

SUMMARY OF ISSUES – Marmorata Clean Energy Hub Project

This document provides a high-level summary of issues submitted to the Impact Assessment Agency of Canada (the Agency) about the Marmorata Clean Energy Hub Project (the Project) during the comment period on the Summary of the Initial Project Description, submitted by Northland Power Inc. and Ontario Power Generation (jointly, the Proponent). The issues highlight information that support decision making by the Agency on whether an impact assessment is required under section 16 of the *Impact Assessment Act* and — if an assessment is required — inform the tailoring of planning phase documents. Original submissions are online, on the Canadian Impact Assessment Registry Internet site for the Project (Reference Number 84597).

The Proponent must provide the Agency with their response to the Summary of Issues that details how they intend to address the issues and the Detailed Project Description. The Detailed Project Description, including the Summary of the Detailed Project Description, must contain the information from the Initial Project Description, including the Summary of the Initial Project Description, with new information integrated throughout the main body of the document as appropriate to respond to the issues raised. This will facilitate understanding by assessment participants, including Indigenous and public groups, federal authorities, provincial ministries and municipalities.

Issues
Water (Surface and Ground)
Concerns regarding the current water quality and the presence of potentially harmful contaminants in the open pit.
Need for further information regarding open pit dewatering activities, including the volumes of water, frequency, timing, duration, and quality of proposed flows that will be discharged into each potential receiving waterbody.
Need for further details on how interactions between the project waters (in the two reservoirs) and the surrounding water bodies would be managed to minimize interaction with surrounding waterbodies as well as details regarding mitigation measures to manage potential contamination from previous mining activities that may seep to groundwater and recharge to local surface waterbodies and neighbouring environments.
Concerns regarding potential flooding to the surrounding properties within Marmorata and Lake due to dewatering of the open pit.
Concerns regarding the duration and the frequency of water quality monitoring during dewatering of the open pit and during operations.
Concerns that the Project is located within highly vulnerable aquifers and a significant groundwater recharge area, with potential implications to domestic potable wells and/or municipal water intakes.
Comments regarding requirement for Proponent to conduct groundwater monitoring to confirm predictions of potential impacts to groundwater, including nearby residential wells, and local surface waterbodies due to the open pit dewatering.
Concerns regarding whether the Proponent will update the proposed Sediment and Erosion Control Plan to reflect changes to flow rates during all phases of the Project.
Fish and Fish Habitat
Concerns about potential effects on fish and fish habitat during all project phases, including: <ul style="list-style-type: none"> • death or harm to fish; • alteration, disruption, fragmentation or destruction of fish habitat, including spawning habitat; • changes to water quality, quantity and flow.

Need for baseline information on fish and fish habitat in all waterbodies that could potentially receive discharge from the open pit.
Comments on the presence of fish in the open pit.
Need for further information on the open pit dewatering as well as ongoing dewatering activities during operations, and how it may affect groundwater and the surface water quality and quantity of any potential receiving waterbody that currently provides fish and fish habitat.
Need for further information on mitigation measures to address potential effects to fish and fish habitat in potential receiving waterbodies, including fish habitat availability, due to changes to groundwater or surface water.
Need for further information on project components that have a potential to cause effects to fish and fish habitat, standard and site-specific mitigation to prevent any residual impacts, and any plans to offset effects, particularly plans that would be required through federal or provincial authorizations.
Migratory Birds
Need for further information on direct and indirect effects on migratory birds and their habitat, including habitat loss, habitat alteration or fragmentation, mortality, or disturbance due to the open pit dewatering activities, site alteration, vegetation clearing, vehicle operation, accidents and spills, and increased noise/vibration levels and light pollution, during all phases of the Project.
Need for information on the potential presence of any species on Schedule 1 of the <i>Migratory Birds Regulations, 2022</i> , that may breed in the project area and the need for information about the presence or absence of critical habitat ¹ that would be affected (overprinted, disturbed, or nearby) by the Project.
Need for further information on the specific timing windows and the mitigation measures proposed to avoid mortality and disturbance of birds from project activities, including light pollution, increased noise, and accidents and spills.
Include language to indicate compliance with <i>Migratory Birds Convention Act</i> and the <i>Migratory Birds Regulations, 2022</i> .
Species at Risk, Wildlife, and their Habitat
Need for a list of all federal species at risk including Committee on the Status of Endangered Wildlife in Canada (COSEWIC) ² species and information on the presence or absence of critical habitat ³ that would be affected (overprinted, disturbed, or nearby) by the Project as well as any critical habitat that may be in the local study area for the Project.
Need for information on whether all federal species at risk overlap with provincial species at risk as protected by the provincial <i>Endangered Species Act</i> .
Need for further information regarding mitigation measures specific to avoiding and minimizing effects to federal species at risk and their habitat due to the Project, including any offsetting measures proposed where critical habitat for federal species at risk may be affected.
Comment that Environment and Climate Change Canada is the federal authority responsible for issuing authorizations under the <i>Species at Risk Act</i> for some listed migratory birds such as the Red-headed Woodpecker.
Concerns about potential effects to species at risk, and other wildlife from potential increase in noise and vibration levels during project construction and operation.

