WILDLANDS LEAGUE

Jan 31, 2022

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Via Email: info@northernroadlink.com

Re: Draft Terms of Reference for Northern Road Link project

Dear Mr. Fox and Mr. Saddique,

On behalf of Wildlands League, please accept these comments on this subject Draft Terms of Reference (Draft TOR) for the proposed Northern Road Link project.

Wildlands League - Wildlands League is one of Canada's pre-eminent conservation organizations with over 30,000 supporters. We are policy experts standing up for wildlife and standing with communities. We tackle irresponsible development that threatens precious rivers, lakes and wildlife habitat. We give voice to Canada's nature to make sure at least half of the country is protected forever for all our kids, for climate and for the planet and have been working in the public interest since 1968.

Wildlands has longstanding interest in land use and environmental planning. Our team has participated in the Far North Planning Advisory Panel (2008-2009) and the Minister's Mining Act Advisory Committee (2008-2018). We have also participated in numerous environmental assessments including Cliffs Chromite Project, Noront's Eagle's Nest, De Beers' Victor Diamond Mine and Wataynikaneyap Power. We recently concluded a private prosecution of De Beers for failing to provide mercury monitoring data relating to the operation of its Victor Diamond Mine.

Wildlands League has been monitoring impacts from early exploration activities, land use and environmental assessments in the area known as the Ring of Fire in northern Ontario since 2008 and has advocated for the use of regional assessment for Ontario's Ring of Fire since 2011.

Commenting Proviso - We submit these comments in the public interest, should this project continue to advance on a disconnected or advance track from any separately organized regional assessment process. It is our often stated position that a piecemeal project-based approach to assessing the potential environmental effects of the Ring of Fire access and development is not appropriate, given its region-building scope and influence. This current approach seems unlikely to adequately assess the predictably significant environmental impacts from the cumulative changes that accessing the region will trigger. We ask that our participation here to therefore not be construed to imply any level of support for the current choice of approach to environmental assessment.

Our overall interest is in seeking a coordinated, thorough and efficient strategic regional assessment in the area of Ontario known as the Ring of Fire (ROF) - before further development is permitted using individual project-based tools. We remain frustrated with the lack of progress made by the province over the past decade we have been involved in this subject, in coordinating such an assessment for this globally significant ecosystem in which the Ring of Fire is located. With Regional Assessment in hand, we could have been more comfortable with project-level tools at this time. Unfortunately, this is not the case.

Summary Position - Approach aside, it is our overall opinion that, with the level of detail currently provided, the Draft TOR provides inadequate evidence that it would produce an effective EA for assessing the potential impacts at hand from this project. This opinion is only partly attributable to the unfilled void in regional assessment, but also to (a) the vague and premature description of the Project itself and (b) its current inability in providing a clear assessment framework commensurate with the full range of potential environmental impacts arising from this project.

We have included below some further key comment to illustrate why we hold this opinion at this time, and to help to highlight the outstanding gap as we see it for your team. As we generally found the level of detail on how assessments were to be structured missing, inconsistent, or inadequate, we must necessarily defer more detailed comments for a more mature iteration of the TOR.

Follow-up questions are welcome, and can be directed by email to the undersigned.

Sincerely,

Trevor Hesselink
Director, Policy and Research
Wildlands League
trevor@wildlandsleague.org

ADDITIONAL COMMENTS:

The TOR performance bar - Our comments are premised on our understanding of the responsibilities embodied in producing and approving a TOR under this EA process. An approved Terms of Reference (TOR) "becomes the framework for the preparation and review of the environmental assessment" according to the Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario (2009).

It is therefore critical that the TOR is sufficiently complete and contains a clear and comprehensive description of the project, and the approach and assessment logic for the full range of potential environmental impacts to be assessed. These are prerequisite for the Minister to make an informed approval decision on the ability of the TOR to deliver an effective EA in context, and so that the public or other readers can reasonably envision the intended project, and the assessments to be undertaken, beforehand.

Along with representing poor practice, deferring significant detail of these core elements to the EA itself is insufficient for final approval. This is particularly true of (a) central aspects of project description, (b) essential environmental systems and risks at hand, and (c) the array of tailored methodologies expected to be used in the EA. Our expectation is that a TOR demonstrate clear and sufficient up-front project and assessment detail and logic to readily envision the manner in which the EA would assess potential impacts, in the specific context of the proposed project, and its environment.

Our current position after reviewing this Draft TOR, is that it does not yet provide a sufficiency of detail, scope, or assessment-framing to satisfy this test.

We enclose the following important examples where additional clarity would contribute to a more robust an effective EA "blueprint" for the assessment of the potential impacts of this region-changing integrated project.

