

28 November 2022

Webequie Supply Road Project
Impact Assessment Agency of Canada
600-55 York Street
Toronto, Ontario M5J 1R7

Via e-mail: webequie@iaac-aeic.gc.ca

Re: Request for Time Limit Extension from Webequie First Nation to the Impact Assessment Agency of Canada (Project reference number: 80183)

Dear Ely Weisbrot,

Thank you for the opportunity to comment on the Request for Extension Report, prepared by SNC-Lavalin, on behalf of Webequie First Nation as the Proponent for the purpose of the Impact Assessment (IA) of the Webequie Supply Road (WSR) Project.

Our remarks draw on our applied and field-based experience as conservation scientists working in the region for the last two decades. Our expertise is in land use planning, impact assessment, and conservation and science research focused on intact forests, freshwater systems, and peatlands, and the fish and wildlife as well as First Nation communities that rely on these functioning ecosystems.

In summary, we support the request by the Proponent for an extension of three years to January 6, 2027 in order to address the information required as described in the Tailored Impact Statement Guidelines (TISG) for the WSR Project. We agree that COVID-19 has had, and continues to have, significant impacts on First Nations communities in the far north in Ontario and we expressed concern throughout this process that the Proponent chose not to pause the WSR Project despite First Nation community requests to do so when faced with health and safety concerns, capacity issues, and ongoing and emergent social crises. We continue to think this current process with respect to COVID-19 highlights the limitations of impact assessment as a tool for social justice and reconciliation with First Nations in northern Ontario.

Overall, the Extension Request provides a good overview of the extent and types of engagement with Indigenous communities, the public, and stakeholders, as well as the biophysical field work conducted to date, secondary sources reviewed, and overall progress to date. We appreciate the inclusion of figures detailing sampling and survey locations as well as the details on the work plan at this stage. The current report demonstrates progress towards the Impact Statement Phase of the WSR Project.

For ease, we list our recommendations to the Proponent first before providing specific comments on each of the sections in the current Extension Request Report.

Recommendations to the Proponent

Recommendation 1. While the Proponent considers that the gaps in the sampling activities due to adverse weather did not influence the outcomes of the biophysical baseline data collection program, we recommend these gaps be addressed during the Extension Period being requested for the Project

Recommendation 2. In addition to priorities listed in Section 3.2, we recommend that the Proponent consider all routes for their ability to minimize the impacts on peatlands – both on their stored carbon as well as their carbon sink capacity. Since the Project was initiated, the carbon-rich ecosystems such as peatlands (bogs, fens, swamps) and the importance of wetlands in climate change have received considerable national and international attention in addressing climate change adaptation and mitigation at multiple scales.

Recommendation 3. The Proponent use the Project extension to install air quality monitoring stations along the route to obtain more accurate baseline information in advance of the Project.

Recommendation 4. The Proponent use the Project extension to install a climate monitoring station, perhaps in Webequie, to obtain more accurate baseline information about the climate in advance of the Project.

Recommendation 5. Given the Proponent is analyzing hexavalent chromium in ground water, they should also do this in surface water.

Recommendation 6. The remaining spawning survey sites should be sampled during the extension period. We suggest that community members from Webequie are better placed to monitor these fish communities with support and funding from Ontario and Canada.

Recommendation 7. The Proponent should include unmarked graves and burial sites in the IKLRU.

Recommendation 8. The Proponent address the known limitations in bird data sets because used in this Project within the EAR/IS and discuss the pros and cons of alternative sampling options for birds and their populations.

Recommendation 9. Proponent clarify how Bird Acoustic Recording Units and/or bird point count sampling design address the known temporal and methodological bias in forest bird sampling for: 1) crepuscular, cryptic aerial insectivores (e.g. Eastern Whip-poor-will and Common Nighthawk), 2) nocturnal species (e.g., owls) and 3) birds of prey.

Recommendation 10. Proponent include a metric for bird species that show site fidelity for nesting birds within the Project study areas.

