

Reviewer Comments and Proponent Responses

Board:	MVLWB
Review Item:	Slave Lake Zinc O'Connor Lake Project - New Type A Licence and Permit Amendment Request (MV2021L8-0008 MV2016C0037)
File(s):	MV2021L8-0008 MV2016C0037
Proponent:	Slave Lake Zinc
Document(s):	Type B Licence Application (0.88 B) Permit Amendment Request Cover Letter (0.42 B) Engagement Plan (0.18 B) Engagement Record (0.27 B) Waste Management Plan (1.04 B) Spill Contingency Plan (2.59 B) RECLAIM Closure Cost Estimate (0.15 B) Closure and Reclamation Plan (1.40 B) Draft Licence Conditions (0.61 B) Draft Permit Conditions (0.31 B)
Item For Review Distributed On:	June 28, 2021 11:32 AM Distribution List
Reviewer Comments Due By:	August 9, 2021
Proponent Responses Due By:	August 16, 2021
Item Description:	Slave Lake Zinc (the Applicant) submitted a complete application for a type B water licence (licence). The purpose of this Application is to conduct mineral exploration activities at O'Connor Lake including diamond drilling, airborne/geophysical survey prospecting, sampling (mechanized and by hand), and operation of a seasonal temporary 49-person camp. The Applicant has requested a licence term of five years.

The Applicant has also submitted a request to amend Land Use Permit MV2016C0037. The Applicant is requesting that the amendment allow for increasing the amount and type of equipment used on site, and increasing the amount and type of fuel.

Using the Online Review System (ORS), reviewers are invited to submit comments and recommendations on the documents linked below by the review comment deadline specified. Reviewers may also wish to consider providing an overarching recommendation regarding whether the Board should approve the submission, to provide context for the comments and recommendations and assist the Board with its decision. Notices of intent to file a claim for water compensation must also be submitted by the review comment deadline. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.

Under the Preliminary Screening Requirement Regulations, the Board must conduct a preliminary screening for a proposed development, unless it is exempt from preliminary screening in accordance with the Exemption List Regulations. Reviewers are encouraged to provide comments and recommendations (e.g., on impacts and mitigation measures) to assist with the Board's preliminary screening determination.

A draft Licence has been developed by Board staff, using the MVLWB's current Standard Water Licence Conditions Template, to allow reviewers to comment on possible conditions. These draft materials are not intended to limit in any way the scope of reviewers' comments. The Board is not bound by the contents of the draft Licence and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties.

A draft Permit has been developed by Board staff to allow reviewers to comment on possible amended conditions. The conditions that are not affected by the amendment will not be changed. These draft materials are not intended to limit in any way the scope of reviewers' comments. The Board is not bound by the contents of the draft Permit and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties.

Please be advised that comments made by reviewers regarding impacts of this project to wildlife and wildlife habitat in this preliminary screening will inform the GNWT Minister of Environment and Natural Resources' determination regarding whether a Wildlife Management and Monitoring Plan will be required for this Project as per section 95 of the Wildlife Act.

All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below.

Contact Information:

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MVLWB – Kimberley Murray					
No	Topic	Reviewer Comments	Reviewer Recommendations	Proponent Response	Board Staff Analysis
1	Construction Material - Geochemical Criteria	Can Slave Lake Zinc discuss whether on-site materials will be used for construction? If yes, could Slave Lake Zinc comment on whether there are any potentially-acid generating (PAG) material identified on site and what geochemical criteria Slave Lake Zinc will use to classify acceptable material for use in construction. This information is required for drafting Licence Conditions.	Slave Lake Zinc to comment about whether on site material will be used for any construction. If so, provide the geochemical criteria if there are potentially-acid generating material on site.	SLZ: NO ON-SITE MATERIALS ARE EXPECTED TO BE USED FOR CONSTRUCTION ACTIVITIES.	
2	Artesian Aquifer	If an Artesian Aquifer is encountered while drilling, how will Slave Lake Zinc manage the Water?	Slave Lake Zinc to describe the management of an artesian aquifer, if encountered while drilling.	THE DRILL COMPANY WILL BE INSTRUTED TO STOP OR REDUCE THE DISCHARGE OF WATER FROM WITHIN THE CASING BY CAPPING THE CASING.	
3	Water Supply Facilities	For camp domestic water use, is treatment of water required before use (e.g., for drinking)? If so, please comment on the treatment system and the management of the backwash water filter. This may have	Slave Lake Zinc to clarify if water requires treatment prior to camp domestic use and the management of the backwash water filter.	BOTTLED WATER WILL BE PROVIDED FOR HUMAN CONSUMPTION	

