

**Federal Authority Advice Record**

**Response due by May 1, 2020**

[Base Mine Extension Project – Suncor Energy Inc.].

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1. 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 the Act of Parliament and that power, duty or function.

Based on the Initial Project Description, 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. Once the scope of the project and of the assessment are established by the Agency, this may change as additional activities or project components could come into scope.

2. Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to the conduct of an impact assessment of the Project?

Specify as appropriate.

ECCC has specialist or expert information that may be relevant to the impact assessment in the areas listed below, notably with regard to establishing an adequate baseline, assessing potential effects to biophysical valued components, 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. Once the scope of the project and of the

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assessment are established by the Agency, this list may change as additional project activities or components could come into scope.

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

**Greenhouse gas emissions and climate change:** estimations of greenhouse gas (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; wastewater, seepage and runoff management; sediment quality; hydrology; 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; ecological function of wetlands; ecotoxicology.

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

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

3. Has your department or agency considered 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 that would allow the Project to proceed in whole or in part?

Specify as appropriate.

Not at this time.

4. Has your department or agency had previous contact or involvement with the proponent or other party in relation to the Project? (for example, enquiry about methodology, guidance, or data; introduction to the project)

Provide an overview of the information or advice exchanged.

As indicated by the proponent (Initial Project Description, section 3) and based on information readily available, ECCC has not had any direct involvement with the proponent or other parties that would be relevant to the assessment of this Project. ECCC has not been in contact with the proponent regarding permitting or authorizations for the project.

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5. Does your department or agency have additional information or knowledge not specified, above?

Specify as appropriate.

Not at this time.

6. From the perspective of the mandate and area(s) of expertise of your department or agency, what are the issues that should be addressed in the impact assessment of the Project, should the Agency determine that an impact assessment is required?

For each issue discussed, provide a concise, plain-language summary that is appropriate for inclusion in the Summary of Issues.

<b>Air Quality</b>
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The construction, operation, and decommissioning of oil sands mines can result in adverse effects on air quality. Open pit surface mining of oil sands requires the operation of large off-road vehicles (shovels and haul trucks) which combust diesel fuel and emit criteria air contaminants, including nitrogen oxides (NO<sub>x</sub>), fine particulate matter (PM<sub>2.5</sub>), volatile organic compounds (VOCs), and sulphur dioxide (SO<sub>2</sub>) to the region's air. The processing of bitumen, including extraction and upgrading, also releases SO<sub>2</sub>, NO<sub>x</sub>, VOCs, and PM<sub>2.5</sub>, as well as polycyclic aromatic compounds (PACs) and metals to the air. Oil sands mining can also result in fugitive emissions of particulate matter from open sources such as roads, storage piles, and the exposed mine face and tailings ponds, resulting in increased concentrations of particulate matter (PM<sub>2.5</sub>, PM<sub>10</sub> & Total Suspended Particulate (TSP)) and visible dust. Exposed surfaces, such as the mine face and tailings ponds, also release VOCs and PACs to the air. Emission of precursor compounds which form secondary organic aerosols (SOAs) can also be a major contributor to PM<sub>2.5</sub> downwind of mining activities.

The emission of air contaminants from oil sands mining activities can result in local and regional degradation of ambient air quality, with potential impacts on human health, as well as on sensitive ecosystem receptors. When contaminants settle out of the air in the surrounding environment, their deposition may result in adverse impacts to terrestrial and aquatic ecosystems. For example, metals and PAC emissions from oil sands activities may result in elevated concentrations of these contaminants in water, soil, flora, and fauna. Emissions of NO<sub>x</sub> and SO<sub>2</sub> may also lead to acidification and potential exceedance of ecosystems' critical loads. Emissions can result in degraded air quality as well as contamination of nearby land and waterbodies, and may impact plants and wildlife, and fish and fish habitat. In addition, emissions of contaminants as a result of this project will add cumulatively to the emissions from other oil sands mining activities, contributing to degradation of air quality in the region.

