



450, rue de la Gare-du-Palais
Québec (QC) G1K 3X2
Tél. 418 704-6038
Télé. 418 614-0627

October 31, 2017

Michel Vitou
Head of Compliance and Law Enforcement Department
Canadian Environmental Assessment Agency (CEAA)
160, Elgin Street, 22th floor
Ottawa (ON) K1A 0H3

Designated Project **Nemaska Lithium (NMX)'s Whabouchi Mine Project**
CEAA Registry 80021
Object **Annual Report 2016**

Mr. Vitou,

This represents the annual report to be issued for the year of declaration 2016, year during which the construction of the designated project was initiated. Therefore, the present annual report complies with condition 2.5 (2.5.1 to 2.5.5) of the Decision Statement dated July 29, 2015, for the period starting with the construction phase (September 2016) to the end of the year 2016.

Condition 2.5.1 – Implementation of the Conditions Included in the Decision Statement

Since it was not possible to differentiate the activities started in 2016 from those pursued in 2017, all forming since 2016 an uninterrupted continuum, we have preferred to report here all activities performed up to this date and which have to be declared according to condition 2.5 of the Decision Statement:

Condition	State of Implementation
2.1	The project was wholly designed in compliance with this condition since the first steps of its development. These principles have since guided the development of the Whabouchi Project.
2.2 and 2.3	In compliance with Nemaska Lithium (NMX)'s commitments and the Chinuchi Agreement, the Whabouchi Implementation Committee (WIC) and Environment Committee were implemented. The composition of these committees was provided to the Agency on January 29, 2017, and the aforementioned Chinuchi Agreement is publicly available on NMX's website.
2.4	Printed and electronic copies of the Environment and Social Monitoring Program (ESMP) were provided to our Cree partners, namely the Nemaska Cree Nation and the Cree Nation Government, as part of the April 12, 2017, Environment Committee meeting. Considering that the review of the aforementioned program must first be completed by them, in compliance with NMX's commitments and the conditions included in the Decision Statement, we are not able to determine exactly when will the ESMP be finalized, but we can confirm that it will be so before the start of the operation phase. However, it was decided with the provincial authorities (COMEX and MDDELCC) that a preliminary version of the ESMP would be sent to them to initiate their review and verify its compliance with the conditions included in the Certificate of Authorization they issued in September 2015. The ESMP was provided to the Agency in May 2017.

2.5 and 2.6	The present annual report answers these conditions.
2.7 and 2.8	Not applicable to the present year of declaration.
3.1 and 3.2	The Whabouchi Water Management Plan was elaborated in full compliance with these conditions as well as with the applicable laws, regulations, standards and guidelines, both at the provincial (ex. Directive 019, surface water quality criteria, etc.) and federal (ex. MMER) levels. A modular water treatment unit is planned to be installed upstream of the final effluent basin, before it is discharged to the Nemiscau River. The decision to relocate the final effluent in the Nemiscau River instead of in Mountain Lake, along with the justification, were sent to the Agency on July 19, 2017.
3.3	Periods applicable to the protection of aquatic species present in the Nemiscau River will be respected for the construction of the effluent which is scheduled in July 2018 (summer low-water period). Restriction periods applicable to the Nemiscau River enable works to be completed between June 1 st and August 31 st in order to protect species spawning in spring (walleye, northern pike, sucker) as well as those spawning in fall (lake whitefish).
3.4 to 3.6	Discussions are still ongoing between NMX, its consultants and the Department of Fisheries and Oceans Canada (DFO; Ecosystem Management Department, Ms. Marion Vaché and Mr. Jacques Trottier). We are still awaiting comments from them on the most recent version of the Fish Habitat Compensation Plan issued in September 2017. This new version includes additional information compiled by NMX in summer 2017 with various Cree entities, including among others the Cree Nation Government, with regards to land use and potential compensation opportunities in the Eeyou Istchee region. It is however not possible to determine when will the Compensation Plan be approved as we are still awaiting comments from DFO. The Fish Habitat Compensation Plan was elaborated in compliance with conditions 3.5 and 3.6.
3.7	The Fish Habitat Compensation Plan elaborated with DFO includes monitoring of the success of compensation. With regards to the ESMP, please refer to the above condition 2.4.
3.8	A research project was initiated by Pr. Benoît Plante of the Université du Québec en Abitibi-Témiscamingue (UQAT). Two Engage Grants (Engage and Engage Plus) were obtained from the Natural Science and Engineering Research Council (NSERC) by Pr. Plante's team and NMX. The objective of these projects is to, first, predict the environmental behaviour of the future mine tailings produced as part of the extraction of the lithium-containing ore (spodumene) using mineralogical characterization and preliminary geochemical characterization of the Whabouchi materials. More precisely, the various lithologies of the Whabouchi deposit were sampled from exploration drill cores. These samples then went through a series of assays; among others, samples were analysed for their chemical and mineralogical (X-Ray diffraction; electronic microscope analysis) content and a sample of spodumene concentrate was manually produced by hand-picking grains of spodumene from an ore sample. Secondly, all samples were submitted to kinetic testing in alteration cells in order to test their reactivity and metal leaching potential. The results of these characterizations and tests were sent to the Agency on May 29, 2017. In parallel, an application was sent by Pr. Plante to NSERC for a Research and Cooperative Development Grant (RCD) in order to move to the second phase of the project which entails the construction of <i>in situ</i> experimental cells emulating the Whabouchi site conditions and using waste rocks and tailings produced on site. Construction of these cells started on October 11 and was completed on October 20, 2017. In compliance with condition 3.8, results will be provided to the Agency as well as to the COMEX-MDDELCC and our Cree partners.

