



Mackenzie Valley Land and Water Board
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Staff Report

Applicant: Redbed Resources Corp.	
Location: Coates Lake Area, NT	File Number: MV2019J0019
Date Prepared: August 11, 2019	Date of Board Meeting: August 29, 2019
Subject: New Land Use Permit Application	

1. Purpose

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board):

- a) A new Land Use Permit (Permit) Application a submitted by Redbed Resources Corp. (Redbed);
- b) Seek a transboundary determination;
- c) Consider the Applications conformity with the Sahtu Land Use Plan;
- d) Seek confirmation on preliminary screening exemption;
- e) Consider the Waste Management Plan;
- f) Consider the Spill Contingency Plan;
- g) Consider the Engagement Plan;

2. Background

- June 28, 2019 – Application received;
- July 2, 2019 – Application deemed incomplete;
- July 15, 2019 – Additional information submitted;
- July 18, 2019 – Application deemed complete and review commenced;
- August 8, 2019 – Reviewer comments and recommendations due and received;
- August 10, 2019 – Responses due and received;
- **August 29, 2019 – Application presented to the Board for decision; and**
- September 1, 2019 – End of the 42-day timeline.

3. Discussion

Project History

The Redstone property was extensively drilled from 1960-1980 by:

- Redstone Mines Ltd.: geological mapping and 45 diamond drill holes totaling 6,902m;
- Cerro Mining Company of Canada Ltd: 3 diamond drill holes totaling 1,375m; and,
- Shell Canada Resources Ltd.: 8 diamond drill holes for a total of 7,225m.

In 1990 Redstone Mines Limited carried out a complete data review, confirmation mapping, identification of drill targets, and location of potential drill sites. In 2005 Lumina Resources Corp. completed an exploration program and a regional geological evaluation of the Redstone copper belt. Western Copper Corporation acquired Lumina Resources in November 2006 ([MV2005C0005](#)).

The claims and leases were acquired by Copper North Mining following the corporate re-structuring of Western Copper in late 2011. Copper North Mining Corp., through its wholly owned subsidiary Redbed Resources Corp., held the mineral claims and leases that are commonly known as the Redstone Property up until recently. They also hold a Land Use Permit for the establishment of a camp to support non-intrusive mineral exploration ([MV2012J0017](#))

In April 2019 Copper North sold Redbed Resources Corp. to H. Coyne & Sons Ltd.

On June 28, 2019, Redbed Resources Corp. applied for the continued operation of a camp located in the Coates Lake area to support mineral exploration including geological mapping, rock chip sampling, and soil sampling. Work will be based at the Coates Lake camp. All transportation from the camp to the working areas will be by helicopter and all travel on the ground will be on foot.

Fuel required for the exploration program will include:

- diesel, to run the generator and heat the tents;
- Jet A/A-1, for the helicopter and turbine engine fixed wing aircraft;
- unleaded gasoline to run the water pump; and
- propane to heat water and fuel the kitchen stove.

Water will be used for daily camp cooking, laundry and shower needs. Estimated water usage for the camp is 500 litres per day (0.5m³ /day).

A temporary floating dock (“T”-shaped, approximately 4m long, with a 4m wide T, and 1.5m wide decking) will be located on Coates Lake to facilitate loading and unloading of float planes. The dock is constructed and will be installed in accordance with the Department of Fisheries and Oceans Dock and Boathouse Construction Operational Statement. Access to the property is by chartered helicopter or fixed wing aircraft, either float or wheel equipped, from Fort Simpson, Wrigley, Tulita, Norman Wells, or the Cantung Mine. The Coates Lake camp infrastructure also includes an approximately 1,100ft long airstrip located approximately 3.9km south-southeast of the camp that was constructed in the 1960’s. The project takes place ins both the Deh Cho Region as well as the Sahtu Settlement Area.

Redbed has requested a term of five years.

Management Plans

A Waste Management Plan, Engagement Plan, and Spill Contingency Plan were included with the Application. Board staff suggest that these Plans meet applicable guidelines and sufficiently reflect the scope of the proposed activities.

Engagement

An Engagement Record and Engagement Plan were included in the Application. Redbed noted they engaged with the following parties:

- Pehdzeh Ki First Nation
- Nahanni Butte Dene Band

- LiidLii Kue First Nation
- Tulita District Land Corporation
- Hamlet of Tulita
- Town of Norman Wells
- South Nahanni Outfitters Ltd.
- Raven's Throat Outfitters

Engagement commenced April 29, 2019 and continued through to June 17, 2019.

Eligibility

Redbed holds numerous mineral claims in the project area as identified in the application (attached), and is therefore eligible for a permit as per [select one of: subsection 18(a)(i) of the Mackenzie Valley Land Use Regulations:

18) A person is eligible for a permit who

(a) Where the proposed land-use operation is in the exercise of a right to search for, win or exploit minerals or natural resources,

(i) holds the right

Type of Area

This Project is located in a non-federal area.

Transboundary Determination

As outlined in the MVRMA as well as the Board Governance Policy, a transboundary development is one that:

- a) is proposed in more than one area, either a management area or outside any management area, and is sufficiently connected to proposed or existing development activities in a different area, through interdependence or linkage, to be considered as one entity; or
- b) is proposed for one area, either a management area or outside of any management area, is likely to have an impact in a different area.

When considering if a project is transboundary, deliberations need to be made relating to the interdependence as well as the linkage that the project has to the different management areas.

Interdependence is defined as a development that is located, or is to be located, either within a management area or outside of a management area, but the development could not proceed without the use of land or water located in a different area or a deposit of waste is to happen in a different area.

Linkage is determined if the development is to use land or waters or deposit of waste within one management area, or outside a management area where the undertaking is to use land or water within a different area is inevitable or a deposit of waste within a different area is inevitable.

The development as described is to take place within both the Deh Cho Region as well as the Sahtu Settlement Area (Tulita District). The activities that would require a permit are in the Deh Cho Region; however mineral exploration will be taking place in both areas. It is Board staff view that the Application is transboundary as the project as described would not be able to be completed without crossing from the Deh Cho Region into the Sahtu Settlement Area.

Sahtu Land Use Plan Conformity Requirements

As the project is in the Sahtu Settlement Area, the Sahtu Land Use Plan (Plan) must be adhered to and be in conformity with the Sahtu Land Use Plan. Table 1 Conformity Requirement (below) outlines how the Application submitted by Redbed conforms with the Plan.

Table 1: Conformity Requirements

ID Conformity Requirement	Requirement	Response	Permit or Licence condition where the CR is required
CR1	Land use zoning: Activity located within land use zone. Land must be used in accordance with the Land Use Zones.	The proposed activities occur in the Special Management Zone and the Established Protected Area	The eligibility was issued prior to the establishment of the Plan and are therefore defined as a legacy land use (Established Protected Area). The Project will not be withdrawing bulk water and therefore the activities are in conformity with the Land Use Plan (Special Management Zone).
CR2	Community engagement and traditional knowledge: Community organizations and potentially affected community members must be adequately engaged with respect to: <ul style="list-style-type: none">• Proposed activities• Specific locations and issues of concern• Traditional knowledge Land use must be designed and carried out with due regard for community concerns and incorporate Traditional Knowledge.	Engagement commenced April 29, 2019 through to June 20, 2019. This included emails, phone calls and meetings. As this area has been utilized since 2005. Traditional Knowledge study was complete for the previous authorization MV2012J0017(Traditional Knowledge Study page 65). The addition of traditional knowledge and traditional use activities are not deemed to be significant for this application due to historic work and the scope of the project.	Condition 45: Engagement Plan Board staff recommend not requiring a traditional knowledge study at this time and allow for the use of the previous study which was completed in 2012 to meet the conformity. Activities are within the Established Protected Area which is exempt from the Sahtu Land Use Plan When a more substantive application is received (drilling) the requirement of an updated traditional knowledge study would be required. As those activities would trigger a new authorization.
CR3	Community benefits: All applications for land use must demonstrate how residents and communities will benefit from the proposed land use. In	Engagement log indicated that Redbed has been in contact with the Tulita District Land Corporation. Tulita District Land Corporation indicate that if Redbed is to access the site	n/a

	the absence of any definable benefits to residents or communities, benefits to the broader public interest will be considered.	via road they would need an agreement and further discussion. The Tulita District Land Corporation did not request that a Traditional Knowledge be completed at this time.	
CR4	Archaeological sites and burial sites: Land Uses must not be located within 500 m of known or suspected burial sites or within 150 m of suspected archaeological sites unless measures are developed to fully mitigate impacts to the site. In areas where there is a high risk to known or suspected archaeological sites an Archaeological Impact Assessment (AIA) must be conducted prior to the land use activity.	The camp has been established since 2005 and the Project has been in communication with the Prince of Wales Northern Heritage Centre. Work was completed with the Prince of Wales Northern Heritage Centre in support of the 2012 application submission. The information that was submitted in 2012 is still valid and applicable to this application. Distances will be maintained away from areas identified sites.	Addressed under draft land use permit conditions 21-23
CR5	Watershed management: The Land use activity does not substantially alter quality, quantity, or rate of flow for waters that flow on, through, or are adjacent to Sahtu Lands, and, is subject to mitigation measures to minimize potential impacts on surface and groundwater that flow into Conservation Zones, SMZs, or a Proposed Conservation Initiative.	The proposed project will not be drawing water for use as the camp and facilities are located in the Deh Cho Region.	n/a
CR6	Drinking water: Any land use activity that would result in the contamination of surface or groundwater	The proposed activities do not involve the release of contaminants to the environment or activities that will result in negative	n/a