<b>Summary</b>	
<b>Project activity/action</b>	<b>Issue to be addressed</b>
Operation of large off-road vehicles (shovels and haul trucks)	Diesel fuel combustion emits criteria air contaminants to the region's airshed, including: <ul style="list-style-type: none"> <li>volatile organic compounds (VOCs);</li> <li>fine particulate matter (PM<sub>2.5</sub>);</li> <li>nitrogen oxides (NO<sub>x</sub>)*;</li> <li>sulphur dioxide (SO<sub>2</sub>)*</li> </ul>

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	<p>*NO<sub>x</sub> and SO<sub>2</sub> emissions may also lead to acidification and exceedance of ecosystems' critical loads, degraded air quality, contamination of nearby land and waterbodies, which may impact plants, wildlife, and fish and fish habitat.</p>
Bitumen processing, including extraction and upgrading	<p>Release pollutants to the air:</p> <ul style="list-style-type: none"> <li>• SO<sub>2</sub>;</li> <li>• NO<sub>x</sub>;</li> <li>• VOCs;</li> <li>• PM<sub>2.5</sub>;</li> <li>• polycyclic aromatic compounds (PACs); and</li> <li>• metals</li> </ul>
Open sources such as roads, storage piles, and the exposed mine face and tailings ponds	<p>Release VOCs and PACs to the air.</p> <p>Release particulate matter to the air including PM<sub>2.5</sub>, PM<sub>10</sub>, Total Suspended Particulate (TSP) and visible dust.</p> <p>Emission of precursor compounds which form secondary organic aerosols (SOAs); SOAs contribute additional PM<sub>2.5</sub> downwind of mining activity.</p>
All project activities which produce air pollutant emissions	<p>Emission of contaminants from all project activities, including metals and PAC emissions, settle out of the air into the surrounding environment. When these pollutants settle, they can increase in concentration in water, soil, flora, and fauna, causing potentially adverse impacts to ecosystems.</p> <p>Emissions from this project will add cumulatively to the emissions from other oil sands mining activities in the region.</p>

**Greenhouse Gas Emissions and Climate Change**

As the Project may result in greenhouse gas (GHG) emissions and climate change, the draft Strategic Assessment of Climate Change (SACC) provides interim guidance related to climate change throughout the impact assessment process. The draft SACC outlines information that the Proponent should provide during the impact assessment process on GHG emissions, GHG mitigation measures, and climate change resilience; the circumstances in which an upstream GHG assessment will be required; and when additional information such as a determination of the best available technology/best environmental practice (BAT/BEP) will be required.

The specific information on GHG emissions and climate change to be included in the impact statement will be outlined in the Tailored Impact Statement Guidelines (TISG).

Net GHG Emissions

The Proponent provided an annual estimate of GHG emissions in section 23 of the Initial Project Description. The Proponent has estimated that the project will emit three million metric tons of CO<sub>2</sub>

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equivalent annually over the life of the project based on modelled estimates for other Suncor operations. For this estimate, ECCC recommends the Proponent to include in the detailed project description clarification on the scope of activities included in the estimate, an estimate of GHG emissions for each phase of the project (i.e. construction, operation and decommissioning), and methodology, data, emission factors and assumptions used to quantify annual GHG emission estimates. Section 3.1 of the draft SACC provides guidance on how to quantify GHG emissions from a project.

The project is expected to operate from 2030 to 2055, therefore, the project's expected GHG emissions are not aligned with the long-term goal of the Government of Canada to achieve net-zero emissions by 2050.

### GHG Mitigation Measures

The Proponent states that they are “continuing to evaluate new technologies for commercialization...” as a GHG mitigation measure (Initial Project Description, section 12). ECCC encourages the Proponent to describe the technologies and practices under consideration to reduce GHG emissions. The TISG will confirm, but is very likely the proponent will be asked to conduct a best available technologies and best environmental practices determination during the impact assessment phase.

### Alternatives to the Project/Alternative Means

ECCC understands that the Project is closely tied to the existing Base Mine operations, and will utilize existing infrastructure for part of the operations. ECCC recommends that the Detailed Project Description provides a robust discussion for the alternatives to the project listed in the Initial Project Description, and the rationale of why the current approach was selected. ECCC also recommends that Suncor provides a discussion and assessment of alternative means to carry out the project, including any technologies and processes considered and justification for the ones chosen.