(1) DESCRIPTION OF PROJECT

Conflation of purpose - The purpose of this project is multiple, but primarily economic, with mineral extraction obviously being positioned as the primary economic driver. At other times in the TOR other contingent community benefits are variously raised. We note that this conflation of purpose allows several proposed community benefits to hang in subservience to the completion of an industrial corridor, where alternative approaches to meeting those social/local economy needs untied to industrial extraction are simply not further considered.

The core assessment gap to flag here however, is that the industrial-inducing purpose of the project intrinsically links this access project to the important scoping and assessment questions surrounding the potential scale and impacts of the Ring of Fire mining area that the road is intended to stimulate. It is this core avenue of environmental knock-on effects of this project that is provided for the least in this Draft TOR.

The interwoven Industrial purpose necessitates a higher-bar: for engineering, investment, and for EA - Heavy and sustained mineral product and/or ore movement are likely to contribute higher engineering requirements than all-season road access for community logistics / transportation alone. But, as no project alternative is contemplated without servicing the industrial needs of the ROF, then a description of the project here must

then hinge upon the minimum road standards needed for the range of heaviest industrial pressures that the presence of the corridor is likely to induce.

> *The design of the underlying subgrade material and its depth below the granular surface of the road will have consideration for the typical vehicle types (e.g., light pick-up trucks,* ***heavy industrial/commercial transport trucks and trailers****) that are envisioned to use the road, including their weight/load. [ES IX]*

The Draft TOR is missing sufficient description of the target road use, loading and design standards being proposed, as well as a reasonable characterization of the associated transportation needs and pressures that the desired industrial activity will predictably bring to this corridor over the indefinite temporal horizon expected.

This is a road project intended to primarily service and stimulate the mining development of a "world-class" ore-body. No associated EA can be considered complete that does not reasonably characterize the range of access needs and pressures associated with those induced activities.

Describing only ore-movement "potential" introduces a consequential level of uncertainty to this project, evidencing a lack of reasonable anticipation for foreseeable demands on this infrastructure. Importantly, this Draft TOR notes only the potential for future ore and product hauling on the road, and entirely defers any detail on how traffic mix assessment will be structured, to the EA itself.

> *The design of the underlying subgrade material and its depth below the granular surface of the road will have consideration for the typical vehicle types (e.g., light pick-up trucks, heavy industrial/commercial transport trucks and trailers) that are envisioned to use the road, including their weight/load. Traffic operations* ***may also include mineral ore or mine product hauling****. The specific traffic mix (%) of heavy vehicles (e.g., trucks) versus light vehicles will be further examined in the EA/IA. [pg 41]*

Recall that the purpose of a TOR is to provide a framework for "how" the EA will be undertaken, and not merely a vague list of "what" will be done later during the EA process. It is a best practice for TORs to provide as much detail as possible, including methods to be employed. An approving Minister cannot be expected to make an approval decision on the likely effectiveness of an EA absent a reasonable detailing of the approaches and methods to be used.

This key uncertainty in the draft TOR illustrates a lack of maturity in core project details that could be expected to influence the final impacts of the project, and consequently how those impacts should be assessed. A road project, purpose-intended to stimulate an industrial-scale mining site with multiple "world class" mineral finds can be expected to provide either (a) a reasonable assumption for how and how-much ore and product transport might occur, or (b) at least a well-articulated method described for how such an assumption would be generated during the EA.

Characterizing the nature and volume of anticipated road traffic is the basis for multiple themes of assessment. In addition to engineering standards, other related assessment themes will rely on similar assessment assumptions. For example, the Climate-change impacts of inducing a reliance on long-hauling of heavy loads with diesel trucks also reasonably requires assessment in this TOR, as ore and product hauling are predictable high-carbon design pressures arising from a road project linking producing mines to a notably distant highway network (see also Climate Change below). Again, the Draft TOR does flag a GHG assessment - to be undertaken in the EA, but without providing any detail of the anticipated approach, or methodology. The same is true of several other necessary traffic-related assessments.

There is a central assessment need to all of these threads: vehicle demands, that must be well acknowledged and detailed in a successful TOR. The clear consideration of the transport needs, pressures, and cumulative effects from a range of realistic mining scenarios is most notably missing from this Draft TOR. The "how" of this scenario development exercise, or an effective alternative method is clearly pre-requisite to adequately undertaking these necessary assessments. Key to this methodology should be the consideration of what impacts a multi-mine development with heavy reliance on this road for ore and product export from the ROF would produce.

Conclusion:

The lack of a firmer project description, set of assumptions, or a method of developing an assessment benchmark for the highly foreseeable ore and product movement pressures on the proposed road project must be understood as a major weakness for this Draft TOR as presented, precluding the ability of the Minister in reasonably approving such a TOR.

