# **ADDENDUM**



To: Ms. Marie-Josée Lizotte

Provincial Administrator of the James Bay and Northern Québec Agreement

Deputy Minister of the Environment, Climate Change, Wildlife and Parks (MELCCFP)

From: Mr. Denis Couture, Head of Canadian Operations (Allkem)

Ms. Caroline Morissette, Director of Environment and Permitting (Allkem)

CC: Ms. Maud Ablain, Director of Environmental Assessment of Industrial and Mining Projects (MELCCFP)

Mr. Charles-Olivier Laporte, Project Manager (MELCCFP)

Mr. Benjamin Jacob, Project Manager (MELCCFP)

Date: June 28, 2023

SUBJECT: RE: Request for Consultation and Commitments, Allkem/Galaxy Lithium (Canada) Inc. James Bay

Lithium Mine Project, Ref: 3214-14-055

# Contextual Setting

On June 20, 2023, Galaxy Lithium (Canada) Inc. ("Galaxy") received a letter from Ms. Maud Ablain (MELCCFP) requesting that they follow up on ENG-1 to ENG-10 commitments regarding the James Bay Lithium Project Impact Assessment.

On June 26, 2023, it was brought to our attention that the COMEX had made available on its website a letter to the Deputy Minister signed on June 15, 2023 (1) recommending that the proponent (Galaxy) informs the communities and users of the territory affected by the relocation of the west dump by 262 meters in a west-southwest direction and the implications arising therefrom using the most appropriate communication channels, and submit a written document to the COMEX reporting the comments provided and the assessments received; and (2) asking the Deputy Minister to ask the proponent (Galaxy) to specify its intentions to respect the commitments listed in the appendix to the letter, corresponding to commitments ENG-1 to ENG-9 of the request for commitments attached to Ms. Ablain's letter of June 20, 2023.

This addendum is the proponent's (Galaxy's) response to the June 20, 2023, request for commitments.

Responses to the Request for Consultation and Commitments

### **ENG-1 Extraction Rate**

The proponent must confirm the following mining rates and mine life:

- Average daily ore extraction rate;
- Maximum daily ore extraction rate;
- Average daily total extraction rate (ore and waste rock);
- Maximum daily total extraction rate (ore and waste rock).

### Reply to ENG-1

Galaxy confirms the following mining rates and mine life:

- Average daily ore mining rate: 5,500 tonnes;
- Maximum daily ore mining rate: 8,500 tonnes;
- Average daily mining rate (ore and waste rock): 30,000 tonnes;
- Maximum total daily mining rate (ore and waste rock): 35,000 tonnes.

Mine life is estimated at 18.5 years.



# **ENG-2 Waste Dump**

Given the leachable nature of a portion of the unconsolidated deposits (clay), the proponent must commit to ensure that all contact water from the waste dump is recovered by the water management system and treated.

## Reply to ENG-2

Galaxy is committed to having all contact water from the waste dump recovered by the water management system and treated.

# **ENG-3 Atmospheric Dispersion Modeling**

The proponent has corrected the calculation of emission rates for blasting, wind erosion and dozing, in accordance with MELCCFP recommendations. The proponent used 80% mitigation for routing-related emissions during the summer months. Use of the 80% attenuation is conditional on the proponent conducting regular dust suppressants spreadings. The proponent must commit to carry out these regular spreadings, maintain a record of said spreadings and submit a summary of this information demonstrating the effectiveness of the mitigation measure as part of the annual environmental follow-up report. The proponent must adjust its dust management plan and air quality monitoring accordingly.

# Reply to ENG-3

Galaxy is committed to conducting regular dust suppressants spreadings, maintaining a record of said spreadings and submitting a summary of this information demonstrating the effectiveness of the mitigation measure as part of the annual environmental follow-up report. Galaxy will adjust its dust management plan and air quality monitoring accordingly.

# **ENG-4 Avifauna**

The proponent mentions the possibility of "inadvertently injuring, killing or disturbing birds, or destroying or disturbing their nests or eggs, particularly during deforestation work". To avoid this impact, the proponent must commit to modify mitigation measure FAU2 to prohibit clearing activities between May 1<sup>st</sup> and August 15<sup>th</sup> to limit impacts on avian fauna during the main nesting periods.

### Reply to ENG-4

Galaxy is committed to modifying mitigation measure FAU2 to prohibit clearing activities between May 1<sup>st</sup> and August 15<sup>th</sup> to limit impacts on avian fauna during the main nesting periods.

### **ENG-5 Bear Management on the Mining Site**

The proponent has no plans to restrict bear access to the residual materials (RM) containers and composter. They indicate that the RMs will be stored on site in roll-off containers with lids, and that these containers will be located on the industrial site where there will be continuous traffic. The proponent already has a procedure in place for dealing with wildlife, which includes the use of scaring methods specifically for black bears. They added that they could fence the container and composter sector, but only as a last resort to restrict bear access. The proponent must commit to physically restrict bear access to the RM management area and the composter as soon as they are put into operation.

# **Reply to ENG-5**

Galaxy is committed to physically restricting bear access to the RM management area and composter as soon as they are put into operation.

# **ENG-6 Site Restoration**

The waste rock and tailings dumps, as well as the organic matter and unconsolidated deposits pile, will be levelled and vegetated. Water storage basins will either be filled in or converted to wetlands. The proponent must commit to:

- 1. maximize the area converted to wetlands and;
- 2. seed or plant a greater diversity of plant species, considering species valued by the Cree and climate change.

The proponent must include these modifications in the first update of the restoration plan.



# Reply to ENG-6

Galaxy is committed to:

- 1. maximizing the area converted to wetlands and;
- seeding or planting a greater diversity of plant species, considering species valued by the Cree and climate change.

Galaxy will include these changes in the first update of the restoration plan.

# **ENG-7 Emergency Services**

The proponent must commit to submit the EMP to the Administrator, for information, upon filing the first application for ministerial authorization under section 22 of the Environment Quality Act for the construction of the mine site.

# Reply to ENG-7

Galaxy is committed to submitting the EMP to the Administrator, for information, upon filing of the first application for ministerial authorization under section 22 of the Environment Quality Act for the construction of the mine site.