4.1	The project was wholly designed in compliance with this condition since the first steps of its development. These principles have since guided the development of the Whabouchi Project.
4.2	With regards to the ESMP, please refer to the above condition 2.4.
5.1	With regards to the ESMP, please refer to the above condition 2.4.
5.2	<p>The decision to relocate the final effluent in the Nemiscau River instead of in Mountain Lake, along with the justification, were sent to the Agency on July 19, 2017. Indeed, following several consultations with the tallymen of the R19 and R20 traplines and their families, as well as with representatives of the Nemaska Cree Nation Band Council and members of the Environment Committee (including the Cree Nation Government), the decision was made to relocate the final effluent discharge point in the Nemiscau River, upstream of the Route du Nord and of the nearby Cree camps, instead of in Mountain Lake as initially planned. Following almost two years of discussion on this topic, on May 17, 2017, the Environment Committee organized a meeting with the R20 and R19 families as well as with representatives of the Nemaska Cree Nation (Chief and two counsellors) and of the Cree Nation Government in order to decide which of the two options still being considered at that time, i.e. those to which was associated positive effluent dispersion modelling results, will be the one to be retained by NMX. During that meeting, it was decided by those present that the final discharge point in the Nemiscau River, upstream of Route du Nord, is preferable to the one located at the mouth of the Nemiscau River in Mountain Lake. This decision was made, among other reasons, in light of the positive effluent dispersion modelling study for the selected site and also because it enable avoiding the highly valued area of Mountain Lake.</p> <p>Consequently, the former water management plan was modified so that all waters are ultimately diverted towards Basin D (and not towards the former Mine Water Basin, which is no longer needed). From Basin D, a terrestrial pipeline will transport water to the discharge point in the Nemiscau River.</p>
5.3	<p>The basis of the communication strategy was laid out during the April 12, 2017, Environment Committee meeting and was sent to the Agency in May 2017. The following items are included in the strategy:</p> <ul style="list-style-type: none"> ▪ Inclusion of updated information in the Community Newsletter (4 pages). ▪ Elaboration of a Trimestral Newsletter repeating and completing the information included in the Community Newsletter, but distributed in the community (door-to-door) as a stand-alone pamphlet-like document and posted on Facebook (Nemaska Announcements page). Newsletter to include news on project development, contacts for community members to get more information and a description of what is the Environment Committee and its role. ▪ Annual reporting colligating the various information on the Whabouchi Project NMX has to publish as part of its corporate annual reporting obligations and/or in compliance with the conditions included in the federal and provincial environmental authorizations, including data on environmental and social monitoring as well as environmental accidents and malfunctions. ▪ Biannual information session (spring and fall) on project development; training, job and business opportunities; and environmental and social monitoring. Sessions will be advertised on Facebook and local radio. ▪ Production of a DVD and Web « documentary » in Cree language (subtitled in English) generally presenting the project history, the Chinuchi Agreement and the various associated committees and funds. Moreover, the documentary would have a section

