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Eagle's Nest Project and Mining in the Ring of Fire: Memo addressing some major Risks and expected Impacts on Water

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Regarding the Probability of Aboveground Waste Material Facilities for Eagle's Nest Project

Wyloo is claiming they will mine underground quarries, or “aggregate stopes”, on the Eagle's Nest site to extract granodiorite and produce aggregates for the construction of its infrastructures, and some of Ring of Fire's access roads, thereby creating voids that will be used as underground tailings storage areas (TSA) during Eagle's Nest mining activities (Wyloo, 2026). According to the company, 100% of the mine waste will be stored underground in these aggregate stopes, in addition to the volume created by the excavation of the mine itself.

As a reminder, mine waste includes waste rocks and tailings. Waste rocks are defined as the rocks that have little to no economical value and that need to be mined in order to access the ore. Waste rocks usually come in a somewhat coarse state of blocks, gravel and sand. Tailings, on the other hand, are the crushed rocks of low economical value that come out of the concentrator once they're separated from the economically-interesting part of the ore (the actual *concentrate*). Tailings usually come in the form of paste or mud made of sand or silt, water and any deleterious chemicals needed to treat the ore.

According to Eau Secours, sending back *all* the mine waste underground over the whole development of the sole Eagle's Nest project seems like an overly optimistic projection for five main reasons. To make it clear: we encourage any mining company to backfill its excavations as much as possible, as we view this practice as one of the best possible ways of managing mine waste to reduce the global project footprint, in most cases. But we doubt Wyloo will be able to meet this commitment with *all* its mine waste (which includes waste rock and tailings) in the long-term.

Sections 1) to 5) below explain why it is likely that the total volume of mine waste might exceed the volume of the cavities formed by the aggregate quarries and by the mine itself. Such a situation would force the construction of aboveground mining waste disposal facilities at some point through the development of Eagle's Nest site.

Here is a brief summary of these 5 sections:

- When rocks are extracted, a phenomenon called “swelling” happens. In this project, there's probably an underestimation of the final volume of mine waste as there's no indication that their swelling has been taken into account. Wyloo therefore may have to manage more mine waste (including both waste rocks and tailings) than what's described in the available documentation;
- The lack of geochemical characterization of the rocks to be used as aggregates and the important modifications brought to two major roads' projects (Webequie and Marten Falls) in the last years may both lead to an overestimation of the possible uses of these aggregates as construction materials. If the aggregates cannot be extracted to construct roads as planned, the quarries cavities will be much smaller, or even non-existent. The total space available for underground waste storage may therefore be greatly lower than what's actually planned;

- As Eagle's nest is located in a peatland zone, any contamination emerging from mining waste (acidity, metals) might directly affect the water table;
- The lack of comparable mines integrating underground quarrying operations such as the ones proposed by Wyloo may affect the feasibility of the planned project;
- The plausibility that the mine undergoes an expansion through its operating phase also adds to the risk of underestimating the amount of mine waste in comparison to the vacated space underground, as the volume of waste will always grow quicker than the volume of vacated space, notably due to the swelling phenomenon cited above.

1) The volume of waste rock materials increases significantly once extracted.

The dynamited rock is subject to a **swelling phenomenon** that makes its volume grow higher than the vacated space once it is extracted. The order of magnitude of this phenomenon varies depending on the size of the final materials and depending on the nature of excavated materials: namely, the finer the rock is, the greater the swelling will be, as the blasting or crushing activities creates voids in-between rock blocks or grains.

For instance, in the case of Baie-James Lithium Mine, it has been assessed that waste rock would gain around 35% of volume once extracted, as it remains in a somewhat coarse state, while tailings become so fine that they can gain up to 65% of additional volume (WSP, 2019, p.5).