# **ENG-8 Infrastructure Monitoring**

The proponent indicated that the infrastructure monitoring program for the mining operations period, which will be developed according to the Mining Association of Canada's *How to Write an Operation, Maintenance and Monitoring Manual for Tailings and Water Management Facilities*, will be detailed during the construction period. The proponent must commit to submit the infrastructure monitoring program for the period of mining operations no later than upon filling the application for authorization under section 22 of the EQA for the operation of the mining site.

### **Reply to ENG-8**

Galaxy is committed to submitting the infrastructure monitoring program for the period of mining operations no later than upon filing the application for authorization under section 22 of the EQA for the operation of the mining site.

# **ENG-9 Leachable Steriles**

The proponent must commit not to use leachable steriles for the construction of industrial areas, the camp, the explosives depot, mine roads other than haul roads, or any other use on the mining site. They must also indicate the source of materials (aggregate, stone, rock, etc.), as well as the quantities required for construction of the mining site.

# **Reply to ENG-9**

Galaxy is committed to not using leachable steriles for the construction of industrial areas, the camp, the explosives depot, mine roads other than haul roads, or any other use on the mining site. It is understood that this commitment does not apply to the following infrastructures:

- 1. Dump infrastructures, since their design complies with Directive D019, which includes Level A sealing measures. As described in D019 on page 32: "The management of tailings must be designed to respect a maximum daily percolation rate of 3.3 l/m² for the bottom of the tailings accumulation area. This percolation rate is based on a tailings management model that predicts a clay layer 3 m thick with a hydraulic conductivity of 10-6 cm/s and an average hydraulic head of 10 m"¹. Galaxy has demonstrated through a modeling study already submitted to COMEX that "the sealing measures in place will prevent any significant deterioration in groundwater quality"².
- 2. Roads, ditches, and basins covered by the decision statement of the Minister of the Environment and Climate Change dated January 13, 2023, allowing the use of mine steriles for construction (see sections 3.3 and 3.5)<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> https://www.environnement.gouv.qc.ca/milieu\_ind/directive019/directive019.pdf

<sup>&</sup>lt;sup>2</sup>Ditto

https://iaac-aeic.gc.ca/050/documents/p80141/146051F.pdf



The source of materials (aggregates, stone, rock, etc.) and quantities required for construction of the mining site not originating from the mining site are shown in the following table:

	Source	Quantity
Granular material	Pit of the James Bay Development Corporation (SDBJ)* at km 394	30,000 m <sup>3</sup>

<sup>\*</sup> Communications are already underway with SDBJ on this matter.

# **ENG-10 Movement of West Dump**

The proponent must inform the communities and land users concerned about the relocation of the west dump at the project definition stage and the resulting implications, using the most appropriate communication channels. The proponent must also submit a written document to the Administrator, reporting on the comments provided and the assessments received.

# Reply to ENG-10

Galaxy has informed the communities of Waswanipi, Waskaganish and Eastmain, as well as the land users concerned, of the move of the west dump at the project definition stage and the resulting implications. Group and individual information sessions were held in Eastmain to inform the community and tallyman Brian Weapenicappo (RE2) about the move. The Eastmain sessions were announced via Facebook, radio, e-mail, and various associations and organizations (The Elders, the Youth, Trappers Association, WEDC, CNE, ASD).

Please find enclosed a document outlining the various meetings and communications, the comments provided, and the assessments received.

**Denis Couture** 

Head of Canadian Operations Galaxy Lithium (Canada) Inc.

Denis Couture

# CONSULTATIONS WASKAGANISH



# James Bay Lithium Mine Project

Alternative Solution for the West Stockpile

June, 21th 2023

By Dominique Thiffault, Environment Director (Interim) Christelle Faivre, CR & HSS Director Catherine Lagacé, Community Relations Coordinator