### Climate Change Resilience

The Project has the potential to be affected by future climate change, possibly resulting in impacts to the environment; the project's resilience to such potential changes will be part of the impact assessment. Given that the lifetime of the proposed Project is greater than 25 years (including post-closure), climate change considerations are relevant. There is potential for climate change to affect the Project which, in turn, may have impacts on the surrounding environment (e.g. through accidents or malfunctions). Climate change in the Project area such as possible changes in mean and extreme precipitation and temperature and related environmental conditions, may alter baseline conditions, with implications for climate sensitive aspects of project design and associated effects on the environment.

Additional details on project components and design are required in order to adequately determine what climate change aspects the proponent needs to address and consider in their impact assessment. This should include additional information on tailings management, water management and post-operation closure plans.

Further information can be found in the draft Strategic Assessment of Climate Change (SACC).

(<https://www.canada.ca/en/services/environment/conservation/assessments/environmental-reviews/get-involved/draft-strategic-assessment-climate-change.html#toc32>).

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Below are the main GHG and climate change issues:

- The project would emit approximately 3 MT of CO<sub>2</sub> e per year;
- As the project is expected to operate from 2030 to 2055, the Proponent will need to demonstrate how they will achieve net-zero emissions by 2050
- The project may have impacts on carbon sinks.

<b>Summary</b>	
<b>Project activity/action</b>	<b>Issue to be addressed</b>
Annual estimate of GHG emissions	<p>Provide an estimate of GHG emissions for each phase of the project (i.e. construction, operation and decommissioning).</p> <p>Clarify the scope of activities included in the estimate.</p> <p>Provide methodology, data, emission factors and assumptions used to quantify annual GHG emission estimates.</p>
Continuing to evaluate new technologies for commercialization as a GHG mitigation measure	<p>Provide an assessment of best available technologies and best environmental practices that will be implemented.</p>
Project is an expansion of base mine operations and will use existing infrastructure for part of the proposed expansion	<p>Provide a detailed description of project alternatives identified in the Initial Project Description.</p> <p>Identify, describe in detail, and evaluate alternative processes, methods, and technologies, as well as rationale for selection of the current approach.</p>
Future climate change, possibly resulting in impacts to the environment (e.g. through accidents or malfunctions)	<p>Given that the lifetime of the proposed Project is greater than 25 years (including post-closure), climate change considerations are relevant.</p> <p>Future climate change (such as changes in mean and extreme precipitation, temperature, etc.) may alter baseline conditions, with implications for climate sensitive aspects of project design and associated effects on the environment.</p> <p>Additional details on project components and design are required to adequately identify aspects of climate and climate change the proponent needs to consider in their impact assessment. This should include additional information on tailings management, water management and post-operation closure plans.</p>

**Water Quality and Quantity**

Key activities that will occur during the construction and operation phases of the Project would typically include muskeg dewatering, overburden dewatering, land clearing, soil salvage, stream flow diversion and Basal Aquifer depressurization. These activities involve extensive use of heavy equipment, as well as surface alterations, and could result in the introduction of particulate matter through dust and surface erosion, as well as the potential for release of hydrocarbons and processing-related contaminants to groundwater or surrounding waters, resulting in adverse effects on water quality.

The Project will result in the production of process-affected water, which could potentially enter groundwater through seepage from the tailings disposal areas, and transport contaminants to the Athabasca River.

Mining activities will alter the groundwater and water table elevation, by depressurization of the basal aquifer and dewatering of the surficial deposits. This may result in the formation of a groundwater drawdown cone within the surficial deposits during active mining of the pits, affecting the quantity of water held within the groundwater system in and around the project area.

Project activities may change stream flows and water levels due to excavation. Surface water flows will be altered by the loss of the Beaver Creek and Poplar Creek Reservoirs. Changes in flow could result in changes to geomorphology and suspended solid concentrations in surface waters. Alteration of the Beaver River and Poplar Creek watersheds may affect water and sediment quality in the receiving environment.