		implications for the Waste Management Plan.			
CIRNAC – Inspectors: Devin Penney					
No	Topic	Reviewer Comments	Reviewer Recommendations	Proponent Response	Board Staff Analysis
1		Security Amount	CIRNAC believes that the security for both the Land Use Permit and Water Licence should be set at \$148,000.00. To account for the reclamation of the site. This amount will cover cost associated with demobilization from site.	SLZ: agrees	
GNWT-ENR (Environment and Natural Resources): Patrick Clancy					
No	Topic	Reviewer Comments	Reviewer Recommendations	Proponent Response	Board Staff Analysis
1	Slave Lake Zinc O'Connor Lake Project	ENR Cover Letter	N/A		
2	Topic: Waste Management Plan – Off-site Waste Disposal	On the MVLWB public registry for MV2021L8-0008, email correspondence is posted as evidence that the City of Yellowknife will accept non-combustible waste generated by the project. ENR notes the email correspondence is from 2017. The basis to accept non-combustible waste was made on the basis of a maximum ten person camp, instead of the newly requested maximum 49 person camp that is currently proposed.	1) ENR recommends Slave Lake Zinc provide proof of acceptance of non-combustible waste by a waste receiver, that is based on the current project proposal, specifically a 49 person camp. 2) ENR recommends Slave Lake Zinc provide proof of acceptance of hazardous waste from a hazardous waste receiver prior to generating hazardous waste	SLZ has requested a new letter from the city of Yellowknife	

		ENR also notes that this correspondence does not include acceptance of hazardous waste; therefore, it isn't clear if a hazardous waste receiver has confirmed acceptance of hazardous waste generated from the project.			
3	Slave Lake Zinc O'Connor Lake Project	Letter to the Proponent	To be read by the proponent	read	
4	Topic: Waste Management Plan – Table 2.1	Table 2.1 of the Waste Management Plan appears to be cut off on the right hand side. ENR notes the length of time to generate the estimated volumes of each waste type in Table 2.1 isn't clear. For example, Table 2.1 estimates less than 289m3/day of drilling greywater with an estimated volume of 479m3. The frequency of generating 479m3 isn't clear.	1) ENR recommends Slave Lake Zinc confirm whether additional information in Table 2.1 was omitted and amend the table as necessary. 2) ENR recommends Slave Lake Zinc amend Table 2.1 to clarify the time interval (e.g. annual) during which the estimated volumes of waste in Table 2.1 are expected to be generated.	THIS WAS A FORMATTING ISSUE. NO ADDITIONAL INFORMATION IS INCLUDED	
5	Topic: Waste Management Plan – Table 2.1 and 2.2	Section 2.2 of the Waste Management Plan refers to Tables 1 and 2 which outline a summary of expected hazardous and non-hazardous wastes. However, the tables following this statement are Tables 2.1 and 2.2.	1) ENR recommends the reference to tables in Section 2.2 be amended to correspond to the correct tables.	SLZ: this has been corrected	

