

WEBEQUIE SUPPLY ROAD FINAL ENVIRONMENTAL ASSESSMENT REPORT / IMPACT STATEMENT

January 30, 2026

AtkinsRéalis Ref: 661910

SECTION 25:

Project Effects on Canada's
Ability to Meet Its Environmental
Obligations and Its Climate
Change Commitments



WEBEQUIE FIRST NATION

AtkinsRéalis



Contents

25 Project Effects in the Context of Canada’s Ability to Meet Its Environmental Obligations and Its Climate Change Commitments 25-3

- 25.1 Federal Environmental Obligations..... 25-3
 - 25.1.1 Convention on Biological Diversity 25-4
 - 25.1.2 The Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention)..... 25-6
 - 25.1.3 Convention for the Protection of Migratory Birds in the United States and Canada 25-9
- 25.2 Commitments in Respect of Climate Change 25-10
 - 25.2.1 Canadian Net-Zero Emissions Accountability Act 25-10
- 25.3 Assessment of the Project’s Effects..... 25-10
- 25.4 References..... 25-21

In-Text Figures

- Figure 25.1: Population and Distribution Objectives for Boreal Caribou in Canada 25-5
- Figure 25.2: Critical Habitat for Boreal Caribou in Canada..... 25-6
- Figure 25.3: Map of Polar Bear Provincial Park – the 18th Ramsar Site in Canada 25-8

In-Text Table

- Table 25-1: Summary of Effects and Assessment of Obligations and Commitments 25-11

25 Project Effects in the Context of Canada's Ability to Meet Its Environmental Obligations and Its Climate Change Commitments

The Government of Canada, through *Impact Assessment Act*, (IA Act) recognizes that the impact assessment contributes to Canada's understanding and ability to meet, first, its environmental obligations, and second, its commitments in respect of climate change.

In accordance with the factors to consider in Section 22 (1)(i) of the IA Act and the Tailored Impact Statement Guidelines (TISG) for the Webequie Supply Road Project the proponent is required to consider the extent to which the effects of the Project hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments to climate change relevant to decision-making.

This section presents how the Project's effects may contribute or hinder Canada's ability to meet its environmental obligations and its (climate change commitments to achieving net-zero emissions by 2050 as contained in the *Canadian Net-Zero Emissions Accountability Act (2021)*). The section focuses on the net, or residual effects of the Project on Canada's ability to meet its environmental obligations and its commitments, and excludes details on mitigation and enhancement measures, and relevant recommended follow-up monitoring programs that have been described in previous sections of the EAR/IS.

The assessment the Project effects in the context of Canada's ability to meet its environmental obligations and its climate change commitments is presented in the following manner:

- Overview and description of Canada's environmental obligations considered as specified in the TISG;
- Overview and description of Canada's commitments in respect to climate change; and
- Assessment of how the Project's effects may contribute or hinder Canada's ability to meet its environmental obligations and its climate change commitments.

25.1 Federal Environmental Obligations

Section 24 of the TISG for the Project specifically identifies the following federal environmental obligations and commitments that should be considered in the IA and documented in the impact statement (i.e., this EAR/IS):

- Convention on Biological Diversity and Canada's supporting national framework (e.g., Canadian Biodiversity Strategy, Canada's Biodiversity Outcomes Framework and current Biodiversity Goals and Targets for Canada); and legislation that supports the implementation of Canada's biodiversity commitments, including the *Species at Risk Act (2002)*, and the *Canada Wildlife Act (1985)*, as well as supporting guidance.
- Recovery Strategies and Action Plans developed under the *Species at Risk Act (SARA)* for all species at risk potentially affected by the Project. Of particular importance under SARA for this Project is the "2019 Proposed Amended Recovery Strategy for Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population, in Canada" Far North range, and smaller ranges within that range, as identified by the Province of Ontario.



- Convention on Wetlands of International Importance especially Waterfowl Habitat (Ramsar), as implemented in part through the Federal Policy on Wetland Conservation (1991) and supporting guidance, such as the North American Waterfowl Management Plan.
- Convention for the Protection of Migratory Birds in the United States and Canada, as implemented in part through the *Migratory Birds Convention Act* (1994) and supporting guidance on conservation objectives arising from Bird Conservation Region Strategies.

25.1.1 Convention on Biological Diversity

The United Nations Convention on Biological Diversity (CBD) is an international legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" that has been ratified by 196 nations. The CBD was signed by Canada on November 6, 1992, and came into force in Canada on December 29, 1993.

As one of the Nations (Parties) signed the CBD, Canada commits to conserve biodiversity, use its components sustainably and share the benefits arising from the use of genetic resources in a fair and equitable manner. Under the CBD, Parties are required to have a National Biodiversity Strategy and Action Plan (NBSAP) that outlines domestic efforts to advance the measures set out in the CBD. After ratifying the CBD, Canada developed the Canadian Biodiversity Strategy in 1995, the Biodiversity Outcomes Framework in 2008, and the 2020 Biodiversity Goals and Targets for Canada in 2016. Together, these documents constitute Canada's current NBSAP.

There are 19 targets set up under the Biodiversity Goals and Targets. Among them, five targets are related to the Project's effects and management decision-making, which include the following:

- Target 2: Species that are secure remain secure, and population of species at risk listed under federal law exhibit trends that are consistent with recovery strategies and management plans.
- Target 3: Canada's wetlands are conserved or enhanced to sustain their ecosystem services through retention, restoration and management activities.
- Target 9: All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches.
- Target 12: Customary use by Aboriginal Peoples of biological resources is maintained, compatible with their conservation and sustainable use.
- Target 15: Aboriginal traditional knowledge is respected, promoted and, where made available by Aboriginal Peoples, regularly, meaningfully and effectively informing biodiversity conservation and management decision-making.
- Legislation that supports the implementation of Canada's biodiversity commitments includes the *Species at Risk Act* (2002), *Canada Wildlife Act* (1985), and the *Fisheries Act* (1985), as well as supporting guidance documents and regulations.