To fully assess the effects of the Project, information will be required on tailings management within the project footprint, and should include details of treatment and final configuration. Closure details will also be needed, and should indicate whether the reclaimed mine area will include pit lakes, and evidence whether they would be viable, as this could directly affect water quality in downstream water bodies.

Cumulative effects on the aquatic receiving environment need to be assessed with consideration of the effects of existing and approved developments in combination with the Project. The cumulative effects assessment should include water quality and quantity on an appropriate spatial scale, and include contributions from air emissions.

<b>Summary</b>	
<b>Project activity/action</b>	<b>Issue to be addressed</b>
Construction and operation phases: muskeg dewatering, overburden dewatering, land clearing, soil salvage, stream flow diversion and Basal Aquifer depressurization	Introduction of particulate matter through dust and surface erosion. Potential for release of hydrocarbons and process-related contaminants to groundwater or surrounding waters. Adverse effects on water quality.
Production of process-affected water	Potential for contaminants to enter groundwater through seepage from the tailings disposal areas. Potential for transport of contaminants to the Athabasca River.
Mining activities including depressurization of the basal	Formation of a groundwater drawdown cone within the surficial deposits during active mining of the pits. Changes to water quantity

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aquifer and dewatering of the surficial deposits	within the groundwater system. Alteration of groundwater and water table elevation
Change in stream flows and water levels due to excavation	Alteration of surface water flows. Loss of Beaver Creek and Poplar Creek Reservoirs.  Changes to geomorphology and suspended solid concentrations in surface waters. Alteration of the Beaver River and Poplar Creek watersheds may affect water and sediment quality in the receiving environment.
Tailings Management	Requires further details of treatment and final configuration to evaluate potential issues.
Closure	Closure details required to understand whether the reclaimed mine area will include pit lakes and viability of closure plan. Closure may directly affect water quality in downstream water bodies.
Cumulative Effects: existing and approved developments	Cumulative effects on the aquatic receiving environment need to be assessed with consideration of the effects of existing and approved developments in combination with the Project. The cumulative effects assessment should include water quality and quantity on an appropriate spatial scale, and include contributions from air emissions.

**Wildlife, species at risk, and habitat**

Migratory Birds

Under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations, all migratory birds, eggs and nests are protected wherever they occur, including those that are species at risk. Further, the MBCA prohibits the deposit of a substance harmful to migratory birds in waters or an area frequented by migratory birds. To minimize the possibility of contravening the law, proponents must understand the potential effect(s) of their activities on migratory birds, nests, and eggs and implement appropriate avoidance and mitigation measures. Information on how proponents can avoid harm to migratory birds can be found on the Government of Canada’s website under “Avoiding harm to migratory birds” (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>).

The construction of the Project and its associated infrastructure will result in the removal of habitat important for nesting, foraging, staging, and overwintering migratory birds. The Project has the potential to harm or kill migratory birds if site disturbance or vegetation removal is undertaken during the nesting season. Construction and operation of tailings ponds, wastewater, or other ponds that contain process liquids may contain substances harmful to migratory birds. Birds that land on and/or frequent waste water (e.g., submerged tailings in tailings ponds, pit water) have the potential to come into contact with toxic substances which can result in on and off site mortality. Although adverse direct effects to migratory birds and their nests are typically managed through appropriate scheduling of activities outside of the breeding season, collisions with vehicles and associated infrastructure can result in direct mortality of wildlife. Noise, vibrations and light from construction and operation activities, as well as the presence of workers, may make adjacent

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habitats unsuitable for use by wildlife and cause avoidance effects in many species. Attraction to lights at night or in poor visibility conditions during the day may cause birds to be disoriented and attracted to lights on project components, or to collide with lit structures or their vertical support structures, resulting in injury or death. The amount, duration, frequency, and timing of sensory disturbance are important to understand such potential effects.

### Species at Risk

The federal *Species at Risk Act* (SARA) is directed towards preventing wildlife species from becoming extinct or lost from the wild, helping in the recovery of species that are at risk as a result of human activities, and promoting stewardship. The Act prohibits the killing, harming or harassing of listed species; the damage and destruction of their residences; and the destruction of critical habitat. The prohibitions apply to all Threatened, Endangered and Extirpated species listed on Schedule 1 of SARA on federal lands. The prohibitions apply only to Migratory Birds (under the MBCA) and aquatic species (under the *Fisheries Act*) on lands that are not federal lands, unless an Order is made.

