



July 21, 2023

Impact Assessment Agency of Canada

Transmitted by email: NorthernRoad-RouteDuNord@iaac-aeic.gc.ca

Re: WCS Canada comments on Draft Planning Phase Documents for the Federal Impact Assessment of the Northern Road Link Project

To whom it may concern:

We are providing comments on the draft Tailored Impact Statement Guidelines (TISG)¹ and draft Public Participation Plan² developed by the Impact Assessment Agency of Canada (IAAC) to support the federal impact assessment process for the Northern Road Link (NRL) project³.

First and foremost, we are compelled to emphasize that the 30-day period for the draft TISG is insufficient for a review of this lengthy document. We, like any other member of the public who might wish to comment on this document, did not know when to expect its issuance; moreover, this review period falls during the summer months when many people have reduced working hours and reduced access to support services such as childcare to be able to meaningfully engage with the process.

The "tailored" aspect of the Impact Assessment Guidelines means that the direction provided by IAAC to the proponent "is based on the nature, complexity and context of the project"⁴ While not explicitly stated as an aim in the IAAC Guidelines Template, effective tailoring should focus on the most important areas where the project is most likely to yield negative biophysical, social, and health impacts. True focus can and should contribute to the efficiency of any particular project assessment by emphasizing key elements that matter the most, while setting aside less important elements that lead to wasted effort that is largely performative. As such, a truly tailored approach to project-level assessments like this one can and should result in more streamlined Impact Statements than has traditionally been the case. To achieve this, however, the focusing process must be highly collaborative, beginning in the planning phase and aimed at identifying key issues and priority values that require a high degree of attention, including those identified by Indigenous communities and the public. We note the statement in the TISG template that tailoring is to be "informed and guided by..... consultation and engagement with the public, Indigenous groups, lifecycle regulators, jurisdictions, federal authorities (FAs) and other participants during the Planning phase." Instead, however, this has been a passive consultation process that we are now reacting to without the benefit of discussion with other knowledge holders.

¹ <https://iaac-aeic.gc.ca/050/evaluations/document/152055?culture=en-CA>

² <https://iaac-aeic.gc.ca/050/evaluations/document/152056?culture=en-CA>

³ <https://iaac-aeic.gc.ca/050/evaluations/proj/84331?culture=en-CA>

⁴ <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/tailored-impact-statement-guidelines-projects-impact-assessment-act.html#toc1>

This draft TISG leaves key decisions (e.g., selection of valued components, temporal/spatial boundaries, etc.) to the proponents rather than as direction informed by collaborative discussion. Ideally, this would occur through the establishment of working groups early in the planning phase. Working groups should be comprised of the proponent, government experts, independent scientists, Indigenous knowledge holders and scientists, key members of the public (such as members of local conservation organizations), and other involved governments (such as local governments). We acknowledge that there is little time for this in the prescribed 180-day planning phase under the IAA, but the resultant product is considerably weaker than it needs to be.

With this in mind, herein we provide comments to this draft TISG in the areas where we have the most expertise. We focus on points aimed at enhancing the tailoring aspect of the guidelines, as discussed above. Below, we describe our expertise, and then provide feedback and recommendations on specific sections of the draft TISG. We then provide further feedback and recommendations on the Public Participation Plan.

Our expertise:

We are submitting this feedback in our capacities as Wildlife Conservation Society (WCS) Canada scientists conducting field and applied research on wildlife species and ecosystems as well as providing technical advice and guidance to First Nation communities regarding monitoring, research, and the design and implementation of Indigenous Protected and Conserved Areas (IPCAs). WCS Canada is a national non-government organization that has been engaged in Ontario since 2004, with research and conservation priorities in Ontario largely focused on the far north. In addition to field research on large mammals in the region between 2002-2012, Dr. Justina Ray was a member of the Far North Science Advisory Panel, the Ontario Wolverine Recovery Team, the Ontario Caribou Science Advisory Panel, and the Committee on the Status of Species at Risk in Ontario (COSSARO). Dr. Cheryl Chetkiewicz has conducted applied research on cumulative effects, consistently promoted regional and strategic impact assessment for the far north in Ontario⁵ for the past decade and is a board member with Ontario Association of Impact Assessment (OAIA). Dr. Lorna Harris leads WCS Canada's Forests, Peatlands, and Climate Change program, and is a recognized expert in peatlands ecology, and the role peatlands play in carbon storage and sequestration⁶. Dr. Constance O'Connor currently leads WCS Canada's conservation program in northern Ontario, and has expertise in freshwater fish, including serving on the Freshwater Fish Specialist Subcommittee for the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and leads a co-created research and outreach program with Moose Cree First Nation focused on lake sturgeon⁷. Dr. Matthew Scrafford leads the wolverine program in northern Ontario, and actively contributes to best management of wolverines at the federal, provincial, and forestry management unit level. Claire Farrell coordinates WCS Canada's community outreach and youth programming in northern Ontario and has expertise in boreal songbirds.