	<p>dedicated the R20 trapline and family, based on an existing documentary owned by the Wapachee Family.</p> <ul style="list-style-type: none"> ▪ Annual presentation at the Cree Nation of Nemaska Annual General Assembly. ▪ Simon Thibault to act as the official representative of the Environment Committee on the Whabouchi Implementation Committee (WIC).
5.4	The management of wildlife causing damages to infrastructures and/or staff is included in the Environmental and Social Surveillance Program as well as in the Chinuchi Agreement. It entails the management of these situation in close collaboration with the R20 tallyman. No harvested wood was deemed of interest by the Crees as the vast majority of the mine site is burned areas.
5.5	The safety zone is defined in the Chinuchi Agreement signed in November 2014; this document is publicly available on NMX's website.
5.6	Prescriptions associated with this condition were included in the contracts signed by our employees and contractors/suppliers at the Whabouchi mine site. The Environmental and Social Surveillance Program also included measures specifically for these aspects, all in compliance with the Chinuchi Agreement.
5.7	The Whabouchi Mine Rehabilitation and Closure Plan was approved in September 2017 by the MERN and includes progressive rehabilitation of the mine site.
6.1	The Environmental and Social Surveillance Program included measures specifically for these aspects; this document is publicly available on NMX's website.
6.2	Construction works started in September 2016 and NMX has not since implemented the monitoring required in this condition. However, since a site visit made by the CEAA in September 2017, all efforts are made to ensure its implementation as soon as possible. An official reply to the CEAA's letter dated September 26, 2017, will soon be sent in order to provide with more details.
6.3	With regards to the communication strategy, please refer to the above condition 5.3.
7.1	The Environmental and Social Surveillance Program included measures specifically for these aspects; this document is publicly available on NMX's website.
7.2	<p>The final effluent discharge point was relocated in the Nemiscau River, as outlined above for condition 5.2. Site conditions at the discharge point are such that the burial of the effluent pipe 100 m from the shore is not possible, but its burial will be maximized according to site conditions in order to make it not visible from the shore.</p> <p>The Whabouchi Mine Rehabilitation and Closure Plan was approved in September 2017 by the MERN and included progressive and final rehabilitation of the mine site.</p>
7.3	The safety zone is defined in the Chinuchi Agreement signed in November 2014; this document is publicly available on NMX's website. The safety zone, as defined in the Agreement, enables access to these sites.
7.4	Construction works started in September 2016 and NMX has not since implemented the monitoring required in this condition. However, since a site visit made by the CEAA in September 2017, all efforts are made to ensure its implementation as soon as possible. An official reply to the CEAA's letter dated September 26, 2017, will soon be sent in order to provide with more details.
7.5	With regards to the communication strategy, please refer to the above condition 5.3.

