

### MODIFICATIONS TO THE WHABOUCHI MINING PROJECT – NEMASKA LITHIUM

### **ADDENDUM**

# RESPONSES TO THE REQUEST FOR CLARIFICATIONS FROM THE IMPACT ASSESSMENT AGENCY OF CANADA

### **ENV0742-1502-00-ADDENDA EN**



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### **TABLE OF CONTENTS**

1.0	INTRODUCTION	4
1.1 1.2 1.3	Context Purpose of this Document Discharge of Sanitary Wastewater Authorized by the 2015 Declaration of Decision Versus the Discharge of Sanitary Wastewater from the Temporary Camp	4
2.0	DOMESTIC WASTEWATER TREATMENT SYSTEM – TEMPORARY CAMP	5
2.1 2.2	Assessment of Impacts	
3.0	CONCLUSION	12
Table 2	TABLES  2-1. Discharge Standards and Design Criteria	6
	<u>FIGURES</u>	
Figure	2-1. Location of the Domestic Wastewater Treatment System and the Discharge Line to the	
Discha	orge Pipe to the Small Lake (petit lac)	5
Figure	2-2. Discharge Line Leading to the Small Lake (petit lac)	7

### **APPENDICES**

### A. Minutes of Meeting

- 1. Minutes of the October 25, 2022 Meeting
- 2. Minutes of the December 14, 2022 Meeting



### 1.0 INTRODUCTION

### 1.1 Context

On October 18, 2021, the Impact Assessment Agency of Canada (IAAC) sent to Nemaska Lithium Inc. (Nemaska) a request for clarification regarding changes made or proposed to the Whabouchi mining project since the issuance of the 2015 Declaration of Decision. In response to this request, Nemaska sent to the IAAC a document entitled "Changes to the Whabouchi Mining Project Nemaska Lithium, Responses to the Impact Assessment Agency of Canada's Request for Clarification" in May 2022.

On April 18, 2023, the IAAC sent questions (by email) to Nemaska in order to clarify certain aspects of the proposed Whabouchi Project modifications. One of these questions was related to the discharge of sanitary wastewater at the Whabouchi site.

### 1.2 Purpose of this Document

The purpose of this addendum is to provide the IAAC with the requested clarification regarding the discharge of sanitary wastewater at the Whabouchi site. The IAAC requests clarification of the following items:

- a. Distinguish and specify the proposed change to the project, regarding the wastewater treatment system and its discharge, by comparing it to the project authorized at federal level through a Declaration of Decision in 2015. For example, do the developers want to propose the following modification: A wastewater treatment system and discharge for 40 workers for a certain period of time, and then a wastewater treatment system and discharge for 420 workers for the remainder of the construction period? (also specify the treatment rates for each modification). Also, what would be the wastewater treatment system and discharge for the operational period?
- b. Make the necessary modifications to the analysis presented in April 2022, to cover the requested modifications. For example, considering that a treatment system and wastewater discharge for 420 workers have not been authorized by the Agency, the developers must also submit an analysis for this activity, if they wish to have it authorized.

# 1.3 Discharge of Sanitary Wastewater Authorized by the 2015 Declaration of Decision Versus the Discharge of Sanitary Wastewater from the Temporary Camp

As the IAAC stated in its email of April 18, the 2013 Impact Assessment anticipated that domestic wastewater would come from the sanitary facilities located in the administrative and technical services buildings, the garage and the concentrator, and that this water would be directed to septic tanks and then to leach beds (an infiltration treatment system in the soil, with no effluent connected to the water system). It was not foreseen in the 2013 Impact Assessment that there would be a separate treatment pathway for domestic wastewater from the temporary construction camp, with a surface discharge.

Nemaska wishes to clarify that the modifications discussed herein do not concern the domestic wastewater and sanitary facilities of the administrative and technical services buildings, the garage and the concentrator, but rather the domestic wastewater and treatment system of the temporary construction camp on the Whabouchi mine site. This surface sanitary wastewater discharge was not initially included in the 2013 Impact Assessment and was not authorized by the 2015 Declaration of Decision.



### 2.0 DOMESTIC WASTEWATER TREATMENT SYSTEM – TEMPORARY CAMP

In April 2022, Nemaska notified the IAAC of changes to the project regarding the relocation of the temporary construction camp to the Whabouchi mine site, as well as the camp's sanitary wastewater treatment system, including a surface discharge. Work on these developments was carried out in 2019.

Figure 2-1 illustrates the location of the treatment system, discharge line and the existing ditch upstream of the small lake (petit lac) (Lake 31).

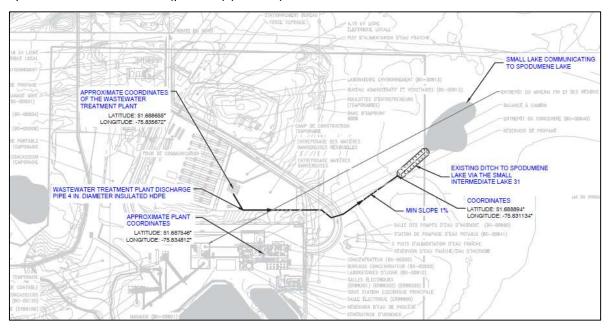


Figure 2-1. Location of the Domestic Wastewater Treatment System and the Discharge Line to the Discharge Pipe to the Small Lake (petit lac)

Since then, a domestic wastewater treatment plant has been in operation at the Whabouchi site for the temporary camp, consisting of a Membrane Bioreactor (MBR) system. The treatment facilities were designed to treat a capacity of 420 workers and the system was later adjusted to reduce the capacity to treat a maximum of 41 workers (with a flow rate of 10.25 m³/day). The document submitted to the IAAC in April 2022 targeted the treatment line for a maximum of 41 workers.

However, with the continuation of construction activities in 2023, the camp will have to accommodate a large number of workers and Nemaska plans to increase the capacity of its domestic wastewater treatment system. Nemaska therefore wishes to request a modification from the IAAC to consider a treatment system capacity for the temporary construction camp of up to 350 workers, representing a system treatment capacity of 87.5 m<sup>3</sup>/day.

As for the treatment system and the discharge of wastewater planned for the operating period, Nemaska will send the information related to these modifications to the IAAC at a later phase.

The treatment line is currently used for a maximum flow of  $10.25 \, \text{m}^3/\text{day}$  (maximum 41 workers). The existing treatment system receives wastewater from the temporary camp and from the cafeteria activities. The requested modification is for a maximum treatment capacity of 87.5 m $^3/\text{day}$  for the needs of 350 workers.



In order to meet the most stringent discharge criteria that could be associated with the lodging complex project, Nemaska had selected the treatment line under the "Best Available Technology" principle. The technology used to achieve the best possible water quality through biological treatment is the biological membrane reactor (MBR). The environmental discharge objectives (EDOs) defined in 2021 by the *Ministère de l'Environnement, de la Lutte contre les Changements climatiques, de la Faune et des Parcs (MELCCFP)*, the standards applied to the technology and the design criteria for MBRs are presented in Table 2-1. It should be noted that the treatment performance of the system must conform to the most stringent criteria of the MBR and EDO standards.

Table 2-1. Discharge Standards and Design Criteria

Parameters	eters EDO 2021 MBR Norms		Design	
BOD <sub>5</sub>	15 mg/l	10 mg/l	< 5 mg/l	
TSS	15 mg/l	10 mg/l	< 5 mg/l	
NH <sub>4</sub>	N/A	3 mg/l in the summer 5 mg/l in the winter	< 2 mg/l	
Pł	1 mg/l	0.3 mg/l	< 0.1 mg/l	
Coliforms/100 ml	200 UFC	200 UFC	100 UFC	

The existing sanitary water treatment system is described below. It should be noted that it will remain as such.

- Decanter: 60 m³ oil separator.
- 46 m³ equalization basin.
- Transfer pumps to bioreactors.
- 7.5 m<sup>3</sup> anoxic bioreactor.
- 21 m<sup>3</sup> aerobic bioreactor.
- Membrane filtration: Clarification on two sets of ultrafiltration (UF) membranes with a maximum capacity of 90 m<sup>3</sup>/day each.
- Sludge Collection Tank: Storage and aerobic digestion of sludge in a 25 m<sup>3</sup> tank.

MBR systems represent the combination of two technologies, activated sludge and membrane filtration. Unlike conventional activated sludge working at mixed liquor concentrations of 3,000 to 5,000 mg/l, MBRs allow working at concentrations above 10,000 mg/l, thereby reducing the size of the bioreactors.

The key to this technology is the use of membranes as a clarification tool. The reduction of the 5-day biological oxygen demand ( $BOD_5$ ) is achieved by transforming the soluble  $BOD_5$  into biological flocs in the bioreactor.

These flocs, composed of micro-organisms ranging in size from 5 to 10 microns, are contained by the membranes, which offer a separation with a cut-off at 0.04 microns.

For the removal of total suspended solids (TSS), the technology allows the removal of almost all suspended solids, even providing a treated water quality of less than 1.0 NTU.



The  $NH_4$  reduction is set at 2 mg/l. Nitrification is considered in the sizing. The addition of alkalinity is required to ensure proper treatment performance even though the system implemented has an anoxic phase that allows the alkalinity consumed during nitrification to be released. The anoxic phase allows the removal of nitrite and nitrate, releasing nitrogen as  $N_2$  gas.

Phosphorus removal requires the addition of coagulant to flocculate the phosphorus physicochemically, and remove it by clarification. Phosphorus removal is directly related to the performance of the clarification tool used. For the same reasons as mentioned above, a 0.04 micron membrane separation will remove almost all particulate phosphorus, leaving only soluble (non-coagulated) phosphorus. Phosphorus removal performance will only be a matter of coagulant dosage. Coliforms, which are about 10 microns in size, are retained in the system by the membrane separation, which provides a 0.04 micron cut-off.