Collectively, we have extensive research and conservation experience with caribou and wolverine and currently have ongoing field-based research programs on wolverine, lake sturgeon, and peatlands; we support and collaborate with numerous First Nations in northern Ontario on fish, wildlife, and peatlands

⁵ https://www.wcscanada.org/Portals/96/Documents/RSEA_Report_WCSCanada_Ecojustice_FINAL.pdf

⁶ <https://esajournals.onlinelibrary.wiley.com/doi/10.1002/fee.2437>

⁷ <https://learningfromlakesturgeon.ca/>

research and community-based monitoring as well as provided scientific and technical support for communities engaged with the creation of IPCAs.

We have been actively involved in federal impact assessment (IA), since the planning for the Impact Assessment Act IAA (2019) first began in 2016, have engaged directly with Impact Assessment Agency of Canada and other federal departments on an ongoing basis regarding projects and process, provided public comments both in person and in writing, throughout the process, and are highly familiar with the (IAA) as well as the significant published literature on impact assessment. Similarly, we are very familiar with Ontario environmental assessment and land use planning laws, policies and processes; we alternately advised or provided written comments to various Ontario governments over the past 15 years, including the current government on changes being made or considered to many environmental laws, including Ontario's Environmental Assessment Act (EAA). We have provided comments previously on the two road projects that connect with the Northern Link Road, which will effectively be a single road once finished: the draft TISG for the Webequie Supply Road (WSR) project⁸, and the draft TISG for the Marten Falls Community Access Road (MFCAR) project⁹. We have also been engaged in the development of the terms of reference for the Regional Assessment for the Ring of Fire and earlier this year submitted comments on the Summary of Initial Project Description for the NRL project¹⁰.

Comments on the TISG:

General comments

Generally speaking, we found the TISG to be comprehensive, in that it covered multiple topics, but still very general. Accordingly, it falls short of being tailored to the specific context of this project in many respects. As one of too many examples to mention, the guidelines don't even specify what type of project this is (p. 18 "The statement should broadly classify the Project (e.g., all-season multi-use road, electricity supply, mineral extraction/processing, etc.)").

The type of project is in fact key to the tailored aspect of these guidelines. This is a region-opening road project within a globally significant area characterised by high ecological integrity. This carries with it significant ecological and social risk in terms of cumulative effects (due to the potential for growth-inducing impacts¹¹), and non-trivial technological challenges in terms of construction in such extensive wetlands with multiple water crossings. This should be the clearly articulated as the starting point for "tailoring" the guidelines accordingly.

We have concerns about the structure of the draft document, whereby so many topics that should be considered together are presented in separate sections. This kind of approach We stress that an integrated approach will be required to steer the IA towards producing the information and data that we most need to determine impacts.

⁸<https://www.wcscanada.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=37094&PortalId=96&DownloadMethod=attachment>

⁹<https://www.wcscanada.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=37097&PortalId=96&DownloadMethod=attachment>

¹⁰<https://www.wcscanada.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=45811&PortalId=96&DownloadMethod=attachment>

¹¹ <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12696>

To illustrate, given the location of this project within globally-significant peatlands, we strongly recommend the development of a **Peat Management Plan** -- informed by data and information collected during detailed peat depth surveys, peat coring to establish peat physical properties (e.g., bulk density, shear strength) and hydrological and ecological surveys (e.g., vegetation surveys) as part of data collection for baseline conditions and mitigation measures in Sections 8.4 (Topography, soil and sediment), 8.5 (Riparian and wetland environments), 8.6 (Vegetation), and 8.7 (Groundwater and surface water). These data should also be used to estimate the amount of peat carbon that may be lost during excavations and other disturbances, including as GHG emissions (carbon dioxide and methane) – as required by the Strategic Assessment of Climate Change (SACC) for the IA (Section 8.12 Climate change).

For addressing biodiversity in a more comprehensive fashion than is presented in the draft TISG, we recommend applying the CBD Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment when designing the tailored impact statement guidelines (TISG).¹²

We have not been consistent herein with respect to provision of links and references along with our recommendations, but welcome any follow up to do so, if requested.

1.1 Factors to be considered in the impact assessment

The TISG states that the impact assessment must take into account, “any cumulative effects that are likely to result from the designated project in combination with other physical activities that have been or will be carried out”. We agree with this statement, and thereby stress the need for this NRL project impact assessment to be considered, practically speaking, as one piece of a continuous road that includes the WSR and MFCAR segments. There is no doubt that this road will induce growth in the region that would not be otherwise possible. This includes activities associated with the development of the Ring of Fire – both known and unknown at this time. Any assessment of cumulative effects needs to be at a temporal and spatial scale that considers these related projects.