8.1	The project was wholly designed in compliance with this condition, since the first steps of its development. These principles have since guided the development of the Whabouchi Project. The Environmental and Social Surveillance Program included measures specifically for these aspects; this document is publicly available on NMX's website.
8.2	Printed and electronic copies of the Environment and Social Surveillance Program and of the Emergency Measures Plan (EMP) were provided to our Cree partners, namely the Nemaska Cree Nation and the Cree Nation Government, during an Environment Committee meeting in November 2016. Considering that the review of the aforementioned EMP must first be completed by them, in compliance with NMX's commitments and the conditions included in the Decision Statement, we are not able to determine exactly when will the EMP be finalized, but can confirm that it will be so before the start of the operation phase. However, it was decided with the provincial authorities (COMEX and MDDELCC) that a preliminary version of the EMP would be sent to them to initiate their review and verify its compliance with the conditions included in the Certificate of Authorization they issued in September 2015. To that effect, on September 19, 2017, the COMEX sent to NMX questions on the EMP. The consultation of the Cree and provincial stakeholders, initiated in 2016, is therefore still ongoing, at the contrary of what the CEAA is mentioning in its letter dated September 26, 2017.
8.3	NMX has developed a classification of the environmental incidents in order to identify accidents and malfunctions which can cause negative environmental effects. Based on this classification and the associated procedure, the various federal and provincial entities in charge of environmental accidents management are informed in a timely manner and in compliance with the applicable conditions, standards, laws and regulations. However, as stated in the CEAA's letter dated September 26, 2017, this process experienced malfunctioning and corrective measures have yet been implemented to avoid similar situations happening again. An official reply to the CEAA's letter will soon be sent in order to provide with more details.
8.4	With regards to the communication strategy, please refer to the above condition 5.3.
9.1 to 9.3	Various communications were sent to the CEAA in order to keep it informed of the Whabouchi Project Development, including on January 29, February 22, May 5, May 29 and July 19, 2017.
10.1 and 10.2	Documents of interest in line with these conditions are kept in electronic format at the Whabouchi Mine site and NMX's head office in Quebec City. Those documents are available upon request and have also already been provided to the Agency.

Condition 2.5.2 – Implementation of Condition 2.1 of the Decision Statement

In order to best understand how Condition 2.1 of the Decision Statement was included since the early steps of the Whabouchi Project development, it is important to go back to the 2014 Feasibility Study (FS).

The alternatives for the Whabouchi project were analyzed in two phases. First, in the preliminary economic assessment (PEA) released in February 2013, a range of variants were considered by Nemaska Lithium and which were further described in the Environmental and Social Impact Assessment (ESIA) filed in April 2013.

In light of the comments and concerns that emerged from the consultations held after the ESIA was filed, the project was subsequently re-assessed within the framework of the feasibility study (FS) with a view to optimizing it from a technical, economic, as well as an environmental and social standpoint. The alternatives examined in the feasibility study included the waste rock and tailings pile, and the location of the sedimentation basins and related final effluents, i.e., the project components of greatest concern for Cree stakeholders.



In this new assessment, Nemaska Lithium considered it paramount to:

- Reduce the amount of mine infrastructure to be built;
- Concentrate infrastructure near the ore deposit;
- Minimize the ecological footprint of the project.

In addition, the analysis of the options for the location of mine infrastructure was guided by a series of factors and criteria as noted below:

- Much of the planned infrastructure depends on the actual location of the ore deposit (which cannot be moved);
- The presence of many natural and physical constraints, such as Mountain Lake and Spodumene Lake, the Route du Nord and the 735-kV power line;
- Many other constraints such as, the topography, surface deposits, hydrography, wetlands, wildlife habitats, use of the territory, water supply, resources and potential archeological areas, and certain health- and safety-related elements, etc.;
- Technical considerations such as the need for safe slopes in the pit design, and minimum safe distances from blasting areas.

To address these concerns, it was decided to completely review the siting of all stockpiles, basins and effluents to ensure they were located far from Mountain Lake. At the same time, other changes were made to the project so as to reduce wetland losses; have only one final effluent as defined by Quebec's Directive 019; reduce the visual impact associated with the waste rock and tailings pile for land users and neighbouring Cree camps; and avoid any deviation of the existing Route du Nord and maintain its current location.

Also, despite the fact that the operating mine life increased from 19 to 26 years from the PEA to the FS, Nemaska Lithium and its consultants were still able to reduce footprint of the project. The 11% reduction in pit footprint is essentially based on the fact that underground operations were recommended as of Year 21, and the infrastructure required for underground operations will be located entirely within the boundaries of the open pit. Changes made to the layout of mine infrastructure in the feasibility study made it possible to avoid the loss of 53.51 ha of terrestrial and wetland environments. The direct impact of the project on these environments was therefore reduced by 25%.

In addition, a number of mitigation measures were selected to minimize the impact of the project on these environments, including fully delimiting those areas where mining activities are permitted and reducing site clearing operations. The entire site will be revegetated as part of mine closure so that habitats for native species will quickly be re-established on the site. To ensure the effectiveness of revegetation activities, an agronomic monitoring program will be put in place.