The economic exploitation of the Ring of Fire is central to the purpose of the road as presented. Industrial demands upon the road must therefore be reasonably predicted and characterized in an EA. Characterizing such a mine access road as "maybe" conveying ore or mineral products from a world-class industrial mine-belt does not engender confidence that this project has been adequately considered, relative to the final use pressures and liabilities it would need to be designed for, nor the questions of environmental impact assessment needs.

And, while these direct industrial needs are clearly highly influential to any access design for this project, further associated questions of power provision to the ROF, given the integrated questions of processing and smelting capacities and locations also deserve reasonable characterization, to the extent that they also dictate important design direction to the access needs purportedly being met by this road - and therefore important details to the assessment needs for this notably vague mine-servicing access project.

We note that an alternative to better characterizing these pressures here in this TOR is available: sequencing the submission of this project EA, after these critical details emerge from the concurrent Regional Impact Assessment process.

(2) PROPONENT RELATIONSHIPS

Missing Descriptions of Proponent Relationships - At least two proponents - or key proponent relationships - are not being adequately represented here: the apparent default financier and owner, the Province; and the primary targeted beneficiary, the mining sector, as represented by at least the contemplated projects to date.

Funding is apparently being provided by the Province, while road ownership, control, and liability details are all indicated as being undecided (although presumably defaulting to the Province until then). Additional funding - suggested as a doubling of the road-building budget - is also being pursued and considered with the federal government, adding another potential proponent relationship. These themes should also be expected to be influenced by decisions and preferences by the serviced mining community, which may well in turn further affect project design, impact potential, and assessment influence.

These outstanding uncertainties are collectively significant. Clear descriptions of intended residual responsibilities are important to this inherently complex EA, that necessarily involves additional key players to the listed proponents.

> *Proponent options for road ownership, maintenance activities and liability are being considered in discussion with the Province. Funding for this Project is being provided by the Province of Ontario. [pg 4]*

Section 4.2.1 of the *Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario (2009),* indicates, "If there is more than one proponent, the relationship between them and how they plan to work together, including their responsibilities, throughout the environmental assessment process must be explained."

Arguably, this has not yet been adequately provided in this Draft TOR, to the extent that these questions remain unsatisfied. Collectively, this theme contributes substantial uncertainty to the proposed project and this subject Draft TOR, as currently described.

Ontario - For example, to the extent that these roads become a part of the Ontario highway system, and are here being contemplated under the Ontario EA regime, it is incumbent on the listed proponents to establish early and clearly the extent of public access, interest, oversight, and liability associated with this project. These details might also influence the Valued Components, range of scenarios, geographic extent, and other EA variables, where unspecified public interests may play a role.

Mining - It is acknowledged directly in this TOR that current and future mining interests are integrally linked to the purpose of this road. Yet, as mentioned above, there is a lack of industrial characterization for this project - even simply to scope this project appropriately.

Noront Resources - That one of the active mining interests is noted here as removing the access portion of their plans in the face of this project highlights the availability of an important relationship that is not adequately represented in this Draft TOR.

> *The Ring of Fire in the Ontario far north is considered one of the most promising mineral development opportunities in the province in over a century, with potential for multi-generational chromite production and significant production of nickel, copper and platinum (NDMNRF 2021a). Mine development in the Ring of Fire area is currently unlikely without year-round access. [pg.8]*
>
> *At present, the Noront EA process is on hold until there is more certainty about a potential all-season road to be developed by others. Details on the current status of Eagle's Nest Mine Project, which now excludes any consideration of an all-season road connection to the provincial highway network as part of the environmental assessment, can be found on Noront's website… [pg.6]*

Wyloo Metals - With the recent influx of Wyloo to the scene, the question of access is being represented differently again, where Wyloo is signalling a priority interest in the mine access question, and flagging the need for additional investment from Natural Resources Canada. This introduces another apparently important player, and a necessary doubling of the road budget, from their perspective. These facts further highlight the immaturity and uncertainty of the project description and proponent relationships presented in this Draft TOR at this time.

KWG/CCC Rail Alternative - Additionally, this proposal is being advanced in the company of at least one other ongoing private alternative solution being studied for ROF access: the KWG/CCC rail-link project, which has been openly discussed since shortly after initial exploration of the area, but identified in this TOR (pg 6) only as a historical mention.