Further, the TISG states that the impact assessment must take into account, “mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated project”. Here we recommend that the impact assessment take into account whether mitigation is possible and avoid impacts where the environmental and social impacts cannot be mitigated.

2.1 The proponent

- The TISG should clarify the role of the Ontario government in the impact assessment, particularly given its role in financing the project.
- The TISG should direct the proponent to clarify what opportunities have been provided to it to allow them to exercise powers and duties under the Act (par. 114(1)(d) and (e)) in this project.
- The TISG should direct the proponent to identify an interest or effort for the project to be part of an Indigenous-led assessment (ss. 22(1)), particularly as this current project assessment is primarily a non-Indigenous construction, embedded in Canadian legal norms.

¹² CBD COP 8 Decision VIII/28, Impact assessment: Voluntary guidelines on biodiversity-inclusive impact assessment: <https://www.cbd.int/decision/cop/?id=11042>.

2.2. Qualifications of individuals preparing the Impact Statement

- We appreciate that the qualified person could demonstrate their expertise through formal education, training, or certification, or credibility or standing as a holder of Indigenous Knowledge or community knowledge.
- We certainly support the expectations that proponents must demonstrate scientific integrity in their preparation and delivery of Impact Statements, as articulated here.

3.1. Project overview

While we agree with the statement “If the Project is part of a larger sequence of projects, the Impact Statement must outline the larger context, including likely future developments by other proponents that may use or rely on the Project, and activities that may be enabled by the Project,” we question why this is being posed as an “if” when it is already known to be true for this project. The TISG should replace this “if” statement with clear direction that the proposed NRL project must be explicitly scoped within the context of the proposed WSR, the proposed MFCAR, and proposed Ring of Fire mineral development. These projects are inherently linked, and only at the scale of the combined projects can the potential risks, impacts, and alternatives be adequately or sensibly addressed.

3.2 Project location

- The TISG should clarify what is meant by the “area”.
- The TISG should direct the proponent to include Dedicated Protected Areas (DPAs) and any other areas of ecological and social significance identified by the community during the community-based land use planning process (CBLUP) with Ontario (e.g., Enhanced Management Areas). Any approved land use plans, draft terms of reference for land use plans, or similar designations in neighbouring land use planning processes, as well as IPCA proposals that are within the broadly-scoped area should be included in the TISG as areas of environmental and cultural significance.
- The Impact Statement must include areas identified by First Nations to be withdrawn for protection under such tools as the Ontario *Mining Act* provisions for Sites of Aboriginal Cultural Significance (SOACS).
- Key Biodiversity Areas (which includes Important Bird Areas) should be included.

3.4. Project components

- The “associated and ancillary works” must be more explicit and tailored to the proposed project, rather than left up to the discretion of the proponent. Again, given the undisputed fact that this is one segment of what will ultimately be one access road, associated works must include the proposed WSR and the proposed MFCAR.
- While the footprint, locations, volumes, and development plans for topsoils and other overburden are included in the list of required project components for the IA, it is important to also plan for and include details specifically for peat soils. The hydrological and physical properties of peat soils differ considerably to other soils, and so specific planning and

management of peat, from a practical perspective (e.g., peat soils can be very deep and very sloppy) as well as environmental, is necessary.

We recommend including details of peat excavations and disturbances as part of this section. The location of footprint of disturbed peat, locations of peat excavations, volumes of excavated peat, peat storage areas and any peat disposal (peat as waste) or other use, including for any landscaping and restoration of surface vegetation along the edges of the road following construction, may be described in a 'Peat Management Plan' in the IA.

- Include Key Biodiversity Areas with ANSIs, etc.

3.5. Project activities

As above, the assessment of activities such as ditching, culverts, and extraction of borrow material needs to take into account impacts to landscape carbon storage and sequestration given that the proposed project is within an ecologically sensitive and globally important peatland.

3.5.2. Operation and Maintenance

We recommend including a detailed monitoring plans and mitigation measures for changes in peatland hydrology and vegetation following construction of the road, as part of the anticipated activities during the operation and maintenance of the project. Roads and other linear disturbances are known to impact peatland hydrology by changing the flow of both surface and groundwater in the peat. Roads may cause higher water levels and flooding to occur on the upstream side of the road, and result in lower water levels and more significant drainage of peat on the downstream side. These changes in hydrology change the vegetation on the surface and therefore the structure and function (e.g., carbon cycling - including GHG emissions and removals) of the peatland. Monitoring should be carried out on peatlands along transects that continue to an appropriate distance from the road, on each side, and at regular intervals along its length.

3.5.3. Suspension, decommissioning and abandonment

We recommend including a detailed peatland restoration and reclamation plan for all disturbed and/or excavated peatland areas (construction and operations), as part of the anticipated activities during suspension, decommissioning and abandonment of the project.