Finally, it is important to note that the treatment performance of MBRs does not require a downstream polishing field. The effluent produced by MBRs normally meets the environmental discharge criteria for a stream.

After processing, two sampling points are present. The end of the pipe is upstream of small lake 31 (petit lac 31) (see Figure 2-2).



Figure 2-2. Discharge Line Leading to the Small Lake (petit lac)

### 2.1 Assessment of Impacts

### 2.1.1 Atmospheric Environment

### **Anticipated Impacts**

No impact on the atmospheric environment is anticipated from the increase in the flow of water to be treated to 87.5 m<sup>3</sup>/day for the needs of 350 workers, as only the operating parameters of the treatment process will need to be adjusted.



Potential impacts on the atmospheric environment have been limited during the implementation period of these facilities on the existing mine site in 2019.

### 2.1.2 Groundwater and Surface Water

### **Anticipated Impacts**

If the domestic wastewater treatment plant does not meet the discharge requirements, this could result in an impact on the surface water. However, no impact is expected on the groundwater.

### **Proposed Mitigation, Monitoring and Follow-Up Measures**

The selected technology, the biological membrane reactor, is one of the most efficient technologies for the biological treatment of domestic wastewater. The treatment plant was originally designed and built in 2019 for a higher number of workers than the current modification.

The sanitary wastewater treatment facilities will be maintained according to the manufacturers' requirements. The treatment performance of the system must always meet the most stringent criteria of the MBR and EDO standards.

In accordance with the Environmental and Social Monitoring Program, Nemaska will use and maintain treatment equipment in a manner that ensures optimal operation. The monitoring provided for in the Environmental and Social Monitoring Program for the Whabouchi project's domestic wastewater treatment systems will also apply to the temporary camp's treatment system. The follow-up will ensure that:

- Wastewater treatment systems shall remain operational.
- Treatment performance is met.

The treated water outlet of the wastewater treatment plant is equipped with continuous measuring equipment for the following parameters:

- Flow rate
- pH
- Turbidity
- Temperature

Appropriate control and monitoring of the parameters (COD, BOD<sub>5</sub>, TSS, Ptot, NH<sub>4</sub>, nitrite-nitrate, coliforms, acute toxicity), according to the different regulatory requirements, will be ensured. The monitoring data will be kept and transmitted to the MELCCFP, if necessary.

If a breakage is observed or if the treatment performance is not achieved, the required repairs will be carried out as soon as possible, the source of the problem will be investigated and the necessary corrective measures implemented.

The effluent discharge point is directed to a ditch that runs into Little Lake 31 (petit lac 31). It is currently planned that the discharge point will also be Little Lake 31 for the discharge of sanitary wastewater from the permanent camp (in the operational phase). This will be confirmed to the IAAC at a later phase.



### **Anticipated Residual Impacts**

Following the implementation of mitigation, monitoring and follow-up measures, the assessment of the residual impacts of the addition of the treatment system and the discharge of sanitary wastewater for 350 workers on surface water is as follows:

- Intensity of the impact: Low, as the selected treatment technology and compliance with discharge requirements ensure that the residual impact is not or not likely to affect the integrity and quality of the water.
- Extent of the impact : Temporary/occasional, as the residual impact would only be felt over a limited area.
- Duration of impact: Medium, as this sanitary wastewater discharge point is expected to be effective for the construction and operation period. Furthermore, in the event that discharge requirements are exceeded, although the intensity of the impact may increase, this would be of very short duration, as adjustments would be made as soon as possible.
- Reversibility/Irreversibility: Reversible impact.

### 2.1.3 Noise Climate

### **Anticipated Impacts**

No impact on the noise environment is anticipated from the increase in the flow of water to be treated to 87.5 m<sup>3</sup>/day for the needs of 350 workers, as only the operating parameters of the treatment process will need to be adjusted.

The potential impacts on the noise environment have been limited during the period of implementation of these facilities on the existing mine site in 2019.

### 2.1.4 Terrestrial and Wetlands

### **Anticipated Impacts**

The sanitary wastewater treatment system is already in place; therefore, no impacts are anticipated on terrestrial and wetland environments. In addition, the domestic wastewater treatment plant was built in 2019 on an existing developed area of the Whabouchi site.

### 2.1.5 Fish and their Habitat

### **Anticipated impacts**

To the extent that the domestic wastewater treatment plant does not meet discharge requirements, this could result in an impact on surface water and fish and fish habitat.

### **Proposed Mitigation, Monitoring and Follow-Up Measures**

The mitigation, monitoring and follow-up measures are the same as those mentioned in section 2.1.2. The application of these measures will ensure that the potential impacts on fish and fish habitat is minimized.



### **Anticipated Residual Impacts**

Following the implementation of mitigation, monitoring and follow-up measures, the assessment of the residual impacts of the addition of the treatment system and the discharge of sanitary wastewater for 350 workers on fish and fish habitat is as follows:

- Impact intensity: Low, as the selected treatment technology and compliance with discharge requirements ensures that the residual impact is not or unlikely to affect water integrity and quality.
- Extent of Impact: Temporary/occasional, as the residual impact would only be felt over a limited area
- Duration of impact: Medium, as this sanitary wastewater discharge point is expected to be effective for the construction and operation period. Furthermore, in the event that discharge requirements are exceeded, although the intensity of the impact may increase, this would be of very short duration, as adjustments would be made as soon as possible.
- Reversibility/Irreversibility: Reversible impact.

### 2.1.6 Migratory Birds

### **Anticipated Impacts**

The sanitary wastewater treatment system is already in place, therefore no impact on migratory birds is anticipated. In addition, the domestic wastewater treatment plant was built in 2019 on an existing developed area of the Whabouchi site.

### 2.1.7 Species at Risk

### **Anticipated Impacts**

The sanitary wastewater treatment system is already in place, therefore no impacts are anticipated on species at risk. In addition, the domestic wastewater treatment plant was built in 2019 on an existing developed area of the Whabouchi site.

### 2.1.8 Current Use of Land and Resources for Traditional Purposes

### **Anticipated Impacts**

The sanitary wastewater treatment system is already in place, therefore no impact is anticipated on the use of land and resources for traditional purposes. In addition, the domestic wastewater treatment plant was built in 2019 on an existing developed area of the Whabouchi site.

### 2.1.9 Human Health and Socio-Economic Conditions of First Nations

### **Anticipated Impacts**

Failure to comply with the requirements for the discharge of sanitary wastewater to Little Lake 31 (petit lac 31) could affect water quality and thus cause potential health impacts for First Nations. However, Little Lake 31 is located within the Whabouchi Mine site safety zone and is not an accessible source of drinking water. Lake 31 is not a drinking water withdrawal site for First Nations and there are no water withdrawal sites in Lake Spodumene located downstream.



### Proposed Mitigation, Monitoring and Follow-Up Measures

Mitigation, monitoring and follow-up measures are planned to reduce impacts on surface water and First Nations health. These measures are detailed in Section 2.1.2.

### **Anticipated Residual Impacts**

Following the implementation of mitigation, monitoring and follow-up measures, the assessment of the residual impacts of the addition of the treatment system and the release of sanitary wastewater for 350 workers on the human health and socio-economic conditions of First Nations is as follows:

- Intensity of impact: Low, as the selected treatment technology and compliance with discharge requirements ensure that the residual impact is not or not likely to affect the integrity and quality of the water.
- Extent of the impact: Temporary/Occasional, as the residual impact would only be felt over a limited area.
- Duration of impact: Medium, as this sanitary wastewater discharge point is expected to be effective for the construction and operation period. Furthermore, in the event that discharge requirements are exceeded, although the intensity of the impact may increase, this would be of very short duration, as adjustments would be made as soon as possible.
- Reversibility/Irreversibility: Reversible impact.

# 2.1.10 Natural and Cultural Heritage/Structures of Historical, Archaeological, Palaeontological or Architectural Importance

### **Anticipated Impacts**

The sanitary wastewater treatment system is already in place, therefore no impact is anticipated on the natural and cultural heritage

### 2.2 Procedures for Informing and Consulting the Public

The construction camp's sanitary wastewater treatment system and its expansion were discussed at the Environment Committee meetings of October 25, 2022 and December 14, 2022. The minutes of meetings are available in Appendices A.1 and A.2.



### 3.0 **CONCLUSION**

The purpose of this addendum is to respond to one of the IAAC questions addressed to Nemaska Lithium on April 18, 2023 by email, in relation to the discharge of sanitary wastewater at the Whabouchi mine site. The addendum specifies that an amendment to the 2015 Declaration of Decision is indeed requested in order to authorize the wastewater treatment system for the temporary construction camp for a maximum treatment capacity of 87.5 m³/day, i.e., for the needs of 350 workers, as well as its surface discharge into Little Lake 31 (petit lac 31). The assessment of the impacts on the valued environmental components was carried out and the information and consultation process with the members of the Environment Committee were presented.