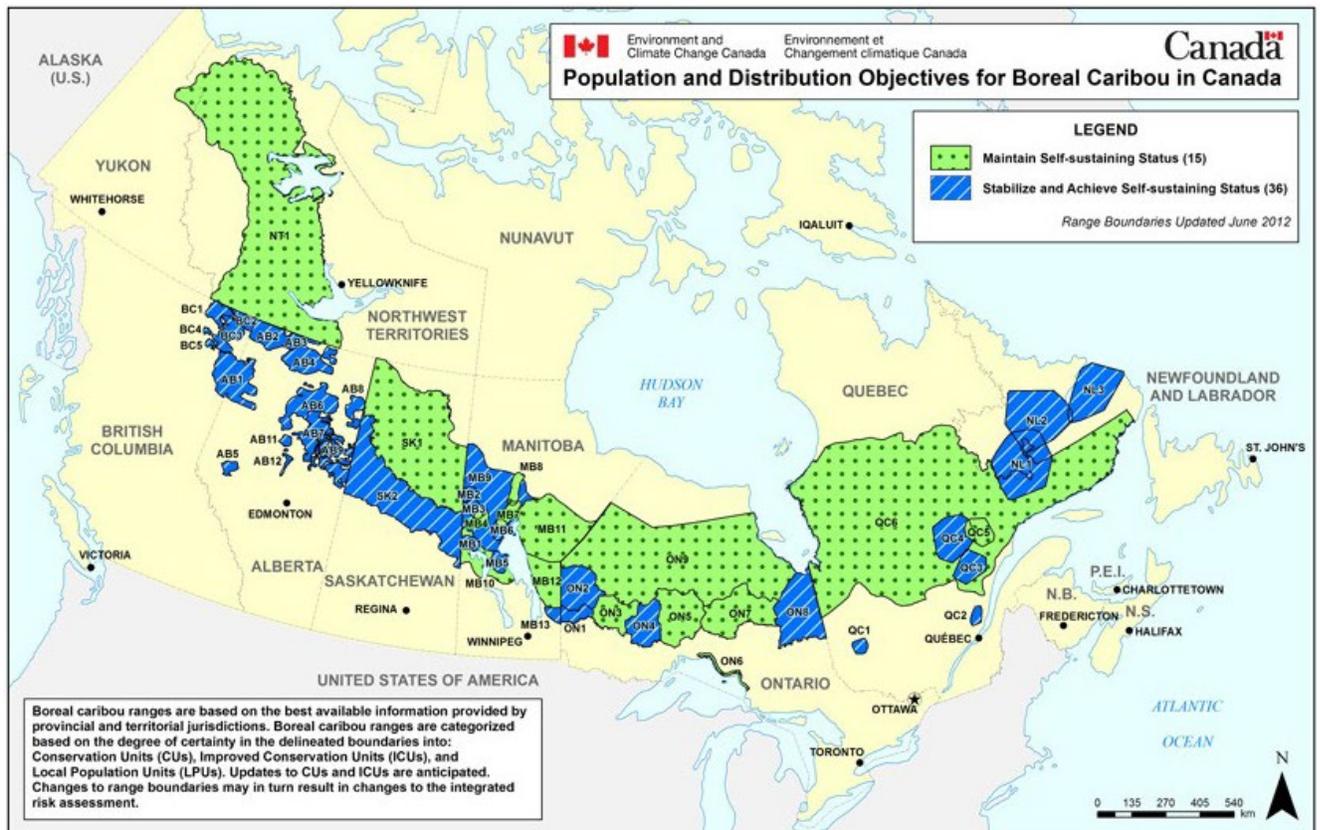
Amended Recovery Strategy for Woodland Caribou

The Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada was posted on the Species at Risk Public Registry in October 2012. The recovery goal for boreal caribou is to achieve self-sustaining local populations in all boreal caribou ranges throughout their current distribution in Canada, to the extent possible. To guide recovery efforts, the population and distribution objectives, as shown in **Figure 25.1**, are to:

- Maintain the current status of the 15 existing self-sustaining local populations (green dotted ranges); and
- Stabilize and achieve self-sustaining status for the 36 not self-sustaining local populations (blue hatched ranges).

The Project is located within the caribou range of Far North (Range ID: ON9), between Manitoba and James Bay.

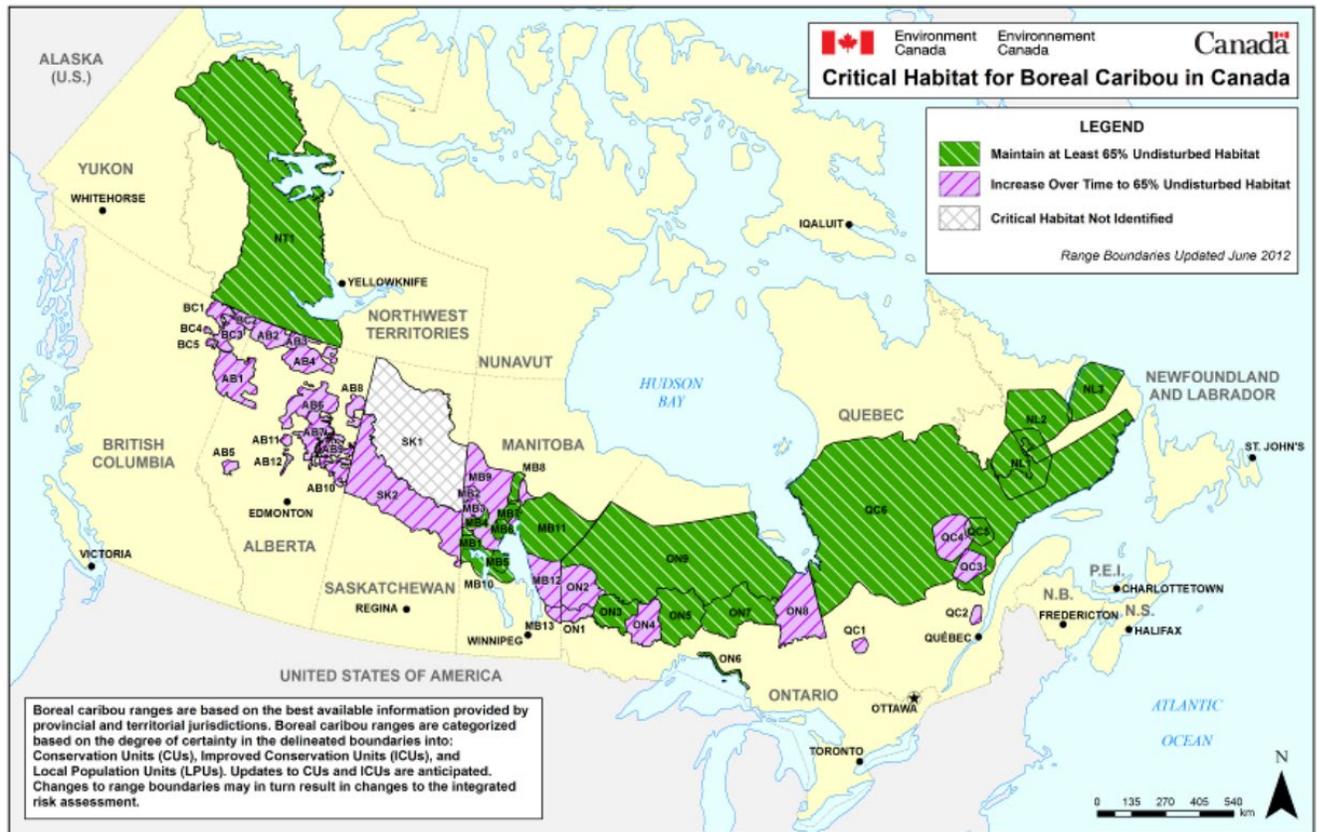
Figure 25.1: Population and Distribution Objectives for Boreal Caribou in Canada