Recommendation 11. The Proponent needs to reconsider Indicators for wolverine in this Project with respect to maternal wolverine dens within the Project study areas.

Recommendation 12. Eskers should be a Valued Component of this Project that is assessed for ecological values related to wildlife movement and denning, including for wolverines and wolves.

Recommendation 13. The survey stations used in the Wolverine Occupancy Study should be used to detect reproductive female wolverines. Route decisions should prioritize those alignments that minimize area of impact within reproductive female home ranges.

Section 2 – Reasons for Extension Request

Section 2 of the report presents the reasons why the Proponent is seeking an extension of the time limit for the Project's Impact Statement (IS), including: 1) Impacts of COVID-19 on the Project activities; and 2) Delays in receiving Provincial Environmental Assessment (EA) Terms of Reference (ToR) Approval.

We appreciate that the COVID-19 global pandemic, starting in March 2020, affected the ability of the Proponent to address the EA/IA for the Project resulting in delays to the collection of baseline data from field surveys and also forced the Proponent to create and establish virtual options for consultation and engagement with First Nations, the public, and stakeholders to meet timelines established by the *Impact Assessment Act, 2019* (IAA).

However, we take this opportunity to highlight that a number of First Nation communities requested the Proponent pause this EA/IA process due to health, safety, and social crises that affected the capacity of Indigenous communities to respond to this process within these timelines. These requests were not taken up by the Proponent. IAAC was also unable to address these requests. While Ontario's Ministry of the Environment, Conservation and Parks (MECP) extended timelines from 30-days to 60-days for First Nation communities to comment on the Terms of Reference under Ontario's *Environmental Assessment Act*, the comment period also fell over the holiday period when offices and staff are typically on holiday in addition to government-mandated lockdowns. This extension was not offered to the public and stakeholders like WCS Canada.

We also highlight that both the harmonized EA/IA for Marten Falls Community Access Road Project as well as the federal government's Regional Assessment for the Ring of Fire were also occurring at the same time. While the Proponent may argue these issues are beyond the scope of the WSR Project, multiple EA/IA processes have cumulative demands on time, resources, and capacity for engagement, consultation, and commentary. WCS Canada had to prioritize the RA and the MFCAR Project over the WSR Project given timelines and capacity at the time.

While the Extension Report notes the time that was needed by the Proponent and consultants to develop a host of virtual options for engagement and consultation adversely affected the project schedule, it remains to be seen whether these kinds of engagements (described in Section 5.1.1), are adequate in terms of the duty to consult with First Nations. As for the public and stakeholders, we note with some concern that, “As of September 23, 2022, no key issues have been raised by the public or stakeholders” about the WSR Project (Section 5.3.2 Summary of Key Issues Raised to Date, pg. 54). We suggest more tailored engagement opportunities with identified public groups and stakeholders be developed during the Extension Period.

Section 3 – Changes that may affect the Impact of the Assessment

Section 3 of the Extension Report summarizes the changes that may affect the EA/IA process identified by the Proponent including: 1) adverse weather impacts; and, 2) an additional blended Route Alternative that emerged based on assessment of Alternative 1 and Alternative 2 listed in the approved ToR and federal Detailed Project Description.

Recommendation 1. While the Proponent considers that the gaps in the sampling activities due to adverse weather did not influence the outcomes of the biophysical baseline data collection program, we recommend these gaps be addressed during the Extension Period being requested for the Project.

The Extension Report notes a number of reduced sampling events for vegetation, water sediment, and spring spawning surveys for lake sturgeon. As scientists, we appreciate the challenges of collecting samples and conducting surveys in the field under adverse weather conditions and remote conditions in the far north in Ontario, but given potential impacts of the Project think these sampling gaps should be addressed to ensure more complete datasets and support modeling in this data-limited region.