### **APPENDIX A**

### MINUTES OF MEETING

- 1. Minutes of the October 25, 2022 Meeting
- 2. Minutes of the December 14, 2022 Meeting



# WHABOUCHI MINE PROJECT ENVIRONMENT COMMITTEE – Meeting Minutes October 25<sup>th</sup>, 2022 – Videoconference

### Were present

Anna Krupa	Cree Nation Government (CNG)	Environmental Analyst	Interim Member
Matthew Tanoush	Cree Nation of Nemaska (CNN)	Director of Land and Sustainable Development	Observer
Walter Jolly	Cree Nation of Nemaska (CNN)	Councillor	Member
Tanya Lamoureux	Cree Nation of Nemaska (CNN)	Corporate Secretary – Legal Counsel	Observer
Anderson Jolly	Cree Nation of Nemaska (CNN)	Councillor	Substitute
James Wapachee Sr	Cree Nation of Nemaska (CNN(	Tallyman	Observer
Denis Isabel	Nemaska Lithium (NLI)	VP – Sustainable Development	Member
Vincent Perron	Nemaska Lithium (NLI)	Senior Director – Environment and Stakeholder Relations	Member
Isaac Gauthier	Transfert Environnement et Société (TES)	Facilitator - Project Director	Animator
Laurianne Francoeur	Transfert Environnement et Société (TES)	Note Taker - Analyst	Note taker

### **Meeting Agenda**

Item#	Description	
1	Opening and introduction	
2	Approval of the proposed agenda for the meeting	
3	Approval of the minutes of the previous meeting	
4	Follow-ups from previous meetings	
5	<ul> <li>Sharing environmental updates and feedback from the field</li> <li>BC-10 decantation pond</li> <li>Domestic water treatment system</li> <li>Minor Spill on site</li> </ul>	
6	Presentation of the new Closure Plan (summary)	
7	Presentation of undertaken, ongoing and planned wildlife monitoring/assessments (tallyman request) - postponed to next meeting	
8	Updates on permitting - postponed to next meeting	
9	Varia	
10	Summary of actions for the next meeting	

### Item #1. Opening and Introduction

Isaac opens the Environmental Committee (EC) meeting by welcoming the members. Denis is invited to share an introductory word. The meeting's agenda is well packed with several important issues to be discussed. The Cree members are invited to say a prayer before the meeting continues. Matthew proposes himself and says a prayer in Cree.

Since the last meeting was several months ago, a quick round table is held to allow members to reintroduce themselves.

It is mentioned that Anna will fill Kelly's seat on an interim basis. Her official replacement will be announced shortly.

### Item #2. Approval of the proposed Meeting Agenda

The meeting agenda is presented. Isaac proposes a 15-minute break after the sixth topic on the agenda.

The agenda is approved. No varia is proposed.

### Item #3. Previous Meeting Follow Ups

Isaac presents the previous meeting's minutes. No comments nor feedback were received. The minutes are adopted.

Vincent and Denis present the previous meeting's follow-up actions, namely to:

- Apply minor corrections to the March 9<sup>th</sup> EC meeting report;
- Present a summarized version of the mine's Closure Plan;
- Send a survey to determine environmental symposium date;
- Arrange a site visit with Walter Jolly and Matthew Tanoush;
- Present Nemaska Lithium's Communication Plan;
- Share Nemaska Resources' contact information with the CNG;
- Share the Nemaska Resources' final report;
- Share a summarized report of undertaken, planned and ongoing wildlife monitoring/inventories.

They begin by confirming the minor corrections to the previous meeting report. The members received the corrected version on June 29<sup>th</sup>, 2022. The summarized version of the Closure Plan will be presented later in the meeting.

Vincent continues by explaining NLI's decision to postpone the environmental symposium, as it would require a lot of work, with little time. Moreover, the mine is currently under care and maintenance, which means that there will be fewer things to share at a symposium. Since construction is planned to begin in 2023, it makes more sense to hold the event next year. Denis adds that it is important to find the ideal moment for the event, since summer, fall and spring are not optimal, due to traditional activities of the community. As such, February and March are proposed to which Tanya mentions that January or February would be best. She asks if the event will have any political topics, adding that there is an election in February. Vincent confirms that only environmental topics will be discussed. Matthew suggests that the event is held in March.

Still on the topic of the environmental symposium, it is mentioned that the event's planning will

begin before the end of the year. Vincent mentions that the event could also be a good opportunity for the CNG to present the ongoing eDNA project. Denis adds that the symposium is not focused on the Whabouchi Project but aims to discuss local environmental issues or projects. Researchers, non-profit organizations, and regional partners are welcome to do presentations. Tanya suggests that Matthew's team participates in the event's planning. She adds that for previous similar events, Nemaska has worked with the FauneNord firm to ensure an environmentally friendly event.

The meeting continues with a mention that Vincent will be present at the mine site all week and if committee or community members which to visit the site, Vincent will make it his priority. Matthew confirms that he is interested in visiting the mine site. It is agreed upon that he can present himself at the gate on Thursday October 27<sup>th</sup> at 11:00 AM for a visit and lunch. Matthew also mentions that James Wapachee, the R20 tallyman, is in his office and would also be interested in a site visit. Vincent welcomes James to join the site visit and mentions that he will contact him to organize the visit.

Tanya asks Matthew if James will attend the committee meeting, which Matthew confirms, adding that Walter is also in attendance. The Nemaska board room is set up so the members can join the meeting. Anderson also joins the meeting. Isaac provides a summary of the meeting so far so the members can be up to date.

Regarding the Communication Plan, Vincent explains to the members that the document is not ready yet, and its presentation is postponed to next year. Anderson takes the opportunity to ask if Nemaska Lithium's new liaison agent was hired, which Denis confirms. The new liaison agent is Silas Blackned and he will be soon joining the team. Anderson continues by asking if NLI will share a newsletter to inform the community about the project's progress. Denis answers that this is currently under discussion. However, NLI will probably use more popular communication channels like Facebook or local radio, for example. Anderson agrees but insists on the fact that the community wants to be informed. He mentions that many people have questions about the new committees and employment opportunities at the mine. Anderson continues by asking if Silas Blackned will continue to work at the airport since is currently a supervisor. Denis answers that yes, he will work both jobs part-time in the short term.

The follow-up actions continue with Vincent explaining that Nemaska Resources' final report refers to a monitoring report from last year. He adds that the report is now available to the committee members on the Teams channel. Anna then asks if the contact information for Nemaska Resources was shared with Kelly. Vincent answers that it is possible since it was shared for the eDNA Project, but if needed, the information can be shared with Anna. She confirms that she will need the information to share it with Kelly's replacement.

The discussion on follow-up actions continues with Vincent mentioning that the final topic, wildlife monitoring, will be discussed in the meeting. Matthew asks if black bears are part of the control plan, especially for those who may try to eat garbage. Denis answers that NLI has cages to capture bears if they get too close to the site and, if needed, the tallyman will be contacted to assist in the capture. He adds that no bear was spotted this year near the cafeteria area, with one bear seen further away from the property. Walter adds that the bears will be hibernating soon and won't be a problem. James continues by saying that the cages owned by NLI are not the best ones since they don't have wheels. Denis confirms that he will look into having wheels added to the cages to facilitate transportation and will reach out to James to find the best solution. Anderson continues by saying that the Eleonore Mine has had problems with bears. A bear even locked himself in the laundry room and was found by an employee. He suggests keeping dogs at the site to make sure that the bears don't come too close.

### Item #4. Environmental Updates

Following last meeting's discussion on the BC-10 water basin, which showed an orange tint due to an elevated iron concentration, Vincent shares information on the recent water sampling analysis. He notes that the iron concentrations have been slowly rising, reaching a 5.4 mg/L concentration. He reiterates that the water is not toxic, as the orange tint is basically rust, and that the issue is mostly esthetic. Since the regulatory limit is 6 mg/L, Nemaska Lithium decided to pump the water into basin BC-11 and avoid any discharge. Later in the project, NLI plans to build a water treatment plant and treat the site's water. Regarding the water pumping to BC-11 basin, NLI is currently working on improving the process.

James asks when will the water return to a normal colour. Denis explains that it is not the water that is orange tinted, but rather the rocks. He mentions that the rocks will likely remain orange but will be contained on-site. James then asks if the colour is caused by a contaminant, to which Denis explains that the colour is caused by the contact (oxidization) of iron in the soil with air and can be compared to rust on rocks. He adds that the phenomenon is common at mine sites. Walter then asks if other mine sites also the same issue have, which Denis acknowledges. Vincent adds that such rust can often be seen in roadside ditches around the Route du Nord. Denis continues by explaining that the water is clear and that the orange particles are at the bottom of the basin.

Anderson asks if the BC-11 basin's water is orange tinted. Denis answers negatively, but if BC-10 water continues to be pumped without being treated, it will be. He insists on the fact that the solution is temporary and that a company will treat the basin at the beginning of the winter. The pumping will also stop once the weather will be too cold. Denis explains that the water from the BC-10 basin will always have an orange tint, but it won't be as pronounced as it is at the moment. Anderson mentions that he would like to do a site visit but will unfortunately not be available this week. Denis mentions that there is always someone onsite and that anyone who would like to visit can simply call-in advance and present themselves at the gate. On that matter, Isaac suggests that the visits be made by someone at NLI who can speak to the tinted water issue in BC-10. Both Denis and Anderson agree. Laurianne will share the respective parties' contact information to facilitate the site visit.

Tanya asks if the water in basin BC-11 discharges anywhere. Denis answers that the water stays in the basin and is not discharged. Tanya continues by asking whether the treatment will be done repeatedly, to which Denis answers that the treatment will only be done once. Tanya continues by asking if the treatment will have any impacts to wildlife, for example to ducks or geese that land in the BC-10 basin. Denis and Vincent explain that the treatment is non-toxic, and nor is the water in the basin. They mention that some fish (suckerfish) were spotted in the basin and that they are not affected by the orange colour since the water is clear and non-toxic. No birds were seen on the basin.

Matthew shares his thoughts on the issue in Cree. He then summarizes in English by mentioning that the same orange colour can be seen in creeks along roads. He mentions that very few fish are seen in those creeks, which is natural. He adds that iron is a natural occurring mineral from the earth. Denis agrees with Matthew's affirmation. He repeats that the issue is mostly aesthetic and that the measures taken are to avoid any potential future problems.

Matthew continues by sharing the words of his late father, who mentioned that tunnels exist between lakes, rivers, and ponds, which allows water to travel between sources. He explains that in the past, he saw a lake that used to be very clear change colour to a darker one because of underground channels. Matthew then asks if such a situation could happen in Spodumène Lake or

other water sources in the area. Denis agrees with Matthew's observation and answers that the situation should not occur since the water itself is not tinted, only the rocks are affected by the colour change.

Tanya invites Walter and James to join Matthew during the site visit on Thursday to obtain more information on the topic. Walter confirms that he already saw the water colouration during his last visit.