4.1. Purpose of the project

Overall, the purpose of the NRL project needs to be explicitly considered within the context of the WSR and the MFCAR, as well as proposed future Ring of Fire development, but this means that risks and alternatives also need to be framed at this scale. For example, in the Summary of Initial Project Description¹³, the benefits of the NRL project were framed within the context of an overriding assumption that the WSR and MFCAR projects will also move forward and that the three projects together will form one access road. Yet, the alternatives and potential risks and impacts were then largely framed as if the NRL were an isolated project. This approach biased the discussion in the Project Description to overestimating the potential benefits while narrowing potential alternatives and

¹³<https://iaac-eic.gc.ca/050/documents/p84331/147651E.pdf>

underestimating the potential risks and impacts. However, even this variation in the implied project scoping was inconsistent. For example, in some sections within the Summary of Initial Project Description, the purpose of the NRL project were sometimes stated as connecting Webequie First Nation (WFN) and the mineral deposits in the Ring of Fire area (both of which are contingent on the WSR and MFCAR projects going forward). But in other places in the document, the purpose of the project is stated as connecting the WSR and MFCAR by an all-season road (which in and of itself does not have a large benefit as a project purpose, particularly if the other projects don't go forward).

Accordingly, it is vital for the TISG to provide clear direction to the proponent about how to articulate the purpose of the project in a manner that will yield a consistent approach that acknowledges the role of the NRL as part of one proposed road.

4.2 Need for the project

- There should be clear direction in this section of the TISG that any articulated needs for the project be explicitly reconciled with CEA (section 7.7). In our experience, there is a strong tendency for proponents in this section of the statement to speculate freely about future development that could be spawned by a project like this, particularly given its role in providing region-opening access, as a means of justifying the “need” for the project. But then when it comes to CEA analysis later on in the impact statement, only those projects that are “reasonably foreseeable” are included in the analysis, which results in a considerably more constrained view. Accordingly, the TISG should provide direction to the proponent that the needs section (4.2) be consistent with the later section on cumulative effects (7.7), with respect to the future undertakings being considered for both.
- We expect the impact statement to clearly show how this project is needed by: 1) WFN; 2) MFFN; 3) Other First Nations given roles and responsibilities under Treaty No. 9; and 4) the public interest.
- The impact statement must justify the project in the event it does not become part of a larger all-season road network connected to the Ontario road and rail network.

4.3 Alternatives to the project

- See above, under Purpose of the Project, and point about scoping and alternatives.
- The TISG should direct the proponent to assess how the alternative routes will be developed given aggregate sources and identify where aggregate may be coming from eskers or other glacial deposits. Aggregate coming from other areas needs to also be identified along with access routes.
- Eskers are ecologically important (Far North Science Advisory Panel Report 2010) and socially important. However, they are also suspected to be a source of chromium and, potentially, other metals naturally abundant in the region, to northern rivers and lakes (Dyer & Handley 2013). This makes them a potential human health concern as well since removal of esker materials for road building can mobilize these metals into the aquatic and terrestrial environment.

4.4. Alternative means of carrying out the Project

We recommend including a full feasibility assessment of the proposed road engineering techniques proposed for sections on peatlands (which also include numerous open water pools), including if sections of the road are proposed to be ‘floating’ (using a geogrid technique) and if this type of road is suitable for long-term use and expected loads for the road. Alternative road designs and routes that reduce disturbances to peatlands and the volume of excavated peat (therefore reducing the loss of stored peat carbon and increased GHG emissions) should be described in this section of the IA.

5. Description of public participation and views

The TISG should seek community knowledge not just about mitigation measures, but also thresholds of acceptable disturbance, and avoidance of effects where mitigation is not possible.

6. Description of engagement with Indigenous communities

There is significant Indigenous opposition to the Ring of Fire development, including communities declaring a moratorium on the access road projects until a co-created regional assessment can be conducted. These significant concerns need to be addressed under Indigenous engagement.

7.1. Baseline methodology

The TISG states that “To the extent that it is reasonable, the proponent must utilize data collected for the assessments of Marten Falls Community Access Road and Webequie Supply Road.” We welcome this, but ideally the data collection for the three components of what are essentially a single project should be fully coordinated. Many valued components, such as caribou and wolverine, can’t be assessed at the scale of each road segment, and need to be coordinated and considered at the scale of the full road (i.e., the WSR, MFCAR, and NRL, which together effectively constitute a single region-opening road project).

7.4. Spatial and temporal boundaries

This should be at the watershed scale of the major watersheds affected by the combined MFCAR, WSR, and NRL projects.

The study area boundaries offered for wolverine and caribou are both too small to allow for proper consideration of parameters such as the zone of influence, or the distance at which caribou change their behaviour, habitat selection and distribution relative to disturbance¹⁴. The TISG should provide evidence for the direction on this.

We are concerned about the lack of specific direction offered on spatial and temporal boundaries for the study areas and valued components. These are excellent examples of aspects of the assessment that could have benefitted from a collaborative planning process that just did not occur in this situation.