Based on methodology developed by Environment Canada (2011), a disturbance management threshold of 65% has been identified, which provides a measurable probability (60%) for a local population to be self-sustaining and is illustrated in **Figure 25.2**.

The broad strategies and general approaches to meet the population and distribution objectives, as set out in the recovery strategy, will inform the development of subsequent range plans and action plans, where detailed local-level planning will occur to guide the implementation of recovery actions.

Figure 25.2: Critical Habitat for Boreal Caribou in Canada



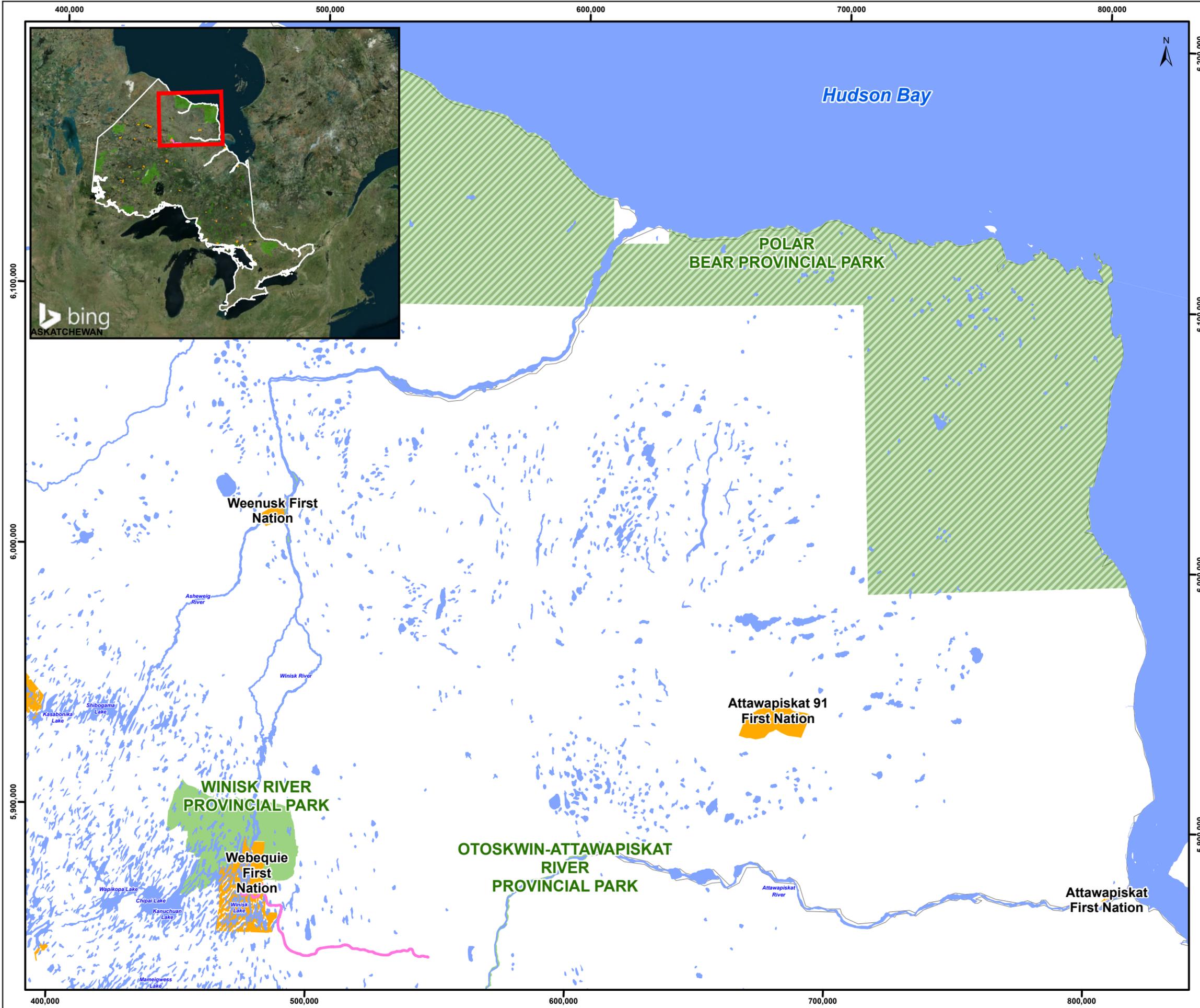
25.1.2 The Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention)

The Convention on Wetlands of International Importance especially as Waterfowl Habitat, (the Convention on Wetlands, sometimes referred to as the Ramsar Convention), is an international agreement promoting the conservation and wise use of wetlands. The treaty was adopted on 2 February 1971 in the City of Ramsar, Iran.

The mission (objective) of the Ramsar Convention is the wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world. Canada joined the Convention in 1981. Canada has designated 37 Wetlands of International Importance (Ramsar sites) under the Convention.