Recommendation 2. In addition to priorities listed in Section 3.2, we recommend that the Proponent consider all routes for their ability to minimize the impacts on peatlands – both on their stored carbon as well as their carbon sink capacity. Since the Project was initiated, the carbon-rich ecosystems such as peatlands (bogs, fens, swamps) and the importance of wetlands in climate change have received considerable national and international attention in addressing climate change adaptation and mitigation at multiple scales.

The WSR Project cuts through the Boreal Shield and the Hudson Plain ecozone, also called the Hudson Bay Lowland. The Hudson Bay Lowland is the world’s second largest peatland complex and a large carbon store and active carbon sink that is critical for regulating climate change with local, provincial, national, and international implications¹. We look forward to further engagement on the process for determining the preferred route given the priorities and values associated with the three Alternative Routes for the WSR Project, including ongoing

¹ Harris, L. I., Richardson, K., Bona, K. A., Davidson, S. J., Finkelstein, S. A., Garneau, M., McLaughlin, J., Nwaishi, F., Olefeldt, D., Packalen, M., Roulet, N. T., Southey, F. M., Strack, M., Webster, K. L., Wilkinson, S. L., & Ray, J. C. (2021). The essential carbon service provided by northern peatlands. *Frontiers in Ecology and the Environment*. <https://doi.org/10.1002/fee.2437>

engineering focus on so-called floating roads as well as their impact to carbon-rich ecosystems like peatlands in the absence of provincial, federal, and, to some extent, Indigenous plans for conservation and protection of wetlands in the region.

Section 4 – The Work Plan

This section summarizes the Project's work plan accounting for work completed, work currently underway, and work not yet started and presents the details of how the extended time being requested will be utilized to provide all the required information and studies for the Environmental Assessment Report/Impact Statement (EAR/IS).

The Work Plan Summary appears to be comprehensive and we note the following for each discipline described.

- **Consultation and Engagement with Indigenous Communities.** We support the stated commitment to include a diversity of community members in meetings besides Chief and Council, particularly youth, Elders, Knowledge Holders, and women.
- **Consultation and Engagement with Public and Stakeholders.** We suggest outcomes from the Public Information Centre #1 be made publicly available. It is unclear if these data are part of the Report to MECP on Consultation Progress.
- **Evaluation of Alternative Methods.** Route Alternatives should also consider other values such as minimizing impacts to carbon as a criteria for evaluation.
- **Supporting Infrastructure Alternatives.** In the WSR Detailed Project Description, the Webequie Project Team noted in Section 3.6.2 that the Project was not expected to trigger the thresholds for aggregate established in the IAA Physical Activities Regulations (subsections 18(f) and 19(f)) which state that the construction of a quarry, sand, or gravel pit at 3,500,000 t/year or more. Section 5.5.2.2 in the Extension Report notes current estimates for the construction of the WSR Project is 2,849,500 m³, or ~ 1,000,000 t to construct the WSR Project. At this stage, it is unclear how much more aggregate will be required for operation and maintenance. We remain concerned that Ontario cannot address the cumulative impacts of aggregate mining on ecological systems through its current permitting and piecemeal approval process. In addition, the mining of eskers for aggregate that may well be necessary to maintain the road has been linked to mobilizing chromium and other metals abundant in the region into the northern rivers and lakes², with potential effects on human health. This issue must be addressed in the EAR/IS.

² Dyer, R. D. and L. A. Handley. 2013. McFaulds Lake ("Ring of Fire") area high-density lake sediment and water survey, Far North, Ontario. Summary of Field Work and Other Activities. Ontario Geological Survey, Open File Report 6290, p.32-1 to 32-17. Retrieved from:
http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=ofr6290