Regardless of the status or maturity of this proposal, the scope of ambition for ROF access and ore movement are two key questions that challenge premature discounting of a rail option as an alternative solution - or as a hybrid solution to the problem, with likely different companion road standards. The climate change implications of diesel fuel use alone may well demonstrate the prematurity of public investment in an exclusively all-season road solution, without adequate up-front scoping of the high energetic costs of ore and product movement from this distant source. While privately funded enterprises may not have the same policy frames to consider, this is not true of the Province and the Canadian government funding proposed for this project.

Further, the concurrence of the KWG subsidiary CCC's mining claims under a significant portion of the apparent preferred access route provides yet another source of uncertainty - and potentially another missing proponent relationship to be described in this proposed Road Link Project.

Conclusion:

Adequate description of project responsibilities and relationships around project ownership, oversight control, responsibility and liability, and the notably missing central facts of the integrally linked industrial project scope are evident in the project as described in this Draft TOR. All of these fundamental project description gaps suggest a project maturity gap, and unreasonably increases the range of uncertainties relative to what is presented in the Draft TOR. The Project as described appears to either be missing key proponent(s), or important descriptions of the relationships with such associated players that retain project-altering influence over this proposal. At a minimum it seems necessary to adequately describe the relationships and key project uncertainties conferred from integrally related parties up-front.

(3) SCOPE

Overall, this Draft TOR suffers from a precarious project-centred logic - for a problem that is clearly regional in scope. It would be hard to find a better example of knock-on effect influences anywhere in the EA literature than the irreducible companion pressures of this crucial mining road and the mining stimulation desired at the other end. To produce a relevant assessment, this TOR will have to more clearly detail how these collective pressures might affect two distinct scales: (a) the road project investments and design for the roadbed commensurate with its intended mine-servicing role, and (b) how these induced pressures are likely to impact the affected regional environment they are situated in.

Proposing a "focused scope" approach - this TOR proposes to use section 6.1(3) of the EA Act. Section 6.1(3) of the EA Act allows focusing of the EA on a more defined range of alternatives and the use of information other than the generic requirements outlined in subsection 6.1(2).

> *Since **the Project was identified to be an all-season road before the study for this Project commenced** under the EA Act, EA/IA process will not re-examine past planning processes and decisions and therefore will not assess "alternatives to" the Project other than the "do nothing" alternative, which will be included for comparison against the proposed undertaking (i.e., the Project).*

The comparative analysis of reasonable alternatives is a well known and core element of sound Environmental Assessment. And yet there is a persistent inclination from diverse proponents of ROF access to abandon this principal and commit only to a "base-case or nothing" approach to date. Ironically, a competing array of these can be found in the "studies" cited, strongly suggesting that this landscape level access likely has several reasonable alternatives available to compare.

> *"[a]t the heart of the environmental assessment planning process in Ontario is the comparative analysis of alternatives, assessing the advantages and disadvantages of the alternatives and determining the best alternative that is appropriate to address the problem or opportunity."* [1]

We note that the rationale employed in this Draft TOR for discounting a wider array of alternatives, and imposing this "focused approach," is poorly supported.

Basket of "studies" employed as rationale for singular alternative - Instead, the Draft TOR entirely relies on a succession of various "studies" to advance the case that they have overall arrived at a logical singular base-case corridor. This logic does not adequately represent the nature of these "studies," which were processes of diverse origin, purpose and perspective, some of which were also unreasonably scoped, were unresolved or abortive, and with significant outstanding concerns raised. Variously, they have also identified at least one other strongly preferred or reasonable "alternative to" the NS access route being proposed here. Notable too is that among these "studies" listed, proponents who curtailed consideration of reasonable alternatives received clear and multiple feedback that such an approach was unacceptable (see also below).

To consider this decade-long basket of "study" of the question of ROF access is not entirely inappropriate. But the Draft TOR overstates the unity, completeness, and depth of technical follow-through of these various efforts, while missing a discussion of biases and uncertainties. It also positions this disparate body of work collectively as a "decision" that pre-emptively supports the preferred corridor being advanced by this project. From an EA perspective, this sweeping assumption represents substantial creative licence, which critically fails to provide a sufficiency of logic and evidence to preclude the consideration of other reasonable alternatives. These include at least an E/W alternative at this juncture.

Relying on various earlier studies as a collective "decision", without due consideration of concerns brought to those unresolved processes - We further note that the discussion of the various disparate road corridor studies cited here as rationale, does not sufficiently address the fact that key outstanding concerns and comment exist on the record from the various EA initiatives among them, that challenge the narrative employed here to narrowly scope this landscape-level project. As regular commenting bodies, it can be frustrating to see each comparable project-level EA come along and ignore these cumulative assets.

Given that this current process is proposing a "focused scope" on such a questionable basis, it would seem even more incumbent that this TOR pre-emptively acknowledge and address key concerns raised around these highlighted studies, many of which were ultimately unresolved given the abortive nature of much of this work.