	<p>within community catchments is prohibited. Where there is reasonable potential for any land use activity to affect a downstream drinking water source the community must be informed, and monitoring conducted.</p>	<p>effects to water; therefore, no effects to drinking water in the Sahtu communities or to downstream users are predicted.</p>	
CR7	<p>Fish and wildlife: Land use activities must be designed using the most current information for identified species of interest and species at risk as obtained from ENR, CWS, DFO, PCA, the SRRB, and the local Renewable Resource Councils. Impacts to wildlife, their habitat and migration patterns, and important community harvesting areas must be prevented or mitigated to the extent possible.</p>	<p>The Project will adhere to the following mitigation measures for wildlife and wildlife habitat protection, including, but not limited to:</p> <ul style="list-style-type: none"> • Not directly interacting with water or fish habitat during construction • Adhering to DFO's former Operational Statements, Protocols and guidance to avoid serious harm to fish and fish habitat <p>Once proposed mitigations are applied, Project and residual effects of the development on fish and wildlife are predicted to be low to nil.</p>	<p>Addressed under draft land use permit condition 17 – Habitat Damage</p>
CR8	<p>Species introductions: Land use activities must not result in the intentional introduction of non-native plant and animal species, or of domestic animal species or subspecies, except by special approval by the appropriate authority. All reasonable precautions must be taken to prevent the introduction of non-native species or subspecies.</p>	<p>The Project will have clean equipment when coming to site to ensure that species are not introduced.</p>	<p>Identified in the Application</p>

CR9	Sensitive species and features	The Project is aware of listed species at risk, species under consideration for listing and species of concern through NWT and federal databases.	Addressed under draft land use permit condition 17 – Habitat Damage
CR10	Permafrost: Any land use activity requiring a land use permit or water licence must be designed and carried out in a manner that prevents and/or mitigates adverse environmental impacts	The proposed project does not include intrusive works to be completed, the camp has been on site (in the Deh Cho) since 2005. The work that is done in the Shtu will be non-intrusive.	Addressed under draft land use permit condition 10 – Geological Sampling
CR11	Project-specific monitoring: Any land use activity requiring a land use permit or water licence must include site-specific monitoring, that is sufficient to monitor the effectiveness of the activity's proposed mitigation measures and any impacts to the values in the surrounding area, as defined in the Plan's Background Report, zone descriptions and in discussions with communities.	The Project intends to conduct activities in an environmentally friendly manner. The Project will be removing all the waste to Whitehorse and will have a Spill Contingency Plan on site and the materials to respond to a spill if one should occur. The Project expects to be inspected to ensure adherence to the terms and conditions of the Land Use Permit. If unanticipated effects are present, adaptive management options would be reviewed with regulatory authorities.	Addressed under draft land use permit condition 36 – Spill Contingency Plan
CR12	Financial security	This remains with the Mackenzie Valley Land and Water Board to make the decision.	Addressed under draft land use permit condition under 26(1)(l) – Security Deposit
CR13	Closure and reclamation: All applications for land use must include consideration of closure and reclamation and where appropriate, plans shall be developed in consultation with community	The Project is one which is non-intrusive in nature.	Addressed under draft land use permit condition under 26(1)(o) – Restoration of Lands

	organizations.		
CE14	Protection of special values: Any land use activity proposed within a Special Management Zone, Conservation Zone or Proposed Conservation Initiative must be designed and carried out in a manner that protects, respects or takes into account the values of the zone as directed in the Plan's Zone Descriptions.	Values to be respected and taken into account vary, but typically include fish and wildlife and their habitat, cultural and recreational features, and harvesting areas. The Project has been in communication with the Outfitters in the area.	Addressed under draft land use permit condition 17 – Habitat Damage

Fees

The required Application Fee of \$150.00 was included with the Application.

Term

Redbed has applied for a term of 5 years.

4. Comments

Triggers

The activities as described trigger a Type A permit as per with paragraph 4(b) of the Mackenzie Valley Land Use Regulations:

- (4) No person shall, without a Type A permit, carry on any activity that involves*
- (b) On land within or outside the boundaries of a local government,*
- (ii) The use of a campsite outside a territorial park for a duration of or exceeding 400 person-days,*

No water licence is triggered because there is no direct water use or deposit of waste.

5. Public Review

By August 8, 2019, comments and recommendations on the Application received from five reviewers:

- Fisheries and Oceans Canada;
- GNWT – Environment and Natural Resources;
- GNWT – Lands (Inspector); and
- GNWT – Lands (North Slave Region)
- GNWT Lands.

Redbed responded by August 10, 2019. The Review Summary and Attachments (attached) presents the concerns identified through this review.

There were no concerns identified during the review of this Application.

Preliminary Screening

On June 15, 2012, Copper North Mining Corp. (on behalf of Redbed) applied for a land use permit to reactivate the use of the camp at Coates Lake, NT. The Board conducted and completed a preliminary screening on the proposed project. (attached).

Board staff have reviewed the 2012 application and the 2012 preliminary screening against the current Application before the Board. Board staff have found no differences between the current Application and the application that was submitted in 2012. Board staff are of the opinion this Application for Permit MV2019J0019 falls under the Exemption List Regulations, Part 1, Schedule 1, Section 2 which states:

A development or a part thereof, for which renewal of a permit licence or authorization is requested that:

- (a) Has not been modified; and
- (b) Has fulfilled the requirements of the environmental assessment process, established by the *Mackenzie Valley Resources Management Act*, the *Canadian Environmental Assessment Act* or the *Environmental Assessment Review Process Guidelines Order*.

Draft Permit

The draft Permit (attached) contains recommended conditions based the standard Permit conditions list and reflects concerns and recommendations raised during the public review.

6. Security

Legislative Requirements

The Board may require security as per section 32 of the Mackenzie Valley Land Use Regulations, which state:

- 32(1) The Board may require security to be posted in an amount not exceeding the aggregate of the costs of*
 - (a) Abandonment of the land-use operation;*
 - (b) Restoration of the site of the land-use operation; and*
 - (c) Any measures that may be necessary after the abandonment of the land-use operation.*
- 32(2) In setting the amount of security pursuant to subsection (1), the Board may consider*
 - (a) The ability of the applicant or prospective assignee to pay the costs referred to in that subsection;*
 - (b) The past performance of the applicant or prospective assignee in respect of any other permit;*
 - (c) The prior posting of security by the applicant pursuant to other federal legislation in relation to the land-use operation; and*
 - (d) The probability of environmental damage or significance of any environmental damage.*

Security Estimate Calculations

Redbed completed the Board’s reclamation security worksheet submitted similar information in the Application and determined a total reclamation cost of \$14,306.98. The GNWT-Inspector did not recommend security during the public review however they did provide clarification to the estimate submitted by Redbed. Board staff have completed the reclamation security worksheet and have calculated that the cost to remediate the site would be \$6,629.00. The previous Permit MV2012J0017 did require security to be posted. The table below summarize the differences between these estimates.

Table 2: Board staff’s security estimate:

Line Item	Redbed Estimate	Board Staff Estimate	Notes
Camp (C1)	\$747.60	\$1,477.50	The difference is the classification of tent frames or weather havens as well as the total square metres of temporary structures. In the comments provided by GNWT-Lands the calculation was the same as Board staffs.
Regulated/Hazardous Materials (R1)	\$0.00	\$0.00	-
Hydrocarbon Storage and Transfer (H1)	\$1,819.38	\$1,819.38	-
Land Disturbance (L1)	\$1,040.00	\$1,040.00	-
Equipment (E1)	\$10,700.00	\$200.00	Redbed assumed all fuel is used that is brought on site and all empties removed. This line item is typically used for the establishment of larger storage tanks.
Total	\$14,306.98	\$5,784.52	
There is a difference between the application of the multipliers			

7. Conclusion

The draft Permit conditions are based upon the standard condition list, public review, and Board staff recommendations. Board staff conclude that the conditions contained within this draft Permit should mitigate the potential environmental impacts this development may have on the land and water.

8. Recommendation

Board staff recommend the Board:

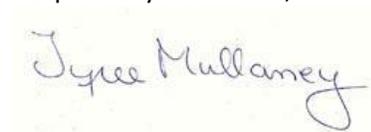
- a) **Make a motion to declare the Application for Land Use Permit MV2019J0017 from Redbed Resources Corp. as transboundary.**
- b) **Confirm the Application for Land Use Permit MV2019J0019 from Redbed Resources Corp. is in conformity with the Sahtu Land Use Plan.**
- c) **Confirm the Application for Land Use Permit MV2019J0019 from Redbed Resources Corp. is exempt from preliminary screening as per the Exemption List Regulations.**
- d) **Make a motion to approve the Type A Land Use Permit MV2019J0019 for a term of 5 years and associated Reasons for Decision.**
- e) **Make a motion to approve the Waste Management Plan as required by Land Use Permit MV2019J0019.**
- f) **Make a motion to approve the Spill Contingency Plan as required by Land Use Permit MV2019J0019.**
- g) **Make a motion to approve the Engagement Plan as required by Land Use Permit MV2019J0019**

A draft decision letter is attached.