The closest Wetland of International Importance (the Ramsar Site) is the Polar Bear Provincial Park (Ontario), which is the 18th Ramsar Site designated in Canada as shown in **Figure 25.3**. The Polar Bear Provincial Park is a vast wetland complex (Canada's second largest Ramsar Site), measuring 2,408,700 ha in area and embracing a series of beach ridges interspersed with ponds, bogs, fens and marshes. The Park is located on the western shore where James Bay joins Hudson Bay, which is outside of the study area for the Project. The area regularly supports hundreds of thousands of important populations of Anatidae (ducks, geese, swans, etc.), a breeding colony of more than 50,000, and more than one million geese during migration. Also, during migration the lowlands support a substantial proportion of the central Arctic breeding population of Red knot (*Calidris canutus*) and the entire breeding population of Marbled godwit (*Limosa fedoa*). Numerous species of large mammals are also present.





Legend

-  Preferred Route
-  First Nation Reserve
-  Waterbody
-  Ramsar Site
-  Provincial Park

Webeque Supply Road (WSR)

Map of Polar Bear Provincial Park –
the 18th Ramsar Site in Canada

Figure Number:	25.3	REV	PA
Client:	Webeque First Nation	Project Number:	661910
		Date:	5/5/2025
DSC		DRN	CHK
		TE	VS
		APP	VS




NOTES

- Coordinate System: NAD 1983 Ontario MNR Lambert.
- Cadastral boundaries are for informational purposes only and should not be considered suitable for legal, engineering, or surveying purposes.
- Topographic/landcover features obtained from CanVec v12.0 dataset, Natural Resources Canada Earth and Sciences Sector Centre for Topographic Information; and, Land Information Ontario (LIO) Warehouse Open Data (<https://geohub.io.gov.on.ca/>), Ontario Ministry of Natural Resources and Forestry (OMNRF) Download Date : 2021-02-04

DISCLAIMER

This drawing was prepared for the exclusive use of Webeque First Nation (the "Client"). Unless otherwise agreed in writing by AtkinsRéalis, AtkinsRéalis does not accept and disclaims any and all liability or responsibility arising from any use of or reliance on this drawing by any third party or any modification or misuse of this drawing by the Client. This drawing is confidential and all intellectual property rights embodied or referenced in this drawing remain the property of such parties, as determined by the applicable services contract or contracts between AtkinsRéalis and the Client.

According to the Federal Policy on Wetland Conservation, the objective of the Federal Government with respect to wetland conservation is to promote the conservation of Canada's wetlands to sustain their ecological and socio-economic functions, now and in the future. In support of this objective, the Federal Government, in cooperation with the provinces and territories and the public, will strive to achieve the following goals:

- Maintenance of the functions and values derived from wetlands throughout Canada.
- No net loss of wetland functions on all federal lands and waters.
- Enhancement and rehabilitation of wetlands in areas where the continuing loss or degradation of wetlands or their functions have reached critical levels.
- Recognition of wetland functions in resource planning, management and economic decision-making with regard to all federal programs, policies and activities.
- Securement of wetlands of significance to Canadians.
- Recognition of sound, sustainable management practices in sectors such as forestry and agriculture that make a positive contribution to wetland conservation while also achieving wise use of wetland resources.
- Utilization of wetlands in a manner that enhances prospects for their sustained and productive use by future generations.

25.1.3 Convention for the Protection of Migratory Birds in the United States and Canada

The Convention for the Protection of Migratory Birds in the United States and Canada is an international agreement signed by the United States and Canada in 1916 to protect migratory birds. The requirements of the Convention have legislated components embedded in the *Migratory Birds Convention Act*, 1994, *Migratory Birds Regulations 2022* and *Migratory Bird Sanctuary Regulations*. The Convention came into force in Canada on October 8, 1999.

The objective of the Convention is to extend protection to migratory birds in Canada and the United States and provides for the management of migratory bird species through sustainable hunting, and conservation of migratory bird populations. The expected result is sustainable populations of migratory birds based on the conservation principles and tools outlined in the Convention's Parksville Protocol. The conservation principles include:

- Managing migratory birds internationally.
- Ensuring a variety of sustainable uses, sustaining healthy migratory bird populations for harvesting needs.
- Providing for and protecting habitat is necessary for the conservation of migratory birds.
- Restoring depleted populations of migratory birds.

25.2 Commitments in Respect of Climate Change

25.2.1 Canadian Net-Zero Emissions Accountability Act

The *Canadian Net-Zero Emissions Accountability Act* (S.C. 2021, C. 22) is an Act respecting transparency and accountability in Canada's efforts to achieve net-zero greenhouse gas emissions by the year of 2050.

Net-zero emissions means that anthropogenic emissions of greenhouse gases into the atmosphere are balanced by anthropogenic removals of greenhouse gases from the atmosphere over a specified period.

The 2030 Emissions Reduction Plan describes the many actions that are already driving significant reductions as well as the new measures that will ensure that the emissions are reduced across the entire economy to reach the emissions reduction target of 40 to 45% below 2005 levels by 2030 and put Canada on a path to achieve net-zero emissions by 2050.

The starting point for the projections is the updated 2021 Reference Case that includes updated data and assumptions as well as all policies and measures funded, legislated and implemented by federal, provincial, and territorial governments as of November 2021. The 2021 Reference Case establishes a baseline for the Emissions Reduction Plan and therefore does not consider the impact of broader strategies or announced measures that are currently not implemented or funded.

25.3 Assessment of the Project's Effects

An assessment of how the Project's net effects may contribute or hinder Canada's ability to meet its environmental obligations and its climate change commitments are presented in **Table 25-1**.

