

February 7, 2025

Impact Assessment Agency of Canada
Crawford Nickel Project
Detailed Review of Impact Statement
Completed by Northeastern Public Health - Environmental Health Department

RE: Commentary on Crawford Nickel Impact Statement

In July 2022, Canada Nickel Company, hereinafter referred to as the “Proponent”, submitted to the Impact Assessment Agency of Canada (IAAC) plans to develop, operate, and eventually reclaim a new open pit nickel mine in the Northeastern region. The new open pit mine, known as the Crawford Nickel Project, is approximately 43 kilometers north of Timmins, Ontario and 35 kilometers southwest of the Town of Cochrane, Ontario. The Crawford Nickel Project is positioned to be the largest base metal mine in Canada and one of the largest suppliers of nickel in the world. Though there is projected economic benefit from this project, such benefit should not undermine the possible negative health, social, environmental, and economic consequences of such a large-scale project in the Northeastern region.

Northeastern Public Health (NEPH), as the public health authority for the region, has been requested for consultation by Canada Nickel Company as a component of the Impact Assessment process for the IAAC. The mission of NEPH is to strengthen opportunities for healthy living within healthy communities. The Crawford Nickel Project is likely to have a high level of impact on health, socio-economic wellbeing, culture, and way of life for community members in the Northeastern region; NEPH will provide assistance in the consideration of health, social, and economic effects that may arise from the project.

The Environmental Health Department of NEPH has participated in consultations with Canada Nickel Company on multiple occasions regarding the Crawford Nickel Project. Through these consultations, commentaries, and continued engagement with IAAC and the Canada Nickel Company, it is NEPH’s goal to assist Canada Nickel Company in mitigating the potentially negative impacts associated with the Crawford Nickel Project.

On November 22, 2024, IAAC received the Impact Statement for the Crawford Nickel Project proposed by Canada Nickel Company and has determined it is an adequate to proceed with a public comment period and technical review. The 60-day comment period for the Impact Statement Summary is currently underway, December 9, 2024, to February 7, 2025, in order to provide an opportunity for Indigenous communities, federal authorities, provincial ministries, and the public to review and provide comments on the document, including their perspectives on whether any additional information is required.

Table 1 of this document includes specific commentary and recommendations based on NEPH’s Environmental Health Department’s review of the Impact Statement provided by the IAAC. In addition to the recommendations outlined in the Table, we expect that the Canada Nickel Company will take into account the following, social, environmental, economic, and health considerations for the planning and implementation of the

Crawford Nickel Project:

- Specific health impact consideration for the following potentially vulnerable priority populations including: Indigenous Peoples; age-related groups; differently-abled populations; ethno-racial communities; francophone peoples; people experiencing housing instability; people experiencing poverty; people who use drugs; people in rural and remote communities; people of diverse sex, genders, and sexual orientations; immigrant populations; uninsured populations; and other populations that may experience exacerbated health, social, and economic burdens in the area due to your project.
- Reducing or eliminating barriers to access for health, social, and public services (e.g., translation, transportation, childcare, etc.) to reduce negative health and social impacts from an increased population in Northeastern region.
- Ensuring appropriate reading or comprehension level for communications materials.
- Ensuring cultural appropriateness of communications and service delivery.
- Increasing priority group participation in the development and planning process of mitigation activities that target health and social outcomes.
- Offering staff education, training, or professional development opportunities in relation to mitigation activities for priority populations.
- Ensure greater alignment and collaboration with complementary projects or partners (i.e., local, regional, provincial, or federal organizations) both inside and outside of the health sector; and,
- Continued meaningful engagement and transparency with health and social service authorities in the region.

Northeastern Public Health looks forward to building on this meaningful relationship with Canada Nickel Company and the Impact Assessment Agency of Canada to protect the health and wellbeing of the vibrant communities in the Northeastern region.

Sincerely,



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Table 1: Impact Statement Recommendations

Chapter Number	Topic	Description	Section Comment
5	Alternative Assessments	The Proponent's review of the Project's components to identify and evaluate a reasonable range of alternatives based on technical and economic feasibilities. In addition, an assessment on potential effects, including environmental if applicable, on key valued components (VC).	The Environmental Health (EH) Department review included the potential effects on groundwater, surface water, domestic sewage, waste management and water treatment. Follow-up programs are proposed to verify the accuracy of the impacts of the Project and to evaluate the effectiveness of the proposed mitigation measures.
12	Assessment of Potential Effects on Atmospheric Environment	The Proponent's review of potential changes to air quality and light conditions. AIR QUALITY Air quality assessment included substances that have standards and guidelines outlined in federal and provincial requirements. Some air contaminants that were assessed include: suspended particulate matter, particulate matter 2.5, particulate matter 10, carbon monoxide, and others. The Proponent also assessed stationary or fugitive sources including respirable crystalline silica and metallic minerals. LIGHT Although there are no legal requirements for the amount of obtrusive light emitted from projects, the Proponent used the "Use of Commission on Illumination" guideline in their assessment. This component was assessed since light can affect sleep and light shining in windows, reduce visibility and might affect people seeing stars.	AIR QUALITY As mentioned in the Impact Statement, changes in air quality are expected therefore mitigation plans will be implemented. There is also an <i>Air Quality Management Plan</i> that will outline these measures and follow-up monitoring. The Proponent has stated their commitment to reassess the need for additional mitigation measures that might be identified as the Project moves through its phases. Note – Most of the assessment did use the "worst case scenario emissions" which are around the Year 7 mark. Adverse air quality events will need to be reported to appropriate agencies, including Northeastern Public Health. LIGHT There are mitigation plans for light for this Project that will look to limit the effects of light around the Project. 1-877-442-1212  nep.ca 