9. Attachments

- [Application](#)
 - [Consultation Log](#)
 - [Engagement Log](#)
 - [Engagement Plan](#)
 - [Waste Management Plan](#)
 - [Spill Contingency Plan](#)
 - [Closure and Reclamation Plan](#)
 - [Security Worksheet](#)
 - Fee Receipt
- [2012 Preliminary Screening](#)
- Review Summary and Attachments
- Security Estimate
- Draft Land Use Permit Cover Page
- Draft Land Use Permit Conditions
- Draft Reasons for Decision
- Draft Decision Letter from the Board

Respectfully submitted,



Tyree Mullaney
Regulatory Specialist

Review Comment Table

Board:	MVLWB
Review Item:	Redbed Resources Corp. - New Land Use Permit Application - west of Wrigley - MV2019J0019
File(s):	MV2019J0019
Proponent:	Redbed Resources Corp.
Document(s):	Land Use Permit Application (1.59 MB) Consultation Log (189.17 KB) Spill Contingency Plan (1.96 MB) Waste Management (875.33 KB) Closure and Reclamation Plan (950.52 KB) Security Worksheet (53.45 KB) Updated Waste Management Plan - July (208.46 KB) Engagement Plan (375.27 KB) Engagement Log (1.69 MB) Draft Land Use Permit Conditions (266.55KB)
Item For Review Distributed On:	July 18 at 12:28 Distribution List July 18 at 12:29 Distribution List Aug 1 at 11:48 Distribution List Aug 1 at 13:44 Distribution List
Reviewer Comments Due By:	Aug 8, 2019
Proponent Responses Due By:	Aug 13, 2019
Item Description:	<p>Redbed Resources Corp. (Redbed) has submitted a complete application for a type A land use permit (permit). The purpose of this Application is to establish a camp to support geological investigation in the Coates Lake area.</p> <p>Reviewers are invited to submit comments and recommendations using the Online Review System (ORS) by the review comment deadline specified below. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.</p> <p>Please provide comments and recommendations on the documents linked below. Reviewers may also wish to consider providing an overarching recommendation regarding whether they are in support of the submission, to provide context for comments and recommendations and to assist the Board with its decision.</p> <p>Please note that the draft Permit has been developed using the MVLWB's current Standard Land Use Permit Conditions Template. The purpose of this draft Permit is 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 Permit and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all reviewers.</p>

Contact Information:	<p>Under the Preliminary Screening Requirement Regulations of the Mackenzie Valley Resource Management Act (MVRMA), the Board must conduct a preliminary screening for an application for a proposed development that requires a land use permit, 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 completion of the preliminary screening.</p> <p>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.</p> <p>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.</p>
Contact Information:	<p>Jen Potten 867-766-7468 Tyree Mullaney 867-766-7464</p>

Comment Summary

Fisheries and Oceans Canada: Triage Group Fisheries Protection Program				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Redbed Resources Corp. - Land Use Permit Application Mv2019J0019	<p>Comment The proposal has been reviewed to determine whether it is likely to result in serious harm to fish which is prohibited under subsection 35(1) of the Fisheries Act unless authorized. The proposal has also been reviewed to determine whether it is likely to affect listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the Species at Risk Act, unless authorized.</p> <p>Recommendation Provided that the plans are implemented in the manner, and during the timeframe, described, the Program has determined that the proposal will not result in serious harm to fish or prohibited effects on listed aquatic species at risk. As such, an authorization under the Fisheries Act or a permit under the Species at Risk Act is not required at this stage.</p>	Aug 11: Noted	Noted.

GNWT - ENR - EAM: Central Email GNWT

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
24	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation		Noted.
1	Topic: Industrial and Solid, Liquid or Sewage Waste Disposal	Comment If the Proponents Waste Management Plan or methods of waste disposal indicate that project waste, or industrial waste, will be transported to community infrastructure for disposal, the Proponent should not assume they may deposit industrial wastes, generated outside of community boundaries, in Northwest Territories community Solid and Liquid Waste Disposal Facilities. Recommendation 1) Should the Proponent intend to deposit waste in an NWT community Solid and Liquid Waste Disposal Facility, ENR requests that the Proponent demonstrate in the Waste Management Plan, and to the Board, that the receiving communities' Solid and Liquid Waste Disposal Facility holds a Water Licence that authorizes the disposal of any industrial waste streams originating from outside municipal boundaries. The Proponent should also demonstrate to the Board that the community has been consulted, and has consented in writing, regarding the use of its infrastructure for disposal of the waste streams and quantities in question, and the disposal of such wastes will not contravene the Waters Act or the Environmental Protection Act and related Regulations and Guidelines.	Aug 11: See Redbed Waste Management Plan	Proponent response is satisfactory.
2	Topic: Incineration and Open Burning	Comment The proponent is planning on using an incineration for this project. Recommendation 1) If open burning will be utilized during project activities, only those waste streams identified in the Municipal Solid Wastes Suitable for Open Burning document located on the GNWT ENR website may be open burned without the use of an approved incinerator. The document can be found at the following site. http://www.enr.gov.nt.ca/sites/enr/files/guidelines/solid_wastes_suitable_open_burning.pdf	Aug 11: Noted	Proponent response is satisfactory.
3	None	Comment None Recommendation 2) At any time, or in the event that the Proponent intends to incinerate any	Aug 11: See Redbed Waste	Proponent response is satisfactory.

		waste streams, the Proponent should provide to the Board Incineration Management Strategies that demonstrate that the device and procedures selected are suitable to the waste stream intended for incineration. Otherwise, harmful releases of toxic compounds, will result. Incineration strategies should meet the emissions limits established under the Canada-Wide Standards (CWS) for Dioxins and Furans (CCME 2001), CWS for Mercury Emissions (CCME 2000) and the NWT Ambient Air Quality Guidelines. The Incineration Management Strategies should also include: a) A description of waste streams intended for incineration; b) Selected incineration technology and rationale for selection (the minimum requirement to accommodate complex waste streams should be a dual-chamber, controlled-air incinerator); c) A description of recycling and waste segregation plans that control waste entering the incinerator; d) Operator training and qualifications, and the use of trained and designated operators; e) Procedures for operation and maintenance, including record-keeping (i.e. completion of burn cycle and maintenance logs, and recording of the weight of each waste load charged to the incinerator); f) A reporting requirement to summarize the tracking and record-keeping component; and, g) Weigh scales to record the weight of each load charged to the incinerator; h) Details of emission measurement methods, where applicable.	Management Plan	
4	None	Comment None Recommendation 3) Residual ash from the incineration of non-segregated waste must be tested prior to disposal to ensure that it meets the criteria specified in the NWT Environmental Guideline for Industrial Waste Discharges. Incineration ash can be contaminated with toxic compounds and by-products such as dioxins and furans and should therefore be tested to ensure that it is disposed of in an appropriate and approved manner.	Aug 11: See Redbed Waste Management Plan	Proponent response is satisfactory.
5	Topic: Hazardous Waste Management	Comment All Proponents that generate hazardous wastes must be registered as a generator of hazardous waste in the NWT. The Guideline for the General Management of Hazardous Waste in the NWT defines hazardous	Aug 11: Noted	Proponent response is satisfactory.