Vincent continues the meeting by presenting NLI's domestic water treatment system. The treatment started on August 26<sup>th</sup>, for which the committee members received an email on the topic on September 1<sup>st</sup>. The system treats the work camp's water, namely from the kitchen, showers, and toilets. Vincent explains that adjustments are still being made to the treatment system, for example, to adjust the bioreactor's pH.

Walter asks if the domestic water discharge will be monitored. Vincent answers that all the mine's water discharge will be monitored during its lifetime. Most of the systems require monthly monitoring.

Isaac summarizes the information shared by Vincent to ensure everyone's understanding. He mentions that the water treatment system and the discharge pipe are only for domestic water and not mining activities, which Denis confirms. Walter then asks if the water used to supply the camp is taken from an underground well. Denis answers that the camp's drinking water is from an underground well while the rest of the water supply comes from the surface. Anderson asks if NLI plans to reduce water use during the mine's operation. Denis answers that the water used by the plant will be recirculated to avoid discharging into the environment. Matthew asks if there is a reason why the domestic water discharge pipe is not underground, to which Denis answers that the above ground pipe is to be used during summer and will be changed during winter to prevent freezing. The pipe is also only used for the construction camp as the permanent camp will use a different system. Denis adds that the above ground pipe should not affect wildlife movement and suggests that the members participating in a site-visit later in the week also see the water discharge pipe to share feedback on the topic. Denis repeats that the current discharge system is preliminary. Matthew thanks him for the answers but mentions that he is looking for a permanent solution.

Isaac suggests that the topic of water management be further discussed in a future meeting.

The meeting continues by discussing a minor spill that happened at the site, for which an email was sent on September 8<sup>th</sup> to the Environmental Committee. Vincent shares information about the spill and how it was managed. He mentions that since the project is in care and maintenance, there are only a few such incidents, NLI can thus communicate to the committee each spill as soon as it happens. During the construction phase, spills and other environmental incidents will be communicated in a monthly report.

The committee takes a 15-minute break.

### Item #5. Presentation of the New Closure Plan

After a short break, Denis begins presenting NLI's Closure Plan for the Whabouchi Project. He explains that a Closure Plan is required by government to ensure that companies do not abandon mining projects. The plan must be very detailed, supported by a security deposit, and updated every five years to take into account the project's evolution and its operations.

The Closure Plan that is presented today is the latest version from February 2021. The document will

also be available on Teams, for consultation. The topics are the following:

- <u>Co-disposal heap</u>: represents the area where the waste rock and tailings will be stored. The area will be progressively revegetated. Also, since NLI is pilling dry elements, these will partially return to the pit and be revegetated from east to west.
- Barren land: the material will be removed. The remaining barren land will be revegetated.
- <u>Buildings and plants</u>: the buildings will be decommissioned and sold. There will be no demolition or waste landfill at the site, as recycling and waste disposal will be made in the south of Quebec. No waste will remain on Cree land.
- <u>Surface infrastructure</u>: will be demolished. The waste will be recycled or disposed adequately.
- Roads: they will be scarified as they cannot be immediately revegetated due to soil compaction. Some roads will be rehabilitated later since they will be needed in the shortterm for monitoring. This usually takes 10 years, but it can be longer if requested by government.
- Underground infrastructure: they will be cleaned and left in place.
- Overburden heap: will be used for re-vegetation.
- <u>Ditches and basins</u>: will be cleaned and backfilled. The site will also be re-vegetated.
- Open pit: The pit will be progressively filled with water to be transformed into a new lake. It will take many decades to fill this lake, up to 30 years according to Denis. A peripheral berm will be installed at a safe distance from the pit.
- <u>Heavy equipment</u>: it will be sold. If a Cree company wants the equipment, they will have priority on buying the equipment.
- <u>Petroleum products, chemical products, and hazardous materials</u>: They will be sent for disposal in approved facilities.
- <u>Contaminated soils</u>: depending on the quality and the contamination of the soil, it will be managed per regulations.
- Ditches and basins: They will be cleaned and backfilled.

Tanya asks if NLI could consider selling the camp site to Nemaska. Denis answers that it is not in the plan since it was not discussed with the community, however the idea could be considered. He adds that there is still time to have these conversations since the Closure Plan will be updated in 2026 and the mine's closure is in minimum 33 years.

Matthew asks if NLI will use the overburden for backfilling. Denis answers that only the co-disposal heap will be used.

Tanya asks if the Closure Plan is written in French, to which Denis answers positively. Tanya suggests that this should be made clear when the document is shared. If needed, a translation of certain parts could be made, per the community's specific interests. Denis and Vincent agree.

Walter asks if fish will be able to live in the open pit once it is transformed into a lake. Denis answers that yes, although they will likely be small fish, as there will be little vegetation to support larger fish due to the lake's depth. He adds that the plan does not aim to create an ecosystem for animals, mentioning that there was little consultation on the document. He adds that NLI will look to consult the Nemaska community when it will update the Closure Plan. Walter asks if the lake will be toxic, to which Denis answers that it will not. Walter and James both mention that the lake looks beautiful according to the pictures, with a beautiful colour. Denis suggests showing pictures of other mine lakes post rehabilitation to the members. He mentions that the lake's colour will be light blue but will eventually become darker. Tanya asks if the lake will be like a gravel pit lake, to which Denis answers positively, although mine pits are deeper. Thus, the colour is darker than in a gravel pit lake.

Tanya explains to Walter and James that Lake Lemay near Ottawa is a gravel pit lake. People can swim in it and use it for recreational activities.

Anderson asks if the lake's water will be monitored, to which Denis answers positively. Anderson then asks how deep the lake will be, to which Denis answers that it is not known yet, but the information can be shared later in the project's development.

Matthew intervenes to insist on the importance of good planning in project development and mentions that he hopes younger generations will be smarter with resources management and request stricter regulations. As an example, he mentions that in Ontario, mines must use overburden, waste rock and tailings to fill a pit after closure. He suggests the same practice be used and that the community be consulted on the topic. Denis answers that backfilling a pit is always recommended in Quebec. In some cases, he mentions that project's with more than one pit often progressively fill them as the project moves forward. Different pit shapes can also be used to support the backfilling or parts of the mine can be built underground. To sum up, Denis mentions that NLI is still considering different options.

Regarding Matthew's comment, Isaac asks NLI if they can commit to having meaningful consultations on the Closure Plan with the community. Denis commits to consultations with the Nemaska community prior to the updating the Closure Plan. Tanya mentions that the topic of consultations on the Closure Plan was a big issue for the community. She then asks if an underground mine is a serious option. Denis explains that it is a possibility and will depend on the mine's economics. If the lithium market stays up, the mine will likely be an open pit. If the lithium market goes down, the project may be underground. This will be planned out to ensure the best use of the project's finances and the site's lithium resources. Denis adds that NLI could organize a visit to a closed mine site so the members can see what it looks like.

Denis continues by presenting recent improvements to the Closure Plan. One key element is the building of a co-disposal test pad by a team from the Université du Québec en Abitibi-Témiscamingue (UQAT) to assess geochemistry and predict water quality for the project's eventual full co-disposal heap. The testing and monitoring were made by a Ph.D. student for their thesis and the report is now available. The objective was to predict the water quality of the co-disposal heap to ensure better control. Matthew asks what a co-disposal test pad is, to which Denis explains that it is a smaller version of the co-disposal heap to test potential environmental issues and plan appropriate mitigation measures.

Vincent follows by giving details about a re-vegetation study undertaken by the Université de Sherbrooke. The study's objective was to test the revegetation potential of local plant species. Usually, hydroseeding is used in such studies, but in this case, there were concerns about this approach with local plants. The plants were thus tested in soil, with different nutrients and different soil compositions. He adds that the nursery will be built next year, and it will be possible for local companies to operate the nursery. Isaac asks which plants are tested, to which Vincent answers that he doesn't know the names of all the plants but knows that Labrador tea is currently being tested. The name of the plant species will be shared with the group at the next meeting.

Denis thanks the community for keeping the Université de Sherbrooke project alive and further thanks Matthew for helping to fund the project. Matthew mentions that Sébastien Roy, the study manager from the Université de Sherbrooke, wanted the Cree nation to actively participate in the project, but unfortunately, there was a lack of community participation. Denis mentions that the topic can be discussed at the following meeting and that for the moment, the project will rely on resources from the Université de Sherbrooke. He also adds that the topic could be raised during

consultations with the community. Matthew mentions that the University has the skills and knowledge necessary to undertake the study since they worked with Hydro-Québec on a similar project. He asks if training will be available in Nemaska to support the project. Denis mentions that Sébastien Roy is open to sharing how the project works and partnering with the Nemaska community. Isaac points out that this would be a good topic for the Economic Development Committee.

### Item #6. Summary of actions

The rest of the presentation is postponed to the next meeting as it is lunchtime. This will allow enough time to cover the topic of wildlife monitoring and answer member questions. Denis takes time to thank everyone for their participation. He repeats that a visit is planned on Thursday at 11:00 PM, and everyone is welcome to join. Another visit will also be planned later for Anderson.

Tanya suggests that the next Environmental Committee meeting be in person. It is agreed by all. The aim is to hold the next meeting in December, before the holidays. A survey will be sent out by Laurianne to organize the meeting.