<p>13</p>	<p>Assessment of Potential Effects on Acoustic Environment</p>	<p>The Proponent assessed noise and vibration for the Project since there are potential effects on human health and well-being.</p> <p>Health Canada guidance was used for the assessment of predicted effects since there are no federally regulated noise criteria/limits.</p> <p>Several provincial and municipal guidelines were also considered for noise and vibration criteria at all phases of the Project.</p>	<p>The creation of the Conceptual Noise and Vibration Management Plan outlines mitigation measures, the process for communication with the public and how to address complaints received for noise and vibration from the Project.</p> <p>Despite changes in noise and vibration being expected, the Proponent will implement a follow-up and monitoring program to verify accuracy of effects and effectiveness of mitigation measures that are outlined in their Management Plan.</p>
<p>14</p>	<p>Assessment of Potential Effects on Ground Water</p>	<p>The Proponent assessed the potential effects on groundwater due to its potential use as a potable drinking water source, importance to ecological habitats, and culture importance.</p> <p>The assessment was completed using the several federal and provincial regulatory requirements that apply for groundwater since there are several interactions with groundwater in all phases of the Project that can change the water quantity and water quality.</p>	<p>The Proponent will have a <i>Site-Wide Water Management Plan</i> to address mitigation measures for any potential interactions that the Project will have with groundwater.</p> <p>As for the potential changes to water quantity over the course of the Project, the Proponent will have mitigation measures but does indicate that there will be a lowering of the water table that is irreversible.</p> <p>Mitigation measures have been identified for potential changes to water quality to avoid seepage into groundwater. The implementation of the <i>Metal Leaching and Acid Rock Drainage Management Plan</i> addresses measures to reduce or limit the known and potential risks for this component of the Project. The effects on groundwater for the Project are described as moderate and irreversible.</p> <p>The Proponent has committed to a follow-up and monitoring program for the potential effects on groundwater.</p> <p style="text-align: right;">1-877-442-1212 </p> <p style="text-align: right;">neph.ca </p>



			Adverse groundwater results and events will need to be reported to appropriate agencies, including Northeastern Public Health.
15	Assessment of Potential Effects on Surface Water	<p>This assessment includes the effects on surface water, also incorporating all water running over site or in storage above the groundwater.</p> <p>Several federal and provincial regulations and regulatory guidance and criteria were consulted in this evaluation for surface water quality. The Proponent will work with the Ministry of Environment, Conservation, and Parks (MECP) for an Industrial Sewage Works – ECA for the operation of the industrial sewage works system for the Project.</p> <p>Concerns were expressed for increases in iron, mercury, arsenic, nitrogen, and cobalt into surface water due to operations.</p> <p>The pathways assessed were changes in surface water quantity and surface water quality due to construction of Project infrastructure and final discharge points and seepage from the stockpiles.</p>	<p>The Proponent will have a <i>Site-Wide Water Management Plan</i> to address mitigation measures for any potential interactions that the Project will have with surface water.</p> <p>In addition to other parameters assessed, chrysotile was studied since it is present in the orebody. After assessment using US EPA guidelines, chrysotile is not expected to be produced by the Project in surface water discharges at any concentrations of concern.</p> <p>The Proponent does commit to ongoing follow-up and monitoring of the surface water.</p> <p>Due to the potential for surrounding residents to use these waterbodies as a drinking water source and recreational use, any adverse incidents and events need to be reported to appropriate agencies, including Northeastern Public Health.</p>
20	Assessment of Potential Effects on Climate Change	<p>This Project will result in the release of greenhouse gas (GHG) emissions, with carbon dioxide, methane, and nitrous oxide being the emissions of concern.</p> <p>The potential effects assessed are changes in the GHGs into the environment and the changes in carbon sinks.</p> <p>Despite the potential effects related to climate change, the Project has a Net-Zero Plan that aims for zero net GHG emissions by 2050 and beyond.</p>	<p>The Proponent does have mitigation plans for both effects highlighted that will offset the effects to the climate as much as they can. They will be using carbon sequestration to lessen the emissions potential and the changes to the carbon sinks are predicted to be positive due to the increase in carbon sinks.</p> <p>The Proponent will need a monitoring program to ensure effects related to</p> <p style="text-align: right;">1-877-442-1212 </p> <p style="text-align: right;">neph.ca </p>