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[1] *Ministry of the Environment, 2009. Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario. Section 4.2.5*

ASCRS - For example, It seems disingenuous to identify unresolved issues and concerns from the 2016 ASCRS and to not pre-emptively discuss how these concerns are being addressed or discounted in this current project proposal.

> *The preferred corridor/road from the 2016 ASCRS did not connect to the McFaulds Lake area due to unresolved issues and concerns expressed by some participating First Nations about mining development in the Ring of Fire area. [pg 6]*

Cliff's - During Cliff's TOR process, OMNR and several others (including Wildlands) were critical of such a landscape-level project advancing with only a base-case, when others had concurrently identified an E-W alternative:

> *More detail is required as to the rationale for choosing the base case ITS. In addition, there should be further detail as to why no other orientation (E-W, for example) was considered. … Further to this point, identify landscape-level route alternatives and systematically evaluate alternatives using a consistent set of criteria. … Alternatives for route corridor locations need to be investigated in the context of range level effects to caribou PoP. [OMNR, November 2011]*

OMNR's 2011 comments also flag the need to consider in advance any related right-of-way required to power the mine site being accessed, as cumulative landscape impacts must be anticipated and assessed. Other central themes include the role of complex hydrology and significant downstream effects when characterizing, scoping, and designing assessments for this region.

Later in that process several staff from Ministry of Environment, Ministry of Natural Resources, Ring of Fire Secretariat and other agencies voiced their concerns around discounting alternative methods and the need for supplemental information. For example, in his letter to Jason Aagenes of Cliffs dated March 15, 2012, Mr. Ross Lashbrook, Supervisor, Northern, Southwestern and West Central Regions, Environmental Approvals Branch states:

> *"If the details of how Cliffs has landed on the base case are not provided in supporting documentation in the TOR submission, there needs to be a commitment that in the EA, Cliffs will be doing a complete analysis of alternatives and environmental impacts of various alternative routes for the main road (in addition to the analysis of various alignments within the 5km corridor). Additionally, the alternative road corridors should be outlined in the TOR.*
>
> *If pre-screening has been done for some alternative methods that have been discarded (such as alternate power sources; all weather vs winter road; consideration of other components of the accommodations complex, tailings management area, waste rock management, other facilities), the screening criteria used, the process applied, and an explanation for the exclusion of certain alternatives must be made available in supporting documentation for the TOR. This is to ensure that the decision-making process is logical and traceable. As noted in the Codes of Practice, the range and type of alternatives included needs to be justified to ensure the TOR will produce an EA that enables the Minister to make an informed decision about the proposed undertaking."*

Similarly, Environment Canada flagged regional cumulative effects induced by the access corridor as an umbrella concern, bringing the Cliff's project-level assessment inordinate levels of uncertainty to that process. Its central recommendation was that a regional assessment scope was necessary, and prerequisite to consideration of the question of mining access:

> *The access corridor proposed for this mine would also open a large area of currently remote northern Ontario that could induce additional development proposals including other mines, hydroelectricity generation and transmission and forestry. Given that this project is sited in the upper reaches of several major watersheds which outlet to the highly sensitive and ecologically important James Bay and Hudson Bay coastal ecosystems, the potential of cumulative effects to occur outside of the project area also needs to be considered. the cumulative effects of known and anticipated mining and other developments on Ontario's Far North could be substantial if not sufficiently understood and managed at the regional scale.*

EC is therefore of the opinion that a regional environmental assessment process that considers the interconnectivity and the cumulative impact of currently proposed and anticipated future developments within and connecting to the Ring of Fire would be an appropriate approach to resolving the majority of the uncertainties expressed in this response. [Environment Canada, September 12, 2011]

These are merely examples of the substantial body of work that has been available for this Draft TOR to anticipate. Each of the involved commenting bodies has brought crucial commentary to these tables. To rely on these studies to support a narrow-scoping is independently questionable, but to do so without acknowledging the full rage of related scoping concerns raised from these processes is inadequate and disingenuous in our view if the goal is to design an appropriate, effective, and defensible EA.

Three clearly associated TORs are being concurrently advanced - Multiple, overlapping and integrated projects are concurrently being contemplated - each examining incremental parts of a region-changing project.

The current piecemeal approach to the associated TORs presumes a notional severability of at least the MFCAR project, independent of this Northern Road-Link project. Yet, the question of reliance on the MFCAR roadbed for potentially hauling ore and carrying the final traffic and loads of this proposed Road Link project must be acknowledged as a key integration of purpose and design that must logically be considered integral to that sub-project.