The actions are the following:

Share the eDNA project's information with Anna	VP
Share Vincent and Denis' contact information with Anderson	LF
Present details about the construction of the permanent camp, including water discharge	VP and DI
Reach out to James Wapachee regarding bear management at the mine site	VP and DI
Share Closure Plan and identify significant portions for community review	VP and DI
Verify details about the Closure Plan  - Depth of the new lake  - Members' interest to visit another closed mine site  - Photos of mine lakes where the water changed colour	VP and DI
Share the names of the plants tested by the Université de Sherbrooke with regards to re-vegetation of the mine pit	VP



# **Environment Committee Meeting**

October 25th 2022



# 1. Opening and Introduction (Quorum)

### **Cree Members**

**Walter Jolly**, Council Member - Cree Nation of Nemaska

Anderson Jolly (alternate), Council Member - Cree Nation of Nemaska

**Currently empty seat (Kelly Leblanc)** 

### **Nemaska Lithium Members**

**Denis Isabel**, Vice President - Sustainable Development

**Vincent Perron**, Senior Director - Environment and Stakeholder Relations



# 2. Approval of the Proposed Meeting Agenda

### **Proposed meeting agenda:**

- 1. Opening and Introduction
- 2. <u>Decision</u>: Approval of the proposed meeting agenda
- 3. <u>Decision</u>: Approval of the previous meeting minutes
- 4. <u>Discussion</u>: Previous meetings follow ups
- <u>Discussion</u>: Sharing environmental updates and feedback from the field
- 6. Discussion: Presentation of the new Closure Plan (summary)
- 7. <u>Discussion</u>: Presentation of undertaken, ongoing and planned wildlife monitoring/assessments (tallyman request)
- 8. <u>Discussion</u>: Update on permitting and regulatory affairs
- 9. Varia
- 10. Summary of actions



# 3. Approval of the Previous Meeting Minutes (EC Meeting - June 2<sup>nd</sup> 2022)

NEMASKA

- Previous Meeting minutes were sent to EC members on June 29<sup>th</sup> 2022
  - ✓ TES has not received any comments
- Minutes of the June 2<sup>nd</sup> EC meeting available at this link:
  - EC Meeting June 2nd, 2022

# WHABOUCHI MINE PROJECT ENVIRONMENT COMMITTEE – Meeting Minutes June 2<sup>nd</sup>, 2022 – Videoconference

#### Were present

Walter Jolly Cree Nation of Nemaska (CNN)		Councillor	Member
Kelly Leblanc	Cree Nation Government (CNG)	Environmental and Social Assessment Coordinator	Member
Denis Isabel	Nemaska Lithium (NLI)	VP – Sustainable Development	Member
Vincent Perron	Nemaska Lithium (NLI)	Senior Director — Environment and Stakeholder Relations	Member
Isaac Iserhoff Cree Nation Government (CNG)		Territorial Programs and Natural Resources Advisor	Observer
Anna Krupa	Cree Nation Government (CNG)	Environmental Analyst	Observer
Matthew Tanoush Cree Nation of Nemaska (CNN)		Director of Land and Sustainable Development	Observer
Tanya Lamoureux Cree Nation of Nemaska (CNN)		Corporate Secretary – Legal Counsel	Observer
Patrick Corriveau	Nemaska Lithium (NLI)	Environment Coordinator	Observer
Isaac Gauthier	Transfert Environnement et Société (TES)	Facilitator - Project Director	-
Laurianne Francoeur Transfert Environnement et Société (TES)		Note Taker - Analyst	-

#### Meeting Agenda

Item#	Description	
1	Opening and introduction	
2	Approval of the proposed agenda for the meeting	
3	Approval of the minutes of the previous meeting	
4	Follow-ups from previous meetings	
5	Sharing environmental updates and feedback from the field	
6	Presentation of the environmental and social monitoring program highlights for 2021	
7	Presentation of the 2022 environmental and social monitoring program	
8	Updates on permitting	
9	Varia	
10	Summary of actions for the next meeting	

# 4. Previous Meeting Follow-ups

Su	ggestions and actions	Updates and status
1.	Apply minor correction to March 9 <sup>th</sup> EC meeting minutes as per Kelly Leblanc's comment	☑ Done
2.	Prepare and present a summarized version of NLI's closure plan	☑ Done –will be presented today
3.	Send a survey to determine environmental symposium date	☐ Postponed to next year
4.	Arrange a site visit with Walter Jolly and Matthew Tanoush	☑ In Progress – Several attempts made
5.	Present Nemaska Lithium's communication plan	☐ Postponed to the next meeting
6.	Share Nemaska Resources's contact information with the CNG	☑ Done
7.	Share the final report of Nemaska Resources	☑ Done
8.	Prepare and share a summarized report of undertaken, planned d ongoing wildlife monitoring/inventories for the Whabouchi Project	☑ Done - will be presented today

### Coloured water in BC-10 basin

- ✓ Water samples were taken in August 2022 and sent to laboratory for analysis
- ✓ This year's results compared to those of 2021 show an increase trend in water concentration for suspended solids, turbidity, iron, and sodium. They also show a slight decrease of water pH. However, the coloured water is still non toxic.



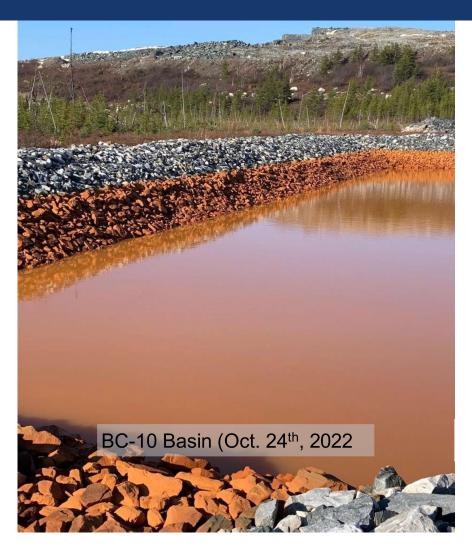
Parameters	2021 Results	2022 Results	Limit	Trend
Suspended solids (mg/l)	3,8	10	30	
Turbidity (UTN)	28	44		1
Iron (mg/l)	1,5	5,4	6	
Sodium (mg/l)	3,4	47		1
рН	7,32	6,83	6 - 9,5	ţ
Bioassays	Non Toxic	Non Toxic	No Toxicity	↔

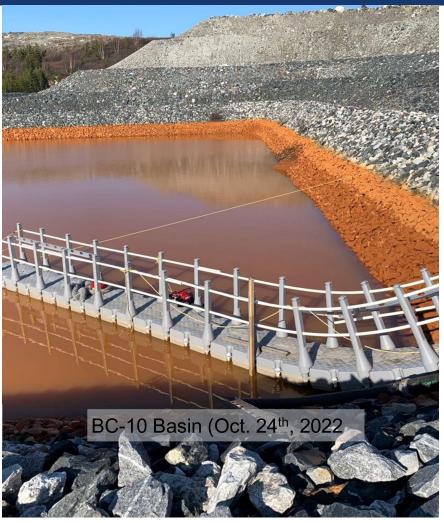
### Coloured water in BC-10 basin

- ✓ Action Plan:
  - <u>Short-term</u>: Transfer the coloured water from the BC-10 basin to the BC-11 basin and stop the effluent in the peatland
  - <u>Mid-Term</u>: Treat the iron-enriched water (water treatment requires an authorization from the regulator)



**BC-11 Basin** 





### Domestic water treatment system (Mabarex)

- ✓ Operation of the Whabouchi domestic wastewater treatment system started on August 26, 2022
  - Notification were sent to EC members with the location of the effluent
  - Monitoring program of the effluent has been implemented
  - Effluent is meeting environmental standards, except for the ammoniacal nitrogen (adjustments are being implemented)



### Minor Spill at Whabouchi

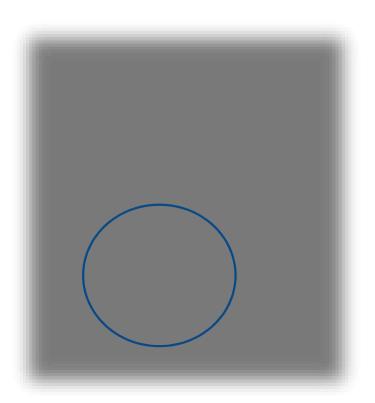
- √ Volume spilled: less than 15 L of hydraulic oil
- ✓ Surface impacted: 2m²
- ✓ Cause of the spill: broken hydraulic hose of a propane transfer pump (propane truck)

### ✓ Intervention:

- Use of absorbent sheets;
- Excavation of 0,5 m<sup>3</sup> of contaminated soil;
- Soil disposal in accordance with Quebec regulation.

### ✓ Modification of the work procedure:

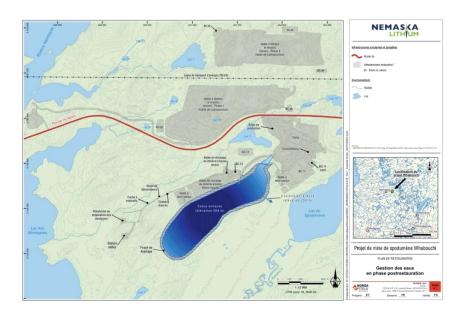
- Visual inspection of the pump and fittings before use;
- Use undercontainment device to collect any leak;
- Supervision by Nemaska Lithium of the filling operation, from the beginning to the end of the operation.