			climate change are not having a greater impact than predicted.
21	Assessment of Potential Effects on Health	<p>The Proponent assessed the changes in physical health, changes in mental health and well-being, and changes in community safety.</p> <p>Physical health assessment included:</p> <ul style="list-style-type: none"> • Impacts on health, • Biophysical pathways such as air, water, food and noise, • Effluent discharge in waters of Project area, • Effects from accidents and malfunctions such as spills and releases, • Effects on health outbreaks on limited medical capacity, • Effects of increased traffic and decline in road safety, and • Increase in collisions on the road. <p>Country Foods assessment included:</p> <ul style="list-style-type: none"> • Actual and perceived risks due to changes in recreational and drinking water quality, • Accessibility and contamination of country foods, disease and parasites in wildlife, • Concerns regarding pesticides and herbicides, • Dispersal of sprays and their safety to consume, • Effects on fish, • Animal health and quality due to ingestion of airborne contaminants from mine tailings, and • Effects of mine dust on moth medicine. 	<p>The assessment did reveal both positive and negative impacts on the three main areas reviewed.</p> <p>Overall, the effects on health are thought to be low to moderate in magnitude over the course of the Project and reversible when the Project is complete.</p>



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		<p>Mental Health and Social Well-being assessment included:</p> <ul style="list-style-type: none"> • Impacts of accidents and malfunctions that affect the environment and mental health, • Increased risk to community members due to influx of workers that can affect services, safety, mental health, addictions and well-being, • Psychological health due to fear of consuming contaminated wildlife and fish, • Lack of dedicated health care centres, and • Risk of increased traffic on roads. <p>Community Safety assessment included:</p> <ul style="list-style-type: none"> • Impacts on social well-being from migrations, crime rates, addictions, and mental health, • Impacts on women, children, and 2SLGBTQQIA+ individuals, • Discrimination and violence towards Indigenous individuals, • Increased risk of human trafficking, and • Traffic safety around Big Water Campground. 	
30	Assessment of Potential Effects of the Environment on the Project	<p>The assessment included both natural and external events that have the potential to affect the environment, health, social and economic conditions.</p> <p>The created plans include mitigation measures for the potential effects on the environment as a result of extreme temperatures, precipitation (flood, snow, freezing rain and drought), high winds, lightning, and wildfires.</p>	<p>A detailed Climate Change Risk Assessment has been completed to assess the risks to the Project infrastructure and effects from climate change and extreme weather events.</p> <p>1-877-442-1212 </p> <p>neph.ca </p> 

			<p>Each of the potential effects has been assessed and mitigation plans are proposed for each situation.</p> <p>An <i>Emergency Preparedness and Response Plan</i> has also been created and outlines plans, training, and risk assessments.</p> <p>The Proponent has committed to implementing follow-up and monitoring programs for these potential areas of concern.</p>
31	<p>Assessment of Potential Effects of Accidents or Malfunctions</p>	<p>Assessment of the response to the Project-related accidents and malfunctions of the areas identified in the Impact Statement.</p> <p>The <i>Emergency Preparedness and Response Plan</i> will facilitate prompt and efficient response actions, outline responsibilities, define communication protocols (including relevant regulatory agencies, and provide site information and contingencies.</p> <p>The accidents and malfunction scenarios that have been assessed include:</p> <ul style="list-style-type: none"> • Tailings Management Facility Malfunction • Release of untreated contact water • Release of fuel and hazardous materials • Open Pit slope failure • Stockpile slope failure • Accidental fire • Water diversion failure 	<p>Each identified potential accident or malfunction scenario has been assessed for risks, prevention measures, contingency plans and emergency measures.</p> <p>For all the listed scenarios, most did have a low or very low risk rating.</p> <p>Adverse accidents and malfunction events will need to be reported to appropriate agencies, including Northeastern Public Health.</p>
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32	Assessment of Potential Effects on Canada's Ability to Meet Environmental Obligations and Climate Change Commitments	The Impact Statement is required to describe the effect of the Project in the context of environmental obligations, with a focus on Government of Canada's obligations and commitments to the environment and climate change	<p>The Statement's chapters address how the project will meet Target 3 (protect and conserve important environmental areas) and Target 7 (potential emissions, effects and mitigation plans).</p> <p>Target 4 (mitigation measures for recovery) and Target 11 (offsetting and reclamation activities) and Target 6 (invasive species management) are also addressed in the Impact Statement's chapters.</p> <p>The proposed net-zero plans and Carbon Sequestration is projected to have an overall positive impact on Canada-wide GHG emissions reduction targets.</p>
34	Follow-up Programs and Adaptive Management	The Proponent's commitment to have follow-up programs to verify the accuracy of the Impact Statement and evaluation of the effectiveness of the mitigation measures proposed.	<p>Follow-up programs have been proposed for the following components:</p> <ul style="list-style-type: none"> • Geology and Geohazards • Soil • Atmospheric Environment – Air Quality • Acoustic Environment • Groundwater • Surface Water • Vegetation, Riparian and Wetland Environments • Fish and Fish Habitat • Birds and Bird Habitat • Wildlife and Wildlife Habitat <p>Programs should include process for reporting adverse sampling results and findings to relevant agencies, including Northeastern Public Health, tracking mechanisms for environmental issues, triggers, and intervention mechanisms.</p>

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