Additionally, it must be recognized that to provide connection of WFN to the Ontario highway network in the south in pursuit of the community benefits that the MFCAR intends for MFFN is a separate, and more central set of potential effects to this current NFL project, but which also requires the WFN project success to deliver.

Though these separate EA approach decisions have already been made, we note that the relationships between the projects stretches the logic of the current piecemeal approach being employed to this obviously interconnected, interdependent and concurrent set of assessments being proposed, which will challenge independent assessment.

Piecemeal EA approach has deferred the necessary regional assessment scope to this Road Link project. - Further, though the MFCAR and WSR projects are currently contemplated as separate, stand-alone EA projects, it is flagged here that the NRL Project is contingent on the MFCAR project, and describes the Project as stemming from the MFCAR. Importantly, neither of these two previously approved TORs have proposed to engage in the evaluation of a region-transforming set of infrastructure and ongoing development pressures with a regional scope. Yet, it is clear that the connected roadbeds of these three projects will together dramatically change the region.

The proposed Project is a multi-use road between the proposed Marten Falls Community Access Road (MFCAR) and the proposed Webequie Supply Road (WSR) in northern Ontario. … Development of the proposed NRL Project is dependent on development of the proposed MFCAR project, as it needs to connect to MFCAR. [1.1 pg.1]

The ToRs for the MFCAR project (AECOM, 2020b) and the WSR project (SNC-Lavalin, 2020) have both been approved by the Province of Ontario. [pg.8]

The choice between segments A1 and A2 is entirely dependent on the preferred corridor selected for the MFCAR project. [Pg. 32]

Additionally, this current project is described as being not only reliant on MFCAR going forward, but must also be responsive to route decisions made in that separate process. While this demonstrates the obvious S-N hierarchy of access to the southern highway network, it also underlines the specific "trailhead" role of this Road-Link project for industrial pressures northward.

The noted "removal" of the access portion of Noront's EA plans (which was also previously included in Cliff's project plans) to this separate EA cover cannot ignore the clear contingent and induced environmental pressures that access represents. The broader EA assessment scope is the same for either approach to this region-changing project: (a) this all-season road proposal that will stimulate planned and future mines, or (b) a mine which originally included that access infrastructure in its scope.

Because of these facts, it is obvious that this Northern Road-Link plays the distinct ROF region-changing "trigger" role. If built, it is the Road-Link that would ultimately be responsible for bringing regional-scale pressures to the broader ROF area, with predictable knock-on development pressures leap-frogging outwards, including potential impacts spanning multiple watersheds geographically, on an irreversible timeline.

It is therefore imperative that (in the absence of any results from a supporting Regional Assessment process) this process be overtly designed to fully characterize and assess these direct and indirect potential environmental impacts.

Unfortunately, while this Draft TOR includes some vague language that does acknowledge knock-on future development (primarily from the perspective of economic benefit - see below), it must be far more overt with respect to assessing regional impacts. Though also poorly detailed so far in the Draft TOR, the current assessment scope seems more geared to examining the kilometer-kilometer impacts of various road segments on the immediate ecosystems. This leaves a large gap in order to produce an EA commensurate with the foreseeable potential and cumulative impacts stemming from this project.

Conclusion

As the obvious operational "trigger" for Ring of Fire industrial viability, and the future trail-head for predictable further industrial expansion, this project TOR must either clearly anticipate and fully contemplate those regional pressures here in its assessment plans - or defer proceeding until a separate regional assessment is complete that can be relied upon to reasonably anticipate this induced scale of environmental impacts this project is likely to bring to the region.

(4) CUMULATIVE EFFECTS

Questions of scope and cumulative effects are necessarily integrated in this project, with development induced by the road, and the cumulative hydrological and downstream impacts representing central examples of these intrinsic linkages. Yet so far, this Draft TOR provides only a weak exploration of the cumulative and knock-on effects over the long-term for what would clearly be a region-transforming piece of infrastructure.

Inadequate definition of "reasonably foreseeable". For example, the extent of reasonably foreseeable projects in this TOR is currently described as "proposed projects" only. Additional

mining exploration pressures, and known mining interests that are considered a part of the ROF mineral value, but without current proposals are obviously reasonably foreseeable (and desired and expected - see below), but their inclusion remains unclear as described in this Draft TOR.

A more complete description of potential mining scenarios is necessary in order to adequately assess potential knock-on cumulative environmental impacts of this industry triggering-access route. This Draft TOR is currently missing a reasonable description of how these scenarios might be generated for the purposes of cumulative effects assessment. It should be clearly recognized that these cumulative impacts may well eclipse the immediate local impacts associated with road construction. This project TOR, as the trigger to these potential cumulative effects, must provide a reasonable description for how these impacts will be characterized and assessed. It is insufficient to defer such important detail to be later developed in the EA process itself.