¹⁴<https://bioone.org/journals/wildlife-biology/volume-18/issue-2/11-045/Estimating-the-zone-of-influence-of-industrial-developments-on-wildlife/10.2981/11-045.full>

7.6. Mitigation and enhancement measures

Mention of the mitigation hierarchy does not appear until the third page, and so it has almost no weight and plays no role in framing this important section. It should appear in the very first paragraph and frame the entire section. Required under IFC Performance Standard 6¹⁵ and recommended by the International Association for Impact Assessment (IAIA; among other leading bodies on impact assessment and biodiversity), the mitigation hierarchy requires proponents to take all measures to first avoid effects on biodiversity, then minimize them, then restore them, and only as a final step – if necessary and if possible – to offset them.¹⁶ The Cross-Sector Biodiversity Initiative Guide¹⁷ for Implementing the Mitigation Hierarchy provides particularly useful guidance, and states: “As a rule, preventive measures are always preferable to remediation measures — from ecological, social and financial perspectives.” Most development banks also contain helpful text in their standards and policies. The mitigation hierarchy is widely recognized as a critical tool for helping ensure that projects contribute to rather than hinder parties’ ability to meet their biodiversity obligations, goals, strategies and targets. It requires proponents to take all measures to first avoid effects on biodiversity, then minimize them, then restore them, and only as a final step, if necessary and if possible, to offset them.

For the mitigation hierarchy to be effective¹⁸:

- It should be applied at the earliest stages of the IA, and continue to be applied throughout;
- It must entail the early and ongoing identification and comparative evaluation of alternatives against the objectives;
- All feasible alternatives for achieving each step of the mitigation hierarchy should be exhausted before “stepping down;”
- Guidance should define the circumstances in which residual biodiversity harms may be permitted, to avoid IAs becoming overly-focused on whether to allow such harms;
- The goal of the mitigation hierarchy should be net gain, except in prescribed circumstances where no net loss may be acceptable;
- Offsetting must be the option of last resort, only after all other feasible options have been exhausted; and

¹⁵ International Finance Corporation (IFC), Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (2012): https://www.ifc.org/wps/wcm/connect/5e0f3c0c-0aa4-4290-a0f8-4490b61de245/GN6_English_June-27-2019.pdf?MOD=AJPERES&CVID=mKqG85z.

¹⁶ In addition to IFC PS6, see International Finance Corporation, *Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts*: https://www.ifc.org/wps/wcm/connect/8804e6fb-bd51-4822-92cf-3dfd8221be28/PS1_English_2012.pdf?MOD=AJPERES&CVID=jiVQlfe; Asian Development Bank, *Safeguard Policy Statement* (2009): <https://www.adb.org/sites/default/files/institutional-document/32056/safeguard-policy-statement-june2009.pdf>; African Development Bank Group, *Integrated Safeguards System – Policy Statement and Operational Safeguards* (2013): <https://www.afdb.org/en/documents/document/afdb-integrated-safeguards-system-policy-statement-and-operational-safeguards-34993>; European Bank for Reconstruction and Development (EBRD), *Environmental and Social Policy* (2019): <https://www.ebrd.com/environmental-and-social-policy.pdf>.

¹⁷ Cross-Sector Biodiversity Initiative, *A Cross-Sector Guide for Implementing the Mitigation Hierarchy* (2015): <http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/> [CSBI 2015].

¹⁸ Johnston, A. and J.C. Ray (2023) *Assessing Biodiversity under the Impact Assessment Act: Principles and Guidance for Safeguarding Biodiversity Through Project Assessment*. Being prepared for translation. Attached with this submission.

- Offset design should align with the purposes of fostering sustainability and advancing reconciliation.

The TISG states that the Impact Statement must, “provide biodiversity offsets to address any residual adverse environmental effects that cannot be avoided or sufficiently minimized” but it must also acknowledge cases where biodiversity offsets may be entirely infeasible, and so harm must be avoided.

7.7. Cumulative effects assessment

- The cumulative effects assessment portion of the TISG is written mostly in generic fashion, with little to indicate the particular context in which the project is situated. As stated in the NRL project description, a key purpose of this road project will be to provide access to future development, which translates to significant potential for growth-inducing impacts. This fact should serve to frame this entire section and the cumulative effects analysis.
- While the list provided on p. 50-51 for projects and activities to include provides a good starting point, realistic scenario planning should include potential future development, e.g., undertakings that could plausibly arise in areas of important mineral potential. This would require removal of the constraint imposed in the IAAC guidelines to restrict the examination to “reasonably foreseeable” activities. There is no other meaningful way to “assess the cumulative effects to each valued component selected by comparing the future scenarios with the Project and without the Project and must reflect the full range of cumulative effects and not just the project’s contribution” – direction that we agree with.
- Overall, we suggest that the language describing the selection of valued components will prioritize those valued components suggested or brought forward by consulted Indigenous communities, not just consider them.