- **Biophysical Environment. Air Quality.** Section 5.4.1.4 notes that, air quality data is not available in the area where the Project is located with the exception of limited data collected from a station operated by the MECP as part of the Ring of Fire Baseline Monitoring Program (2013-2017). **Recommendation 3.** The Proponent use the Project extension to install air quality monitoring stations along the route to obtain more accurate baseline information in advance of the Project. Ideally, these stations would be at the beginning, middle and terminus of the route. Data from these stations would ideally be collected and managed by the community as part of a community-based monitoring program with support from Ontario and Canada.
- **Biophysical Environment. Climate.** Section 5.4.1.5 notes that current climate stations are located between 95 and 260 km from the Project site and no field work was conducted to assess climate. **Recommendation 4.** The Proponent use the Project extension to install a climate monitoring station, perhaps in Webequie, to obtain more accurate baseline information about the climate in advance of the Project. As above, we think Ontario and Canada should invest in and support monitoring infrastructure that Webequie First Nation can use to address impacts, follow-up actions, and mitigation activities associated with the WSR Project.
- **Surface Water.** We support the current approach to water sampling. We would like more information on the methods being used to analyze mercury with ICPMS. **Recommendation 5.** Given the Proponent is analyzing hexavalent chromium in ground water, they should also do this in surface water. We suggest the Proponent review recent literature associated with speciation of metals like chromium and arsenic that may require further consideration in sampling and analysis³. For example, arsenic levels can be elevated in coastal riverine fish, but less so in inland fish⁴. Recent research conducted in the far north in Ontario tested these fish for arsenic speciation and found little concern, even in fish with high total arsenic⁵.
- **Sediment Sampling.** Please confirm that the current list with respect to the form of chromium being tested is not a typo. Should this be hexavalent chromium (VI) rather than (V)? Please clarify why mercury (Hg) or methyl mercury are not being tested in

³ Mädler, S. , Sun, F. , Tat, C. , Sudakova, N. , Drouin, P. , Tooley, R. , Reiner, E. , Switzer, T. , Dyer, R. , Kingston, H. , Pamuku, M. and Furdui, V. (2016) Trace-Level Analysis of Hexavalent Chromium in Lake Sediment Samples Using Ion Chromatography Tandem Mass Spectrometry. *Journal of Environmental Protection*, 7, 422-434. doi: 10.4236/jep.2016.73037.

⁴ Lescord, G. L., Johnston, T. A., Heerschap, M. J., Keller, W., Southee, F. M., O'Connor, C. M., Dyer, R. D., Branfireun, B. A., & Gunn, J. M. (2020). Arsenic, chromium, and other elements of concern in fish from remote boreal lakes and rivers: Drivers of variation and implications for subsistence consumption. *Environ Pollut*, 113878. <https://doi.org/10.1016/j.envpol.2019.113878>

⁵ Lescord, G. L., Johnston, T. A., Ponton, D. E., Amyot, M., Lock, A., & Gunn, J. M. (2022). The speciation of arsenic in the muscle tissue of inland and coastal freshwater fish from a remote boreal region. *Chemosphere*, 308(Pt 1), 136140. <https://doi.org/10.1016/j.chemosphere.2022.136140>

sediments given the known concerns about mercury throughout the ecological systems in this region with implications for human health.

- **Ground Water.** We are pleased to see chromium (VI), total mercury, and methyl mercury included in the list of elements being tested in ground water samples associated with the Project.
- **Peatlands.** WCS Canada scientists have consistently stated in similar road proposals and the RA that ecosystems such as peatlands need to be a Valued Component for the purpose of the IA/EA. While the focus on different kinds of water is helpful in this current Extension Report, we remind the Proponent that peatlands and wetlands are hydrologically connected and cannot be separated or reduced to components for the purpose of addressing cumulative effects and the impacts of the Project on these hydrologically connected and intact ecosystems. For example, fens are groundwater-fed so any changes in the hydrogeology of the area will impact these types of peatlands. Similarly, impacts to surface water flows will affect bogs and swamps. Any changes in water flows, whether surface or groundwater, can have major impacts on the peatlands and need to be considered more explicitly in the EAR/IS in both monitoring, follow-up, and purported mitigation activities.
- **Eskers.** WCS Canada scientists have consistently stated in similar road proposals and the RA that features such as eskers need to be a Valued Component for the purpose of the IA/EA. While eskers are largely valued in the Project for their contribution as aggregate sources for the Project, we remind the Proponent that they are ecologically important⁶ for a number of wildlife species for denning, habitat, and movement corridors, including wolverine, wolves, caribou, and upland birds. They are also socially important for First Nation communities with possible travel routes, village sites, and burial areas. In addition, their disturbance for road building may also mobilize chromium and, potentially, other metals naturally abundant in the region, into northern rivers and lakes² with implications for monitoring protocols for water, fish and wildlife, and human health.
- **Fish and Fish Habitat.** Table 4-1 suggests the field surveys for fish community sampling and spawning surveys for lake sturgeon is complete. There are 27 waterbodies that will be affected by the WSR Project. Section 5.4.1.9.2 notes, however, that only nine of the twenty-six waterbody crossings were sampled due to high-water levels during field work. **Recommendation 6.** The remaining spawning survey sites should be sampled during the extension period. We suggest that community members from Webequie are better placed to monitor these fish communities with support and funding from Ontario