With regards to tailings management, best economically and technically available technologies have been integrated to project design so that filter-pressed tailings will be produced at the mine site to be co-disposed with waste rocks on a dedicated pile. The aforementioned method is associated to several advantages, as outlined in the Report on Mount Polley Tailings Storage Facility Breach issued in January 2015 by the Mount Polley Independent Expert Engineering Investigation and Review Panel. Indeed, the production of filter-pressed tailings, or dry stacking, especially when co-disposed with waste rocks, is commonly associated with the following technical and environmental advantages which easily counterbalance the typically higher costs of producing such type of tailings:

- High process water reuse rate in the concentrator;
- High reagents reuse rate in the ore process;
- Significant reduction of the risks of leaks or spills (ex. damaged pipes, through dykes) and therefore of risk of environmental contamination;
- No more dyke required to store tailings and therefore no risk of dam failure;



- Filtered tailings can be compacted and/or leveled once disposed on the dedicated pile, enabling an easier co-disposal with waste rocks;
- Filtered tailings are geotechnically stable and can be stockpiled at greater height and with steeper slopes than conventional tailings, therefore reducing the surface footprint of the dedicated pile;
- Filtered tailings can be progressively revegetated, i.e. before mine closure, as the mine is still in operation;
- Significant reduction of the surface footprint of the whole project by enabling the co-disposal of tailings and waste rocks.

Finally, it is important to note that under the *Act Respecting Compensation Measures for the Carrying out of Projects Affecting Wetlands or Bodies of Water*, wetland losses associated with the Whabouchi project will be compensated through a compensation plan approved by the MDDELCC. The funding of a scientific research program aimed at acquiring knowledge on the ecological (environmental and social) value of the boreal peatlands in the James Bay Lowlands was confirmed by NSERC in summer 2017. In addition to biogeochemical and hydrological components, the research program includes a component on knowledge of traditional Cree practices with respect to such wetlands. Nemaska Lithium will act as an industrial partner for this research project, in collaboration with other mining companies as well as First Nations and governmental agencies.

The majority of the impacts attributable to the Whabouchi project will be within trapline R20, and more specifically in the southwest sector of that trapline (which includes the northern part of Mountain Lake where the Bible Camp and a number of other Nemaska Cree camps are located).

To reduce the impacts of the project on land and resource use, various mitigation measures will be put in place including the following:

- To avoid disturbing the spring goose hunt, all extraction activities at the mine (blasting, and placing material on the tailings pile) will be suspended during the spring goose hunt, locally known as the Goose Break;
- Crees who use the land will be kept informed by the Environment Committee of the mine's schedule of activities to help them manage or reorganize their harvesting activities;
- Cree users of the territory and community members will be informed by the Environment Committee of environmental monitoring results and will be regularly consulted for their observations and recommendations regarding the presence of wildlife on the affected territory;
- Continue discussions regarding the Bible Camp and Cree camps whose use will be affected by mine activities;
- If possible, organize activities at the waste rock and tailings pile in such a way as to minimize noise at the Bible Camp;
- Prohibit mine employees from harvesting wildlife (hunting, fishing and trapping) on mine property;
- Implement an equipment maintenance plan to prevent equipment from deteriorating and increasing its noise levels; and undertaking noisy operations during daytime hours;
- Ensure heavy machinery, vehicles and equipment are in proper working order (adequate maintenance); enforce speed limit of 30 km/h on project site; use MDDELCC-authorized dust-control agents or water on service roads (including ramps) as required; and progressively reclaim the waste rock and tailings pile.

Land and resource use will be monitored during the construction and operation phases of the Whabouchi project. In compliance with the Chinuchi Agreement, monitoring will focus on the use of trapline R20 and its resources by the tallymen and main trapline users.

The measures implemented since the conception stage of the Whabouchi Mine Project to satisfy the conditions listed in the Decision Statement are informed by the best available information and knowledge, including community and Aboriginal traditional knowledge, are based on validated methods and models, are undertaken by qualified individuals and have applied the best available economically and technologically feasible mitigation measures. Our actions since the first stages of this project are the best demonstration of this.