¹ <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/critical-habitat-statements/protection-statement-habitat-mbca-1994-applies-migratory-birds-listed-under-sara.html>

² COSEWIC stands for Committee on the Status of Endangered Wildlife in Canada, an independent advisory panel to the Minister of Environment and Climate Change that assesses the national status of wildlife species at risk of extinction.

³ <https://data.ec.gc.ca/data/species/protectrestore/critical-habitat-species-at-risk-canada/?lang=en> and <https://open.canada.ca/data/en/dataset/db177a8c-5d7d-49eb-8290-31e6a45d786c>

Concerns about the residual effects to individual, local or regional populations of species at risk and their habitat.
Concerns about existing invasive species spreading to the project area after vegetation is removed or disturbed. Opportunity for Proponent introduce native species to the project area.
Indigenous and Public Engagement
Comments regarding need for meaningful proponent engagement with Indigenous communities to consider impacts of the Project on traditional land use, health and well-being, and inherent rights of Indigenous communities.
Comments on the necessity of engaging with all potentially impacted Indigenous communities, not just those with close proximity to the project site.
Comments from Indigenous communities expressing interest in reviewing baseline data at future engagement sessions with the Proponent.
Need for further information on the proposed approach (e.g., objectives, activities, tools, and timelines) for increased and ongoing Indigenous and public engagement by the Proponent throughout all phases of the Project.
Concerns regarding a lack of engagement with the public, and the need for clarity and commitment to future planned engagement with local residents.
Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes, and Exercise of Aboriginal and/or Treaty Rights
Need for further information on potential effects of the Project on the Crowe and Moira Rivers, and their tributaries as it relates to effects on current use of lands and resources for traditional purposes (e.g., navigating and accessing sacred spaces, fishing, harvesting, hunting), and the impacts on the exercise of Aboriginal and/or treaty rights.
Need for further information on potential effects of the Project on harvesting, particularly the harvesting of wild rice.
Onsite Contamination
Need for information regarding reclamation and rehabilitation plans for the abandoned Marmoraton mine site.
Need for further information on the location and characteristics of existing tailings and waste rock piles in the project area, their potential for leaching of contaminants, and the effects on water quality, fish and fish habitat, and human health from leaching, and mitigation measures to prevent or contain leaching.
Comments regarding the potential for historic contamination, including due to historic storage of chemical substances.
Geology and Soils
Concerns about existing mine hazards that have been identified by the Ontario Ministry of Mines in relation to the former Marmoraton Mine.
Concerns regarding the effects of dewatering and the constant cycling of water between the reservoirs on the integrity of the limestone bedrock.
Project Information
Need for further information that clearly outlines the project phases (e.g., design, site preparation, construction) including the timelines associated with these phases.
Need for further information on the existing land tenure, and how the Proponent will secure appropriate tenure for Crown lands.
Accidents and Malfunctions
Need for more information on potential risks of failure or breach of the upper and the lower reservoirs, potential effects within federal jurisdiction related to the breach, and measures to manage these risks.