⁶ Far North Science Advisory Panel. (2010: 57). *Science for a Changing Far North*. Queens Printer for Ontario. <http://wbn.scholarsportal.info/node/5794>.

and Canada. We also acknowledge that there is limited applicable aquatic historical baseline data for the Project area and suggest the following report likely includes relevant data collected in areas within the study areas of the WSR Project.

- Patterson, K. A., Johnston, T. A., Haslam, L. C., Keller, W., Lescord, G. L., Heerschap, M. J., DeJong, R. A., Swanson, H. K., Lennox, P. A., Chetkiewicz, C.-L. B., O'Connor, C. M., Warmbold, J. W., Bailey, J. L., Edwards, B. A., Arts, M. T., Chenier, C. J., Sumner, A. W., Tang, R. W. K. T., Branfireun, B. A., . . . Gunn, J. M. (2020). *Fish and aquatic sampling activities in the Hudson Bay Lowlands Ecozone of the Far North of Ontario: 2008– 2018* (Science and Research Technical Report TR-41, Issue. Queens Printer of Ontario.
- **Indigenous Peoples and Exercise of Aboriginal and Treaty Rights. Recommendation 7.** The Proponent should include unmarked graves and burial sites in the IKLRU.
- **Human Health and Risk Assessment and Country Foods Assessment.** Secondary Sources of Information should include data collected in Webequie as part of the First Nations Food, Nutrition, and Environment Study (see <https://www.fnfnes.ca/index.php/communities/detail/webequie>).

Section 5 – Progress Report

This section describes the advances made to date to meet the requirements of the Project's TISG. We have highlighted elements of the progress report in our review of Section 4 above. We have the following comments in this section.

- **Table 5-9. Summary of Key Issues/Concerns Raised by Indigenous Communities.** This is a helpful table for better understanding the concerns from other First Nation communities that will be affected by the Project.
- **Section 5.2.2.** As mentioned above with respect to the public and stakeholders, it is concerning that there are no issues raised by government agencies or municipalities about the Project. It is unclear if this is related to approach to engagement, capacity, or really the lack of issues.
- **Table 5-14 and 5-15. A Summary of Terrestrial Wildlife Field Surveys Conducted.** Standard monitoring practices may not be best suited for observing/detecting some bird species⁷ and Breeding Bird Atlas effort per area is lower in this regions due to remoteness and a lack of road access^{8,9}. **Recommendation 8.** The Proponent address

⁷ Kirk, D. A., & Hyslop, C. (1998). Population status and recent trends in Canadian raptors: a review. *Biological Conservation*, 83(1), 91-118. [https://doi.org/10.1016/S0006-3207\(97\)00051-7](https://doi.org/10.1016/S0006-3207(97)00051-7)

⁸ Environment Canada. (2013). *Bird Conservation Strategy for Bird Conservation Region 7 in Ontario: Taiga Shield and Hudson Plains*. https://publications.gc.ca/collections/collection_2014/ec/CW66-318-1-2012-eng.pdf

⁹ Environment Canada. (2014). *Bird conservation strategy for Region 8: Ontario boreal softwood shield*. https://www.canada.ca/en/environment-climate-change/services/migratory-bird-conservation/publications/strategy-region-8-boreal-softwood.html#_pre

these limitations specifically in the EAR/IS and discuss alternative sampling options.