		<p>waste and outlines the roles and responsibilities of generators, carriers, and receivers of hazardous waste in the NWT. The ENR, Environment Division (ED) registers generators, carriers, receivers, and tracks the disposal of hazardous waste generated in the NWT to registered receiving facilities on hazardous waste movement documents (manifest). The definition of hazardous waste includes all waste materials that are 'dangerous goods' according to the Transportation of Dangerous Goods Regulations, and any additional waste of special concern that the ED has determined hazardous until proven otherwise, including but not limited to: a) incinerator waste and/or residuals (including bottom ash and fly ash); b) any liquid or solid wastes contaminated with refined petroleum products; c) bilge wastes; d) vehicle or vessel servicing wastes e) drilling wastes; f) produced fluids (Glycol / Hydrocarbon / Inorganic Mixtures); g) tailings; and h) any hydrocarbon, lead, mercury or other forms of contaminated soils. The Guideline for the General Management of Hazardous Waste in the NWT and the Transportation of Dangerous Good Regulations may be found at the following sites: http://www.enr.gov.nt.ca/sites/enr/files/guidelines/general_management.pdf http://www.tc.gc.ca/eng/tdg/clear-menu-497.htm</p> <p>Recommendation 1) If the Proponent is using or generating hazardous waste, they must register as a generator of hazardous waste in the NWT and track the disposal of hazardous waste from the site activities to registered receivers on hazardous waste movement documents provided by ENR. Please contact the Environment Division, ENR to register or for more information contact Mr. Lee Ross, Hazardous Waste Management Specialist, Environmental Protection and Waste Management Division by email (Lee.Ross@gov.nt.ca) or by phone (867) 767-9236 extension 53187.</p>		
6	Topic: Fuel Storage and Spill Contingency	<p>Comment ENR acknowledges the proponent's Spill Contingency Plan. In addition, the Proponent should also follow best practices for fuel storage and spill containment during project activities which may include the following</p>	<p>Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan</p>	<p>Proponent response is satisfactory.</p>

	Planning and Reporting	<p>recommendations.</p> <p>Recommendation 1) To assist in spill contingency planning, information is provided in EPA Spill Contingency Planning and Reporting Regulations found here: https://www.justice.gov.nt.ca/en/files/legislation/environmental-protection/environmental-protection.r2.pdf If clarification or further information is needed please contact the Environment Division, ENR directly to aid in the development of the Plan</p>		
7	None	<p>Comment None</p> <p>Recommendation 2) In accordance with the Spill Contingency Planning and Reporting Regulations Section 10, all spills in accordance with Schedule B must be reported immediately to the 24-hour Spill Report Line (867) 920-8130.</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.
8	None	<p>Comment None</p> <p>Recommendation 3) With respect to the Environmental Protection Act Section 5 (1b) all spills, regardless of amount, must be cleaned up, and contaminated materials disposed of at an approved facility, or in an approved manner. Additionally, as indicated in Section 5(1c) all reasonable efforts must be made to notify any parties affected or potentially affected by the spill.</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.
9	None	<p>Comment None</p> <p>Recommendation 4) Fuel storage areas should be greater than 100m distance from the ordinary high water mark of a water body and not located in a drainage channel.</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.
10	None	<p>Comment None</p> <p>Recommendation 5) All fuel or storage vessels containing hazardous substances left for extended periods of time (including overnight in vehicles), should be stationed in an area that contains sufficient secondary containment (i.e. Drip pans, lined bermed areas, double walled enviro-tanks etc.).</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.
11	None	<p>Comment None</p> <p>Recommendation 6) It is recommended spill kits be provided. Personnel should be trained to ensure that in the event of a spill it is contained and remediated appropriately to industry-accepted best practices and regulatory approval. In case refuelling takes place near water, in</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.

		water spill planning should be considered to prevent inadvertent releases.		
12	None	<p>Comment None</p> <p>Recommendation 7) ENR recommends, for the operator's convenience and increased environmental protection, that all heavy equipment and refuelling vehicles carry portable spill kits that include items such as absorbent pads, containment booms, and spill pool catchment receptacles. Readily available and fully stocked spill kits can effectively mitigate potential spills.</p>	Aug 11: See Redbed Oil and Hazardous Material Spill Contingency Plan	Proponent response is satisfactory.
13	Topic: Wildlife: NWT Listed and Pre-listed Species at Risk	<p>Comment Sections 76 and 77 of the Species at Risk (NWT) Act require 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, respecting 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. The Proponent should be aware that NWT-listed or pre-listed species at risk and their habitat may also be subject to protection under existing sections of the NWT Wildlife Act. As a best practice, ENR encourages the Proponent to consider potential impacts, mitigation measures and monitoring requirements for species at risk listed under the federal Species at Risk Act, as well as those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that may occur in the project area, and the prohibitions that may apply to these species under federal legislation. The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species: . Boreal Caribou - Threatened in the NWT . Barren-ground Caribou - Threatened in the NWT . Grizzly Bear - Special Concern in NWT . Little Brown Myotis (bat) - Special Concern in the NWT . Northern Myotis (bat) - Special Concern in the NWT . Wood Bison - Threatened in the NWT .</p>	Aug 11: Noted	Proponent response is satisfactory.

		<p>Western Toad - Threatened in the NWT Potential impacts to the species at risk listed above from the project include sensory disturbance, attraction to operations, destruction of habitat, risk of injury, risk of mortality, risk of contact with or ingestion of toxic substances, reduced habitat quality, disruption or barriers to movements or migration.</p> <p>Recommendation 1) ENR is satisfied that with application of the specific recommendations contained within other sections of this letter to the Board, and within our letter submitted to the Proponent, as well as application of the wildlife mitigation and monitoring measures outlined in the Proponents Land Use Permit application and supporting documents, potential impacts to the species at risk listed above can be avoided or minimized.</p>		
14	Topic: Cumulative Effects Tracking	<p>Comment Keeping track of the disturbance footprint of development activities is an important component of tracking and informing the management of cumulative effects on wildlife and wildlife habitat.</p> <p>Recommendation 1) The Proponent should submit the bounding coordinates or geospatial data for the proposed project footprint and for the completed project footprint to the Land and Water Board for placement on the public registry. The Mackenzie Valley Land and Water Board Standards for Geographic Information Systems (GIS) Submission 7 should be followed when submitting spatial data.</p>	Aug 11: See Redbed Land Use Permit Application document	Proponent response is satisfactory.
15	Topic: Wildlife Abodes	<p>Comment Subject to sub-section 51(2) of the Wildlife Act, it is illegal to break into, destroy, or damage a den, beaver dam or lodge, muskrat push-up or hibernaculum unless you have an Aboriginal or treaty right or a Permit to do so. Protection of dens, beaver lodges, muskrat push-ups, and hibernacula is essential to ensuring reproductive success and survival of both adults and young.</p> <p>Recommendation 1) The Proponent should conduct pre-activity surveys within 800m of the project footprint to identify active bear dens if project activities will occur between September 30 and March 30. Surveys should be conducted in the fall to detect freshly dug dens.</p>	Aug 11: Noted	Proponent response is satisfactory.

16	None	Comment None Recommendation 2) If an active bear den is detected, or suspected, the Proponent should implement and maintain an 800 m exclusion zone until the bear emerges in spring.	Aug 11: Noted	Proponent response is satisfactory.
17	None	Comment None Recommendation 3) If a bear den and exclusion zone would result in the halt of part or the entire program, the Proponent should contact ENR to discuss alternative mitigation options. The location of active bear dens should be kept confidential between the developer and ENR until after emergence in the spring.	Aug 11: Noted	Proponent response is satisfactory.
18	None	Comment None Recommendation 4) It is recommended that, if encountered, beaver lodges, muskrat push-ups, and hibernacula are not disturbed or damaged.	Aug 11: Noted	Proponent response is satisfactory.
19	Topic: Wildlife Attractants and Waste Management	Comment Subject to sub-section 66(1) of the Wildlife Act no person shall store food, waste, or other substances in a manner that may attract big game or other prescribed wildlife and put people, domestic animals, or wildlife in danger. Subject to sub-section 65(1) of the Wildlife Act, it is illegal to intentionally feed big game, furbearers or other prescribed wildlife. Schedule A - Part 2 of the Wildlife General Regulations sets out the species prescribed as fur-bearers. Recommendation 1) The Proponent should utilize food and garbage handling and storage procedures that will minimize the attraction of wildlife.	Aug 11: Noted	Proponent response is satisfactory.
20	None	Comment None Recommendation 2) The Proponent should store all food, waste, washed recyclables and debris that may attract wildlife within sealed animal proof containers until final disposal.	Aug 11: Noted	See Redbed Waste Management Plan as well as the draft conditions.
21	None	Comment None Recommendation 3) The Proponent should ensure that sealed animal proof containers are cleaned once emptied to minimize the attraction of wildlife.	Aug 11: Noted	See Redbed Waste Management Plan as well as the draft conditions.
22	None	Comment None Recommendation 4) The Proponent should	Aug 11: Noted	See Redbed Waste

		ensure that all grey water (dishwater, showers, laundry, etc.) and black water (sewage) are treated and disposed of in a manner that will minimize the attraction of wildlife.		Management Plan as well as the draft conditions.
23	None	Comment None Recommendation 5) The Proponent should remove all waste petroleum products including used oil filters, rags, scrap metal, discarded machinery, parts, drums, barrels, or plastics to an approved waste disposal facility.	Aug 11: See Redbed Waste Management Plan	Proponent response is satisfactory.

GNWT - Lands - Dehcho Region: Danielle Rogers

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Land Use Permit Application: Fuel Storage pg.8	Comment The proposed airstrip cache has other users in the area. Recommendation Coordinate with the other airstrip users and ensure labeling of caches with Company name.	Aug 11: Noted	Currently a draft condition for the Board to consider.
2	Land Use Permit Application: Potable Water Supply pg.8	Comment With the use of a water pump for withdraw in Coates Lake, Inspectors request proper mitigation measures be used to ensure no hydrocarbons enter the water body. Recommendation Refuelling of water pump occur a minimum of 100 meters from the water body and the water pump be placed within secondary containment.	Aug 11: Noted	Currently a draft condition for the Board to consider.

GNWT - Lands - North Slave Region: Cheryl Larocque

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	LUPA COMMENTS LETTER	Comment (doc) See attached formal response. Recommendation See attached formal response.	Aug 11: Noted	Noted.

