Agency) on July 31th to provide input on the designation request for the Surrey Langley SkyTrain Project (the Project). The Agency provided a Federal Authority Advice Record (FAAR) form to use in response.

Attached is ECCC's response to the request, which is founded upon departmental mandate and is related to: migratory birds and their habitat, species at risk, water quality, air quality, GHGs, and environmental emergencies. Applicable legislation related to this Project under ECCC's authority include, but are not limited to:

- *Canadian Environmental Protection Act, 1999;*
- *Migratory Birds Convention Act, 1994;*
- *Fisheries Act; and*
- *Species at Risk Act.*

If you have any questions or concerns regarding the advice provided in the attached, please do not hesitate to contact Chelsey Cameron at 236-427-6056 or Chelsey.Cameron@canada.ca.

Sincerely,

<Original signed by>

Chelsey Cameron
Senior Environmental Assessment Coordinator
Environment and Climate Change Canada / Government of Canada

Attach. (1): Environment and Climate Change Canada FAAR Response

ENCLOSURES:

Federal Authority Advice Record: Designation Request under the *Impact Assessment Act* Response due by August 10, 2020

Surrey Langley SkyTrain- South Coast British Columbia Transportation Authority

Department/Agency	Environment and Climate Change Canada (ECCC)
Lead Contact	Chelsey Cameron, Senior Environmental Assessment Project Manager
Full Address	<Address>
Email	<Email Address>
Telephone	<Phone>
Alternate Departmental Contact	

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1. Has your department or agency considered whether it has an interest in the Project; exercised a power or performed a duty or function under any Act of Parliament in relation to the Project; or taken any course of action (including provision of financial assistance) that would allow the Project to proceed in whole or in part?

Specify as appropriate.

ECCC has not exercised a power or performed a duty or function under any Act of Parliament in relation to the Surrey Langley SkyTrain (the Project), nor has ECCC taken any course of action that would allow the Project to proceed in whole or in part.

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2. Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?

If yes, specify that power, duty or function and its legislative source.

ECCC does not expect that it will be required to exercise a power or perform a duty or function related to the Project to enable it to proceed, based on the Table of Key Environmental Licences, Permits, and Approvals for the Project, provided by the Proponent.

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3. If your department or agency will exercise a power or perform a duty or function under any Act of Parliament in relation to the Project, will it involve public and Indigenous consultation?

Specify as appropriate.

If the department is required to exercise a power or perform a duty or function under an Act, then consultation with affected Indigenous groups may be required.

4. Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to any potential adverse effects within federal jurisdiction caused by the Project or adverse direct or incidental effects stemming from the Project?

Specify as appropriate.

ECCC has specialist or expert information in the areas listed below, notably with regard to establishing an adequate baseline, assessing potential effects to biophysical valued components within federal jurisdiction, effectiveness of mitigation measures, methods for monitoring and follow up, as well as information regarding federal policies, standards, and regulations that may be relevant to the assessment.

Air Quality: ambient air quality; sources of emissions; emissions estimation and measurement; dispersion modelling; and follow-up monitoring.

Greenhouse gas (GHG) emissions and climate change: estimations of GHG emissions (net and upstream); GHG mitigation measures and determination of Best Available Technologies/Best Environmental practices (BAT/BEP); climate change science to inform evaluation of potential changes to the environment and project resilience to effects of climate change; climate change policies; and national GHG projections.

Water quality and quantity: surface water quality; contamination sources for surface water; water quality predictions and modelling; management of contaminated soils or sediments; hydrology; geochemistry; follow-up and monitoring.

Wildlife, species at risk, and habitat: migratory birds, their nests, eggs, and habitat; species at risk, their habitat and critical habitat including recovery strategies and management plans; ecological function of wetlands; and ecotoxicology.

Environmental emergencies: emergency management planning and guidance; atmospheric transport and dispersion modelling of contaminants in air; fate and behaviour; and hydrologic trajectory modelling of contaminants in water.

Climate and Meteorology: long-term climate patterns and norms.

5. Has your department or agency had previous contact or involvement with the proponent or other parties in relation to the Project?

Provide an overview of the information or advice exchanged.

ECCC has not had previous contact or involvement with the Proponent or other parties in relation to the Project.

6. From the perspective of the mandate and area(s) of expertise of your department or agency, does the Project have the potential to cause adverse effects within federal jurisdiction or adverse direct or incidental effects as described in section 2 of the Impact Assessment Act? Could any of those effects be managed through legislative or regulatory mechanisms administered by your department or agency? If a licence, permit, authorization or approval may be issued, could it include conditions in relation to those effects?

Specify as appropriate.

Based on the limited information provided, ECCC does not anticipate that any of the potential project effects would fall within existing legislative or regulatory mechanisms administered by the department. However, there is the potential for the project to cause the following adverse effects within federal jurisdiction:

Water Quality and quantity:

The activities linked to the construction, operation, and decommissioning of the Project may have adverse effects on the quality of groundwater and surface water, as well as on the hydrological regimes of watercourses and water bodies.