8.0 Biophysical environment

- We strongly recommend that an overarching section on biodiversity be included that subsumes a number of the sub-sections within 8.0 and integrates the disparate topics accordingly. As stated in a recent report we wrote for the Technical Advisory Committee of IAAC¹⁹, “the IAA reflects a growing awareness of the need to better consider biodiversity through its broadened scope of factors to consider, and in particular through the requirement to consider the extent to which a designated project hinders or contributes to the Government of Canada’s ability to meet its environmental obligations. Biodiversity is also relevant to the assessment of positive and adverse environmental effects, sustainability, effects on Indigenous peoples and impacts on Indigenous rights, and the intersection of sex and gender with other identity factors. Biodiversity will also be a key consideration in the public interest determination, through both the impact assessment report and the factors enumerated in section 63. In some cases (for example, where there will be effects on aquatic species) the biodiversity effects will be federal effects; in other cases (such as where a proponent requires a *Species at Risk Act* permit to harm a listed wildlife species or its habitat), the effect may be considered to be a direct or incidental effect. In either

¹⁹ Johnston, A. and J.C. Ray (2023) *Assessing Biodiversity under the Impact Assessment Act: Principles and Guidance for Safeguarding Biodiversity Through Project Assessment*. Being prepared for translation. Attached with this submission.

case, the effects must be considered in the assessment and the public interest determination, along with the extent to which the project hinders or contributes to Canada’s ability to meet its environmental obligations related to biodiversity, the extent to which it fosters sustainability, and its impacts on Indigenous groups and the rights of Indigenous peoples.”

- In the draft TISG, “biodiversity” receives little mention, and is never defined. We recommend that the revised TISG adopt the CBD definition of biodiversity (Convention on Biological Diversity, Article 2): “the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.” In other words, the IA should recognize that biodiversity is more than just species at risk, and includes common species, cultural keystone species, ecosystem services, and genetic diversity.
- As an overall observation in all the subsections related to biodiversity, no direction is provided in the draft TISG for what are likely to be the impacts of greatest concern that should focus an assessment. We recommend a substantial revision to orient the assessment, which would likely result in a briefer but focused document.

8.5. Riparian and Wetland Environments

We note that the ‘enhancement of existing wetlands’ is included as a proposed compensation measure in Section 8.5.3 (page 66). There are very few scenarios where the structure and function of currently undisturbed wetlands, and particularly peatlands, can be ‘enhanced’. We recommend removing this suggestion from the guidelines for IA as it incorrectly suggests enhancing wetlands is a realistic and practical solution to the disturbance and loss of wetlands and peatlands caused by the construction and operation of the road. It is also near impossible to create new peatlands and we are pleased to see that restoration is preferred over both ‘enhanced’ and newly created wetlands. However, avoiding wetlands and peatlands must be prioritised above these mitigation measures, particularly as all peat carbon lost during construction and operation, including as increased GHG emissions following construction, is irrecoverable in our lifetimes (see Harris et al. 2021²⁰).

8.8. Fish and fish habitat

- It would be helpful to consider species listed by IUCN as well as COSEWIC and COSSARO.
- For contaminants, what contaminants are being considered? These should be listed, should consider the full list covered by the Ontario Guide to Eating Freshwater Fish.
- It would be helpful to talk to local First Nations communities if there is any knowledge of critical habitats (e.g., spawning grounds).

8.9. Birds, migratory birds, and their habitats

- Appreciate the breadth of data sources mentioned, however it is important to consider and include mention that existing sources of bird data have large gaps in northern areas like those of the project’s area. In bird conservation areas of the region, one of the largest threats to bird

²⁰ <https://doi.org/10.1002/fee.2437>

species is lack of data, monitoring or scientific knowledge because of its remoteness²¹. This should be specifically acknowledged in the TISG as key context for this assessment.

- Alternate timing of sampling should be included for specific bird species in the acoustic monitoring strategy developed: for birds of prey like hawks and owls where typical monitoring strategies are insufficient to observe them, and temporal sampling for shorebirds and other migratory birds during spring and fall.
- We suggest including methodologies and opportunities for communities and Knowledge Holders to identify important areas for bird nesting and hunting.
- It is helpful that identifying areas of concentration for bird populations is mentioned, however we suggest also including and prioritizing nesting areas for bird species that exhibit site fidelity because of the potential impacts to be greater for these species (i.e., more individuals impacted over more generations due to site-fidelity). For example, aerial insectivores (e.g., Eastern Whip-poor-will, swallow sp.), Sharp-tailed Grouse, and Common Loons all exhibit site fidelity.
- We suggest considering how to monitor the food quality and stress levels of birds in impacted areas for stopover habitat (e.g., for non-resident, migratory species), because condition of these habitats (e.g., food sources available, condition of environment, adverse weather and disturbance) in these areas can alter and impact migration and breeding success over time.