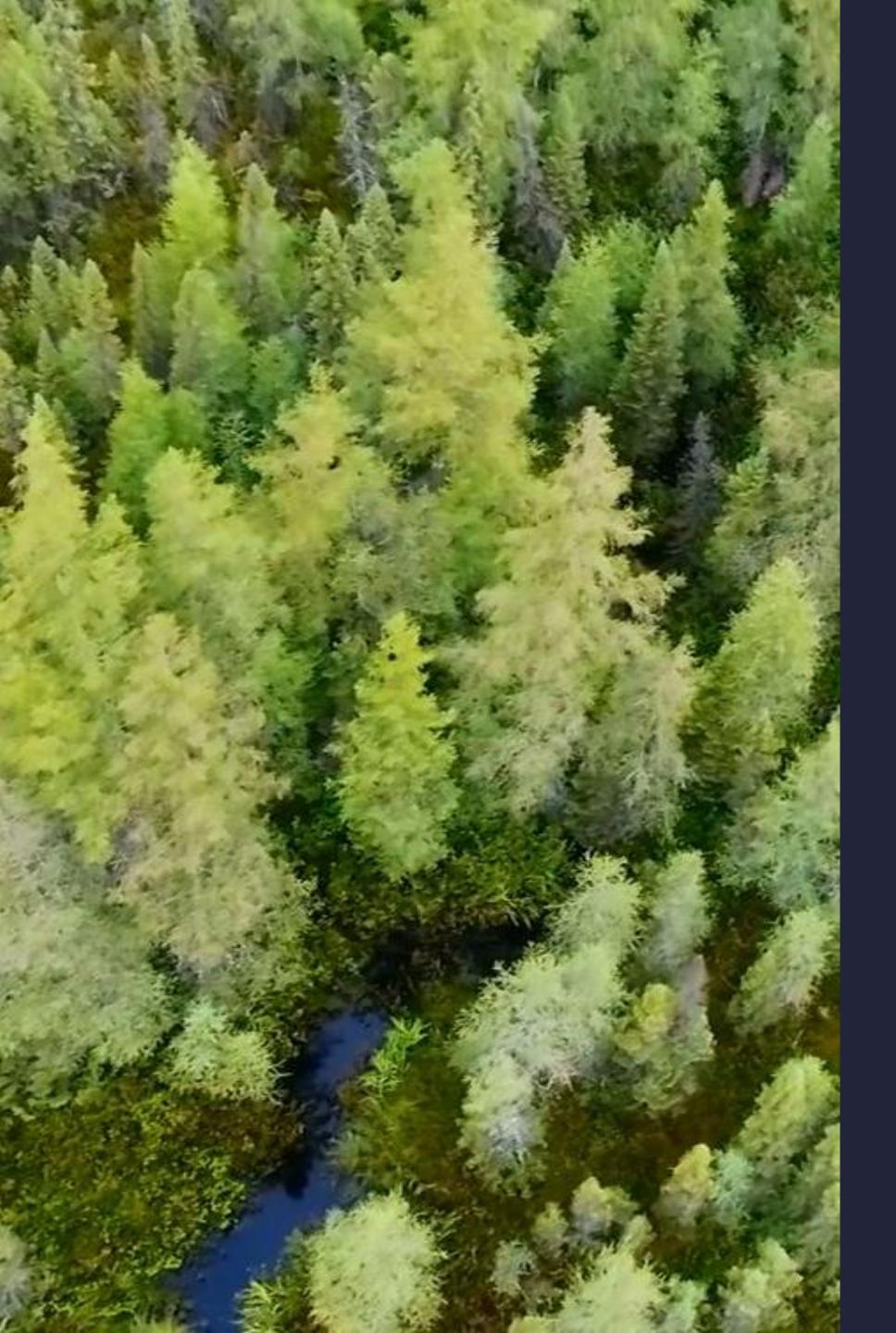




# Agenda

- 1. Context
- 2. Site Map
- 3. Impacts
- 4. Comparison of Surface Areas
  Affected by the West Stockpile

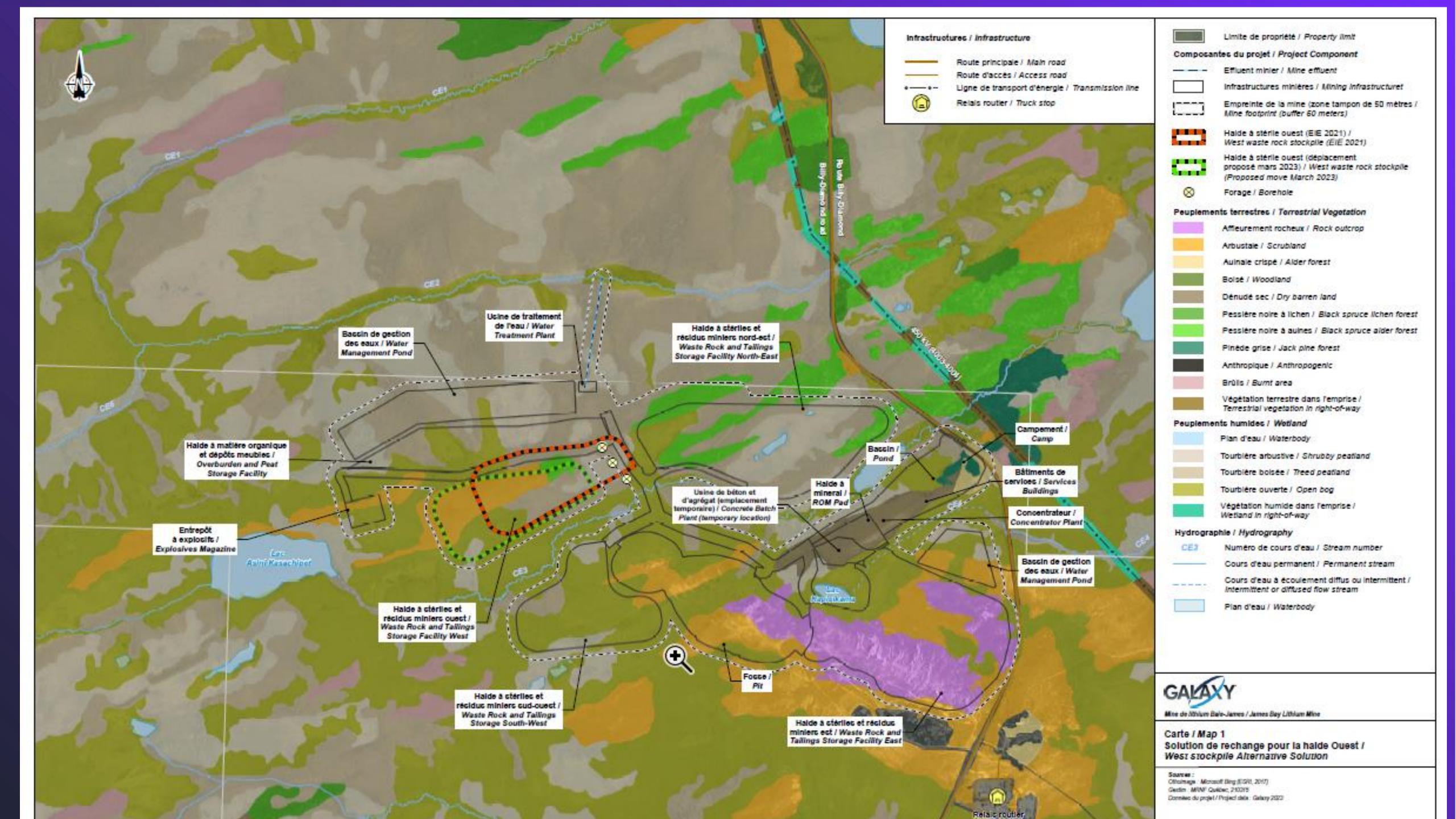




# Context

- Condemnation drillings

  performed in 2022 have shown
  the presence of spodumene
  under the West Waste Rock
  and Tailings Storage Facility.
- To avoid the mineral zone, we suggest moving this stockpile by 262 meters West-South-West from the original proposed location.