Constructing watercourse crossings, conducting hydrostatic tests, constructing and maintaining access roads, excavating or reworking of soils, sediments or rocks, and drilling and blasting (if any occurs) may result in the deposit of contaminants to watercourses and water bodies and result in adverse effects on water quality.

Disturbing soils, rock, and streambanks during construction activities may cause erosion and result in deposition of soils and sediments to waterbodies. Soils and sediments can also enter waterbodies through streambed disturbance. These suspended solids can have adverse effects on water quality. Disturbing soil and rock may also result in processes such as acid rock drainage, or metal leaching, which has adverse effects on water quality due to acidification and introduction of metal contaminants into the waterbody.

Contaminants may be introduced into waterbodies through wastewater discharge, groundwater resurgence, or spills resulting in adverse effects on water quality.

The deposition of airborne particulate matter generated by the project could also be a source of surface water contamination.

Water impoundment or withdrawals (for example, for hydrostatic tests) and disturbances to the natural flow of surface water (for example, watercourse crossings) could have effects on the quantity, availability and hydrological regimes of watercourses and waterbodies.

Wildlife, species at risk, and habitat:

The activities linked to the construction, operation, and decommissioning of the Project could have negative effects on terrestrial wildlife resources (wildlife), including migratory birds, protected under the *Migratory Birds Convention Act, 1994* (MBCA), and non-aquatic species at risk (amphibians, arthropods, birds, lichens, terrestrial mammals, mosses, reptiles, and vascular plants) listed on the *Species at Risk Act* (SARA), their habitat, and wetlands.

Individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of species of risk could occur during all project phases, particularly during site preparation. Mortality in migratory birds and species at risk could also occur because of collisions with vehicles or infrastructure related to the project. Oil or chemical spills could also have adverse effects if these substances make their way into the habitats of migratory birds and species at risk. There is a higher risk that these effects would be more severe for migratory birds that are also species at risk and species where habitat is sensitive to disturbance (e.g., wetlands) or where there is already a high degree of cumulative effects to habitat or individuals.

Migratory birds and non-aquatic species at risk could be affected by sensory disturbances during the construction, operation, and decommissioning of the project. Some examples of potential sources of sensory disturbance include noise from various project activities, lights, vibrations from excavation and blasting work and the operation of machinery. The amount, duration, frequency, and timing of noise are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by wildlife and cause avoidance effects in many species.

Wetlands

The activities linked to the construction, operation, and decommissioning of the Project could have negative affects on wetlands and their ecological functions. Carrying out the project, particularly the activities related to construction, may alter the existing hydrological regimes essential for maintaining wetlands and thus to affect the quality or availability of habitat for migratory birds and other wildlife. The destruction and modification of wetlands is likely to cause negative effects on or harm the migratory birds and species at risk that use these areas for breeding and migration, as well as for foraging or resting areas.

Greenhouse Gas Emissions and Climate Change:

The construction, operation, and decommissioning of the Project may result in GHG emissions. Furthermore, the project has the potential to be affected by future climate change, possibly resulting in impacts to the environment. Should the Project be designated, the Strategic Assessment of Climate Change (SACC) would apply. The SACC provides guidance related to climate change throughout the impact assessment process. The SACC outlines information that the Proponent would need to provide, including but not limited to GHG emissions, GHG mitigation measures, and climate change resilience.

Environmental Emergencies: The Project, as proposed, has a risk of fuel and hazardous materials spills during the construction phase. There is the potential for adverse environmental and human-health effects from accidents and malfunctions from the Project. Optimized prevention, preparedness and response measures and systems will be important given the risk of spills of hazardous substances to water. If designated, ECCC may review the risk assessments of accidents and malfunctions to understand their potential geographical extent and consequences.

7. Does your department or agency have a program or additional authority that may be relevant and could be considered as a potential solution to concerns expressed about the Project? In particular, the following issues have been raised by the requestor:
- Use of Linear Induction Motors requires significantly more electrical energy than its alternatives; and
 - Additional greenhouse emissions compared to at-grade transit alternatives.

If yes, please specify the program or authority.

As mentioned in response to question 6, if the Project is designated, the SACC would apply.

8. Does your department or agency have information about the interests of Indigenous groups in the vicinity of the Project; the exercise of their rights protected by section 35 of the *Constitution Act, 1982*; and/or any consultation and accommodation undertaken, underway, or anticipated to address adverse impacts to the section 35 rights of the Indigenous groups?

If yes, please specify.

No, ECCC does not have information about the interests of Indigenous groups in the vicinity of the Project as they relate to the Project.

9. If your department has guidance material that would be helpful to the proponent or the Agency, please include these as attachments or hyperlinks in your response.

The Strategic Assessment of Climate Change (SACC), which can found at:
www.strategiccassessmentsclimatechange.ca

Gevan Mattu

Name of departmental / agency responder

A/Regional Director, Environmental
Protection Operations, Pacific and Yukon
Region

Title of responder

August 10, 2020

Date