> ***Regional Study Area (RSA):*** *The RSA is a study area that provides context to the VC at a regional level. The RSA encompasses the area outside of the LSA used to measure broader-scale existing environment conditions and provide regional context for the maximum predicted geographic extent of direct and indirect effects of the Project (e.g., changes to downstream surface water quality, caribou, or changes to socio- economic conditions such as regional employment and incomes). The RSA is typically used to assess the cumulative effects of the Project, which encompass the effects of the Project in combination with past, present, and reasonably foreseeable developments. Individual RSAs are defined for each VC. [pg 72]*
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> ***6.7 Cumulative Effects****. The EAR/IS will include a cumulative effects assessment to identify and characterize Project effects that are likely to interact cumulatively with the effects of other past, present or reasonably foreseeable projects and/or activities. [pg. 76]*
>
> *Proposed projects for which the environmental effects overlap the proposed Project (i.e., reasonably foreseeable). [pg. 76]*
>
> *The Ring of Fire is an area that has been targeted for development by Ontario due to mining potential (NDMNRF, 2021a). Reasonably foreseeable projects to be included in the cumulative effects assessment will consider but not be limited to mine development and exploration, proposed road construction (e.g., MFCAR and WSR), and other utilities and associated infrastructure to support mine development. [pg. 77]*

The economic assessment metrics demonstrates an unbalanced view of knock-on effects. Despite the apparent limitation of the definition described above for "reasonably foreseeable", this Draft TOR has selected quantitative *economic* indicators for the road's effects on the local and regional economy to specifically include: "Area (ha) or number of active mines; Area (ha) or number of mining claims; and the Area (ha) of tenures affected" to assess "Potential effects on mining operations, forestry and mineral exploration industry" (pg 124).

This acknowledges the scope of impact for this proposed project: the potential cumulative economic impacts from the industrial activity the road is intended to induce. And while it is necessary to consider these economic impacts, it is also appropriate to consider all of the potential environmental impacts of these likely development pressures.

These metrics suggest the missing assessment need: to somehow develop potential development scenarios to assess these economic impacts. Unfortunately, similar treatment is not as apparent for potential impacts in the other environmental spheres of this Draft TOR, nor as a central aspect of overall regional assessment.

Instead, indirect future development pressures are otherwise vaguely and inconsistently included, generally in lists of potential impacts, and without any clear approach included for how assessment might occur. For example:

> ***7.3-5 (Wildlife) Habitat availability*** *(quantity, quality, configuration, and connectivity). … The Project may also have indirect effects such as increased access to future developments such as mines, which may further affect habitat availability.*
>
> ***7.3-9 (Bird) Habitat availability*** *(quantity, quality, configuration, and connectivity). … The Project may also have indirect effects such as increased access to future developments such as mines, which may further affect habitat availability.*
>
> *[No similar habitat change criteria for fish habitat, despite mentioning barrier effects on riparian flows in the climate change section]*

Conclusion

Considering a full range of likely industrial scenarios must be considered in-scope, and all cumulative and regional effects for the VCs assessed appropriately and consistently on that same basis.

(5) ASSESSMENT THEMES

While we have focused in this iteration on the central elements of EA logic above, we include also the following brief comments on various aspects of the assessment discussions in the Draft TOR. We expect to contribute more in these areas once the assessment detail is more complete in the next iteration.

Overall, this Draft TOR provides insufficient anticipation and detailing of core assessments - Overall, this Draft TOR currently evidences a generic EA structure - but with only a “table of contents” approach so far. We reiterate that it consistently offers far too little context-specific detail for mechanisms that should properly be anticipated or emphasized, and for how specific responsive assessments are proposed to be undertaken.

Our expectation for this Terms of Reference is a document that is clearly tailored and scoped to the specific potential impacts of the project in context, and offers clear anticipation and understanding of the likely mechanisms that require specific study, and their interconnectivity. Again, the TOR is ultimately the “blueprint” for how the EA will be carried out. Deferring detail to the EA process itself is insufficient, as the Minister and other reviewers cannot be expected to predict the ultimate assessment approach that will be chosen for any particular theme.

Hydrological dominance - One particularly poorly addressed thematic element of this Draft TOR is the the theme of hydrological impacts of the proposed road, due to barrier effects (the common known pattern of roads through wet areas, for generally making wetter the upslope side of the road, and drying out the downslope side). The proposed project proposes building a continuous “upland feature” - a raised roadbed that traverses a complex low-gradient hydrological context (as characterized by vegetation community description on pg. 116 for example).