Table 25-1: Summary of Effects and Assessment of Obligations and Commitments

Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
<p>Convention on Biological Diversity and Canada’s supporting national framework (e.g., Canadian Biodiversity Strategy, Canada’s Biodiversity Outcomes Framework and current Biodiversity Goals and Targets for Canada).</p> <p>Legislation that supports the implementation of Canada’s biodiversity commitments including the <i>Species at Risk Act</i> (2002), and the <i>Canada Wildlife Act</i>, (1985), as well as supporting guidance.</p>	<p>Section 10 - Assessment of Effects on Fish and Fish Habitat (10.3, 10.4, 10.5, 10.6)</p>	<ul style="list-style-type: none"> ▪ Changes to Quantity and Quality of Fish Habitat (Destruction/Loss of Fish Habitat, Harmful Alteration and Disruption of Fish Habitat, Changes in Fish Access to Habitats) ▪ Changes to Fish Population (Injury/Death of Fish, Change in Public Access to Fish/Fish Habitat) 	<p>Mitigation and enhancement measures to protect and conserve fish and fish habitat are detailed in Section 10.4.</p> <p>The preliminary recommended preferred route selected through the alternatives evaluation process (refer to Section 3 – Evaluation of Project Alternatives) has minimized the number of waterbody crossings, including avoiding large lakes and watercourses that support fish and fish habitat, where possible. However, complete avoidance of waterbodies is not feasible due to the numerous waterbodies in the study.</p> <p>Due to the size of the roadway and as a result of the mitigation measures proposed, the net effects are considered to be not significant. All of the species found within the study area for the Project are common in the greater James Bay Lowlands and Boreal Forest. Most of the watercourses will remain generally inaccessible. Although there may be low to moderate changes to population abundance for sport fish species within some waterbodies where access is improved, however long distance between the Project and major population centers will limit the magnitude of this impact.</p> <p>It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Biological Diversity.</p>
	<p>Section 11 – Assessment of Effects on Vegetation and Wetlands</p>	<p>See section below on Wetlands</p> <p>It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Biological Diversity.</p>	
	<p>Section 13 – Assessment of Effects on Species at Risk (13.3.3, 13.4.3, 13.5.2, 13.6.1, 13.8.1)</p> <p>Caribou Boreal Population</p>	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	<p>Mitigation and enhancement measures to protect Caribou and Caribou Habitat are detailed in Section 13.4.3.</p> <p>Project activities including site preparation and disturbance during construction and operation of road and aggregate sites may cause potential impacts to Caribou (boreal population and habitat).</p> <p>In Ontario, Caribou (Boreal population) have been designated as Threatened on the Species at Risk in Ontario List since 2004 and are listed as Threatened under the federal <i>Species at Risk Act</i>. The two main reasons for this species’ decline are increased predation and habitat loss, the latter resulting from both natural disturbances like fires and anthropogenic activities such as natural resource extraction, which together fragment the landscape, benefit predator and alternate prey species, and ultimately increase predation risk for caribou (COSEWIC, 2014). As part of the existing conditions, the amount of disturbed</p>

Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>habitat in the Missisa Range is estimated to be 14.4% of the total range area. Disturbed habitat for the Ozhiski Range is estimated to be 27.6% of the total range area (MNR, 2014d). These numbers remain below the 35% disturbance threshold identified in the federal recovery strategy (ECCC, 2020). The most recent population assessment (MNR, 2014a) for the Missisa Range indicated a declining population trend due to a combined low mean annual survival estimate (80%) and low calf recruitment, such that the range condition may be insufficient to sustain caribou (MNR, 2014d). While population trend data was lacking for the Ozhiski Range, the integrated range assessment determined the range condition is likely sufficient to sustain caribou.</p> <p>While the identified project effects related to habitat, loss alteration or damage are expected to be significant, it is not expected that project related net effects will hinder Canada's ability to meet its obligation to the Convention on Biological Diversity, including the "2019 Proposed Amended Recovery Strategy for Woodland Caribou (<i>Rangifer tarandus</i> caribou), Boreal Population, in Canada".</p>
	<p>Section 13 – Assessment of Effects on Species at Risk (13.3.4, 13.4.4, 13.5.1, 13.6.2, 13.8.2) Wolverine</p>	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	<p>Mitigation and enhancement measures to protect wolverine and wolverine habitat are detailed in Section 13.4.4. Project activities including site preparation and disturbance during construction and operation of road and aggregate sites may cause potential impacts to Wolverine and wolverine habitat. Wolverine was listed as a species of Special Concern under the federal <i>Species at Risk Act</i> in 2018. Over the past 200 years, the wolverine range in Ontario has contracted dramatically from being found mostly province-wide to being limited to Ontario's far north today (Ontario Wolverine Recovery Team, 2013). Habitat loss, degradation, and fragmentation are some of the most important threats to their survival and have contributed to the range contraction in Ontario and North America (Ruggerio et al., 1994; Aubry et al., 2007; COSEWIC, 2003). Roads and transmission lines may act as barriers to movement and dispersal and can be a source of mortality due to collisions with vehicles and predator encounters (COSEWIC, 2014; COSSARO, 2014). They are also particularly susceptible to trapping as they travel long distances and are attracted to bait (Ontario Wolverine Recovery Team, 2013). The northern recovery zone in Ontario, within which the Project is situated, is believed to have a stable or increasing population based on aerial survey results (Ontario Wolverine Recovery Team, 2013; ECCC, 2024b).</p> <p>While the adverse effects are expected to be significant, it is not expected that project related net effects will hinder Canada's ability to meet its obligation to the Convention on Biological Diversity.</p>