Element	Closure
Co-disposal heap	Progressive re-vegetation
Barren land	Re-vegetation
Buildings and plant	Decommissionning and total demolition and waste recycling or disposal
Surface insfrastructures	Total demolition and waste recycling or disposal

Element	Closure
Roads	Scarification and re-vegetation, Except access path for environmental monitoring
Underground infrastructures	Cleaned and left in place
Overburden heap	Used for re-vegetation
Ditches and bassins	Cleaned and backfilled

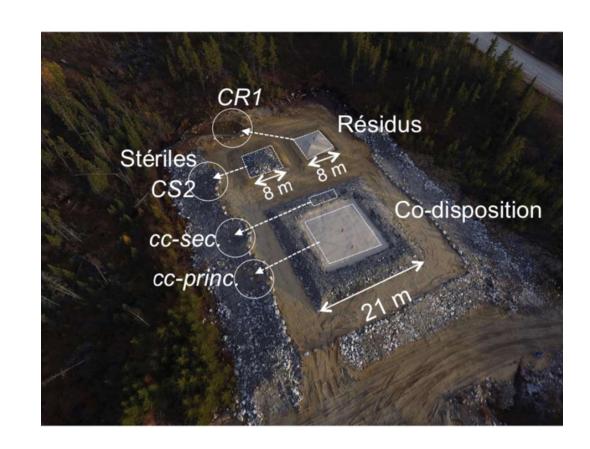
Element	Closure
Mine pit	Water filled and peripheral security berm



Element	Closure
Heavy equipement	Sold
Petroleum products, chemical products and hazardous material	Sent to approved disposal facilty
Contaminated soils	Managed according to approved rehabilitation plan
Ditches and bassins	Cleaned and backfilled

# Improvement to closure plan

Co-disposal test pad with UQAT to assess geochemistry and predict water quality



# 6. Summary of the Updated Closure Plan

# Improvement to closure plan

Re-vegetation study with
Université de
Sherbrooke to secure
the use of local plant
species



# 7. Wildlife Monitoring Effort (Tallyman Request)

Animal	Environmental and Social Impact Assessment (ESIA) (Undertaken Monitoring)	Environmental and Social Monitoring Program (ESMP) (Monitoring Over the Lifespan of the Mine)
Fish  ✓ Walleye  ✓ Brook Trout  ✓ Northern Pike  ✓ Lake Whitefish  ✓ Others	<ul> <li>✓ Fish inventory in every lake, stream and river on and around the mining site</li> <li>✓ Inventory of fish habitats (spawning sites, nursery, etc.)</li> </ul>	<ul> <li>☑ Three-yearly monitoring of heavy metals in fish flesh (Walleye, Lake Whitefish, Northern Pike)</li> <li>☑ Monitoring of spawning sites for Walleye and Brook Trout</li> <li>☑ Monitoring of fish population in lakes 2, 27 and 28</li> <li>☑ Multi-year monitoring of fish habitat compensation projects</li> </ul>
Bats	☑ Bat inventory on and around the mine property	☑ Monitoring of bat maternity of the Spodumene Lake
Birds	☑ Bird inventory on and around the mine property	<ul> <li>☑ Two-yearly monitoring of bird populations in the Spodumene         Lake Peatland         ☑ Daily monitoring of migratory birds / endangered bird species             at the mine site (register)     </li> </ul>
Micromammals  ✓ Voles  ✓ Mice	☑ Micromammal inventory on and around the mine property	☑ Two-yearly monitoring of micromammals population in the Spodumene Lake Peatland
Amphibians & Reptiles  ✓ Snakes  ✓ Frogs and Salamanders	☑ Amphibian and reptile inventory on and around the mine property	☑ Two-yearly monitoring of micromammals population in the Spodumene Lake Peatland
Benthic organisms  ✓ Insects  ✓ crustaceans	☑ Benthos inventory in lakes 1, 2, 3 and Spodumene Lake	☑ Annual monitoring of the benthic organisms at the mine effluent in the Nemiscau River

# 7. Wildlife Monitoring (Tallyman Request)

Animal	Environmental and Social Impact Assessment (ESIA) (Undertaken Monitoring)	Environmental and Social Monitoring Program (ESMP) (Monitoring Over the Lifespan of the Mine)
Mammals  ✓ Bear  ✓ Wolf  ✓ Moose  ✓ Fox  ✓ Wooden Caribou  ✓ Beaver  ✓ Squirrel  ✓ Snowshoe Hare  ✓ American Marten  ✓ River Otter  ✓ Mink  ✓ Etc.	<ul> <li>☑ Aerial inventory (10 km radius around the mine site)</li> <li>☑ Ground observations</li> <li>☑ Ground inventory</li> </ul>	☑ Daily monitoring of wildlife at the mine site (direct and indirect observations)





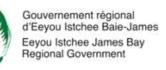


Environnement et Lutte contre les changements climatiques









### Environmental and Social Impact Assessment (ESIA)

General Certificate of Authorization (COMEX) 37 conditions

10 modification requests over the last 6 years

**Decision Statement** (IAAC)

++ conditions under 10 topics

Obligation to assess the impacts of the modifications made to the project

#### Main Authorizations Delivered:

- Site preparation
- Construction of an ore processing plant
- Exploitation of sand pits
- Installation of the final mining effluent pipe (Nemiscau River)
- Ground water withdrawal (mine pit dewatering)
- Operation of the Whabouchi mine
- Operation of a domestic water treatment plant

### Main Permits Delivered:

- Construction permits
- Fresh water network permit
- Domestic water network permit





### Whabouchi Preliminary Schedule (starting dates)





### **PERMITS ISSUED**

No new permit issued since the last meeting

### REPORTS FILED WITH REGULATOR

- Annual report for the COMEX (results of the 2021 environmental and social monitoring program)
- Annual report for the IAAC
- Reports available here:
   COMEX Annual Report
   IAAC Annual Report

### **PERMITS IN PROCESS**

No new permit in process since the last meeting

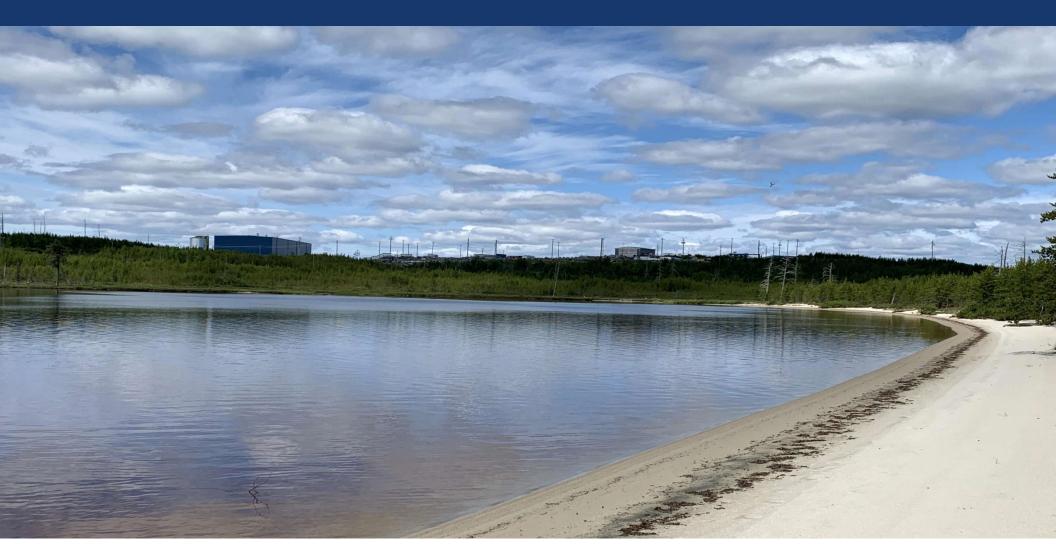
### **NEXT STEPS**

- In the short term, prepare permit applications related to:
  - ✓ the expansion of the construction camp
  - ✓ the modification of the ore processing plant
  - ✓ the construction of the permanent camp
- Other permit applications will be prepared in 2023

# 9. Varia



# 10. Summary of Actions



Vincent Perron, Biol. M.Sc.
Directeur principal - Environnement et relations avec les parties prenantes
T. 418 809-8029
C. vincent.perron@nemaskalithium.com





# WHABOUCHI MINE PROJECT ENVIRONMENT COMMITTEE – Meeting Minutes December 14<sup>th</sup>, 2022 – Hybrid Format

#### Were present

	Member	Senior Director – Environment and	
Vincent Perron		Stakeholder Relations (NLI)	
Denis Isabel	Member	VP – Sustainable Development (NLI)	
Walter Jolly	Member	Councillor (CNN)	
Anderson Jolly	Substitute	Councillor (CNN)	
Aurora Maria Hernandez	Member	Mining Engineer (CNG)	
Tina Vassiliou	Observer	Business Partner and Talent Manager (NLI)	
Silas Blackned	Observer	Liaison Agent (NLI)	
Anna Krupa	Observer	Environmental Analyst (CNG)	
Matthew Tanoush	Observer	Director of Land and Sustainable	
Matthew ranoush		Development	
Isaac Gauthier	Observer	Animator (TES)	
Laurianne Francoeur	Observer	Note taker (TES)	

This environmental committee meeting was held in a hybrid format. Denis, Vincent, Walter, Anderson, Tina, Silas, Isaac, and Laurianne joined the meeting in person in the hotel Four Points in Gatineau. Aurora, Anna, and Matthew joined the meeting online.

#### **Meeting Agenda**

Item#	Description	
1	Opening and Introduction	
2	Approval of the proposed agenda for the meeting	
3	Approval of the minutes of the previous meeting	
4	Follow-ups from previous meetings	
5	Sharing environmental updates and feedback from the field	
6	Presentation of the revegetation research by Université de Sherbrooke	
7	Wildlife Monitoring efforts (Tallyman Request)	
8	Updates on permitting	
9	Summary of actions	
10	Next meeting	

#### Item #1. Opening and Introduction

The meeting begins at 1:23 p.m. with a proposal from the facilitator to say a prayer. Anderson volunteers and prays in Cree.

The meeting continues with the presentation of the agenda. Anderson then asks if the minutes of the meetings will be available for the public. Tanya adds that they should be, but members should also be able to give information off the record. Isaac agrees while mentioning that there should be consistency between the various committees. Tanya underlines that care should be taken when publishing the WIC minutes since more confidential information will be shared. The members agree to share the environmental committee meeting minutes. Vincent asks what would be the best channel for sharing the meeting minutes, to which Anderson suggests that Silas be the channel. The members agree with the proposal and NLI's team mentions that the minutes will also be added to their website.

Anderson and Walter ask about the fish in Basin 10, namely how they arrived there and if they still are in the basin. Vincent explains that they are Sucker Fish, a specie that does not need a lot of water to travel. He also adds that NLI did not pump water in the basin, therefore the fish were not introduced into the basin by human activities. The members are surprised by this natural event as they never witnessed anything similar.

#### Item #2. Approval of the proposed Meeting Agenda

Isaac presents the link to access the document. He states that it will still be available after the meeting. No other comments are made.