The Project has the potential to kill or harm species at risk present in the Project area if construction activities and vegetation removal is undertaken during key periods such as breeding seasons. 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, maintenance and reclamation. The Project will also displace species at risk through the removal of habitat. Important habitat includes mixedwood and old-growth forest habitat in the project area that may provide breeding habitat for migratory birds and maternal roosting habitat for bats (which are considered residences under SARA), and may potentially be used as travel corridors by other wildlife including species at risk. Riparian wetland areas, such as those found along the Athabasca River and project area tributaries including Poplar Creek, Beaver River, and Cache Creek, harbor unique assemblages of migratory birds as well as plant communities and rare plant species. Riparian areas can also play important roles in maintaining wildlife movements in lease areas adjacent to mine infrastructure and in providing protection to project area ecological processes that support migratory birds and species at risk.

During construction, operation, maintenance and decommissioning, there is the potential for harmful substances to enter or be spilled into the receiving environment that may negatively affect wildlife. Depending on the nature of the release (e.g., toxicity, volume release, exposure pathways), effects to wildlife could be acute, chronic or both.

According to the Initial Project Description, the following migratory bird SARA-listed species have the potential to occur in the Project area: Whooping Crane (Endangered), and Yellow Rail (Special Concern). ECCC advises that Canada Warbler (Threatened), Olive-sided Flycatcher (Threatened), Common Nighthawk (Threatened), Horned Grebe (Special Concern), Western Grebe (Special Concern), Barn Swallow (Threatened), Bank Swallow (Threatened), Evening Grosbeak (Special Concern) also have the potential to occur in the project area. COSEWIC-assessed land bird species occurring within the oil sands areas that are currently considered to be of concern or at risk also include Western Wood-pewee, Least Flycatcher, Pine Siskin, Brewer's Blackbird, Connecticut Warbler, and Blackpoll Warbler. According to the Initial Project Description, the following terrestrial SARA-listed species has the potential to occur in the project area: Boreal Woodland Caribou (Threatened). ECCC advises that non-migratory bird SARA-listed species and terrestrial SARA-listed species including Northern Myotis (Endangered), Little Brown Myotis (Endangered), Western Toad (Boreal Toad) (Special Concern), Short-eared Owl (Special Concern), Wolverine (Special Concern), and Rusty Blackbird (Special Concern) also have the potential to occur in the project area.

### Wetlands

Adequate consideration of wetland ecological and socio-economic functions will be part of the impact assessment of the Project. Considerations will include the protection, enhancement, and

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use of wetland resources according to principles that will assure their highest long-term social, economic, and ecological benefits. The Detailed Project Description should include additional information related to potential impacts of the Project on wetlands, including impacts to wetland functions, direct loss of wetlands and residual effects.

Project construction of mine infrastructure, associated linear infrastructure including powerlines, pipelines, and roads, and surface drainage control systems would modify and displace wetlands, watercourses and waterbodies within the Project area. Carrying out the project, particularly the activities related to construction, will alter water levels and the existing hydrological regimes essential for maintaining wetlands and thus affect the quality or availability of habitat for migratory birds and other wildlife. This may result in adverse effects on wetlands and their ecological functions, thereby also affecting the availability and/or quality of wetland habitat for migratory birds and other wildlife. Destruction and alteration 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.

### Cumulative Effects

Cumulative effects to terrestrial and wetland-dependent SARA-listed bird species based on habitat loss have been noted in other oil sands mines within the region. Changes of habitat associated with oil sands development within the region, coupled with development of pipelines, utility corridors, roads, existing forest harvest strategies, and uncertainty in reclamation success across multiple and on-going project disturbances could have a measurable impact on the levels and variety of wildlife (including migratory birds and species at risk), ecosystems, and ecological processes that exist within this part of Alberta.