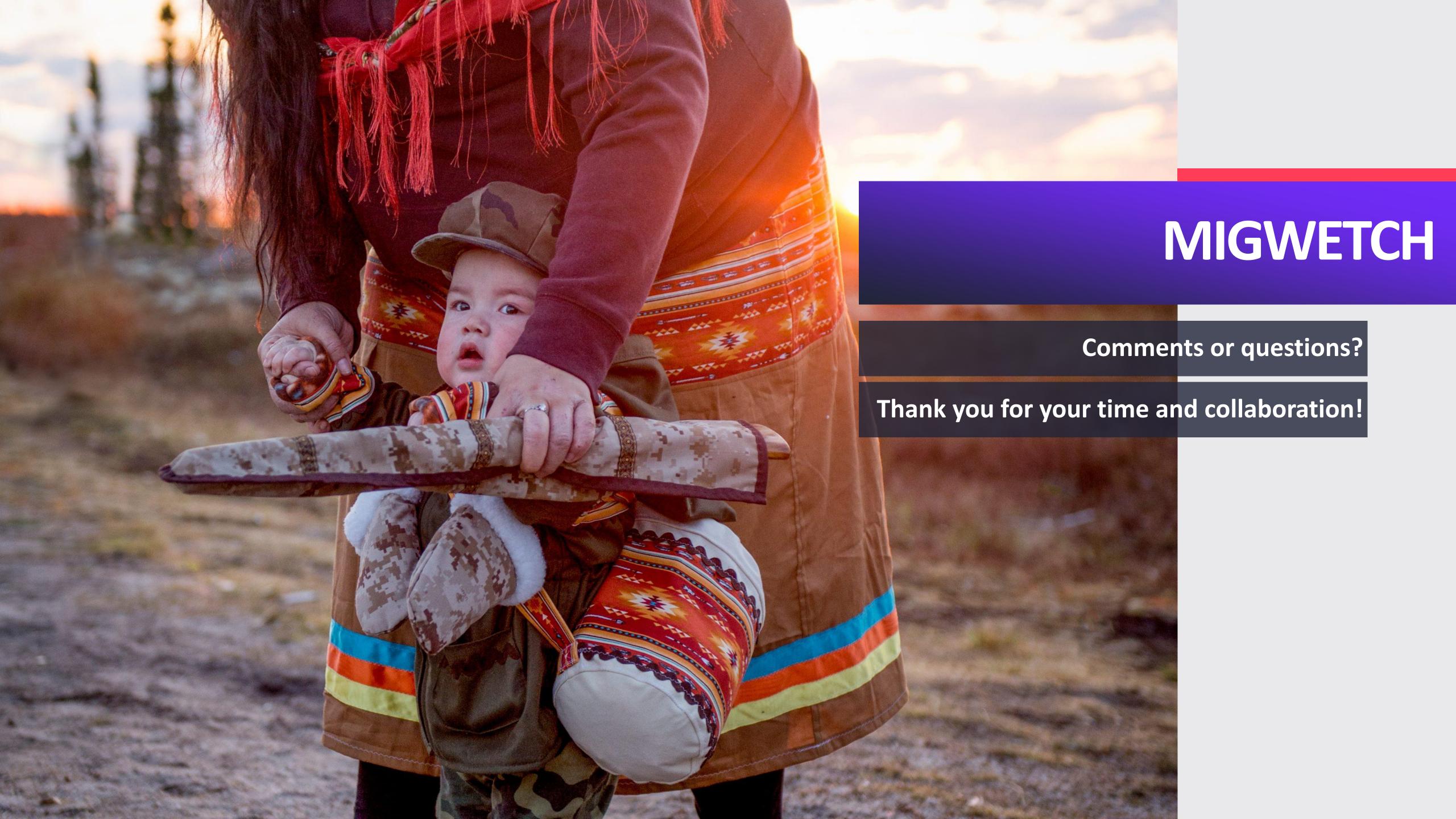
# Impacts

- No additional impact on the environment:
  - Stockpile with the same size/shape;
  - Stockpile with the same storage capacity;
  - Additional transport distance is negligeable and located at the farthest distance from the Truck Stop 381 and from the closest harvest zones.
- No additional impact on water management.
- No significant changes habitat loss in comparison with the ones estimated in the 2021 ESIA.



Table 1: Comparison of Surface Areas Affected by the West Stockpile

	ESIA (2021) (ha)	Alternative Solution – West Stockpile (ha)	Variation from ESIA (2021) (ha)
Terrestrial Vegetation			
Rock outcrop	52.17	52.17	
Anthropogenic	0.86	0.86	
Scrubland	53.00	59.82	+ 6.82
Alder forest	1.71	1.71	
Dry barren land	17.56	17.56	
Black spruce lichen forest	18.12	1.61	
Jack pine forest	1.61	1.61	
Sub-total	145.03 +6.82		+6.82
Wetland and Waterbody			
Shrubby peatland	72.33	71.96	-0.37
Treed peatland	91.19	91.13	-0.06
Open bog	140.69	146.63	+ 5.94
Lake	0.65	0.65	
Sub-total	304.87	310.37	+ <i>5.5</i>
Total	449.90	462.22	12.32





SUBJECT:	Alternative solution for the West Stockpile		
DATE:	June 21 <sup>st</sup> , 2023 TIME:		
SITE:	Phone Meeting	LOCATION:	Waskaganish
ATTENDEES (Names):	Barbara Hester Land Registrar / Local Environment Administrator		
ALLKEM	Christelle Faivre		
REPRESENTATIVES:			
DISTRIBUTION:	Barbara Hester And Wayne Cheezo		

# PURPOSE OF THE MEETING

The purpose of this meeting is to share some new information with the Waskaganish Local Environment Administrator on an alternative solution for the location of the West Stockpile. The condemnation drillings took place back in 2022, has shown the presence of spodumene under the West waste rock and tailings storage facility. To avoid the mineral zone, we suggest moving the West waste rock and tailings storage facility by only 262 meters West-South-West from the original proposed location. Please refer to the "2023-06\_West Stockpile Alternative Solution" for more information.

ITEM	QUESTIONS/COMMENTS	ANSWERS
1.	Not applicable	

# **Comments**

The presentation was sent to the Waskaganish Local Environment Administrator for review. Any comments, questions or concerns will be sent to us by e-mail.