#### Item #3. Previous Meeting Follow Ups

The previous meeting follow-ups are presented.

#### Send a survey to determine the environmental symposium date in March: In progress

Vincent discusses anew the revegetation research project, as the researchers Sebastien Roy and Nicole Fenton from the University of Quebec in Abitibi-Témiscamingue, who are responsible for the revegetation project, both agreed to make a presentation at the environmental symposium on their research. Specifically, Sebastien Roy works on mining site biodiversity revitalization and Nicole Fenton works on Eeyou Istchee's biodiversity. Vincent repeats that the symposium will be organized by NLI, but it will discuss different environmental projects and issues in the area not exclusive to the company or the Whabouchi Project. It is agreed that a Doodle link will be sent to find the best date to hold the event. Anderson suggests that important environmental actors, such as David Suzuki, be invited to the symposium. He adds that he met him at the COP15 biodiversity conference in Montreal, that he has already visited Nemaska, and that his input would be very interesting. It is agreed that an invitation will be sent.

Anna mentions that she contacted the researchers of the eDNA Project, following Kelly's departure from the CNG. She adds that she will also join the February meeting with Vincent.

Isaac and Vincent share a quick explanation of the symposium to Aurora since she is new to the committee.

#### Share Vincent and Denis' contact information with Anderson Jolly: Done

The contact information was shared on October 31st. No comments or questions are made.

#### Organize a site visit with Matthew Tanoush: Done

Vincent makes a quick recap of the recent mine visit. Matthew thanks Vincent for the warm welcome and mentions that he found the visit very interesting and was able to learn a lot about the new technologies used at the mine site. Vincent repeats that every member and observer can call the mine for a visit since an employee is always onsite.

#### Present details about the permanent camp's construction, including water discharge: In progress

Vincent goes on by specifying that the mine is still in the engineering phase. He mentions that there are no new developments and assures that when there are more details, they will be shared with the committee. He further adds that concerns were raised at the last meeting about the domestic water pipes and the possibility of having them buried. He explains that the pipe burial is being analyzed by the engineering team.

Walter then asks if the camp will be at the mine site. Vincent answers that it will indeed be onsite.

#### Bear management at the mine site - Improve bear trap device: In progress

Vincent continues by mentioning that the bear traps were shown to the tallyman, James Wapachee. He pointed out that the currently used model is not optimal. The team is currently working with the tallyman to improve the trap.

Walter suggests monitoring the bears after their capture to follow their movement. Vincent answers that the monitoring of animals needs a specific permit, but that the possibility will be studied. Walter mentions that the monitoring could ensure that the same bears do not return to the site. Vincent thanks Walter for his input but emphasizes that no bears have been seen in the area. This option will still be looked at.

Anderson asks if the bear traps have battery-operating doors. Vincent answers that they do not, but that they should for safety reasons. Anderson mentions that other sites use battery operated bear traps to protect their employees. Vincent thanks Anderson for the suggestion.

#### **Share Closure Plan for community review: In progress**

Vincent continues by mentioning that the Closure Plan is only available in French for the moment. Since the document contains very technical and precise elements, he mentions that a summary will be prepared and could be presented at the symposium. Anderson then asks if copies could be distributed to the community so people can consult it and come back with questions later. Vincent agrees and mentions that the presentation does not have to be a PowerPoint, it could rather be a one-pager. Tina adds that a QR code could also be used to refer community members to the website and the relevant information. Anderson continues by saying that other companies have used USB keys containing the relevant documents on them. Vincent acknowledges the suggest and mentions that it will be looked at.

Aurora then asks if the symposium will be for the whole community. Vincent answers that it will indeed be for everyone. Anderson asks if the symposium will be one (1) or two (2) days. Tanya adds that depending on the number of presentations, three (3) days would be preferable. Anderson continues by mentioning that the event should be held in the evening to help working people attend. He also thinks that food should be served. Tanya also adds that a mix of presentations and information booths similar to the format used at the Québec Mine conference should be used to provide various types of presentations. Vincent agrees with the suggestion. Matthew then mentions that simultaneous translation should be used, if possible, to which Vincent answers that it will be possible. Tanya adds that Nemaska has the necessary technology. Vincent thanks Matthew and Tanya and mentions that if the community wishes simultaneous translation, it will be organized. Isaac then suggests that the topic be brought up at the next meeting, to plan the event. It is agreed.

<u>Share plant species tested by the University of Sherbrooke (revegetation study): Done</u>
It is mentioned that the topic is on the agenda and will be addressed later in the meeting

#### Item #4. Environmental updates and feedback from the field

The domestic wastewater treatment system is presented by Vincent, who mentions that the system has had a few hiccups recently. Due to the ongoing adjustments, the discharge will no longer pour into Lake 31 and will be contained in a tanker until it meets regulatory standards. He continues by mentioning that two (2) technicians specialized in water treatment are now working onsite to operate the treatment system. The supplier used to monitor the system remotely, but they could see the limit of this way of working.

Aurora asks what the maximum capacity of the thank is. Vincent answers that the tank has a capacity of 28 000 L. A back truck is emptying it every two (2) weeks. A pump is also available if necessary. The prior problem has been identified. A team is currently fixing the pipe.

Tanya asks if the presence of technicians onsite is a long-term solution. Vincent answers that for now, it is and that an action plan has being prepared by the technicians. The water is tested every day to make sure the system is working well. Tanya continues by asking if the technician position could be available for a Cree member of the community. Vincent answers that NLI currently has a contract with Nordikeau. He adds that Denis has met with the community's public service department, however, they did not have the necessary staffing. Tanya asks if a company in Nemaska could eventually have the opportunity to do this work. Vincent confirms that it could be a possibility, since NLI has a local purchasing policy encouraging this kind of partnership. Tanya suggests that a person from the community is hired by Nordikeau for onsite training. Vincent mentions that it is a possibility. Currently, there was an emergency that made it hard to implement the local purchasing policy. However, in the future, it will be considered.

Anderson mentions that at a previous job of his, the mine reused treated domestic water for its mining activities. Vincent mentions that this is an option.

#### Item #5. Revegetation project from the Université de Sherbrooke

Vincent presents the different plant species that are being tested including Labrador Tea, Sweet Gale, Jack Pine, White Birch, and Balsam Poplar. Labrador Tea, Sweet Gale and Jack Pine have the most promising results. Walter confirms that those species grow easily in the area. He continues by mentioning that a forest fire occurred a few years ago and from that fire, White Birch and Jack Pine have grown.

Vincent adds that the researchers are also looking to reduce the amount of transportation needed for the revegetation. Usually, the process needs a lot of dirt being transported, which causes significant greenhouse gas emissions. Vincent continues by saying that the researcher, Sebastien Roy, will be presenting his project at the symposium.

Anderson mentions that a similar study has been made by another mining company, using a waste truck. It could be interesting to share the results. Vincent thanks Anderson and mentions he will discuss the topic with Sebastien Roy.

Matthew adds that his team is open to working with the university research team. It was supposed to be done last summer but a shortage of manpower made it impossible. He mentions that solutions will be put in place for next year. Vincent answers that the next three (3) years of funding are planned even if Cree participation is more difficult than hoped. Also, Silas will be able to help engage people in the program and the symposium presentation will also likely interest people.

#### Item #6. Wildlife Monitoring (Tallyman Request)

Vincent explains the wildlife monitoring table (available in Appendix 1). The third column indicates the monitoring required throughout the mine's lifetime.

#### **Fishes**

Every three years, fish will be caught to test the presence of heavy metals in the flesh. Vincent mentions that NLI's activities are not likely to cause heavy metal contamination, however, the monitoring will be done to meet regulatory requirements. He continues by mentioning that NLI is working on a compensation plan. The habitat is also monitored to enable revitalization.

Anderson asks in which lake will the fish be taken from. Vincent answers that it will be done in every lake located on the company's property, same as for the project's Impact Assessment.

The benthic specie monitoring in the Nemiscau river will also be made. Aurora asks why there is no specific sturgeon monitoring, to which Vincent answers that he will verify. He thinks that it may be because no sturgeons were caught previously and therefore the specie is not present in the area. Walter confirms that there is no sturgeon in the area. Vincent thanks Walter for his input and he will verify the information for the next meeting. Walter continues by asking if the fish will be tagged during the monitoring work to track their movements, as is often done. Vincent answers that NLI's project is a localized project and should not affect the ecosystem in a way that warrants fish tracking. The team is using a different approach by catching the fish and releasing them after

analyzing individual and fish population health. Walter continues by saying that the movements are important to track to know where the food sources are located.

#### **Bats**

Visual counts were made for the last two (2) years, showing a reduction in the bat populations in the area. A monitoring of the bat echolocations will be done to determine if this is a trend. While bats were visually identified, they do not use the bat maternity near the site.

#### **Birds**

Visual counts are made daily to monitor endangered species and migratory birds near the mine. At Spodumene Lake, the monitoring is made twice a year.

#### Micromammals

Vincent explains that the micromammal monitoring will be done every two years. Tanya then asks if the monitoring is site only or if it covers the surrounding area. Denis answers that the monitoring is flexible. For the moment, it is only planned on-site since the current monitoring requirements are not the same as for the Impact Assessment. Vincent adds that NLI is open to doing more than the minimum required. He adds that the inventory maps showing where they will be undertaken will be shown at the next meeting. Walter adds that he would also like to discuss fish population health, which the members agree too. Vincent asks him if he spoke with Hydro-Quebec's team about his concerns. Walter answers that he only spoke with Neskimau, and that he sends his fishing results to the monitoring committee.

#### **Amphibian and Reptiles**

The monitoring will be made every two years. No questions are asked.

#### **Benthic organisms**

The monitoring will be made annually at the mine effluent in the Nemiscau River. No questions are asked.

#### **Mammals**

The monitoring will be made daily through direct and indirect observations.

Anderson asks, in general, in what season is the monitoring done. Vincent answers that he will check, since there is a lot of wildlife monitoring undertaken.