In the case of Eagle's Nest, the ore consists of massive sulphide, while the host rock consists of granodiorite and/or peridotite (Noront, 2013, p. ES-26). We can therefore assume **a swelling of about 54% to 72% of the tailings, once the rock is extracted** (swell factors for magnetite, chalcopyrite, diorite and granite being respectively 54%, 67%, 67% and 72%: Ofoegbu *et al.*, 2008, Appendix A, pp. A-2 to A-4). Also, **adding cement to the mix will make these volumes grow even higher**. For paste backfilling, the dosage of binder is usually in the range of 2–10 % ($\text{Mass}_{\text{cement}}/\text{Mass}_{\text{solids}}$) (Sivakugan *et al.*, 2014). When combined, these two main factors usually imply that **in a conventional underground mine, less than 60% of the tailings can be sent back in the mine voids** (Desai & Thornley, 2024; Emerman, 2020, p.8; Emerman, 2025, pp.5, 22-24). Other factors, such as the difficulty to compact tailings or to maximize the filling of "all" the voids when relying solely on gravity for backfilling the underground galleries also tend to limit the ability of a mining company to maximize usage of vacated spaces underground (Emerman, 2025, p.23-24).

For underground mines, the waste rock accounts for approximately between 10% and 20% of the total extracted materials (Zagury, 2024; Rossit, 2020). As Wyloo plans to store the waste rock underground too, a swelling factor also must be applied to this material. Independently of the nature of this rock, we may assume it will essentially be composed of "well blasted rock" that shall not be crushed, which may still lead to a swelling of at least 49% (Ofoegbu *et al.*, 2008, Appendix A, p. A-6). **In simpler terms, the extraction of pure waste rock should also produce about 1.5 more materials than the vacated volume underground, which adds to the already challenging volumes of cemented tailings to manage.**

2) Geochemical characterization is still insufficient.

Any excavation of rock by quarry or mining activities requires a geochemical analysis to know if the excavated materials will produce Metal Leaching or Acid Rock Drainage (ML/ARD), two types of leaching that are harmful to the environment, and especially to aquatic environments. The preliminary geochemical results available in Noront's report (Noront, 2013, p. ES-26) are textually:

- *The ore and host rock are considered PAG (potentially acid generating) based on sulphide content, neutralizing potential (NP)/acid potential (AP) and net acid generating (NAG) pH values. Tailings to be produced from processing the ore are also considered PAG. [...] The ore and host rock, and associated tailings, will be metal leaching if exposed to the atmosphere. Metals prone to leaching include aluminum, chlorine, cobalt, copper, iron, nickel, sulphate, vanadium and zinc;*
- *The aggregate to be produced from the mine development and from underground aggregate quarries (granodiorite) is not potentially acid generating (non-PAG) [and] is not likely to be metal leaching.*

It is important to note that these geochemical results are preliminary and that additional and thorough geochemical analysis will be required by Wyloo to ensure that the planned management for all mining materials is appropriate. According to the two relevant Canadian authorities in mining waste geochemical characterization (MEND Program, 2008; MELCC, 2000), appropriate geochemical characterization needs representative spatial sampling and kinetic column testing to adequately predict metal leaching and acid rock drainage. **Column kinetic testing has a duration of approximately 1 year.**

Hence, according to what we currently know, the aggregates from the quarries (granodiorite) are considered not likely to be metal leaching, but this preliminary conclusion will have to be challenged as soon as possible as aggregates cannot be used to construct gravel roads if they leach metals, since gravel roads are bordered by ditches that are directly connected to aquatic ecosystems (e.g. wetlands or streams). The thorough geochemical analysis may greatly impact the planned Underground Tailings Storage Areas' dimensions. **Indeed, if the aggregates are proven to leach metals, they cannot be used to construct roads. In this case, the aggregates will not be extracted, and the underground quarries will not exist, not allowing enough space to receive all the cemented tailings and the other mining waste, as planned by Wyloo.**

Also, the tailings have been preliminarily identified as potentially acid generating (PAG) and will leach metals if exposed to oxygen and water. **Again, the use of kinetic columns (estimated duration of 1 year) will be essential to simulate the chemical reaction of cemented tailings over time. This geochemical testing is necessary to verify if the planned underground storage at Eagle's Nest will pollute the groundwater or not.** As a reminder, it is planned that the ore will be extracted and then crushed underground, which will produce those tailings in the process. The tailings will then be cemented before their underground storage. During the complete process, the ore and/or tailings will certainly be exposed to water and oxygen, which is expected to favour acid generation and metal leaching.