# CONSULTATIONS EASTMAIN



# James Bay Lithium Mine Project

Alternative Solution for the West Stockpile

June, 26<sup>th</sup> & 27<sup>th</sup> 2023

Christelle Faivre, CR & HSS Director Denis Couture, Head of Canadian Operations

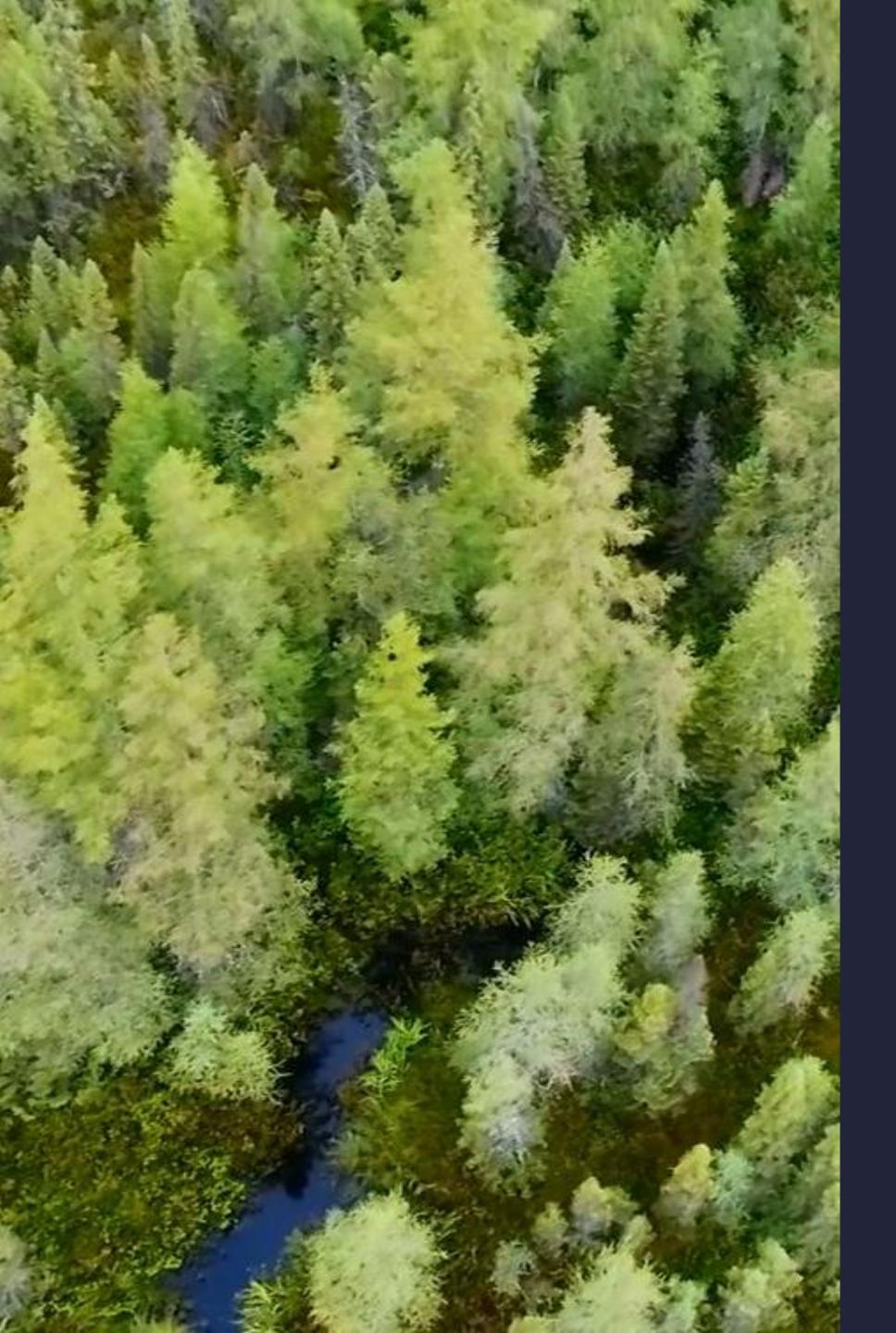




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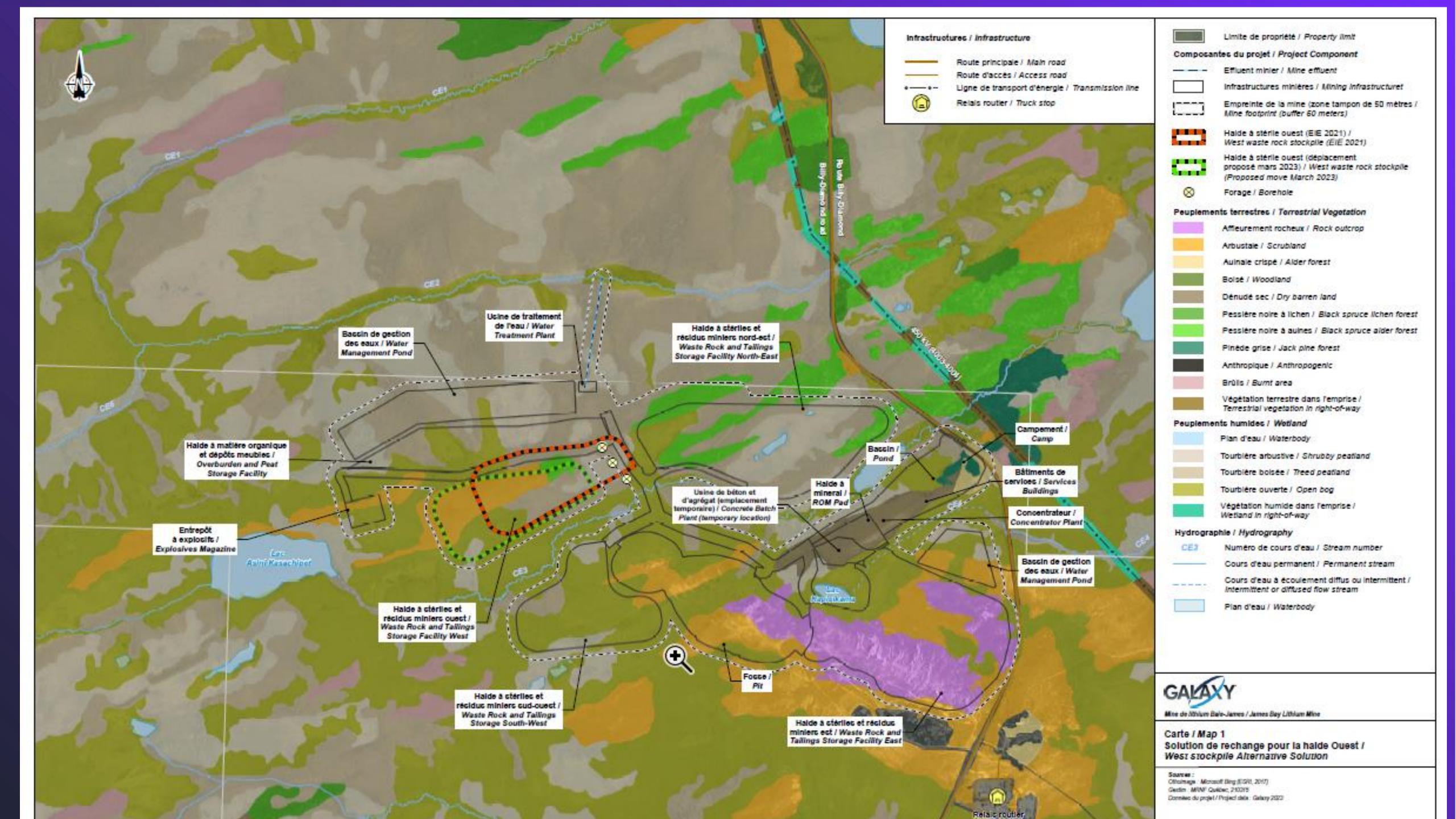