Recommendation 9. Proponent should clarify how Bird Acoustic Recording Units and/or bird point count sampling design addresses temporal and methodological bias in forest bird sampling for: 1) crepuscular, cryptic aerial insectivores (e.g. Eastern Whip-poor-will and Common Nighthawk), 2) nocturnal species (e.g., owls) and 3) birds of prey.

- **Table 5-16. List of Evaluation Criteria and Indicators for Evaluation of Alternatives Routes. Wildlife. Forest Birds (including SAR birds). Recommendation 10.** Proponent include a metric for bird species that show site fidelity for nesting birds within the Project study areas. These would include insectivores such as Bank Swallow, Tree Swallow, Barn Swallow, Eastern Whip-poor-will and Common Nighthawk who re-use nesting areas year to year and are considered to be the fastest declining group of species in Canada¹⁰. Cree Indigenous Knowledge Systems also suggest that Sharp-tailed Grouse re-use leks from year-to-year¹¹.
- **Table 5-16. List of Evaluation Criteria and Indicators for Evaluation of Alternatives Routes. Wildlife. Wolverine, Species at Risk.** The experience of one of us (Dr. Matthew Scrafford) indicates that reproductive dens of female wolverines are difficult to find and discern in the field. Wolverine can den in a wide variety of features as well as the snow such that looking for potential structures using the methods described by the Proponent (aerial surveys with follow-up field visits) are not very effective and prone to error or misclassification. **Recommendation 11.** The Proponent needs to reconsider Indicators for wolverine in this Project with respect to maternal wolverine dens within the Project study areas.
- **Table 5-16. List of Evaluation Criteria and Indicators for Evaluation of Alternatives Routes. Wildlife. Wolverine, Species at Risk.** Given the spatial and temporal extent of the Project, as well as anticipated potential direct, indirect, and cumulative effects associated with Project, habitat removed within the Project study areas is not a good metric of impacts to wolverine habitat quality. Measures of habitat fragmentation, loss of core wolverine habitat, and the total cumulative human footprint across home ranges of wolverine, particularly females, in the region are more meaningful metrics and indicators of the Project's impact on wolverines.
- **Table 5-16. List of Evaluation Criteria and Indicators for Evaluation of Alternatives Routes. Wildlife. Wolverine, Species at Risk.** Wolverine in this landscape will certainly make use of moraines and eskers for structure for denning as well as movements.

¹⁰ North American Bird Conservation Initiative Canada (NABCIC). (2019). The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa, Canada. 12 pp. www.stateofcanadasbirds.org

¹¹ Tsuji, L. J. S. (1996). Loss of Cree traditional ecological knowledge in the Western James Bay region of Northern Ontario, Canada: A case study of the Sharp-Tailed Grouse, *Tympanuchus phasianellus phasianellus*. *The Canadian Journal of Native Studies*, 16(2), 283-292.

Recommendation 12. Eskers should be a Valued Component that is assessed for values related to wildlife movement and denning, including for wolverines and wolves. See also **Eskers** above.

- **Section 5.4.1.1.2 Field Surveys. Peat Thickness and Aggregate Source Investigations.** Please clarify what techniques were used by the Proponent to determine peat thickness and when this sampling was conducted.
- **Section 5.4.1.12.2 Field Surveys. Wolverine Occupancy Study. Recommendation 13.** The survey stations should be used to detect and document reproductive female wolverines in the Project study areas. Route decisions should minimize area of impact across reproductive female home ranges.

We would be happy to discuss these comments further. Please contact Cheryl Chetkiewicz at cchetkiewicz@wcs.org to do so.

Sincerely,

<Original signed by>

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