Finally, it is important to note that the Eagle's Nest project is located in the James Bay Lowlands, one of the world's largest peatland systems, which implies that the groundwater is reaching the surface. Consequently, mining waste buried in underground excavations will eventually be submerged in water when the pits or quarries are no longer mechanically drained. In this configuration, any contamination that might emerge from mining waste (acidity, metals) may directly affect the water table.

3) Roads' planification underwent a lot of recent modifications.

According to recent news (Government of Ontario, 2026), the construction of the Webequie Supply Road and the Marten Falls Road is scheduled to begin in the summer of 2026 for a total duration of 4 years. According to the Impact Statement documents related to these projects, it appears that the rockfill to construct the roads will be taken from rock outcrops in the projects' areas, thus not from the Eagle's Nest underground quarries (IAAC, 2026a; IAAC, 2026b).

The Northern Road Link Project, which is the road planned to link the abovementioned roads and to access the Ring of Fire passing by the Eagle's Nest site, is also under the responsibility of Marten Falls and Webequie First Nations. The Government of Ontario states that this road's construction will begin in 2028, but no further information is given on the IAAC's webpage (IAAC, 2026c). This means that for now, we don't know when the Northern Link Road will be constructed.

Available information from Wyloo documents does not clearly indicate whether the projected demand for aggregates from the underground quarries at the Eagle's Nest site is still realistic, nor up to date, as the Proponents for the Northern Link Road are now the Webequie and Marten Falls First Nations. Noront's report (2013), on the other hand, was assuming that the mining company would be amongst, if not the main Proponent for the access road from the southern region to the Ring of Fire. This is not true anymore.

We therefore believe that the spatial and temporal coordination of the Northern Link Road project and the Eagle's Nest mine project are unlikely to match, making it **very likely that the volume of aggregates to be extracted from Eagle's Nest mine is highly overestimated. It is therefore as likely that the expected space to be vacated underground is also overestimated. In such a situation, we fear that Wyloo might ultimately lack space underground to store all its tailings, as the company promises, throughout the exploitation of its mine.**

4) Underground processing and storage facilities are not proven to be technically and economically feasible.

Little to no information has been published by Wyloo to demonstrate the technical and economical feasibility of its underground facilities, notably the aggregate stopes and crusher that would free space to then store the mine's tailings.

Furthermore, upon wider review, we found very little information on the design and actual exploitation of underground quarries in a Canadian context. In order to challenge our own review, we reached out to two independent mining experts based in the United States. Despite their vast experience, neither of them had seen comparable mines integrating underground quarries. The

proposed facilities are therefore rare, if not unique in North America, which means that little to no comparative data is available regarding the feasibility of such components of this project, thereby increasing the technical and economic risks. Both U.S. mining experts also pointed out the important lack of information regarding the estimated vacated volumes to compare with the volumes of tailings to store, and the global risks of acid generation and/or metal leaching into underground waters that seems to have been underestimated (Eau Secours, 2026).

We therefore observe that key assessments may have been overlooked, both by Wyloo and by the relevant authorities. This lack of possible comparisons to similar projects, combined with the lack of publicly available information adds to the need for a publicly available comprehensive study on the technical and economical feasibility of the proposed aggregate stopes included by Wyloo in its Eagle's Nest mining project.