Aurora asks if the wildlife reports will be shared with the committee. Vincent answers that an annual report will be shared with the COMEX and that the report will also be available on the Teams channel. Laurianne will make sure that Aurora has access to the channel.

Anna leaves the meeting due to other obligations.

#### Item #7. Update on permitting and regulatory affairs

Vincent presents the permitting and regulatory oversight for the Whabouchi Project (Appendix 1). A

total of four (4) organizations have environmental oversight responsibilities in the Eeyou Itschee region, namely the COMEX, the federal Impact Assessment Agency, the Quebec Ministry of the Environment, Fight against Climate Change and the Eeyou Istchee James Bay Regional Government. Vincent continues by showing the mining site's layout and its surrounding and the project's timeline (Appendix 1).

Tanya asks why NLI plans to build an expansion to the construction camp and then build a permanent camp. Denis answers that the expansion will be used by the construction workers that build the permanent camp. He continues by saying that the permanent camp construction was planned over a longer period in order to use fewer workers, as it is cheaper and safer.

Walter asks if the workers from Nemaska will be able to stay at the camp. Denis answers positively, as it will help with employee integration and create a sense of belonging in the team. Moreover, the travel between the mine site and the village can be dangerous after long shifts. For safety reasons, the workers will be encouraged to stay at the camp.

Vincent continues by presenting the permits issued and in process. He also presents the documents that were filed with the regulators. The links available in the PowerPoint presentation will also be sent by email to the members.

Finally, Vincent explains the next steps in term of permitting. He briefly provides information about the modifications that will be made to the ore processing plant, more specifically to the crushing circuit. He mentions that the permit application for the modification of the crushing circuit is under preparation and an English summary of the application will be shared with the EC members for comments. He also mentions that the permit application for the water treatment unit for the BC-10 basin is under preparation and will follow the same path.

Vincent mentions that each change to the project requires permitting updates and a review of the local impacts. Walter asks if the permitting process generates costs for the company. Denis answers that administrative costs are included in the permitting process.

Tanya suggests that Vincent and Denis present NLI's new logo. Vincent explains the meaning of the two circles that come together, which represent the north and the south united in the same project while also representing the energy transition and circular economy that are integral to the project.

#### Item #8. Summary of actions

The actions are the following:

Discuss the symposium planning	All members
Send a Doodle for the symposium event	LF
Verify the presence of sturgeon in the mine area	VP
Present the wildlife inventory maps	VP
Discuss fish population health	All members
Verify at what time of the year monitoring is done	VP
Give access to the team channel to Aurora Maria Hernandez	VP
Send the permit links to the members by email	LF and VP

#### Item #9. Next Meeting

It is agreed that the symposium will be held in March. The next committee meeting will be in early February. Members are open to holding the meeting in Nemaska or in Montreal. A full day will be scheduled to discuss the symposium's planning.

# **Environmental Committee**

Hybrid Meeting
Gatineau and Virtual Meeting



# Meeting Agenda



- 1. Opening
- 2. Proposed Meeting Agenda
- 3. Approval of the previous Meeting Minutes
- 4. Previous Meeting Follow-Ups
- 5. Environmental Updates et Feedback from the Field
- **6. Discussion**: Plants Tested by the Université de Sherbrooke Team
- **7. Discussion**: Wildlife Monitoring Efforts (Tallyman Request)
- 8. Update on Permitting and Regulatory Affairs
- 9. Summary of Actions
- 10. Next Meeting
- 11. End of the Meeting

ENTIEL •2



# **EC Members & Alternates**

### **Cree Members**

Walter Jolly, Councillor at Cree Nation of Nemaska

**Anderson Jolly** 

(alternate), Council Member - Cree Nation of Nemaska

**Anna Krupa**, Environmental analyst at the Cree Nation Government (interim)

### Transfert Environnement et Société

Isaac Gauthier, Facilitator Laurianne Francoeur, Notetaker

### **Nemaska Lithium Members**

Vincent Perron, Senior Director — Environment and Stakeholder Relations Denis Isabel, VP — Sustainable Development



CONFIDENTIEL •4



# Previous Meeting Follow-Ups

ITEMS	ACTIONS	STATUS
1	Send survey to determine environmental symposium date in March	In Progress
2	Share Vincent and Denis' contact information with Anderson Jolly	Done
3	Organize a site visit with Matthew Tanoush	Done
4	Present details about the construction of the permanent camp, including water discharge	In Progress
5	Bear management at the mine site – Improve bear trap device	<b>I</b> n progress
6	Share closing plan for community review	<b>I</b> n progress
7	Share plant species tested by the University of Sherbrooke (revegatation study)	Done – Will be presented today

# Environmental Updates et Feedback from the Field

### Domestic wastewater treatment system

- ✓ Non-compliance of the effluent based on November monitoring results
- ✓ Effluent is now contained in a tanker untill it meets the regulatory standards
- Action plan developed by experts and mobilization of technicians specialized in water treatment on each rotation (Nordikeau)
- ✓ Notification of Regulatory Agencies









# Revegetation Project (UdS): Plant Species











NOVEMBRE 22

CONFIDENTIEL •8



# Wildlife Monitoring Effort (Tallyman Request)

Animal	Environmental and Social Impact Assessment (ESIA) (Undertaken Monitoring)	Environmental and Social Monitoring Program (ESMP) (Monitoring Over the Lifespan of the Mine)
Fish  • Walleye  • Brook Trout  • Northern Pike  • Lake Whitefish  • Others	<ul> <li>✓ Fish inventory in every lake, stream and river on and around the mining site</li> <li>✓ Inventory of fish habitats (spawning sites, nursery, etc.)</li> </ul>	<ul> <li>☑ Three-yearly monitoring of heavy metals in fish flesh (Walleye, Lake Whitefish, Northern Pike)</li> <li>☑ Monitoring of spawning sites for Walleye and Brook Trout</li> <li>☑ Monitoring of fish population in lakes 2, 27 and 28</li> <li>☑ Multi-year monitoring of fish habitat compensation projects</li> </ul>
Bats	☑ Bat inventory on and around the mine property	✓ Monitoring of the Spodumene Lake bat maternity
Birds	☑ Bird inventory on and around the mine property	<ul> <li>Two-yearly monitoring of bird populations in the Spodumene Lake Peatland</li> <li>Daily monitoring of migratory birds / endangered bird species at the mine site (register)</li> </ul>
Micromammals  • Voles  • Mice	☑ Micromammal inventory on and around the mine property	✓ Two-yearly monitoring of micromammals population in the Spodumene Lake Peatland
Amphibians & Reptiles • Snakes • Frogs and Salamanders	☑ Amphibian and reptile inventory on and around the mine property	☑ Two-yearly monitoring of micromammals population in the Spodumene Lake Peatland
Benthic organisms • Insects • Crustaceans	☑ Benthos inventory in lakes 1, 2, 3 and Spodumene Lake	<ul> <li>Annual monitoring of the benthic organisms at the mine effluent in the Nemiscau River</li> </ul>

DECEMBER 22 CONFIDENTIEL •9



# Wildlife Monitoring Effort (Tallyman Request)

Animal	Environmental and Social Impact Assessment (ESIA) (Undertaken Monitoring)	Environmental and Social Monitoring Program (ESMP) (Monitoring Over the Lifespan of the Mine)
Mammals	<ul> <li>☑ Aerial inventory (10 km radius around the mine site)</li> <li>☑ Ground observations</li> <li>☑ Ground inventory</li> </ul>	☑ Daily monitoring of wildlife at the mine site (direct and indirect observations)

DECEMBER 22 CONFIDENTIEL • 10





DECEMBER 22



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### Environmental and Social Impact Assessment (ESIA) Certificate of **Decision Statement** (IAAC) Authorization (COMEX) ++ conditions under 10 37 conditions topics 10 modification Obligation to assess the requests over the impacts of last 6 years the modifications made to the project

### Main Authorizations Delivered:

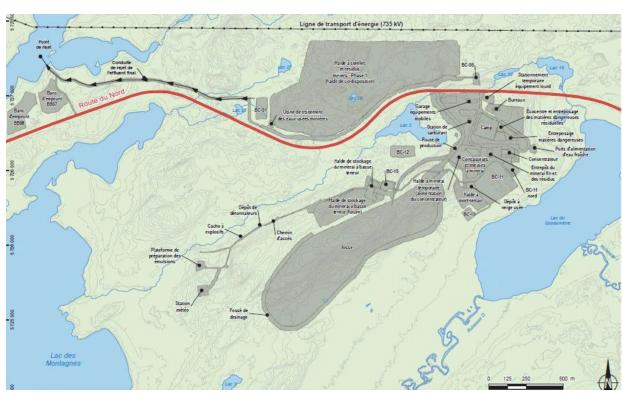
- Site preparation
- Construction of an ore processing plant
- Exploitation of sand pits
- Installation of the final mining effluent pipe (Nemiscau River)
- Ground water withdrawal (mine pit dewatering)
- Operation of the Whabouchi mine
- Operation of a domestic water treatment plant

### Main Permits Delivered:

- Construction permits
- Fresh water network permit
- Domestic water network permit







DECEMBER 22

CONFIDENTIEL •12



## **Whabouchi Preliminary Schedule (starting dates)**



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### **PERMITS ISSUED**

No new permit issued since the last meeting

### REPORTS FILED WITH REGULATOR

- Annual report for the COMEX (results of the 2021 environmental and social monitoring program)
- Annual report for the IAAC
- Reports available here:
   COMEX Annual Report
   IAAC Annual Report

### **PERMITS IN PROCESS**

No new permit in process since the last meeting

### **NEXT STEPS**

- In the short term, prepare permit applications related to:
  - the expansion of the construction camp
  - o the modification of the ore processing plant
  - the installation of a water treatment unit (BC-10 basin) to remove iron and suspend solids
- Other permit applications will be prepared in 2023

CONFIDENTIEL • 14