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
	Section 13 – Assessment of Effects on Species at Risk (13.3.5, 13.4.5, 13.5.1, 13.6.3, 13.8.3) Little Brown Myotis Northern Myotis	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	<p>Mitigation and enhancement measures to protect myotis bats and their habitat are detailed in Section 13.4.5. Little Brown Myotis and Northern Myotis are listed as Endangered under the federal <i>Species at Risk Act</i> and are also listed as Endangered under the <i>Ontario Endangered Species Act</i>. Project activities including site preparation and disturbance during construction and operation of road and aggregate sites may cause potential impacts to myotis bats and their habitat. The effects are expected to be not significant.</p> <p>Little Brown Myotis and Northern Myotis populations in Ontario have been severely decimated by White-nose Syndrome since it was first detected in the province in 2010, with declines believed to be greater than 90% for both species (COSSARO 2012a,b). Specifically, at a hibernaculum in northern Ontario (Cavern Lake, Dorion), hibernating Myotis bats decreased by 87% from 2014 to 2019 (Hooton et al., 2023). Additionally, little brown myotis have been found to experience mortality at wind turbines in Ontario, accounting for 13% of all turbine-related bat mortalities (Davy et al. 2021; Zimmerling and Francis, 2016). There is some evidence that little brown myotis numbers may be stabilizing and gradually increasing in eastern Ontario (Hooton et al., 2023).</p> <p>It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Biological Diversity.</p>
	Section 13 – Assessment of Effects on Species at Risk (13.3.7, 13.4.6, 13.5.1, 13.6.5, 13.6.6, 13.8.5 and 13.8.6) Wetland Songbirds (Olive-sided Flycatcher; Rusty Blackbird) Shorebirds (Lesser Yellowlegs)	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	<p>Mitigation and enhancement measures for wetland songbirds and shorebirds and their habitat are detailed in Section 13.4.6. Project activities including site preparation and disturbance during construction and operation of road and aggregate sites may cause potential impacts to songbirds and shorebirds and their habitat.</p> <p>Olive-sided Flycatcher range throughout forested regions of Canada (COSEWIC, 2018). In the boreal ecozones, it is most common in open spruce and tamarack muskeg, bogs, and swamps (BSI, 2024). In terms of population in the boreal, 57% of the North American population is estimated to breed within the boreal (BSI, 2024).</p> <p>Since the 1970’s, populations of Olive-sided Flycatcher in Canada have experienced a large decrease, declining by 2.53% each year and staying well below the population goal range since the late 1970’s (Birds Canada and ECC, 2024). In Ontario’s boreal the population has declined, less so in the Hudson Bay Lowland areas of the range but the degree is uncertain due to data deficiency. Threats to Olive-sided Flycatcher include changes to fires regimes, and reductions in insect populations. Resource development in its breeding range may provide a minor impact threat (EEEC, 2018).</p>



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>Rusty Blackbird range throughout Canada in all provinces and territories (COSEWIC, 2017). In the boreal ecozones, it is preferred breeding habitat includes meadows, beaver ponds, muskegs, swamps and riparian areas (COSEWIC, 2017). In terms of population in the boreal, 85% of the North American population is estimated to breed within the boreal (BSI, 2024).</p> <p>Since the 1970's, populations of Rusty Blackbird in Canada have experienced a large decrease, declining by -1.91% each year and staying well below the population goal range since before the 1970's (Birds Canada and ECCC, 2024). In Ontario's boreal the population has declined in the Boreal Shield and the Hudson Bay Lowland areas of the range, decreasing over 3% per year. Threats to Rusty Blackbird in Canada include changes to forest clearing, and changes in wetland hydrology. Mercury contamination in its breeding range may provide a minor impact threat (EEEEC, 2015).</p> <p>Lesser Yellowlegs in the eastern Canadian boreal nest primarily in drier areas surrounded by open wetlands, specifically large open fens with open waterbodies (COSEWIC, 2020). They also nest in raised open areas like regenerating burns that retain their wetland features (Cadman et al. 2007). Since 1980, populations of Lesser Yellowlegs in Canada have experienced a large decrease, declining by 3.76% each year and staying well below the population goal range since the late 1990's (Birds Canada and ECCC, 2024).</p> <p>The net adverse effects are expected to be not significant. It is not expected that project related net effects will hinder Canada's ability to meet its obligation to the Convention on Biological Diversity.</p>
	<p>Section 13 – Assessment of Effects on Species at Risk (13.3.10, 13.4.6, 13.5.1, 13.6.9, and 13.8.9)</p> <p>Raptors (Bald Eagle; Short-eared Owl)</p>	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	<p>Mitigation and enhancement measures raptors (Bald Eagle and Short-eared Owl) and their habitat are detailed in Section 13.4.6. Project activities including site preparation and disturbance during construction and operation of road and aggregate sites may cause potential impacts to raptors and their habitat. Bald Eagles range throughout North America, breeding throughout much of Canada and the U.S.A. In northern Canada it is considered to be a partial or short-distance migrant to southern portions of the country, coastal regions, and further south into the U.S.A. and Mexico (Buehler, 2022). Canada hosts a high proportion of the Bald Eagle breeding population: approximately 55% of the global population (Birds Canada and ECCC, 2024). Since 1970, populations of Bald Eagle in Canada have experienced a large increase, rising by 4.39% each year and recently (c. 2020) reaching the population goal range (Birds Canada and ECCC, 2024). In 2022, the Committee on the Status of Species at Risk in Ontario (COSSARO) assessed Bald Eagle as “Not at Risk”, attributed to the species recovery and presence throughout much of its former southern</p>



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>Ontario range, and it was removed from its listing as Special Concern under the <i>Endangered Species Act</i>, 2007 in 2023. They are considered to be “Secure” in their breeding population nationally (N5B) and are “Apparently Secure” provincially (S4B) (NatureServe, 2024). In the Boreal Softwood Shield (BCR 8), according to Ontario Breeding Bird Atlas data, the Bald Eagle population trend shows an increase of greater than 3% (Birds Canada, 2024). Ontario Breeding Bird Atlas data indicate that Short-eared Owl possibly breeds in proximity to the Project (Birds Canada, 2024). Provincial concentrations of this species are located between the project area and Hudson Bay and James Bay. Since 1970, populations of Short-eared Owl in Canada have experienced a large decrease, declining by 1.59% each year and staying well below the population goal range since 1975 (Birds Canada and ECCO, 2024). In Ontario, there was an inferred decline of greater than 30% of mature individuals over three generations, between 2007 and 2019, with declines expected to continue in the future (COSSARO, 2021).</p> <p>The net adverse effects are expected to be not significant.</p> <p>It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Biological Diversity.</p>
	<p>Section 13 – Assessment of Effects on Species at Risk (13.3.12, 13.4.7, 13.5.1, 13.6.11, and 13.8.11)</p> <p>Lake Sturgeon (Hudson Bay – James Bay population)</p>	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death ▪ Changes in Public Access to Fish Habitats 	<p>Mitigation and enhancement measures to Lake Sturgeon and their habitat are detailed in Section 13.4.7. Although net effects on Lake Sturgeon and their habitat are expected to occur, due to the limited scale of the roadway and the effectiveness of proposed mitigation measures, the Project’s net effects are characterized as being negligible to low and are expected to be not significant.</p> <p>It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Biological Diversity.</p>
<p>Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar), as implemented in part through the Federal Policy on Wetland Conservation (1991)</p>	<p>Section 11: Vegetation and Wetlands</p>	<ul style="list-style-type: none"> ▪ Change to all or part of vegetation communities, species and biodiversity ▪ Change to Wetland Function ▪ Change to species at risk plants and species and 	<p>Mitigation and enhancement measures to protect Vegetation and Wetlands are detailed in Section 11.4.</p> <p>The potential effects of the Project on wetland functions were modelled for both biotic (living) and abiotic (non-living) environments. In total, there were 50 individual functional values calculated in the assessment. A regional assessment of effect on wetland function was conducted and the results predicted minimal effects on functional values, of less than 1%, for all wetland classes within the LSA and RSA.</p>