GNWT - Lands: Katherine Ades

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Security Worksheet " Site Access Multiplier	Comment The Security Worksheet provided for review has the Security Access Multiplier listed as "1" which is for project sites with all-weather road access. In the Land Use Permit Application document (Section; Camp and Infrastructure; - page 5 of the attached	Aug 11: Noted	Board staff have prepared a draft security worksheet for the Board to

		Project Details) it is stated that Access to the property is by chartered helicopter or fixed wing aircraft, either float or wheel equipped, from Fort Simpson, Wrigley, Tulita, Norman Wells, or the Cantung Mine. Site access is therefore by air, not all-weather road. Recommendation Recommend that the Site Access Multiplier in the Security Worksheet be changed to '2' for air access.		consider with includes the noted brought forward by GNWT – Lands.
2	Security Worksheet Camp; Temporary Structures	<p>Comment In the Land Use Permit Application document (Section; Camp and Infrastructure; page 2 of the attached Project Details) there are a total of 8 temporary structures listed. The Security Worksheet provided for review has a quantity of 3 for tent frames or weatherhaven and 23.04m² of other temporary structures (i.e., core shacks);. The 23.04m² of; other temporary structures; appears to be for the 1 14ft x 16ft wood floor and plywood covered building (20.81m²) and the 1 6ft x 4ft x 4ft generator shack (2.22m²). The plywood covered building is more applicable to the tent frames or weatherhaven category than the other temporary structures (i.e., core shacks) category as it is used to house 2 water tanks, a shower, and other materials. There are also the 3 wood floors without tent frames (2 14ft x 16ft, 1 10ft x 12ft) which are not included in the security worksheet.</p> <p>Recommendation The 14ft x 16ft plywood covered building should be moved to the category of tent frames or weatherhaven; and the 3 wood floors should be added to the other temporary structures (i.e., core shacks) category. This would change the quantities to: 4 tent frames or weatherhaven (total \$800) and 55m² of other temporary structures (i.e., core shacks) (total \$137.50).</p>	Aug 11: Noted	Board staff have prepared a draft security worksheet for the Board to consider with includes the noted brought forward by GNWT – Lands.



August 8, 2019

Jen Potten
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O. Box 2130
Yellowknife, NT
X1A 2P6

Dear Ms. Potten,

**Re: Redbed Resources Corp.
Land Use Permit Application – MV2019J0019
Camp - Geological Investigations - Coates Lake Area
Request for Comment**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories (GNWT) has reviewed the application at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board and the Proponent.

Topic 1: Industrial and Solid, Liquid or Sewage Waste Disposal

Comment(s):

If the Proponents Waste Management Plan or methods of waste disposal indicate that project waste, or industrial waste, will be transported to community infrastructure for disposal, the Proponent should not assume they may deposit industrial wastes, generated outside of community boundaries, in Northwest Territories community Solid and Liquid Waste Disposal Facilities.

Recommendation(s):

- 1) Should the Proponent intend to deposit waste in an NWT community Solid and Liquid Waste Disposal Facility, ENR requests that the Proponent demonstrate in the Waste Management Plan, and to the Board, that the receiving communities' Solid and Liquid Waste Disposal Facility holds a Water Licence that authorizes

the disposal of any industrial waste streams originating from outside municipal boundaries. The Proponent should also demonstrate to the Board that the community has been consulted, and has consented in writing, regarding the use of its infrastructure for disposal of the waste streams and quantities in question, and the disposal of such wastes will not contravene the Waters Act or the *Environmental Protection Act* and related Regulations and Guidelines.

Topic 2: Incineration and Open Burning

Comment(s):

The proponent is planning on using an incineration for this project.

Recommendation(s):

- 1) If open burning will be utilized during project activities, only those waste streams identified in the *Municipal Solid Wastes Suitable for Open Burning* document located on the GNWT ENR website may be open burned without the use of an approved incinerator. The document can be found at the following site.

http://www.enr.gov.nt.ca/sites/enr/files/guidelines/solid_wastes_suitable_open_burning.pdf

- 2) At any time, or in the event that the Proponent intends to incinerate any waste streams, the Proponent should provide to the Board *Incineration Management Strategies* that demonstrate that the device and procedures selected are suitable to the waste stream intended for incineration. Otherwise, harmful releases of toxic compounds, will result. Incineration strategies should meet the emissions limits established under the Canada-Wide Standards (CWS) for Dioxins and Furans (CCME 2001), CWS for Mercury Emissions (CCME 2000) and the NWT Ambient Air Quality Guidelines. The *Incineration Management Strategies* should also include:
 - a) A description of waste streams intended for incineration;
 - b) Selected incineration technology and rationale for selection (the minimum requirement to accommodate complex waste streams should be a dual-chamber, controlled-air incinerator);
 - c) A description of recycling and waste segregation plans that control waste entering the incinerator;
 - d) Operator training and qualifications, and the use of trained and designated operators;
 - e) Procedures for operation and maintenance, including record-keeping (i.e. completion of burn cycle and maintenance logs, and recording of the weight of each waste load charged to the incinerator);

- f) A reporting requirement to summarize the tracking and record-keeping component; and,
 - g) Weigh scales to record the weight of each load charged to the incinerator;
 - h) Details of emission measurement methods, where applicable.
- 3) Residual ash from the incineration of non-segregated waste must be tested prior to disposal to ensure that it meets the criteria specified in the *NWT Environmental Guideline for Industrial Waste Discharges*. Incineration ash can be contaminated with toxic compounds and by-products such as dioxins and furans and should therefore be tested to ensure that it is disposed of in an appropriate and approved manner.

Topic 3: Hazardous Waste Management

Comment(s):

All Proponents that generate hazardous wastes must be registered as a generator of hazardous waste in the NWT.

The Guideline for the General Management of Hazardous Waste in the NWT defines hazardous waste and outlines the roles and responsibilities of generators, carriers, and receivers of hazardous waste in the NWT. The ENR, Environment Division (ED) registers generators, carriers, receivers, and tracks the disposal of hazardous waste generated in the NWT to registered receiving facilities on hazardous waste movement documents (manifest). The definition of hazardous waste includes all waste materials that are 'dangerous goods' according to the Transportation of Dangerous Goods Regulations, and any additional waste of special concern that the ED has determined hazardous until proven otherwise, including but not limited to:

- a) incinerator waste and/or residuals (including bottom ash and fly ash);
- b) any liquid or solid wastes contaminated with refined petroleum products;
- c) bilge wastes;
- d) vehicle or vessel servicing wastes
- e) drilling wastes;
- f) produced fluids (Glycol / Hydrocarbon / Inorganic Mixtures);
- g) tailings; and
- h) any hydrocarbon, lead, mercury or other forms of contaminated soils.

The Guideline for the General Management of Hazardous Waste in the NWT and the Transportation of Dangerous Good Regulations may be found at the following sites:

http://www.enr.gov.nt.ca/sites/enr/files/guidelines/general_management.pdf

<http://www.tc.gc.ca/eng/tdg/clear-menu-497.htm>

Recommendation(s):

- 1) If the Proponent is using or generating hazardous waste, they must register as a generator of hazardous waste in the NWT and track the disposal of hazardous waste from the site activities to registered receivers on hazardous waste movement documents provided by ENR. Please contact the Environment Division, ENR to register or for more information contact Mr. Lee Ross, Hazardous Waste Management Specialist, Environmental Protection and Waste Management Division by email (Lee.Ross@gov.nt.ca) or by phone (867) 767-9236 extension 53187.

Topic 4: Fuel Storage and Spill Contingency Planning and Reporting

Comment(s):

ENR acknowledges the proponent's Spill Contingency Plan.

In addition, the Proponent should also follow best practices for fuel storage and spill containment during project activities which may include the following recommendations.

Recommendation(s):

- 1) To assist in spill contingency planning, information is provided in EPA *Spill Contingency Planning and Reporting Regulations* found here:

<https://www.justice.gov.nt.ca/en/files/legislation/environmental-protection/environmental-protection.r2.pdf>

If clarification or further information is needed please contact the Environment Division, ENR directly to aid in the development of the Plan

- 2) In accordance with the *Spill Contingency Planning and Reporting Regulations Section 10*, all spills in accordance with Schedule B must be reported immediately to the 24-hour Spill Report Line (867) 920-8130.
- 3) With respect to the *Environmental Protection Act Section 5 (1b)* all spills, regardless of amount, must be cleaned up, and contaminated materials disposed of at an approved facility, or in an approved manner. Additionally, as indicated in *Section 5(1c)* all reasonable efforts must be made to notify any parties affected or potentially affected by the spill.