> *Treed and open fen (22.3% and 7.3%) and treed and open bog (21.2% and 17.7%) comprise the primary vegetation associations in the James Bay Ecoregion. Coniferous forest is the predominant forest class (12.6%) followed by sparse forest (7.6%). Open water covers 5.6% of the area. This ecoregion notably includes the most extensive treed fens in the ecozone and in Ontario (Crins et al., 2009). [pg.116]*

In this context of 80% water-dominated landscape, it would be appropriate to characterize throughout this Draft TOR the dominance of hydrology, including describing the project construction and drainage challenges distinctly from a conventional all-season road elsewhere, clearly describing the potential impacts that might arise from this imposed linear upland feature, and the follow-on assessment needs based on this critical context. This region is as much a “wet-scape” than a landscape, making this proposed road more of a causeway and bridge than a conventional all-season road.

It follows that impacts to the hydrology of this area could produce effects that are wide-spread, substantially delayed, and prone to additional climate change feedback effects - all contributing significant uncertainty to this project that should be custom-assessed with specific EA design tailored to these mechanisms.

The Draft TOR does briefly and inconsistently acknowledge the concept of barrier effects - in at least the Climate Change discussion - but there flags only a potential for lower contributions to riparian flows hydrologically. This misses the associated key theme of downslope wetland drying - translating likely into the drying of carbon-dense peat in this regional context, for example. Other associated impacts also flow from this barrier effect, with multi-VC potential: impacts on mercury-mobilization on water quality, fish toxicity and country food provision, broad vegetation changes, with habitat changes for other wildlife and bird species, and potential carbon/methane cycle impacts on climate change performance over time for these notably wet landscapes. While some aspects of these impacts are mentioned in various places in the Draft TOR, they are brief, generic and inconsistently applied ideas often in list form, and missing the important description of <u>how</u> the assessments are proposed to evaluate these potential impacts.

> ***Vegetation type and abundance (quantity and quality).*** *This indicator refers to the quantity of each vegetation community type, as well as the quality of vegetation community types. Quantitative assessment of potential changes to total area communities as a result of implementing the Project and will be calculated and presented as absolute (i.e., area – hectares or square metres) as appropriate. This includes the quantification of rare species, as well as valuable community types such as peatlands. The calculation will be based on the extent of each identified vegetation community, and the area of disturbance within the preferred corridor. This indicator was selected because the Project may have effects on vegetation type and abundance* ***<u>thought direct changes caused by physical Project activities</u>*** *or* ***<u>indirect changes as a result of changes to vegetation communities</u>****. This in turn may have an affect on overall habitat quality (e.g., fragmentation of communities,* ***<u>changes to wetland function</u>****, or indirect effects from the installation of Project infrastructure). [pg 118, emphasis added]*

A broad recognition and discussion of these inter-related potential impacts in this hydrologic context would be appropriate. An assessment organization that clearly follows this thread would also be appropriate, as the <u>mitigation</u> of most of these effects in other applications is generally concurrently possible with appropriate drainage design that minimizes hydrological impacts upslope and downslope of the road feature. A clear-line logic between the baseline hydrology, the project design, and the likelihood of residual effects would be useful here.

Mercury mobilization - The important theme of mercury is entirely missing - We were surprised that mercury mobilization (particularly from changes in hydrological drying/wetting regimes) and potential impacts on fish - particularly with respect to larger, longer lived species that comprise country foods for residents of this area - could not be found in this Draft TOR. No mention of mercury could be located, despite its acknowledged presence and the recognized potential impacts to its speciation, biological uptake and biomagnification risks in these ecosystems from hydrological and geochemical triggers introduced by industrial projects such as that proposed, and those likely to be induced by this project. Existing body-burdens of key species such as walleye in receiving river systems are important baselines, as these burdens have often been demonstrated to be precariously close, or exceeding MOE consumption guidance for sport fish in downstream receiving waters.

Climate Change assessment - This section is currently weak, and missing in assessment details. Per above, aspects of potential hydrological landscape change, as it pertains to peatlands and both carbon and methane cycles would be appropriate. A discussion of timescales and feed-back loops is also relevant, in order to adequately consider the overlapping temporal carbon influences of (a) immediate construction impacts to landscape / deforestation / project fossil fuel impacts, (b) induced fossil fuel reliance for road-based ore hauling, (c) broad, but slow-acting influences such as those induced by hydrological change, (d) the confounding / compounding baseline regional impacts from climate change, (e) all described in a manner that clearly describes impacts to irrecoverable carbon and within the clear temporal frame of the climate change mitigation “action window” embraced by Canadian policy commitments.