Concerns about the stability of the walls of the open pit and the waste rock pile, and the impacts of the constant cycling of water on the long-term stability of the structures.
Need for further information on the specific types of hazardous materials that will be stored and used on site, the circumstances of their uses, potential accidents and malfunctions that could occur from transportation, storage, or handling of hazardous materials.
Need for information on the design measures and response measures that would be included as part of the proposed Spill Prevention Protocol and Countermeasures Plan, and pathways to potential effects to fish and fish habitat or human health due to potential accidents or malfunctions.
Acoustic Environment (e.g., noise, vibration)
Concerns about potential effects from increased noise and vibrations from construction and ongoing operation, including from increased traffic.
Need for further information on predicted noise and vibrations during each phase of the Project.
Need for further details on the proposed mitigation measures and monitoring plans to address changes to noise and vibrations during all phases of the Project.
Alternatives to the Project
Need to include a no-action (null) alternative as part of the evaluation of alternatives for the Project.
Atmospheric Environment (e.g., air quality, vibrations, etc.)
Concerns about potential effects from increased air emissions from construction and ongoing operation, including from increased traffic.
Need for further information on predicted air emissions during each phase of the Project, including the types of air emissions (e.g., gaseous compounds, particulate matter), and their sources.
Need for further details on the proposed mitigation measures, including best management practices, and monitoring plans to address changes to air quality during all phases of the Project.
Climate Change and Greenhouse Gas Emissions
Need for further information on how the Project will meet Canada's commitments under the <i>Net-Zero Accountability Act</i> to achieve net-zero emissions by 2050, for Project activities that would go beyond 2050.
Comments regarding the consideration of estimates of greenhouse gas emissions related to land use change (e.g., wetland loss, tree and vegetation clearing) and emissions during all phases of the Project.
Need for information as to how the potential effects of climate change will be considered in all phases of the Project ⁴ .
Effects of the Environment on the Project
Need for more information about the Project's resilience to future climate change during the 100 or more years of operations, and where relevant, how it has been considered in the project design.
Need for further information on forest type in the project area, the risk for wildfires, and measures to manage these risks.
Need for further information on whether the open pit has or might experience seismic activity.
Human Health and Well-Being (including of Indigenous peoples)
Need to consider the perspectives of Indigenous communities in identifying and describing potential impacts to Indigenous health and well-being.
Need for further information on whether traditional land and resource use activities occur near the project site, and, if they do, potential effects on health of Indigenous peoples due to various pathways (inhalation of air, changes to experience due to noise, ingestion or contact with contaminated foods or

⁴ At a minimum the Detailed Project Description should meet the requirements set out for the planning phase: <https://www.canada.ca/en/services/environment/conservation/assessments/strategic-assessments/climate-change.html#toc13>