- 4) Fuel storage areas should be greater than 100m distance from the ordinary high water mark of a water body and not located in a drainage channel.
- 5) All fuel or storage vessels containing hazardous substances left for extended periods of time (including overnight in vehicles), should be stationed in an area that contains sufficient secondary containment (i.e. Drip pans, lined bermed areas, double walled enviro-tanks etc.).
- 6) It is recommended spill kits be provided. Personnel should be trained to ensure that in the event of a spill it is contained and remediated appropriately to industry-accepted best practices and regulatory approval. In case refuelling takes place near water, in water spill planning should be considered to prevent inadvertent releases.
- 7) ENR recommends, for the operator's convenience and increased environmental protection, that all heavy equipment and refuelling vehicles carry portable spill kits that include items such as absorbent pads, containment booms, and spill pool catchment receptacles. Readily available and fully stocked spill kits can effectively mitigate potential spills.

Topic 5: Wildlife: NWT Listed and Pre-listed Species at Risk

Comment(s):

Sections 76 and 77 of the *Species at Risk (NWT) Act* require 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, respecting 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.

The Proponent should be aware that NWT-listed or pre-listed species at risk and their habitat may also be subject to protection under existing sections of the NWT *Wildlife Act*.

As a best practice, ENR encourages the Proponent to consider potential impacts, mitigation measures and monitoring requirements for species at risk listed under the federal *Species at Risk Act*, as well as those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that may occur in the project area, and the prohibitions that may apply to these species under federal legislation.

The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species:

- [Boreal Caribou](#) – Threatened in the NWT
- [Barren-ground Caribou](#) - Threatened in the NWT
- [Grizzly Bear](#) – Special Concern in NWT
- [Little Brown Myotis](#) (bat) – Special Concern in the NWT
- [Northern Myotis](#) (bat) – Special Concern in the NWT
- [Wood Bison](#) – Threatened in the NWT
- [Western Toad](#) – Threatened in the NWT

Potential impacts to the species at risk listed above from the project include sensory disturbance, attraction to operations, destruction of habitat, risk of injury, risk of mortality, risk of contact with or ingestion of toxic substances, reduced habitat quality, disruption or barriers to movements or migration.

Recommendation(s):

- 1) ENR is satisfied that with application of the specific recommendations contained within other sections of this letter to the Board, and within our letter submitted to the Proponent, as well as application of the wildlife mitigation and monitoring measures outlined in the Proponent’s Land Use Permit application and supporting documents, potential impacts to the species at risk listed above can be avoided or minimized.

Topic 6: Cumulative Effects Tracking

Comment(s):

Keeping track of the disturbance footprint of development activities is an important component of tracking and informing the management of cumulative effects on wildlife and wildlife habitat.

Recommendation(s):

- 1) The Proponent should submit the bounding coordinates or geospatial data for the proposed project footprint and for the completed project footprint to the Land and Water Board for placement on the public registry. The Mackenzie Valley Land and Water Board’s “*Standards for Geographic Information Systems (GIS) Submissions*” should be followed when submitting spatial data.

Topic 7: Wildlife Abodes

Comment(s):

Subject to sub-section 51(2) of the *Wildlife Act*, it is illegal to break into, destroy, or damage a den, beaver dam or lodge, muskrat push-up or hibernaculum unless you have an Aboriginal or treaty right or a Permit to do so.

Protection of dens, beaver lodges, muskrat push-ups, and hibernacula is essential to ensuring reproductive success and survival of both adults and young.

Recommendation(s):

- 1) The Proponent should conduct pre-activity surveys within 800m of the project footprint to identify active bear dens if project activities will occur between September 30 and March 30. Surveys should be conducted in the fall to detect freshly dug dens.
- 2) If an active bear den is detected, or suspected, the Proponent should implement and maintain an 800 m exclusion zone until the bear emerges in spring.
- 3) If a bear den and exclusion zone would result in the halt of part or the entire program, the Proponent should contact ENR to discuss alternative mitigation options. The location of active bear dens should be kept confidential between the developer and ENR until after emergence in the spring.
- 4) It is recommended that, if encountered, beaver lodges, muskrat push-ups, and hibernacula are not disturbed or damaged.

Topic 8: Wildlife Attractants and Waste Management

Comment(s):

Subject to sub-section 66(1) of the *Wildlife Act* no person shall store food, waste, or other substances in a manner that may attract big game or other prescribed wildlife and put people, domestic animals, or wildlife in danger.

Subject to sub-section 65(1) of the *Wildlife Act*, it is illegal to intentionally feed big game, furbearers or other prescribed wildlife. Schedule A – Part 2 of the *Wildlife General Regulations* sets out the species prescribed as fur-bearers.

Recommendation(s):

- 1) The Proponent should utilize food and garbage handling and storage procedures that will minimize the attraction of wildlife.

- 2) The Proponent should store all food, waste, washed recyclables and debris that may attract wildlife within sealed animal proof containers until final disposal.
- 3) The Proponent should ensure that sealed animal proof containers are cleaned once emptied to minimize the attraction of wildlife.
- 4) The Proponent should ensure that all grey water (dishwater, showers, laundry, etc.) and black water (sewage) are treated and disposed of in a manner that will minimize the attraction of wildlife.
- 5) The Proponent should remove all waste petroleum products including used oil filters, rags, scrap metal, discarded machinery, parts, drums, barrels, or plastics to an approved waste disposal facility.

Comments and Recommendations Directed to the Proponent

The following comments are directed to the applicant of the Land Use Permit and are provided based on ENR's mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act*. The following comments and recommendations are for the information, consideration, and appropriate action of the Proponent and as they are applicable to project activities.

Legislative and Regulatory Requirements

Topic 1: Forest Management

Recommendation(s):

- 1) In order to comply with the *Forest Protection Act* (Sections 10 and 19(1)), the Proponent should adhere to the *Forest Fire Prevention and Suppression Guidelines*. The intent of the Guidelines is threefold. First, industrial operations must be conducted so that they do not contribute to the fire load. Second, industrial operations must be able to control and extinguish any fires that occur as a result of their operations. Finally, industrial operations must be able to respond to wildfires that may affect human life and other property as a result of their operations. The guidelines may be accessed at the following website:

http://www.enr.gov.nt.ca/sites/enr/files/industrial_guidelines_forest_fire_prevention_suppression.pdf

- 2) The *Forest Management Act* and Regulations prohibits anyone from cutting, using or transporting timber, or damaging standing timber unless:

- Authorized with a Timber Permit;
- Authorized by license; or
- Exempted from holding a Permit or license.

The Proponent is requested to contact the local/regional ENR office for further information on obtaining a Forest Management Authorization, if required.

- 3) If the Proponent plans to burn brush or other materials during the official fire season (May 01 – September 30), they will require a Permit to Burn from ENR, as per the *Forest Protection Act* (Section 10(1) and 21).
- 4) The Proponent should be aware of Part 1 Clause 18 of the *Exemption List Regulations* under the *Mackenzie Valley Resource Management Act* in which a burn authorized under a Permit to Burn is exempt from Preliminary Screening if it is not greater than an area of 25 m².
- 5) If the site brush and tree cover is not merchantable then it should be piled up accordingly (and not mixed with soil) so that it can be burned or spread out at a later date. If merchantable wood is involved, either merchantable firewood or saw timber, it should be cleanly set to one side of the operation and made available for recovery. The Proponent should contact the local ENR office to determine what forest management authorization will be required, if any.

Topic 2: Wildlife Abodes

Comment(s):

Subject to sub-section 51(2) of the *Wildlife Act*, it is illegal to break into, destroy or damage a den, beaver dam or lodge, muskrat push-up or hibernaculum unless you have an Aboriginal or treaty right or a Permit to do so.

Protection of dens, beaver lodges, muskrat push-ups, and hibernacula is essential to ensuring reproductive success and survival of both adults and young.

Recommendation(s):

- 1) Contact ENR prior to start-up of project activities to determine if there are any known dens, push-ups, lodges, beaver dams or hibernacula within the project area.
- 2) Prior to start-up of project activities, conduct surveys of lakes or other water bodies proposed to be used for water withdrawal or winter access roads to

determine the presence of muskrat push-ups, beaver lodges or beaver dams. If one or more of these features is found contact ENR to discuss mitigation options.

- 3) Further guidance on different setback distances and timing windows for wildlife abodes are provided in Table 6 of the Northern Land Use Guidelines: Northwest Territories Seismic Operations Vol.9 (a) at:

[http://www.lands.gov.nt.ca/sites/lands/files/resources/nlug_seismic_2015_english - 16 sept 2015.pdf](http://www.lands.gov.nt.ca/sites/lands/files/resources/nlug_seismic_2015_english_-_16_sept_2015.pdf)

Proponents should also check whether there are setback distances and timing restrictions for wildlife abodes within the regional land use plan for their project area.

Topic 3: Advice for NWT Listed and Pre-listed Species at Risk

Comment(s):

Sections 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, respecting 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.

The Proponent should be aware that NWT-listed or pre-listed species at risk and their habitat may also be subject to protection under existing sections of the *NWT Wildlife Act*.

As a best practice, ENR encourages the Proponent to consider potential impacts, mitigation measures and monitoring requirements for species at risk listed under the federal *Species at Risk Act*, as well as those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that may occur in the project area, and the prohibitions that may apply to these species under federal legislation.