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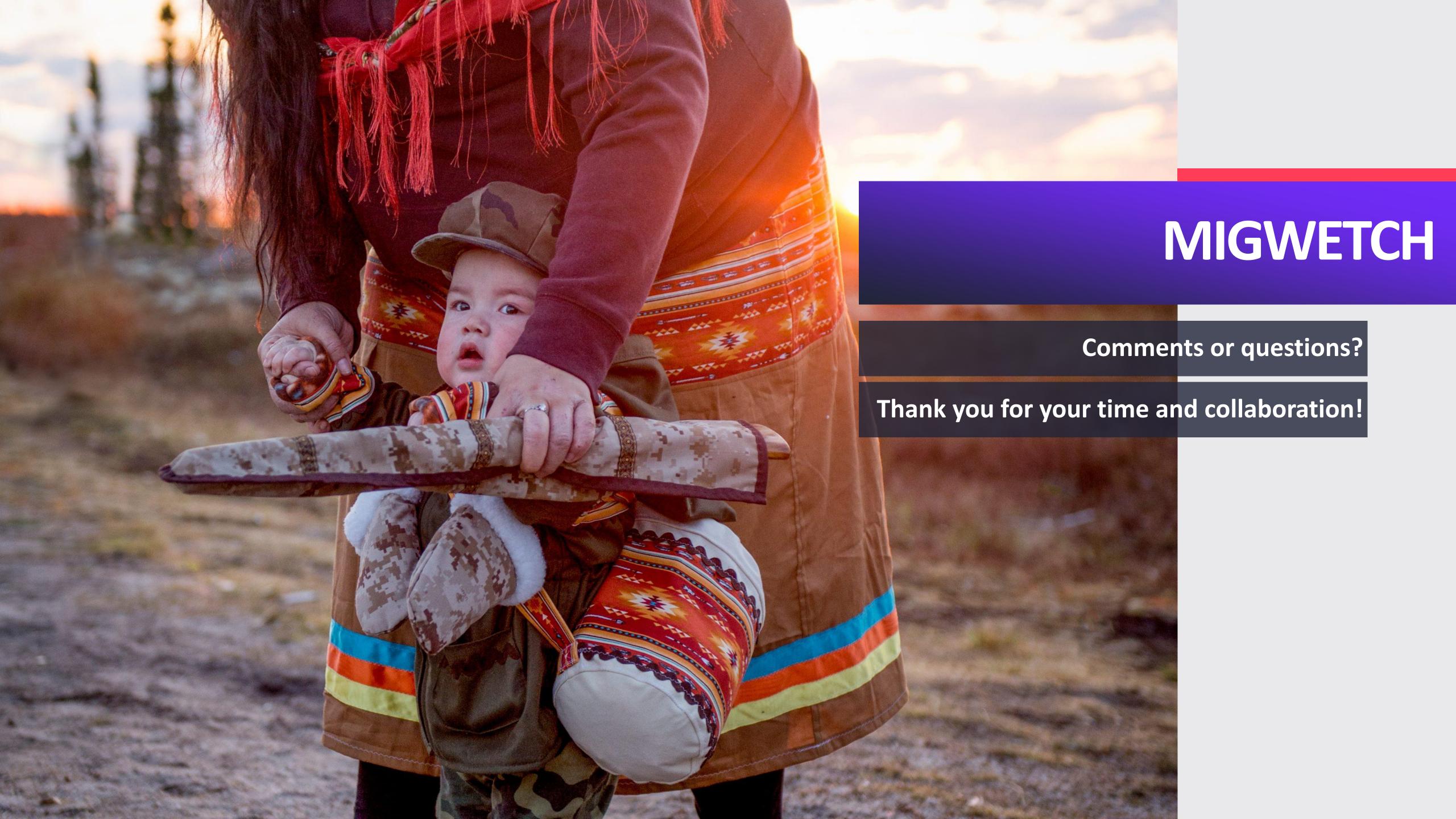
# Impacts

- No additional impact on the environment:
  - Stockpile with the same size/shape;
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  - Additional transport distance is negligeable and located at the farthest distance from the Truck Stop 381 and from the closest harvest zones.
- No additional impact on water management.
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SUBJECT:	Consultation with the Community of Eastmain regarding the West			
DATE:	Stockpile Alternative Solution  June 26 <sup>th</sup> , and June27th 2023  TIME: All days		All days	
SITE:	Individual Meeting	LOCATION:	Eastmain	
	Billy Gilpin	Roger Weapenicappo	Chief Shanoush	
	Shania Moses	Martina Cheezo	Shirley Moses	
ATTENDEES (Names):	Greg Williams	Mark Stewart loyce	Sydne Odjich	
	Betty Tomatuk	Demerise Mayappo	Namagose Dawn	
	Alvin Cheezo	Gregory Mayappo	Mercedes Tomatuk	
ALLKEM	Christelle Faivre			
REPRESENTATIVES:				
DISTRIBUTION:	All the Eastmain Community group			

# PURPOSE OF THE MEETING

The purpose of these individual meetings is to share some new information with the community of Eastmain on an alternative solution for the location of the West Stockpile. The condemnation drillings that took place back in 2022 showed a potential presence of spodumene under the West stockpile. To avoid this potential spodumene zone, we suggest moving the West stockpile by only 262 meters West-South-West from the original proposed location. Please refer to the "2023-06\_West Stockpile Alternative Solution" for more information.