waters) during all phases of the Project. This includes, if applicable, providing information on potential receptors and traditional land and resource use locations.
Need for further information on how changes to noise, air quality, surface water and groundwater could cause effects on human health.
Comments requesting maps to identify local and regional study areas and their proximity to Indigenous communities, traditional land and resource use locations, and locations of drinking water and recreational water sources.
Comments regarding impacts from the Project on human behaviour as well as other social determinants of health.
Indigenous Peoples' Social and Economic Conditions
Comments on how the Project may provide economic support and opportunities for Indigenous communities.
Comments encouraging future discussions with communities on socio-economic impacts of the Project.
Comments encouraging the Proponent to commit to provide training, apprenticeship and employment opportunities for Indigenous communities, and the suggestion to develop an Indigenous Employment and Training Plan.
Social and Economic Conditions (Non-Indigenous)
Comments about potential economic and social benefit, if any, of the Project on citizens of Marmora and Lake, and on local businesses, including the tourism industry, and how these individuals and stakeholders near the project site will be engaged regarding economic benefits and social impacts.
Need for further information about the reported number of jobs expected to be created. Present the information by breaking down direct employment separately from indirect employment. Clarify number of full-time equivalent (FTE) direct positions to be created during each year of construction, as well as during each year of operations. Estimate whether direct employment opportunities are likely to be occupied by citizens of Marmora and Lake.
Clarify any efforts to maximize the participation of under-represented groups in direct employment (e.g., plans for promoting inclusive economic growth, training and recruitment, availability of daycare).
Comment requesting the development of mitigation and enforcement measures, if needed to respond to potential gender-based violence, such as harassment, unwanted sexual behaviours in the workplace or in a public place, intimate partner violence, or sexual assault.
Comments seeking further information on the proposed \$32 million figure for the project's economic impact, including how this figure was calculated, and the geographical area where this benefit is anticipated.
Comments suggesting using the latest Census data (2021) to describe statistics such as the aging populations of Ontario and Canada, employment income rates, education rates, labour force rates, and employment rates for the Marmora and Lake area.
Indigenous Peoples' Spiritual, Physical, and Cultural Heritage
Need for further information to determine the location of any structure, site or things of historical, archaeological, paleontological, or architectural significance in consultation with Indigenous communities.
Concerns regarding potential project effects to spiritual and sacred sites, archaeological, physical and cultural heritage resources.
Comments that the Crowe River and Moira River are important transport routes for several Indigenous communities in the area.
Comments supporting the commitment to undertake a Heritage Impact Assessment and Archaeological Assessments for the Project.

Navigation and Navigable Waters
Concerns regarding potential impacts from the Project on navigation, particularly in Crowe River, by Indigenous communities.
Need for further information regarding the effects from the Project on traditional use of nearby waterways for navigation, particularly the Crowe River.
Need to identify all waterbodies and watercourses that are navigable or not navigable (with supporting rationale) that may be impacted by the Project.
Need for further information regarding the aspects of the Project that may require an approval under the <i>Canadian Navigable Waters Act</i> , including the planned approach to seek an approval (e.g., application for approval, public resolution, application for a Minor Works permit).
Need for information regarding the potential impacts of the Project on the Trent-Severn Waterway National Historic Site.
Vulnerable Population Groups [Gender-Based Analysis Plus (GBA Plus)]
Need for further information on engagement that has occurred and will occur with various subpopulation groups (e.g., Indigenous identity, age, gender, 2SLGBTQI+, people with disabilities, location).
Need for further information on how the project will benefit or impact various subpopulation groups.
Wetlands
Need for information on Project effects on wetlands regarding the studies that will be conducted to describe baseline conditions and inform assessment of potential direct and indirect effects on wetlands during all phases of the Project.
Concerns about potential direct and indirect effects on wetlands, wetlands loss and wetland functions during all phases of the Project.
Need for information on avoidance and mitigation measures for potential effects to wetlands, wetland functions and to offset any potential wetland loss due to the Project.
Comments in Support of the Project
Comments indicating that the Project would provide access to economic and social opportunities for local residents.
Comments in support of “green” power projects.
Other – Editorial Comments in the Initial Project Description
Need for information regarding the rationale for each characterization of the <i>‘Preliminary Issue Likelihood’</i> and <i>‘Potential for Long Term Benefits’</i> for each species at risk.
Need to update Table 3-13: Species at Risk Records Review as follows: <ul style="list-style-type: none"> • Common Nighthawk – down listed from Threatened to Special Concern under SARA • Olive-sided Flycatcher – down listed from Threatened to Special Concern under SARA • Eastern Whip-poor-will – down listed from Threatened to Special Concern under COSEWIC status
Revise the outdated gender and age statistics in Section 3.9 of the Initial Project Description and refer to the most current (2021) Census information.
Revise language regarding “Indigenous stakeholders”. Replace “stakeholders” with “Indigenous communities and business entities”.