The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species:

- [Boreal Caribou](#) – Threatened in the NWT
- [Barren-ground Caribou](#) - Threatened in the NWT

- [Grizzly Bear](#) – Special Concern in NWT
- [Little Brown Myotis](#) (bat) – Special Concern in the NWT
- [Northern Myotis](#) (bat) – Special Concern in the NWT
- [Wood Bison](#) – Threatened in the NWT
- [Western Toad](#) – Threatened in the NWT

Potential impacts to the species at risk listed above from the project include sensory disturbance, attraction to operations, destruction of habitat, risk of injury, risk of mortality, risk of contact with or ingestion of toxic substances, reduced habitat quality, disruption or barriers to movements or migration.

Recommendation(s):

- 1) ENR is satisfied that with application of the specific recommendations contained within other sections of this letter to the Board, and within our letter submitted to the Proponent, as well as application of the wildlife mitigation and monitoring measures outlined in the Proponent's Land Use Permit application and supporting documents, potential impacts to the species at risk listed above can be avoided or minimized.
- 2) For information on NWT species at risk in the project area please consult:
 - <http://www.nwt-species-at-risk.ca/SpeciesAtRisk>
 - <http://www.nwt-species-at-risk.ca/ToolsForDevelopers>
 - [Species at Risk in the NWT - 2016 Edition](#)

The Proponent should be aware of the prohibitions that may apply to the species that occur in your area. Check the *Species at Risk (NWT) Act* regulations webpage (<http://www.nwt-species-at-risk.ca/ToolsForDevelopers>) to see if there are any applicable regulations or agreements with land owners that must be followed for NWT-listed or pre-listed species at risk.

- 3) For information and legislative requirements related to federally-listed species at risk, consult the Species at Risk Public Registry (www.sararegistry.gc.ca) or contact Environment and Climate Change Canada or the Department of Fisheries and Oceans.
- 4) Ensure that employees and contractors are aware of the species at risk that might occur in the project area. This includes species that are pre-listed or listed under the *Species at Risk (NWT) Act*, species listed under the federal *Species at Risk Act*, and species designated as at risk by COSEWIC.

- 5) If species at risk are encountered during project undertakings, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- 6) Monitoring should be undertaken by the Proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, monitoring should include recording the locations and dates of any observations of species at risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the Proponent to avoid contact with or disturbance to the species, its habitat, and/or its residence.
- 7) Submit sightings of species at risk and monitoring information to ENR's Wildlife Management Information System (WMIS) and to other appropriate regulators and organizations with management responsibility for the species as may be necessary at:

<http://www.enr.gov.nt.ca/programs/wildlife-research/wildlife-management-information-services>

Further information on the WMIS can be found at:

<http://www.enr.gov.nt.ca/programs/wildlife-research/wildlife-management-information-services>

Topic 4: Cumulative Effects Tracking

Comment(s):

Keeping track of the disturbance footprint of development activities is an important component of tracking and informing the management of cumulative effects on wildlife and wildlife habitat.

Recommendation(s):

- 1) The Proponent should submit the bounding coordinates, or geospatial data for the proposed project footprint and for the completed project footprint to the Land and Water Board for placement on the public registry. The MVLWB's "Standards for Geographic Information Systems (GIS) Submissions" should be followed when submitting spatial data.

Topic 5: Nesting Birds

Comment(s):

- Conducting activities involving vegetation clearing, ground disturbance or demolition of buildings and other structures during the nesting season increases the risk of contravening paragraph 51(1)(a) of the *Wildlife Act* which prohibits destroying, disturbing, or taking the eggs of a bird or a nest when it is occupied by a bird or its eggs, or destroying, disturbing, or taking the nest of a prescribed bird at any time.
- Protection of nests is essential to ensuring reproductive success and survival of both adults and young.
- The Canadian Wildlife Service of Environment and Climate Change Canada (ECCC) is the responsible management authority for migratory birds protected under the Migratory Birds Convention Act, 1994.

<https://ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1>

- GNWT is responsible for the management of non-migratory birds including raptors.
- Critical breeding periods for NWT raptors can start as early as the 1st week of April and last up until 3rd week of September, depending on the species and location.

Recommendation(s):

- 1) Follow ECCC's Avoidance Guidelines related to incidental take of migratory birds in Canada available at:

<http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=AB36A082-1>)

- 2) Consult ECCC's *General Nesting Periods of Migratory Birds in Canada* for current information on general nesting periods of federally protected migratory birds that occur within the NWT. Available at:

<http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=4F39A78F-1>

- 3) Contact ENR, Wildlife Division for information on critical breeding periods for raptors and/or known raptor nest sites in the project area.

- 4) Conduct vegetation clearing and any new ground disturbance outside of the nesting season for birds in the project area.
- 5) If active nests are encountered during project activities implement protective buffer zones described in the regional land use plan, Table 6 of the Northern Land Use Guidelines – Seismic) or ECCC’s Recommended *Buffer Zones and Setback Distance* available at:

http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=8D910CAC-1#_03_1_1

Topic 6: Wildlife Disturbance and Harassment

Comment(s):

Unless authorized by a Licence or Permit, paragraphs 52(a) and (b) of the *Wildlife Act* prohibit engaging in an activity that is likely to result in significant disturbance to big game or other prescribed wildlife, or to unnecessarily chase, fatigue, disturb, torment or otherwise harass game or other prescribed wildlife.

Schedule A – Part 1 of the *Wildlife General Regulations*, sets out the species prescribed as big game, and Schedule B sets out prescribed wildlife for the purpose of paragraphs 52(a) and (b) of the *Wildlife Act*.

Disturbance to wildlife from sources such as noise, light, vibrations, and human presence can result in energetic stress, avoidance of key habitat, loss of reproductive fitness, injury or mortality of wildlife. Activities that may cause sensory disturbance to wildlife include vehicle traffic, stationary machinery, noise from blasting, excavation, crushing, seismic testing, vegetation clearing, and lighting or flaring.

Recommendation(s):

- 1) The Proponent should be aware that no wildlife should be disturbed, chased, or harassed by human beings on foot, in a motorized vehicle, or by aircraft. Unless authorized by a Licence or Permit, paragraphs 52(a) and (b) of the *Wildlife Act* prohibit engaging in an activity that is likely to result in significant disturbance to big game or other prescribed wildlife, or to unnecessarily chase, fatigue, disturb, torment or otherwise harass game or other prescribed wildlife. However, subject to section 55 of the *Wildlife Act* a person may chase wildlife away from a camp or work site if doing so is necessary to prevent injury or death to a person or damage to property.
- 2) Consult the setback distances, flight altitude guidelines and timing windows for wildlife provided in Tables 6 and 7 of the Northern Land Use Guidelines:

Northwest Territories Seismic Operations Vol.9 (a) as they are applicable to variety of land use activities:

[http://www.lands.gov.nt.ca/sites/lands/files/resources/nlug_seismic_2015_english - 16 sept 2015.pdf](http://www.lands.gov.nt.ca/sites/lands/files/resources/nlug_seismic_2015_english_-_16_sept_2015.pdf)

- 3) Consult the approved Land Use Plan, if applicable, that applies to the project area for further guidance on setback distances and timing windows to minimize disturbance to wildlife.
- 4) Wildlife shall be given the right of way at all times.
- 5) Suspend activities temporarily if one or more individuals of a big game species are spotted within five hundred (500) metres of the work site.

Topic 7: Reporting Wildlife Sighting

Comment(s):

Proponents are encouraged to record wildlife sightings and to submit these records to ENR's WMIS. Wildlife sightings data provides useful information for assessing changes in species distribution and the timing and location of different life history events such as migration, denning, nesting, calving, etc.

Recommendation(s):

- 1) Submit information about wildlife sightings (species, date, time, location, number of individuals, sex, behaviour, etc.) to WMIS at WMISTeam@gov.nt.ca. For further information on the WMIS consult:

<http://www.enr.gov.nt.ca/programs/wildlife-research/wildlife-management-information-services>

- 2) Contact the regional ENR office to obtain blank wildlife sightings forms.

Topic 8: Reporting Wildlife Defence/Property Kills and Wildlife Incidents

Comment(s):

Subject to paragraph 57(a) of the *Wildlife Act*, any big game or other prescribed wildlife that is killed to prevent injury or death to a person or damage to property must be reported to ENR as soon as is practicable. Section 7 of the *Wildlife General Regulations* describes what information must be included in the report.

Subject to section 58 of the *Wildlife Act* and sub-section 8(1) of the *Wildlife General Regulations*, any person who accidentally kills or seriously wounds big game or other prescribed wildlife with a motorized vehicle on a highway must report the event to an officer within 24 hours after the incident.

Recommendation(s):

1) Report all sightings of bears in and around the project location to your local ENR office. Any defence of life and property kills must be reported to the appropriate ENR office immediately. Please contact the following Regional Office as required:

- Dehcho Region Wildlife Emergency Line at (867) 695-7433

2) Ensure all field personnel have completed a bear safety training course to decrease the risk of attracting bears to work sites and threats to human safety, learn how to respond to bear encounters, and decrease the risk of wildlife mortality resulting from kills in defence of life and property.