Such a comprehensive study should also explicitly detail the volumes of aggregates and of vacated voids to expect from the aggregate stopes, to evaluate the quantities and proportions of tailings the company will be able to store in those stopes and in the ore stopes. Failing to evaluate these key elements appears to us to be negligent in the decision-making process, as in the absence of such an assessment, we believe the risks are high that Wyloo either:

- Abandons the idea of digging underground quarries once the mine opens, drastically compromising its commitments to store all tailings underground without civil society being able to contest such a unilateral decision once all authorizations to operate the mine are delivered;
- Or underestimates the space to be vacated underground, and therefore realizes the need to build aboveground tailings and a waste rock storage facility sometime during operation of the mine.

5) Mines are generally subject to at least one expansion.

Eventual mine expansions haven't been considered in any of Wyloo's commitments, but such an event would result in an increased probability that Wyloo would need to build aboveground tailings facilities.

Regarding expansions of mines, it is worth noting that these phases of development are so common in the industry that our organization basically considers them an expected step of almost any mining project. Literature and our experience both support this statement. For instance: Bloom Lake's open-pit iron mine was expanded four times over less than ten years of operation, leading to the planned destruction of 37 water bodies as the company was "lacking" space to store its tailings (to summarize it briefly: it refused to send its waste back in its open pits); Casa Berardi's underground gold mine has been subjected to at least two major expansions, eventually leading to the exploitation of open-pits on the same site; Canadian Malartic's open-pit gold mine doubled in size following an expansion requested only two years after it started operating; Horne 5's underground gold project is being planned based on the possibility of expansions, as explicitly mentioned on the local radio by its CEO; and many more examples in the province of Quebec go the same way. Neither of these expansions were included in the initial environmental

assessments, as they were deemed “speculative”, by proponents and by authorities, during the design phase of those projects.

Adding to these observations, experts commissioned by the Gordon Foundation to produce a highly important report also explicitly state the following:

Almost all mines add to their ore reserves over the course of their mine life, in part to take advantage of new technologies, or to optimize the amount of ore processed using highly expensive machinery. Therefore, barring changes in mineral prices or other issues that make the mine less competitive, mine life will likely extend beyond what was originally envisaged. (Gibson & O’Faircheallaigh, 2015, p.23)

It is also relevant to recall that Wyloo’s website publicly states Eagle’s Nest mine would have “potential for extension as the orebody remains open at depth” (Wyloo, 2026). That being said, the only publicly available assessment of Eagle’s Nest mine is the 2013’s environmental assessment produced by Noront. Based on this assessment, Wyloo still claims that they will store all the tailings underground. However, this study was produced based on a 16-year project life (Noront, 2013) which **never considered the potential effects of a mine expansion**, and no updates of this assessment seem to have been produced since then.

Our organization therefore fears that **Eagle’s Nest mine might evolve to a point where Wyloo’s commitments become physically impossible to meet, due to higher volumes of tailings and waste rock to manage than what’s been initially assessed.**

The fact that any added volumes of tailings will grow at a much faster rate (at least 1.5 to 1.7 times faster, based on the information presented in *section 1* of this memo) than the volume of vacated space underground, due to the swelling phenomenon and the addition of cement mentioned above, raises additional concerns should an expansion of the mine occur during its initially planned lifetime.

There is also a non-negligible risk that the company already plans on further expansions but avoids addressing it through a global assessment of its project to simplify the environmental assessment’s phase and to facilitate obtaining authorizations for its project. This is indeed a corporate strategy that’s been seen or suspected in projects such as Horne 5, Authier, and Bloom Lake, just to name a few that we analyzed.

In conclusion, it **appears plausible**, at this stage and based on the available information, **that aboveground mining waste disposal facilities be required through the development of Eagle’s Nest site.**

Other Mining Projects in the Ring of Fire

Historical development of the Victor Diamond Mine, a few hundred kilometers away from Eagle's Nest mine site, proved to facilitate the exploration of the Ring of Fire's broader region (Canadian Geographic, 2017). Indeed, developing a mine, bringing personnel and resources, building roads, airstrips, or any other logistical facility favours mining exploration and raises the chances of seeing more mining projects being developed in the long-term.