6	Topic: Waste Management Plan – Table 2.2	Table 2.2 of the Waste Management Plan identifies examples of hazardous wastes and pollutants that could be generated at site. However, it would be helpful if this table indicated estimated quantities that could be generated in a given time (e.g. annually).	1) ENR recommends Table 2.2 identify the estimated quantities of each hazardous waste type that could be generated in a given time (e.g. annually).	.SLZ this has been included in the updated Spill Contingency Plan	
7	Topic: Waste Management Plan & Spill Contingency Plan – Minimum Distance from Waterbodies	The Waste Management Plan states: “The hazardous waste storage area will be located adjacent to the main fuel cache, away from any structures and a minimum of 31 metres from the normal high-water mark of any water body.” Whereas the Spill Contingency Plan states: “All fuel will be no closer than the regulated distance from the normal high-water mark of any area water bodies (>100 metres)”. ENR notes these two statements might be contradictory. If the hazardous waste storage area is adjacent to the fuel cache, as described in the Waste Management Plan, then this would be >100 metres from any waterbody according to the Spill Contingency Plan. However, the Waste Management Plan only	1) ENR recommends Slave Lake Zinc update the Waste Management Plan to be in accordance with the Water Licence condition that the Licensee shall not establish any fuel storage facilities or refuelling stations, or store chemicals or Wastes within 100 metres of the Ordinary High-Water Mark of any Watercourse, once issued. Otherwise, ENR recommends Slave Lake Zinc provide rationale for a distance less than 100 metres that should be included in the Water Licence.	SLZ: this has been updated	

		<p>commits to a minimum of 31 metres from any waterbody. Finally, Part H, Condition 7, of the draft licence, which is a standard condition, requires that “The Licensee shall not establish any fuel storage facilities or refuelling stations, or store chemicals or Wastes within 100 metres of the Ordinary High-Water Mark of any Watercourse”.</p>			
8	Topic: Spill Contingency Plan – Spill Kit	<p>Section 2.5 of the Spill Contingency Plan states: “With this will be included, one (1) spill kit at each drill and one(1) spill kit at the main storage area, and one (1) drill kit at the helicopter pad proximal to camp.”</p> <p>ENR notes that it isn’t clear if the “drill kit” at the helicopter pad was meant to be a “spill kit”, or if this is a different type of kit.</p>	1) ENR recommends Slave Lake Zinc clarify what is meant by a “drill kit”.	SLZ: this has been corrected	
9	Topic: Spill Contingency Plan - Reporting Procedure	<p>Bullet 4: Complete the NT-NU Spill Report Form and send/fax the report to the NT-NU 24 Hour Spill Report Line (867)873-6924 FAX</p>	1) NT-NU Spill Report Line no longer can receive faxes, as the fax line has been discontinued. Recommend removing faxing option and adding email to spills@gov.nt.ca. Forms can also be obtained from online at the	SLZ: this has been updated	

			following link: https://www.enr.gov.nt.ca/sites/enr/files/resources/spill_report_form_e_fillable.pdf		
10	Topic: Spill Contingency Plan – Appendix 1 NT-NU Spill Report	In reference to the “Old Form”.	1) ENR recommends updating the old form to the new version.	SLZ: this has been updated	
11	Topic: Spill Contingency Plan – Map	The Spill Contingency Plan should include a map that identifies the following: <ul style="list-style-type: none"> • all infrastructure at site, • waterbodies • direction of water flow on land and in water • storage locations of hazardous material • spill response equipment • environmentally sensitive areas • topography (e.g. slope of land) 	1) ENR recommends the Spill Contingency Plan be updated to include a map that identifies the components noted in the comment.	SLZ: map has been included	
12	Topic: Draft Water Licence – Sewage	The draft Water Licence does not include the standard definition of ‘greywater’.	1) ENR recommends the Water Licence include the standard definition of ‘greywater’.	SLZ; agrees	
13	Topic: Draft Water Licence – Construction Material	In the draft Water Licence, Part E, Condition 2 and 5 relate to the establishment of geochemical criteria to determine materials that can be used for construction, and maintaining geochemical records of construction materials. ENR	1) ENR recommends Slave Lake Zinc clarify if PAG material has been identified on-site.	SLZ: NO PAG has been identified	