3) Consult the “Safety in Grizzly Bear and Black Bear Country” brochure, available at:

http://www.enr.gov.nt.ca/sites/enr/files/resources/safety_in_grizzly_and_black_bear_country_english.pdf

4) Report to an ENR officer as soon as is practicable any wildlife that is killed to prevent injury or death to a person or damage to property.

5) Report to an ENR officer any big game or other prescribed wildlife that is killed or seriously wounded by a motorized vehicle on a highway within 24 hours after the incident.

6) Reports must include at minimum the name of the person who killed or injured the wildlife, an explanation of the incident, the time, date and location of the incident, the species or quantity involved, and any other information requested by the wildlife officer.

7) Contact the regional ENR office to obtain blank wildlife incident forms.

Topic 9: Wildlife Attractants and Waste Management

Comment(s):

Subject to sub-section 66(1) of the *Wildlife Act* no person shall store food, waste, or other substances in a manner that may attract big game or other prescribed wildlife and put people, domestic animals or wildlife in danger.

Subject to sub-section 65(1) of the *Wildlife Act*, it is illegal to intentionally feed big game, furbearers or other prescribed wildlife. Schedule A – Part 2 of the *Wildlife General Regulations* sets out the species prescribed as fur-bearers.

Recommendation(s):

- 1) Waste being stored on site prior to being transported to a municipal landfill site, or disposed by other methods, must be stored in a manner that minimizes the attraction of wildlife, as it is a violation of *Section 66(1) of the Wildlife Act*. An animal proof, sealed container must be used for storing waste onsite to minimize wildlife being attracted to odours. For reference please refer to the following guidance document “Safety in Grizzly and Black Bear Country”

http://www.enr.gov.nt.ca/sites/enr/files/resources/safety_in_grizzly_and_black_bear_country_english.pdf

- 2) Project personnel should not intentionally feed wildlife or purposefully encourage wildlife to habituate to human presence.

Topic 10: Spill Contingency Planning

Recommendation(s):

- 1) In accordance with the *Spill Contingency Planning and Reporting Regulations Section 10*, all spills in accordance with Schedule B must be reported immediately to the 24-hour Spill Report Line (867) 920-8130.
- 2) With respect to the *Environmental Protection Act Section 5 (1b)* all spills regardless of amount must be cleaned up, and contaminated materials disposed of at an approved facility, and as per *Section 5(1c)* all reasonable efforts must be made to notify any parties affected or potentially affected by the spill.
- 3) ENR recommends, for increased environmental protection, that all heavy equipment and refuelling vehicles carry portable spill kits that include items such as absorbent pads, containment booms and spill pool catchment receptacles. Readily available and fully stocked spill kits can effectively mitigate potential spills.

ENR reminds the Proponent that references to applicable statutes and regulations are to be considered as advice only, and should not be construed as permission to contravene any other applicable statutes and regulations not mentioned in this letter.

Comments and recommendations were provided by ENR technical experts in the Environmental Protection and Waste Management Division, the Wildlife Management Division and the Dehcho Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email patrick.clancy@gov.nt.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Clancy', written in a cursive style.

Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring Section
Environmental Stewardship and Climate Change Division
Department of Environment and Natural Resources
Government of the Northwest Territories



August 7, 2019

Tyree Mullaney
Mackenzie Valley Land and Water Board (MVLWB)
7th Floor, 4922-48th Street
YELLOWKNIFE, NT X1A 2P6

Dear Ms. Mullaney:

Land Use Permit Application: MV2019J0019 – Redbed Resources Corp.
Type of Operation: Campsite
Location: Coates Lake Area

The Government of the Northwest Territories (GNWT) reviewed Land Use Permit Application MV2019J0019 and recommends that the permit be granted.

Our Inspectors Kyle Christiansen and Daniel Rogers will provide their comments and recommendations for your consideration, via the LWB Online Review System before the due date.

Comments received from Territorial Lands Administration indicate there are three leases and two reserves within the proposed area.

Comments received from the Mining Recorder's Office indicate there are 14 active/pending mineral claims within the proposed area; five of which belong to Coureur Des Bois Ltee Ltd and nine of which belong to Redbed Resources Corp. There are also three active mineral leases belonging to Redbed Resources Corp. within the proposed area.

Thank you for the opportunity to comment on this application. Should you have any questions or concerns regarding our comments, please contact our Inspectors, Kyle Christiansen and Daniel Rogers at (867) 695-2626.

Sincerely,

Clint Ambrose
A/Regional Superintendent
North Slave Region

c. Dehcho Region (Fort Simpson), Department of Lands, GNWT

Land Administration (Yellowknife), Department of Lands, GNWT

Mining Recorder's Office (Yellowknife), Department of Industry, Tourism & Investment, GNWT

cml

Land Use Permit Security Worksheet

Application Number: MV2019J0019

Input
Amount Multiplier

Camp (C1)			
DRAFT			
Temporary Structures			
Input number of tent frames or weatherhaven (3.5m x 4.2m)	4	\$200.00	\$800.00
Input number of trailers (3.5m x 15.2m)	0	\$300.00	\$0.00
Input total square metres of other temporary structures (i.e. core shacks)	55	\$2.50	\$137.50
Fixed Structures			
Input total square metres of fixed structures	0	\$25.00	\$0.00
Solid Waste			
COPY			
For non-burnable material, input # of person days per season	360	\$1.00	\$360.00
For burnable material, input # of person days per season	360	\$0.50	\$180.00
Total C1			\$1,477.50

Regulated / Hazardous Materials (R1)			
Based upon on site volume			
Explosives; up to 500 kg (~pallet) dry explosives input 1, if none, input 0	0	\$500.00	\$0.00
Additional Explosives; input total kg >500	0	\$0.50	\$0.00
Drilling Muds (oil based); enter number of 63 m ³ (or equivalent) containers	0	\$1,000.00	\$0.00
Used Oil, Lubes and Antifreeze: enter number of pieces of heavy equipment	0	\$500.00	\$0.00
Other;			

Total R1			\$0.00

Hydrocarbon Storage and Transfer (H1)			
Based upon on site volume			
Gasoline and Diesel			
Enter total volume of gasoline&diesel <25,000 L	1025	\$0.50	\$512.50
Enter total volume of gasoline&fuel > 25,000 L	0	\$0.25	\$0.00
Total Gasoline and Diesel			\$512.50
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	1	25%	-\$128.13
Aviation Fuel			
Enter total volume of aviation fuel < 25,000 L	2870	\$0.50	\$1,435.00
Enter total volume of aviation fuel > 25,000 L	0	\$0.25	\$0.00
Total Aviation Fuel			\$1,435.00
When fuel is within bermed site or has other safety feature, enter 1, otherwise enter 0	0	25%	\$0.00
Total H1			\$1,819.38

Land Disturbance (L1)			
Disturbed Surface Area			
<i>(Developed surface area that may require restoration through the use of scarification, reseeding, fertilizing or other similar techniques)</i>			
Enter number of hectares disturbed	1	\$1,000.00	\$1,000.00
Other Land Disturbances			
Creek Crossings; enter number of creek crossings	0	\$500.00	\$0.00
Off-Road Activities; if any activities are likely, enter 1	0	\$500.00	\$0.00
Sump Factor; enter total area occupied by sumps in m ²	4	\$10.00	\$40.00
Well Factor; enter number of wells.	0	\$25,000.00	\$0.00
Total L1			\$1,040.00

Land Use Permit Security Worksheet (continued)

Application Number: MV2019J0019

**Input
Amount Multiplier**

Equipment (E1)			
Based upon type of equipment			
Enter number of pieces of heavy equipment (i.e. dozer, forklift, large gensets)	0	\$1,000.00	\$0.00
Enter number of drills	0	\$1,000.00	\$0.00
Enter number of light vehicles (trucks, atvs, snowmobiles, boats)	0	\$250.00	\$0.00
Enter number of small generators or pumps	2	\$100.00	\$200.00
Enter number of empty fuel storage tanks	0	\$500.00	\$0.00
Total E1			\$200.00

Security Calculation			
Preliminary Calculation			
Enter amount from C1			\$1,477.50
Enter amount from R1			\$0.00
Enter amount from H1			\$1,819.38
Enter amount from L1			\$1,040.00
Enter amount from E1			\$200.00
Preliminary Calculation, total of above	A		\$4,536.88
Multipliers			
Site Access Multiplier. If the project has all weather road access enter 1, if ice road access enter 1.5, if air access enter 2	B	2	
Performance Multiplier. If applicant has successfully completed the terms of a LUP enter 0.85, otherwise enter 1	C	0.85	
Environmental Risk Factor. If location has high environmental value or unusual environmental risk enter 2. If location is previously disturbed enter 0.75. Otherwise enter 1.	D	0.75	
Calculated Security			
Multiply preliminary calculation (A) by performance multipliers (B, C and D)	E		\$5,784.52
Existing Securities			
List existing associated permits and amount of overlapping security			
Permit: _____			
Overlapping Securities, total of above	F		\$0.00
Final Security Determination			
Subtract overlapping securities (F) from calculated security (E)			\$5,784.52

**DRAFT
COPY**

Comments