Following these observations, Eau Secours expects the opening of Eagle's Nest mine, and above all the construction of the roads connecting the Ring of Fire region to the southernmost part of Ontario, to facilitate the development of many more mining projects. It's important to recognize that not all mining exploration projects will become active mines, but surely more than the sole Eagle's Nest deposit is to be exploited following the development of such infrastructures.

1) Blackbird Mine

If Wyloo is to be exploiting Blackbird's chromium project using underground infrastructure connected to Eagle's Nest mine (Neskantaga First Nation, 2025; Wyloo, n.d.; Desai & Thornley, 2024), the company will face a similar scenario than if they expand their Eagle's Nest mine: **the volume of generated tailings from Blackbird's project will be much greater than the space available in this second mine**, essentially due to the swelling phenomenon combined with the added cement, once again. A part of the exceeding tailings might still be sent into Wyloo's underground aggregate stopes, but here again these hypothetical quarry-areas will eventually reach full capacity in terms of tailings' storage and won't be able to withhold tailings excesses anymore. It then seems inevitable that the only remaining option will be aboveground tailings disposal facilities.

2) Other Wyloo Projects in the Ring of Fire

It is also worth noting that **Wyloo's commitments to store all tailings underground concern exclusively Eagle's Nest project**. No commitment of *always* backfilling *all* the tailings generated by other mining projects in the Ring of Fire were made. Keeping in mind that some mining projects planned in the Ring of Fire may be more than ten times bigger than Eagle's Nest in terms of total production (Black Thor, for instance), it would be no surprise to us that some of the future mining projects following Eagle's Nest will require aboveground tailings disposal facilities.

As a matter of fact, even when considering only Wyloo's projects, it appears that the mining development of the rest of the Ring of Fire is an integrated part of the development of Eagle's Nest and of the roads to be built. For instance, in the table below are other Wyloo's "assets" that might be exploited in the coming tens of years, effectively adding to the impacts of the sole Eagle's Nest project, and obviously adding to the quantity of tailings to manage. According to currently available information, **some of those mines, notably chromium ones, may be open-pit mines** (Dabros *et al.*, 2025; MiningWatch Canada, 2011, p.5, cited in Desai & Thornley, 2024; Noront,

2020, p.8) thus producing much higher volumes of waste rock and tailings, in addition to an already much greater footprint to be expected from these additional projects:

Table 1: Mineral deposits acquired by Wyloo from Noront in 2022 and their respective measured and indicated or inferred resources, based on (Dabros et al., 2025, section 2.2)

Name of the mining project	Minerals of interest found in the deposit	Measured and indicated resources (million tonnes - Mt)	Inferred resources (million tonnes - Mt)
Eagle's Nest	Nickel, copper, platinum, palladium	11 Mt	9 Mt
Blackbird	Chromium	20,5 Mt	23,5 Mt
Black Thor	Chromium	137,7 Mt	26,8 Mt
Big Daddy	Chromium	29,1 Mt	3,4 Mt
Black Label	Chromium	5,4 Mt	0,9 Mt
Thunderbird	Titanium, vanadium, cobalt	<i>Not specified</i>	<i>Not specified</i>
McFaulds and Nikka	Copper, zinc	0,85 Mt	4 Mt
JJJ	Gold	<i>Not specified</i>	<i>Not specified</i>
Kyle and MacFayden	Diamonds	<i>Not specified</i>	<i>Not specified</i>
Butler	Copper, zinc	<i>Not specified</i>	<i>Not specified</i>
Sanderson	Nickel, copper, platinum group metals, chromium	<i>Not specified</i>	<i>Not specified</i>

Let's insist on one point here: those are only Wyloo's assets. **This list does not include all other mining companies' projects in the Ring of Fire; it is therefore only a partial illustration of the size of global exploitation to expect in this region if it ever gets broadly "developed" for mining.**

In addition, it's important to keep in mind that tailings and waste rocks **always** constitute the main production - in terms of quantities and volumes - of a mine site. Indeed, the actual useful metals contained in the "measured and indicated resources" or in the "inferred resources" generally consist of less than 5% of the extracted rock (Ontario Geological Survey, last updated in 2025).