15 individual meetings have been conducted.

This document was sent also through the Elders association, the WEDC organization, the CNE organization, the Youth, and the Cree Trapper Association via local employees.

Radio has been used to announce the event too and we sent email through our list of contacts

ITEM	QUESTIONS/COMMENTS	ANSWERS
1.	What did you find as minerals in the 3 boreholes?	Condemnation drillings performed in 2022 have shown the presence of lithium pegmatite.
2.	Is it the same as the deposit?	Yes, it is the same grade.
3.	What kind vegetation is impacted?	It is Scrubland and Open bog. Please see the presentation slide 6.



4.	General comments: it is a small change.	
5.	Other questions	
6.	When will the project start?	For now, we don't know. We are waiting the ESIA approval.
7.		
8.		
9.		
10.		
11.		
12.		
Comment	s	

2



SUBJECT:	Consultation with the Community of Eastmain regarding the West Stockpile Alternative Solution		
DATE:	June 27th 2023	TIME:	2:00 pm to 3:00pm with the Tallyman Brian Weapenicapo and Waylon 3:00 pm to 4:00 pm Community Meeting
SITE:	Sports Complex – Eastmain	LOCATION:	Eastmain
	2:00 pm Brian Weapenicappo	2:00 pm Waylon Weapenicappo	
ATTENDEES (Names):	3:00 pm Roderick Mayappo	3:00 pm Sidney Weapenicappo	3:30 pm Lindy Spencer
ATTENDEES (Names).	3:00 pm Denise Brown		
ALLKEM	Christelle Faivre	Denis Couture	
REPRESENTATIVES:			
DISTRIBUTION:	All the Eastmain Community group		

# PURPOSE OF THE MEETING

The purpose of these individual meetings is to share some new information with the community of Eastmain on an alternative solution for the location of the West Stockpile. The condemnation drillings that took place back in 2022 showed a potential presence of spodumene under the West stockpile. To avoid this potential spodumene zone, we suggest moving the West stockpile by only 262 meters West-South-West from the original proposed location. Please refer to the "2023-06\_West Stockpile Alternative Solution" for more information.

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ITEM	QUESTIONS/COMMENTS	ANSWERS
1.	Is it only on the three boreholes that you find some minerals?	Yes, it is only on the 3 boreholes on the map that spodumene has been found.
2.	It is very small change	



3.	OTHERS QUESTIONS:			
4.	What is the next step after this consultation?	Last week, Allkem received a list of questions/commitments from the COMEX which we must answer. The COMEX will meet in July to analyze the information. Today's consultation was one of the activities to be carried out.  The ESIA is not currently approved or issued to Allkem, and neither is the IBA. Following the approval of ESIA, and IBA, Allkem will have to apply for all its construction permits.		
5.	As far as training is concerned, will Allkem give training to Eastmain?	Allkem will provide health and safety training at the site in its induction program, but this is not educational training. Every month, the CSB, CNE, WEDC organizations meet to determine the relevant training to have on-site training, but also students. Currently the challenge is to find a training place for some of its training. WEDC for Cree Jobs to Offer Pre-Employment Program		
6.	Do you plan to make a presentation of the Cree jobs available for construction?	Yes. Following the approval of ESIA and IBA, specific meetings on posts may be held in collaboration with WEDC. Additionally, WEDC will develop a Cree Workforce for the construction.		
7.	How do I apply for a future job in the construction phase?	Contact WEDC. They will look for people in different areas of construction but also in administration, warehouse, carpenter, driver, camp management, etc.		
8.	Is it necessary to have a qualification for the construction period?	Not necessarily. Talk to WEDC. We will look at the person's experience as well.  There will be accompaniments with companies on site.		
9.	If I want a contract, how do you do it?	As we have always discussed, please go to meet the WEDC.		
10.	Will some of the type of work be contracted? or everything will be the company?	Certain services will be contracted but the majority of the work will be carried out by the Company.		

# CONSULTATIONS WASWANIPI



# James Bay Lithium Mine Project

Alternative Solution for the West Stockpile

June, 21th 2023

By Dominique Thiffault, Environment Director (Interim) Christelle Faivre, CR & HSS Director Catherine Lagacé, Community Relations Coordinator