Condition 2.5.3 – Consideration of the Views of the Cree Nation of Nemaska

Consideration of the views of the Cree Nation of Nemaska is made mainly two ways. First, the main process through which discussion, information and exchange take place with the community and its representatives as well as with the Cree Nation Government is the Chinuchi Agreement.

In November 2014, the Grand Council of the Crees (Eeyou Istchee), the Cree Nation Government, the Cree Nation of Nemaska and Nemaska Lithium announced that they have entered into the Chinuchi Agreement regarding the development and operation of Nemaska Lithium's Whabouchi Project. The Chinuchi Agreement is a binding agreement that will govern the long-term working relationship between Nemaska Lithium and the Cree parties during all phases of the Whabouchi Lithium Project.

The Agreement, which will be in effect throughout the life of the mine, ensures Cree involvement and participation in environmental matters, such as monitoring, mitigation and closure. This is being done through the creation of two committees, namely the Whabouchi Implementation Committee (WIC) and the Environment Committee.

The WIC is composed of:

- Chief Thomas Jolly and counsellor Teddy Wapachee, Nemaska Band Council;
- Andy Baribeau and François Dandonneau, Cree Nation Government;
- Steve Nadeau, Chantal Francoeur and Guy Lauzier, Nemaska Lithium;
- Simon Thibault, Nemaska Lithium, representative of the Environment Committee (observer).

Its role is to oversee the implementation of the Chinuchi Agreement in an efficient, solution-oriented, timely and cooperative manner. The WIC serves as the principal forum for communications between the parties with respect to the implementation of the Chinuchi Agreement and has to provide reports to the parties on the implementation of the Chinuchi Agreement. It also has to make recommendations to the Nemaska Band Council on the use of the available funds for business development, training and socio-cultural activities

The next WIC meeting, the sixth since November 2014, is scheduled on November 20, 2017.

With regards to the Environment Committee, its composition was provided to the Agency in May 2017:

- Simon Thibault, Director ESR, Nemaska Lithium;
- Wayne Rabbitskin, community liaison agent Nemaska Lithium (observer);
- Pierre Mercier, Coordinator ESR, Nemaska Lithium (observer);
- James Wapachee Sr., R20 tallyman;
- Walter Jolly, Nemaska Cree Nation;
- Stella Moar Wapachee, Nemaska Cree Nation (observer);
- Matthew Tanoush, Director Land and Environment, Cree Nation of Nemaska (observer);
- Aurora Hernandez, Environmental analyst, Cree Nation Government;
- Lucas Del Vecchio, Environmental analyst, Cree Nation Government (observer).

Its role is to co-develop and implement Nemaska Lithium's environmental and social management system and related environmental monitoring, including the Emergency Measures Plan. It also has to annually report on environmental and social monitoring activities and mine rehabilitation and closure. Finally, it has to disseminate/communicate on a regular basis information on project development and environmental and social monitoring.

Since September 2016, four meetings took place, the latest being on September 13, 2017. The fifth meeting is scheduled on November 23, 2017.



Condition 2.5.4 – Results of the Monitoring Included in Conditions 3.7, 4.2, 5.1, 6.2 et 7.4

Monitoring required in conditions 3.7, 4.2 and 5.1 is included in the Environmental and Social Monitoring Program (ESMP) and will start with the operation phase, scheduled for fall 2018.

With regards to monitoring required in conditions 6.2 and 7.4, even if included in the ESMP and if construction works started in September 2016, Nemaska Lithium has not since implemented the required monitoring. However, since a site visit made by the CEAA in September 2017, all efforts are made to ensure its implementation as soon as possible. An official reply to the CEAA's letter dated September 26, 2017, will soon be sent in order to provide with more details.

Condition 2.5.5 – Additional Mitigation Measures Required as per Condition 2.4

No additional mitigation measures required as per condition 2.4 has been implemented over the year of declaration 2016.

For any question or comment, please contact the undersigned by e-mail at simon.thibault@nemaskalithium.com or by phone at 418-809-9696.

Best regards,

<Original signed by>

Simon Thibault, M.Sc., bio.
Director Environmental and Social Responsibility

cc. Nicolas Courville, ACEE