In the case of gold mines or of open-pit mines in general, it often goes even below such an already low grade. Some gold mines, for instance, operate based on a gold concentration of 1-2 grams per tonne of ore, meaning that more than 99.9998 % of the mined rock, or "resources", consists of pure mining waste. Such observations even made MiningWatch Canada write, in 2016, that "[m]ining is essentially a waste management industry" (Lapointe, 2016, p.1). This goes to show

that the development of the Ring of Fire ultimately implies the management of at least tens of million tonnes of tailings, if not hundreds of million tonnes, just to extract a few thousand tonnes of economic minerals. It would hence be illusory to believe that each mining company, and even Wyloo, will *always* manage to store those astonishing quantities of tailings underground for every project they develop: at some point, if the Ring of Fire is to be developed, it is almost certain that some projects will eventually require aboveground tailings disposal facilities.

It is therefore expected, in Eau Secours' opinion, that tailings and waste rock management facilities will be constructed above ground in the context of the Ring of Fire.

Risks of Destruction of Natural Water Bodies due to Tailings Impoundment Areas: *Metal and Diamond Mining Effluent Regulations* and its *Schedule 2*

Taking into account the scale of some foreseeable mining projects, such as Black Thor, that apparently holds about 138 million tonnes of resources (out of which quantity, the majority will be mine waste), and taking into account MiningWatch's observation that chromium deposits are usually mined through open-pit operations (MiningWatch Canada, 2011), **our organization believes that some of these future mines will be open-pits or underground mines of much larger scale than Eagle's Nest.**

It is no secret that the Hudson Bay Lowlands is an area covered in lakes, rivers, ponds, and peatlands. Water is ubiquitous in this part of the world. The issues that are sure to arise, if mining companies were to develop large-scale mining projects, are conflicts between industrial activities and the presumed will of mining companies to avoid water bodies. **At a certain point, when a mine is so big that its pits eat the Earth for a few kilometres, and when the quantities of waste are as huge as tens or hundreds million tonnes, the destruction of water bodies appears almost inevitable.**

Here are a few examples of footprints, as the crow flies, to illustrate the scale of contemporary mining operations: Canadian Malartic's pits extend for 4 km; Mont-Wright's pits extend for almost 8 km, while its tailings pond extends for another 8 km; Bloom Lake's pits extend for 5 km; the proposed Matawinie project should have at least 2.5 km of dug pits; and LaRonde, an underground mine, has waste management facilities extending for almost 5 km. Many cities are of way smaller size than some of those mine sites.

In Québec, where our organization focuses its work, **we could recently acknowledge that many mining projects plan on drying or destroying water bodies to operate, and a worrying fact regarding such practices is that these activities are actually legal.** Even worse, the actual regulations allowing this practice include the designation of some fish habitats (lakes, rivers, streams, etc.) as "tailings impoundment areas". In these cases, lakes aren't even destroyed to build a mine or a road to reach, they are merely reclassified as tailings' dumps, often leading to their utter destruction. This can be done following the mechanisms provided for by the *Fisheries Act* and its *Metal and Diamond Mining Effluent Regulations* (MDMER). Companies designing their mines around such practices have notably based their arguments on Québec's Mining Act stating in its preamble that it is "necessary to promote the optimal use of mineral resources" (Mining Act, n.d.), to reject any demands to backfill their excavations instead of dumping their waste in natural water bodies.