Overall comments relevant for biodiversity, including species at risk

- It should be indicated that the study area, during winter at least, is within the ranges of caribou from the Boreal Caribou designatable unit and the Eastern Migratory Caribou designatable unit. While boreal caribou are designated as threatened both federally and provincially, Eastern Migratory Caribou are federally endangered, but special concern in Ontario. Nevertheless, they share their winter ranges, and where this road is positioned – along or near the ecotone between the Boreal Shield and the Hudson Bay/James Bay Lowlands, is known to be important for migratory caribou. This is relevant for the direction on p. 100.
- Baseline conditions
 - For many wildlife species, reproductive habitat is critically important for maintaining healthy populations. It is appropriate here to highlight the need to describe reproductive habitats required by these species, and whether their reproductive biology (e.g., fecundity) leaves them particularly vulnerable to human impacts.
 - Important to describe the scale over which a species exists and how this relates to the scale of the suspected impacts of the project.
 - “sensitive” habitat is vague. Might be best to use “important” or “biologically important” habitats.

²¹<https://www.canada.ca/en/environment-climate-change/services/migratory-bird-conservation/regions-strategies/description-region-7/ontario.html>; <https://www.canada.ca/en/environment-climate-change/services/migratory-bird-conservation/publications/strategy-region-8-boreal-softwood.html>

- Important to understand natural processes in the study area that support wildlife species or for which they are naturally adapted, the scale over which these processes exist, and how the Project might affect those processes (e.g., flooding, forest fire).
- As is noted, rare species will be difficult to study but that can't be used as an excuse to reduce survey effort. There should be minimum standards for research effort associated with rare species (e.g., you must put in at least ___ effort to study a low-density species). For many rare or low-density species, two years of sampling is insufficient for providing information on their status and ecology. In Red Lake, Ontario, early wolverine surveys in 2018-2020 led us to believe that females were extremely rare on the landscape relative to males, and that there were overall very few wolverines in the study area. But as our efforts became more efficient in 2020-2022, the number of females and overall population abundance increased, giving us a very different understanding of population demographics. Likewise, it took five years of monitoring to understand female fidelity to reproductive areas within their ranges -- information that would not be attainable with a short survey. Short surveys for rare species also do not enable an understanding of baseline survival and how that might be affected by human activities. The wolverine studies on the MFCAR and WSR are needed but we suspect that additional years of sampling would greatly help with understanding the demographics of the wolverine population there. This underscores how important it is to combine and coordinate efforts with the different road projects, and bring in experts and knowledge holders to focus on what are likely to be the most important areas on which to focus the assessment.
- There should be a strong rationale for why various surveys or studies are carried out and how they will inform the effects of a Project or mitigation strategy. Surveys to understand distribution at coarse scales, or population estimates at a point in time, require substantial effort but it is difficult to understand mitigation that might result from these studies. What exactly does a survey of abundance advance in our understanding of how to manage the Project? Fine-scaled surveys of critical habitat, such as denning and calving areas, are relevant but not every species has critical habitat that is easy to identify in short study periods.
- Study areas for low-density species will have to be very large for "robust evaluation". We know, for example, that wolverines exist at low densities on the eastern part of their Ontario range, which will require study areas to be very large for sufficient sample sizes for population estimates (e.g., spatial density models) or occupancy.
- For wolverines, set back distances are irrelevant because you will very rarely know where the species is denning without intensive telemetry. Both caribou and wolverines will require habitat management at larger scales, and most importantly, reducing human access into their habitats.
- Project study areas are small relative to the scale that many low-density species exist. Prioritizing research effort within Project study areas will give a poor representation of the status of these species in the area.

- Effects to species and their habitat
 - This road goes through an intact area that has seen little disturbance and will therefore constitute a significant disturbance on the landscape, which could be exacerbated by the volume and intensity of traffic²². This kind of impact should focus the assessment. Important to describe how human use of the landscape will change because of the Project and the effects of that use (e.g., human access and trapping pressure, vehicle collisions, hunting, additional roads and trails off the main road).
 - Important to describe effects at various scales that are relevant to the biology of the species.
 - For wolverine, some effects that should be summarized include:
 - Describe how Project will affect wolverine survival through:
 - incidental harvest or legal harvest by Indigenous communities
 - vehicle collisions
 - predation (non-human)
 - Describe how Project will affect wolverine denning habitat availability and the placement of denning areas (e.g., habitat structure is very important to wolverines and roads are often built along moraines and eskers that wolverines use as den sites).
 - Describe how Project will affect wolverine denning behaviour.
 - Describe how the Project will affect wolverine habitat availability.
 - Describe how the Project will affect wolverine movement and habitat connectivity.
 - Estimate the number of wolverines that will be displaced by the Project.
 - Describe how the Project will affect recovery of wolverine (e.g., eastern range expansion).
 - For caribou, the list on p. 103 places too much emphasis on habitat. The road is not by itself going to result in significant habitat removal, and its location is in relatively unproductive boreal forests where the consequences of large-scale removal of conifers is not going to be similar to areas further south within managed landscapes where forestry is the dominant agent of disturbance. The most significant potential impact on caribou from this project is likely to be the barrier the project will impose on movements of individual animals and consequences to survival and mortality. The severity of impacts will depend to a certain extent on traffic volume and intensity, which does not receive any mention in any of the sections that deal with effects on biodiversity in the draft document. This must be corrected.
- Mitigation
 - Critically important to manage human use of new infrastructure to prevent human-wildlife interactions.