<b>Summary</b>	
<b>Project activity/action</b>	<b>Issue to be addressed</b>
Construction of the Project and associated infrastructure	Removal of habitat important for nesting, foraging, staging, and overwintering migratory birds. Potential to harm or kill migratory birds if site disturbance or vegetation removal is undertaken during the nesting season.
Construction and operation of tailings ponds, wastewater, or other ponds that contain process liquids	Birds that land on and/or frequent waste water (e.g., submerged tailings in tailings ponds, pit water) have the potential to come into contact with toxic substances which can result in on and off site mortality.
Construction and operation activities	Collisions with vehicles and associated infrastructure can result in direct mortality of wildlife. Noise, vibrations and light from construction and operation activities, as well as the presence of workers, may make adjacent habitats unsuitable for use by wildlife and cause avoidance effects in many species.
Construction activities, vegetation removal (including, but not limited to, site preparation, maintenance and reclamation), all project phases	<p>Potential to kill or harm species at risk present in the Project area if construction activities and vegetation removal is undertaken during key periods such as breeding seasons. Individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of species at risk. Displacement of species at risk through the removal of habitat.</p> <p>Important habitat includes mixedwood and old-growth forest habitat in the project area that are used/potentially used for</p>

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	<ul style="list-style-type: none"> <li>• breeding habitat for migratory birds</li> <li>• maternal roosting habitat for bats (which are considered residences under SARA)</li> <li>• travel corridors by other wildlife including species at risk</li> </ul> <p>Riparian wetland areas harbor unique assemblages of migratory birds as well as plant communities and rare plant species.</p>
<p>Construction, operation, maintenance and decommissioning</p>	<p>Potential for harmful substances to enter or be spilled into the receiving environment that may negatively affect wildlife. Depending on the nature of the release (e.g., toxicity, volume release, exposure pathways), effects to wildlife could be acute, chronic or both.</p> <p>Potential impacts on wetlands, including impacts to wetland functions, direct loss of wetlands and residual effects.</p>
<p>Construction of mine infrastructure, associated linear infrastructure including powerlines, pipelines, and roads, and surface drainage control systems</p>	<p>Modification and displacement of wetlands, watercourses and waterbodies. Alteration of water levels to the existing hydrological regimes essential for maintaining wetlands. Changes to the quality or availability of habitat for migratory birds and other wildlife.</p> <p>Adverse effects on wetlands and their ecological functions. Availability and/or quality of wetland habitat for migratory birds and other wildlife. Destruction and alteration 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.</p>
<p>Cumulative Effects: oil sands development within the region and development of pipelines, utility corridors, roads, existing forest harvest strategies</p>	<p>Uncertainty in reclamation success across multiple and on-going project disturbances. Measurable impact on the levels and variety of wildlife (including migratory birds and species at risk), ecosystems, and ecological processes that exist in Alberta.</p>

**Environmental Emergencies**

The proposed project includes tailing impoundment areas, mobile equipment, transportation trucks, hazardous waste yards, drainage control systems, several linear features including tailings, bitumen and natural gas pipelines and new administrative and operational facilities. As such, there is potential for adverse environmental effects from accidents and malfunctions, such as a failure of the tailings containment, or spills or leaks from pipelines.

Optimized spill prevention, preparedness and response measures and systems will be important given the risk or releases of hazardous substances to the environment, especially to nearby waterways and environmentally sensitive areas, and uncontrolled releases of explosive gases. ECCC will review the risk assessments of accidents and malfunctions to understand the potential geographical extent and consequences. ECCC will look for reliable modelling for any contaminants spilled to water that informs the Proponent's emergency management plans and associated response measures and capacities for each major type of foreseeable incident.

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<b>Summary</b>	
<b>Project activity/action</b>	<b>Issue to be addressed</b>
Risk or releases of hazardous substances to the environment	Spill prevention, preparedness and emergency response measures and systems, especially for nearby waterways and environmentally sensitive areas.  Potential for uncontrolled releases of explosive gases and hazardous materials

<original signed by>

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Signature

Andrea McLandress

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Name of Departmental / Agency  
Responder

Regional Director, Environmental  
Protection Operations Directorate –  
Prairie and Northern Region

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Title of Responder

May 1, 2020

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Date