For any request to dispose of tailings into fish habitat to be authorized, a mining company must undergo a few steps of planification and assessment (Government of Canada (b), n.d.). Along these steps, companies are required to submit an "assessment of alternatives", aimed at demonstrating that they evaluated many scenarios before concluding that their waste "must" be dumped in natural water bodies. Included in these scenarios must be at least one assessment of a completely terrestrial solution to the disposal of their tailings and waste. More often than not,

other alternatives are quickly disregarded when a mine is located in an area covered in lakes, rivers, and wetlands, just as in the Hudson Bay Lowlands' case (see for instance our analysis of the assessment of alternatives to Bloom Lake's proposal of dumping its waste in eight important lakes, and many connected creeks and rivers, in: Eau Secours & Fondation Rivières, 2023).

In result, despite minimal measures aimed at avoiding that mining companies unreasonably dump their waste in lakes and ponds, **tens of mine sites currently benefit from authorizations to use natural water bodies as tailings impoundment areas across Canada.** Currently, 92 locations, accounting for at least 34 mine sites, have indeed been registered in MDMER's *Schedule 2*. Out of those 92 registrations, 35 are in Ontario. In addition, it's worth noting that each one of these inscriptions sometimes concern tens of lakes and rivers per entry (see for instance entries 34, 44, 46, 52, 53, 60, 78, 79, and many others, in: MDMER, n.d.). Therefore, these entries represent a lot more than 92 water bodies. Moreover, some of the lakes registered were initially of immense size, such as Flora and Wabush lakes, in Labrador, that used to be respectively more than 632 and 1870 hectares, even though MDMER's *Schedule 2* states otherwise as it only accounts for the fish habitat destruction to be compensated at a certain moment in time which sometimes come after past destruction not accounted by the regulations has been made.

The main issue, with such legislation being maintained with minimal restrictions, is that it doesn't seem to hinder companies from submitting mining projects integrating the addition of water bodies to MDMER's *Schedule 2* at the design stage of their mine. Examples of such cases in Québec are: Marban's gold mine project, aiming to destroy Keriens river to dig its pits and to fill some ponds with its tailings; Mont-Sorcier iron mine project, which shall lead to the total or partial destruction of 24 lakes or ponds, and of about 90 watercourses; and Shaakichiuwaanaan's lithium mine project, which aims at drying at least 57 hectares of a big lake to mine underneath its waters. All these examples explicitly state in their initial project description that they aim on adding these lakes, ponds and/or watercourses to MDMER's *Schedule 2*.

In our point of view, **mining development in the Ring of Fire is very likely to lead to some lakes or rivers being registered to MDMER's Schedule 2, considering how vastly covered in water bodies the region is.** Furthermore, this schedule typically only concerns tailings impoundment areas being designed on fish habitats. It doesn't address the loss of water bodies that aren't fish habitats, nor does it usually address the loss of water bodies for the sole construction of mine infrastructures. MDMER's *Schedule 2*'s list hence is but a partial portrait of lakes destruction by mining projects in Canada.

Considering all these observations, **the risk of adversely affecting, or utterly destroying natural water bodies in the Ring of Fire therefore seems relatively high, should the mining industry continue to develop itself in this region.**

It is worth noting that we don't imply such a scenario will necessarily happen in the precise case of Eagle's Nest mine, even though, should an aboveground tailings facility be necessary at some point, Wyloo might eventually consider using one or more water bodies for such infrastructures. We do fear, however, that Eagle's Nest development is directly responsible for an increase in mining activities in the Ring of Fire, and that this will drastically increase the risks of seeing water bodies being sacrificed in such a way as described in this memo. Just as MiningWatch recently

stated: **Eagle's Nest mine is basically the Trojan Horse that will lead to great adverse effects to the Lowlands** (Desai, 2024). This simply cannot be overlooked by relevant authorities in their deliveries of authorizations and in their assessment of the various projects currently being designed or discussed.

Thank you for the opportunity to contribute to Attawapiskat First Nation's analyses and reflections on the mining projects they are currently facing. If you have any questions regarding the content of this memo, please contact our organization or the undersigned.

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This document, and the research supporting it both have been done without the use of any tools of artificial intelligence.

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