²² “anticipated road use by different users” on p. 16

- How do you decide the scale over which mitigation will occur?
- Mitigation and enhancement measures
 - Describe all feasible measures that will be taken to minimize the adverse effects of the Project on wolverine and caribou and their habitats:
 - Minimize the footprint of the project;
 - Restore any all secondary roads associated with construction of the NRL;
 - Avoid the destruction of eskers and moraines that are important structural habitats;
 - Reduce human attractants near road corridors;
 - Develop a plan to reduce human and predator use of linear features;
 - Report on how the project and mitigation measures are consistent with the recovery strategy, action plan, or management plan for the species.

8.12 Climate change

[repeated from introductory section]. Given the location of this project within globally-significant peatlands, we strongly recommend the development of a **Peat Management Plan** -- informed by data and information collected during detailed peat depth surveys, peat coring to establish peat physical properties (e.g., bulk density, shear strength) and hydrological and ecological surveys (e.g., vegetation surveys) as part of data collection for baseline conditions and mitigation measures in Sections 8.4 (Topography, soil and sediment), 8.5 (Riparian and wetland environments), 8.6 (Vegetation), and 8.7 (Groundwater and surface water). These data should also be used to estimate the amount of peat carbon that may be lost during excavations and other disturbances, including as GHG emissions (carbon dioxide and methane) – as required by the Strategic Assessment of Climate Change (SACC) for the IA.

13. Canada's ability to meet its environmental obligations and commitments

In a report prepared earlier this year for the Technical Advisory Committee on Science and Knowledge (Impact Assessment Agency of Canada) and attached to our submission²³, we have detailed considerations relevant to this section of the TISG.

14. Extent to which the project contributes to sustainability

In a report prepared earlier this year for the Technical Advisory Committee on Science and Knowledge (Impact Assessment Agency of Canada) and attached to our submission²⁴, we have detailed considerations relevant to this section of the TISG.

²³ Johnston, A. and J.C. Ray (2023) *Assessing Biodiversity under the Impact Assessment Act: Principles and Guidance for Safeguarding Biodiversity Through Project Assessment*. Being prepared for translation. Attached with this submission.

²⁴ Johnston, A. and J.C. Ray (2023) *Assessing Biodiversity under the Impact Assessment Act: Principles and Guidance for Safeguarding Biodiversity Through Project Assessment*. Being prepared for translation. Attached with this submission.

Comments on the Public Participation Plan

In addition to any follow-up on our comments on the draft TISG, we would benefit from an opportunity to consider technical matters around baseline data collection and effects assessment. Ideally, this could be face-to-face, but can also be a webinar or similar remote session with the proponent and IAAC to discuss the ecological data and baseline studies, particularly on caribou, wolverine, lake sturgeon, and peatlands. Ideally, this would happen before Phase 2. Having a better understanding of the location, nature, and extent of baseline studies conducted to date would support feedback, recommendations, and guidance from WCS Canada moving forward and provide opportunities to consider modeling and other analyses before they are conducted.

We appreciate the funding made available to our organization through the Act (s. 75), although we note that the time required to prepare this submission exceeded the funding allocation we received. Moreover, it is far from complete and would have been enhanced by collaborative discussions with other experts and knowledge holders.

We have found the enhanced Canadian Impact Assessment Registry to be both efficient and easier to use. We particularly appreciate the availability of policy context and guidance documents as well as the efforts to provide plain-language and concise materials including the draft TISG. These measures support our ongoing participation. We thank IAAC for the opportunity to engage, although as noted above, we are deeply concerned about the all-too-brief timelines. This comment period, falling as it did over the summer period, has challenged our ability to provide more thorough feedback.

We are available to engage in any discussions regarding our recommendations and comments and you may contact us to do so. Please feel free to contact us below.

Sincerely,

Constance O'Connor, PhD, Director of the Ontario Northern Boreal Landscape Program

Justina Ray, PhD, President and Senior Scientist

Cheryl Chetkiewicz, PhD, Director of the Indigenous Communities and Conservation Program

Lorna Harris, PhD, Director of the Forests, Peatlands, and Climate Change Program

Matthew Scrafford, PhD, Wolverine Scientist

Claire Farrell, MSc, Science and Youth Coordinator