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
and supporting guidance such as the North American Waterfowl Management Plan.		communities of conservation concern <ul style="list-style-type: none"> ▪ Change to plant species and communities of traditional importance to Indigenous Peoples 	The closest Ramsar Site to the Project is the Polar Bear Provincial Park, which is the 18 th Ramsar Site designated in Canada. It is located approximately 250 km northeast of the eastern terminus of the proposed Webequie Supply Road. No effects are expected on this Ramsar Site. It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar).
Convention for the Protection of Migratory Birds in the United States and Canada, as implemented in part through the <i>Migratory Birds Convention Act</i> (1994), and supporting guidance on conservation objectives arising from Bird Conservation Region Strategies.	Section 12 – Assessment of Effects on Wildlife and Wildlife Habitat (12.3.5, 12.3.6, 12.4.6, 12.7.4, 12.9.4) Section 13 – Assessment of Effects on Species at Risk Migratory Birds	<ul style="list-style-type: none"> ▪ Changes in Habitat – Loss, Alteration or Damage ▪ Alteration in Movement ▪ Injury or Death 	Mitigation and enhancement measures to protect migratory birds and their habitat are detailed in Section 12.4.6 and 13.4.6. Activities relating to vegetation clearing, hydrological changes and disturbance during construction and throughout operations has the potential to affect migratory birds and their habitat. There may also be increases in migratory bird injury or death stemming from increased vehicle traffic during both construction and operation of the road, with indirect mortalities arising from increased energy expenditures and habitat change. In Canada, migratory forest songbirds include long-distance migrant species such as the Tennessee Warbler, which primarily migrate to tropical regions for the winter, as well as short-distance migrant species such as the Orange-crowned Warbler, which migrate to temperate regions in North America. Canada hosts a very large proportion of the breeding population of these two (2) species: nearly 100% of the global Tennessee Warbler population and approximately 52% of the global Orange-crowned Warbler population (Birds Canada and ECCC, 2024). Compared to the 1970s, populations of both species in Canada are within their respective population goal ranges and are considered to be “Secure” (N5B) nationally in their breeding habitat (Birds Canada and ECCC, 2024; NatureServe, 2024). In the Boreal Softwood Shield (BCR 8), according to Ontario Breeding Bird Atlas data, the Tennessee Warbler population is trending between -0.5% and 0.5%, while the Orange-crowned Warbler population is increasing 1.3% to 3.0% (Birds Canada, 2024). Provincially, breeding populations for both species are considered to be “Secure” (S5B) (NatureServe, 2024).



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>Like many wetland songbirds, Palm Warbler and Alder Flycatcher are long-distance migrant species which primarily migrate to tropical regions for the winter. Canada hosts a very large proportion of the breeding population of these two species: 98% of the global Palm Warbler population and approximately 63% of the global Alder Flycatcher population (Boreal songbird initiative and ECCC, 2024). Compared to the 1970s, populations of both species in Canada are within their respective population goal ranges and are considered to be “Secure” (N5B) nationally in their breeding habitat (NatureServe, 2024). In Canada according to Nature Counts (Birds Canada, 2024) data, the Palm Warbler population is trending upwards at 0.74%, while the Alder Flycatcher population is decreasing slightly at -0.26%. Provincially, breeding populations for both species are considered to be “Secure” (S5B) (NatureServe, 2024).</p> <p>The effects on migratory songbirds are expected to be not significant. It is not expected that project related net effects will hinder Canada’s ability to meet its obligation to the Convention for the Protection of Migratory Birds in the United States and Canada, as implemented in part through the <i>Migratory Birds Convention Act (1994)</i>.</p>
<p>The <i>Canadian Net-Zero Emissions Accountability Act</i> (S.C. 2021, C. 22).</p>	<p>Section 9 – Assessment of Effects on Atmospheric Environment</p>		<p>Greenhouse gases (GHGs) considered in the assessment of the project effects are mainly those associated with fuel combustion including carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).</p> <p>Mitigation measures for achieving Canada’s net-zero plan are detailed in Section 9.4.2 of the EAR/IS and Section 5.2 of Webequie Supply Road Impact of GHG Emissions Report in Appendix H.</p> <p>According to the assessment of the project effects, GHG emissions are expected to be generated by the following project activities or sources during the construction phase:</p> <ul style="list-style-type: none"> ▪ Mobile equipment including excavators, bulldozers, graders, rubber tire loaders, cranes, compactors, forklifts, and off-road service trucks not used for transportation purposes. ▪ Stationary fuel combustion equipment, namely all internal combustion engines used to operate generator sets, crushing and screening plants, concrete batching plants, tower lights, and water pumps. Heating systems used during winter are included in this category as well. ▪ Crew vehicles are used to transport workers, mainly from construction camps to the working areas.



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<ul style="list-style-type: none"> ▪ Heavy-duty transport trucks used to haul materials to the site including filling materials and aggregates from quarries to the construction areas. Geotextile and geogrids transportation are included in this category as well. ▪ Mobilization and demobilization including the shipment of equipment, consumables and other supplies via winter roads linking Pickle Lake to Webequie First Nation reserve. ▪ Air travel for mobilizing and demobilizing workers living outside the Webequie community. It is expected a helicopter will be used to transport camp supplies and personnel to and from Webequie during summer. ▪ Carbon stock removal from living biomass (trees, shrubs) and the management of dead organic matter. It also includes related CH4 and N2O from the controlled burning of these biogenic material. <p>Direct GHG emissions are expected to come from the following sources during the operation phase:</p> <ul style="list-style-type: none"> ▪ Private / commercial heavy-duty vehicles commuting on the road. ▪ Road maintenance equipment (mobile, truck). ▪ Generator sets used to provide power supply at aggregate pits and maintenance facilities. ▪ Net GHG emissions from mineral soil and peatlands due to the project disturbance and activities (as opposed to pure natural emissions). <p>Over a period of 25 years (year 1 to 5 in construction, plus year 1 to 20 in operation), starting from the first year of construction, the project is expected to generate approximately 330,000 t CO2e, from which 33% is linked to the construction phase. These emissions combine both the fossil-fuel related GHG emissions and the biogenic CO2 emissions considering that the Project will have an impact on current carbon reservoirs and associated sinks. The biogenic CO2 emissions represent 32% of total GHG emissions (i.e., 105,000 t biogenic CO2 over 25 years). In contrast, 68% of emissions are generated mainly from fossil-fuel combustion for the operation of mobile and stationary equipment, trucking, traffic, road maintenance activities, and maintenance facility power supply.</p> <p>On an annual basis, the maximum GHG emissions are expected to occur during the second year of construction generating a total of 44,699 t CO2e, with 75% coming from the combustion of cleared living and dead organic biomass. Emissions related to land use change, mainly from the natural</p>



Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>oxidation of carbon in mineral soil that will be disturbed during construction, represent 17% of the total annual emissions. It is expected the annual emissions will greatly decrease after 20 years (soil carbon oxidation is projected to stop or greatly diminish).</p> <p>During the operation phase, the annual emissions are estimated at 11,178 t CO₂e, with 50% the amount linked to the projected vehicular traffic on the WSR, and 35% from the generator sets required to provide power to the road maintenance and storage facilities.</p> <p>When compared to the Canadian total GHG emissions in 2021, which is 670 Mt CO₂e according to the National Inventory Report (NIR) of which 23% comes from Ontario, the added emissions from the WSR Project appears to be insignificant trivial from a broader grand scheme perspective (taking up only 0.0067% at a maximum). The emission sources remain small for fossil-fuel combustion activities and takes up approximately 0.06%.</p> <p>The results from this assessment show that the maximum annual emissions caused by construction activities on carbon reservoirs (reduction in absorption or sinks) would generate an equivalent of 0.5% of the corresponding Canadian total for land use changes into settlement/consolidation (based on 2021 data from the NIR), and 0.03% of the Canadian total during the operation phase.</p> <p>Section 11 details the approach to mitigation and enhancement, involving avoidance, reduction and control (minimize), and compensation or habitat offsetting, has been taken to address potential effects to vegetation and wetlands. Restoration activities will occur on two fronts. The first, will involve the immediate restoration of disturbed areas and the second approach will be to utilize accepted habitat restoration techniques to apply habitat off setting to compensate for the direct loss and alteration to upland, riparian and wetland ecosystems as a result of Project.</p> <p>it is proposed that an Ecological Restoration Plan (the Plan) be developed in consultation with First Nations, Federal/Provincial agencies, and stakeholders with the goal of providing in-kind compensation for the losses to the vegetation classes described in Section 11.3.2.1.1 Although each of the Offsetting Restoration Plans developed within the Ecological Restoration Plan will be site-specific, the general proposed approach for upland and wetland restoration is included in Appendix K-3.</p> <p>Other than adding to the Canadian GHG emissions, the presence of the road could also accelerate the development of mines in the region in which ore could be used in smelters (or an equivalent) in Ontario or Canada in replacement of ore coming from abroad. This particular situation would</p>



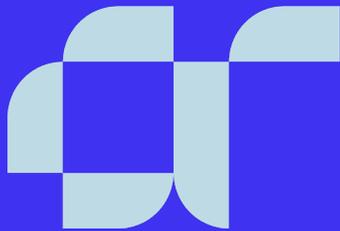
Federal Obligations	Applicable Section in the EAR/IS where the Project Effect is Assessed	Potential Effects	Characterization of Net Effects and Assessment of Obligations
			<p>improve Canada's GHG inventory by limiting transportation emissions from abroad. It could also have the reverse effect if the ore is shipped abroad. As such, the additional impact of the WSR on the carbon footprint of the region will depend more on future mining operators than the WSR.</p> <p>The primary criterion used to assess significant effects of Project-related changes in GHG emissions is magnitude. The GHG emissions from the Project are compared to provincial and national GHG inventories to establish a context for the magnitude of emissions following the Strategic Assessment of Climate Change (ECCC 2020a) guidance.</p> <p>The Project's GHG emissions estimated for construction and operation phases represent a small contribution to provincial and national GHG emissions. The GHG emissions are ranked as low in magnitude during the construction and operation phases. Based on these results and the net effects are predicted to be not significant. It is not expected that project related net effects will hinder Canada's ability to meet its obligation to the <i>Canadian Net-Zero Emissions Accountability Act</i>.</p>



25.4 References

- Convention on Biological Diversity (Text and Annexes), 2011. Secretariat of the Convention on Biological Diversity, Montreal. 2011
- Environment and Climate Change Canada, 2016. Canada's Biodiversity Outcomes Framework and 2020 Goals & Targets.
- Environment Canada. 2011. Scientific Assessment to Support the Identification of Critical Habitat for Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population, in Canada. Ottawa, ON. 115pp. plus Appendices.
- Government of Canada, 2020. Amended Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada. (https://wildlife-species.az.ec.gc.ca/species-risk-registry/virtual_sara/files/plans/Rs-CaribouBorealeAmdMod-v01-2020Dec-Eng.pdf).
- Government of Canada, 1991. The Federal Policy on Wetland Convention.
- Government of Canada, 1999. Convention for the Protection of Migratory Birds in the United States and Canada.
- Government of Canada, 2022. 2030 Emissions Reduction Plan – Canada's Next Steps for Clean Air and a Strong Economy.
- Minister of Supply and Services Canada, 1995. Canadian Biodiversity Strategy, Canada's Response to the Convention on Biological Diversity, 1995.
- North America Waterfowl Management Plan (NAWMP) Update, 2018. (<https://nawmp.org/timeline/2018-update>)
- United Nations Educational, Scientific and Cultural Organization, 1994. The Convention on Wetlands of International Importance especially as Waterfowl Habitat. Ramsar, Iran, 2.2.1971, as amended by the Protocol of 3.12.1982 and the Amendments of 28.5.1987. Paris, July 13, 1994.

AtkinsRéalis



AtkinsRéalis

191 The West Mall
Toronto, ON M9C 5L6
Canada
416.252.5315

atkinsrealis.com

© AtkinsRéalis except where stated otherwise