		notes the rationale for these standard conditions relate to the circumstance when potentially-acid-generating (PAG) materials have been identified on-site, and the Licensee will be using geochemical criteria to classify acceptable materials for use in Construction.			
14	Topic: Waste Management Plan – Discharge of Waste	Table 2.1 of the Waste Management Plan identifies that camp greywater will be disposed into sumps located adjacent to the camp at a minimum distance of 31 m from nearby water sources, and that drilling greywater will be disposed into a sump located adjacent to the drillhole at a minimum distance of 31 m from a nearby water source. However, Part F, Condition 9 states: “The Licensee shall not discharge Waste, including Wastewater, to any Watercourse, or to the ground surface within 100 m of the Ordinary High-Water Mark of any Watercourse.”	1) ENR recommends the Waste Management Plan be updated in accordance with the Water Licence condition that the Licensee shall not discharge waste, including wastewater, to any watercourse, or to the ground surface within 100 m of the Ordinary High-Water Mark of any watercourse, once issued. Otherwise, ENR recommends Slave Lake Zinc provide rationale for a distance less than 100 metres that should be included in the Water Licence.	SLZ: agrees	
15	Topic: Draft Water Licence – Annual Reporting of	Schedule 1, item h, ii of the proposed draft licence states: “ii. Monthly and annual quantities, in cubic metres, of combustible	1) ENR recommends Schedule 1, item h, ii be clarified as to what is meant by discharged combustible waste.	SLZ: this has been updated	

	Combustible Solid Waste	<p>solid Waste discharged, by location”.</p> <p>ENR notes it isn’t clear what is meant by discharging combustible solid waste since according to the Waste Management Plan, combustible solid waste will be incinerated. It is therefore not clear if the condition is asking for reporting on the amount of material placed into the incinerator or the emissions and ash that are the by-product of incineration.</p>			
16	Topic: Out Dated Guideline	<p>The Waste Management Plan (SLZ - MV2021L8-0008) references an out dated guideline, the Guideline for the General Management of Hazardous Waste (1998) in Section 1.5.2 and Section 2.1.</p>	<p>1) The proponent should use and cite the revised 2017 Guideline for Hazardous Waste Management found at: https://www.enr.gov.nt.ca/sites/enr/files/resources/128-hazardous_waste-interactive_web.pdf</p> <p>2) ENR recommends the proponent updates Sections 1.5.2 and 2.1 to reference the 2017 Guideline for Hazardous Waste Management and ensure the Waste Management Plan follows the updated guidance.</p>	SLZ: agrees	

17	Topic: 2.2 Waste Sources, Page 3	Section 2.2 states that the summary of hazardous and inert wastes expected to be generated from the Project is given in Tables 1 and 2. The following section gives Table 2.1. and 2.2.	<p>1) It is recommended that the proponent revise the Table numbers to coincide with the text.</p> <p>2) The proponent should also identify if the estimated volumes of waste generated are for the entire project duration or for a different duration. For instance, within what time does the project generate 2 m³ incinerator ash?</p>	SLZ: this has been corrected	
18	Topic: 4.2 Incinerator, Page 9	The Plan does not give comprehensive detail for incinerator operation. Information regarding the capacity of the incinerator, use of auxiliary fuel, frequency of incineration at the site, etc. is missing. The Plan also vaguely states that the incinerator produces the 'highest quality of burn'. The statement should be corroborated with the highest temperature reached within the furnace and the corresponding residence time.	<p>1) It is recommended that the proponent state the capacity of the incinerator, the frequency of operation, and the quantity of auxiliary fuel used, if any.</p> <p>2) It is recommended that the proponent revise their statement about burn quality to correlate with incineration temperature, or other system factors that affect the quality of burn.</p>	SLZ: this has been updated	
19	Topic: Nesting Birds	<ul style="list-style-type: none"> On Page 6 of the Application for Type B Water Licence the proponent states that: "Removal 	1) ENR recommends that the Board include Land Use Permit condition(s) requiring the following:	SLZ: agrees	