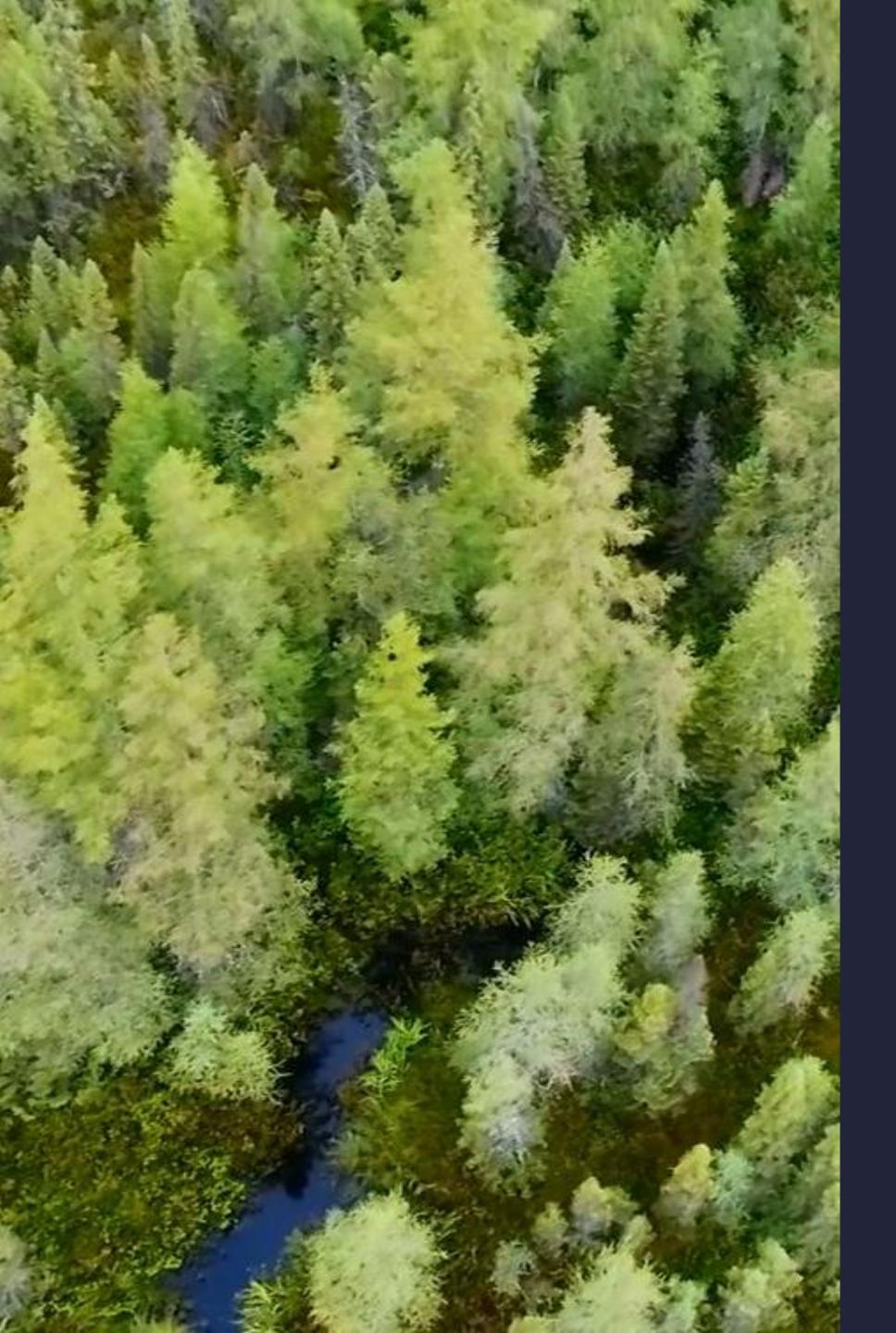




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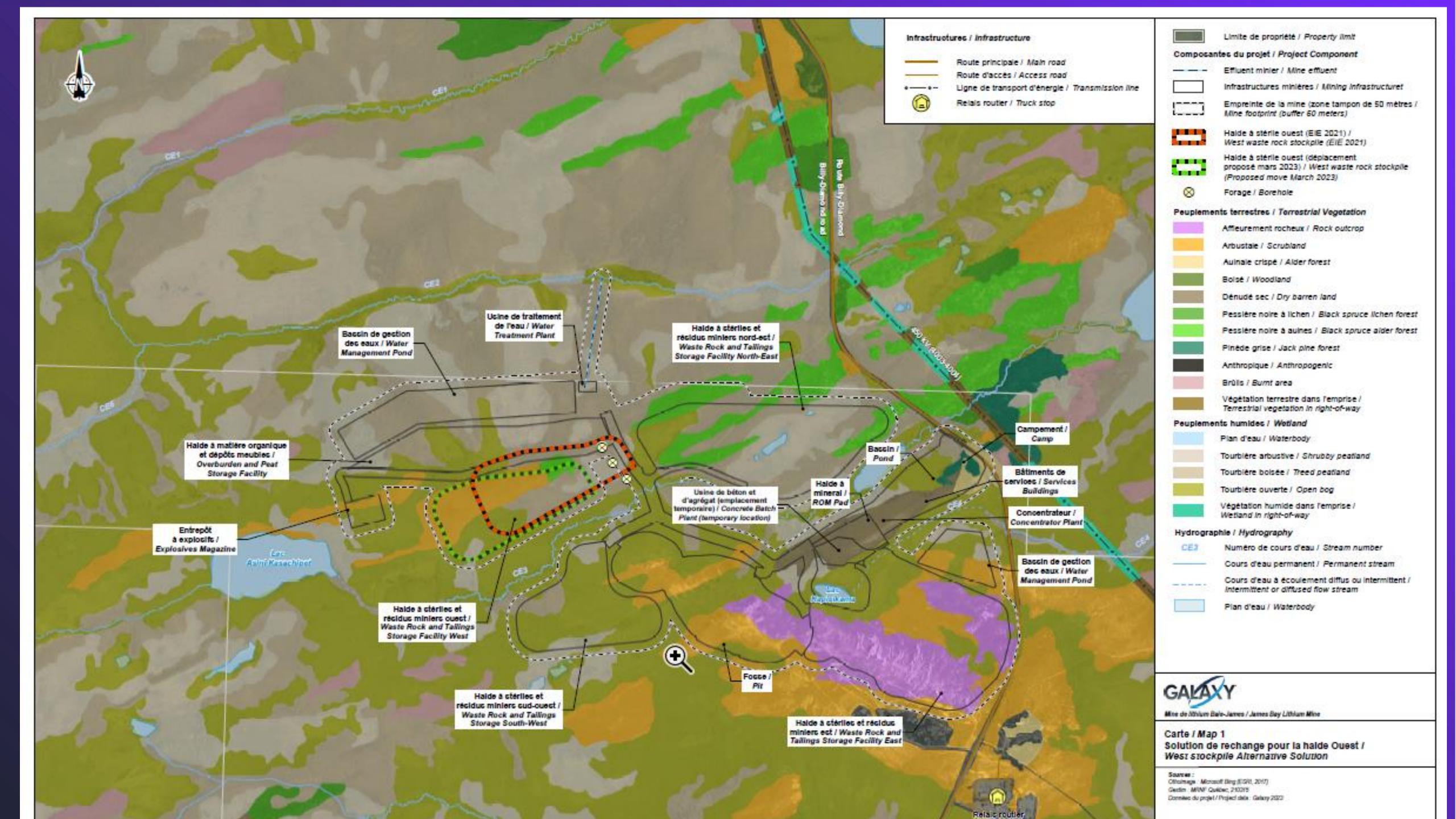




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