		<p>of branches and scrub for drill pad and Heli pad construction”.</p> <ul style="list-style-type: none"> • The project poses a risk of damaging or destroying active bird nests or inactive raptor nests during the vegetation removal. 	<ul style="list-style-type: none"> • If nesting areas are encountered during the course of operations, the Permittee shall minimize all activity so as to not disturb them; • The Permittee shall not clear any vegetation or disturb any structures supporting an occupied bird nest or an unoccupied raptor nest, unless authorized by a General Wildlife Permit obtained from ENR; and • The Permittee shall not conduct any activity within the setback distances specified for raptors nests within Table 2-5 of the Northern Land Use Guidelines – Northwest Territories Seismic Operations. 		
20	Topic: Wildlife Abodes	<p>The project involves:</p> <ul style="list-style-type: none"> • Ground disturbance which poses a risk of disturbance or destruction of black bear dens; and • Involves vegetation clearing during summer which may damage or destroy trees that support summer maternity roosts for bats. 	<p>1) ENR recommends that the Board include Land Use Permit condition(s) requiring the following:</p> <ul style="list-style-type: none"> • If dens or maternity roosts are encountered during the course of operations, the Permittee shall minimize all activity so as to not disturb them; • The Permittee shall not clear any vegetation or disturb any 	SLZ agrees	

			<p>structures supporting summer maternity roost of a bat species, unless authorized by a General Wildlife Permit obtained from ENR; and</p> <ul style="list-style-type: none"> • The Permittee shall not conduct any activity within the setback distances specified for active mammal dens within Table 2-5 of the Northern Land Use Guidelines – Northwest Territories Seismic Operations. 		
21	<p>Topic: Disturbance and Harassment of Wildlife</p>	<ul style="list-style-type: none"> • On page 2 of the Water Licence application the project description describes the use of drilling machinery, and on page 6 in the “Potential Project Impacts and Proposed Mitigations” table vegetation clearing is mentioned. These aspects of the project may pose a risk of significant disturbance to big game. • Page 3 of the letter to the Board outlines the addition of helicopter use by the proponent and page 1 mentions “airborne geophysical surveying”. The proponent should be aware that flying at low altitudes could cause stress to big game species in the area. 	None		

22	Topic: Species at Risk	<p>Section 76 and 77 of the Species at Risk (NWT) Act requires the Minister of Environment and Natural Resources to make a submission to the body responsible for assessing the potential impacts of a proposed development, or for considering a Land Use Permit or Water Licence application, and regarding the potential impacts of the proposed development, Permit or Licence application on a NWT-listed or pre-listed species or its habitat. NWT-listed species are those that are on the NWT List of Species at Risk. Pre-listed species are those that have been assessed by the NWT Species at Risk Committee (SARC) but have not yet been added to the NWT List of Species at Risk.</p> <p>The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species; information on these species is available at:</p> <p>https://www.nwt-species-at-risk.ca/SpeciesAtRisk</p>	None.		
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	<ul style="list-style-type: none"> • Northern Leopard Frog – Threatened in the NWT • Wood Bison – Threatened in the NWT • Barren-ground Caribou (excluding the Porcupine herd) – Threatened in the NWT • Little Brown Myotis (bat) – Special Concern in the NWT <p>Potential impacts to the species at risk listed above from the project include sensory disturbance, attraction to operations, disturbance or destruction of habitat, and reduced habitat quality.</p> <p>ENR is satisfied that with application of the specific recommendations contained within other sections of this letter to the Board, within our recommendations submitted to the Proponent, as well as application of the wildlife mitigation and monitoring measures outlined in the Proponent’s LUP/WL amendment application and supporting documents, potential impacts to the species at risk listed above can be avoided or minimized.</p>			
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