



Mackenzie Valley Land and Water Board
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Staff Report

Applicant: Crown-Indigenous Relations and Northern Affairs Canada – Giant Mine Remediation Project	
Location: Giant Mine Site	File Number: MV2019X0007 and MV2007L8-0031
Date Prepared: July 10, 2020	Date of Board Meeting: July 28, 2020
Subject: Type A Water Licence and Type A Land Use Permit	

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 and Water Licence (Licence) Application submitted by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Giant Mine Remediation Project (GMRP);
- b) Consider the Giant Mine Remediation Project Closure and Reclamation Plan;
- c) Consider the Spill Contingency Plan;
- d) Consider the Engagement Plan;
- e) Consider the Waste Management and Monitoring Plan;
- f) Consider the Water Management and Monitoring Plan;
- g) Consider the Erosion and Sediment Management and Monitoring Plan;
- h) Consider the Dust Management and Monitoring Plan;
- i) Consider the Tailings Management and Monitoring Plan
- j) Consider the Aquatic Effects Monitoring Program Design Plan; and
- k) Consider the Wildlife and Wildlife Habitat Management and Monitoring Plan.

2. Background

- October 18, 2007 – Department of Indian and Northern Affairs Canada (DIAND) applied for Type A Water Licence, MV2007L8-0031 to cover the remediation of Giant Mine and ongoing maintenance and monitoring of the site;
- October 26, 2007 – Licence Application deemed complete and distributed for review;
- February 20, 2008 – The Board decided to approve the Preliminary Screening and proceed with the Regulatory Process with the understanding that any impacts of the development on the environment could be mitigated through the imposition of terms and conditions in a Water Licence and that there was not a likelihood of significant adverse impacts on the environment or probable cause of public concern;

- March 31, 2008 – The City of Yellowknife referred Licence Application MV2007L8-0031 to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) for Environmental Assessment;
- June 20, 2013 – MVEIRB released its Report of Environmental Assessment (EA0809-001) for the Giant Mine Remediation Project;
- August 11, 2014 – The Minister of DIAND provided approval of the EA, including modified measures;
- August 20, 2014 – MVLWB requested DIAND to submit an updated Project Description and supporting documents in order to recommence the water licencing process;
- September 5, 2014 – DIAND responded to the Board's request for an updated Project Description and referred to the need to address measures as approved by the Minister prior to recommencing the licencing process;
- August 4, 2017 – Board staff followed up with DIAND for an update on the status of the Project;
- August 18, 2017 – DIAND responded to the Board with a Project update;
- April 1, 2019 – Post-EA Information Package and Land Use Permit Application MV2019X0007 received;
- April 10, 2019 – Post-EA Information Package and Permit Applications deemed complete and review commenced;
- May 30, 2019 – Reviewer comments and recommendations due and received;
- June 25, 2019 – Proponent responses due and received;
- July 9-12, 2019 – Technical session held by Board staff in Yellowknife, NT;
- August 15, 2019 – Notifications for Intent to Claim Water Compensation due;
- September 9-13, 2019 – Closure criteria workshop and second technical session held by Board staff in Yellowknife, NT;
- September 25, 2019 – Preliminary Screening including Project changes since EA0809-001 presented to the Board for decision;
- October 18, 2019 – Claims for Water Compensation due;
- November 7, 2019 – Interventions due;
- November 15, 2019 – CIRNAC-GMRP Responses to Claims for Water Compensation due;
- December 2, 2019 – CIRNAC-GMRP Response to Interventions due;
- December 13, 2019 – Replies to CIRNAC-GMRP Responses to Claims for Water Compensation due;
- January 20-24, 2020 – Public Hearing held before the Board in Yellowknife, NT;
- March 5, 2020 – Draft Water Licence and Draft Land Use Permit conditions distributed for review;
- March 23, 2020 – Reviewer comments on Draft Water Licence and Land Use Permit conditions and Closing Statements due;
- April 17, 2020 – CIRNAC-GMRP comments and responses on Draft Water Licence and Land Use Permit conditions and Closing Statements due;
- May 15, 2020 – Information Request issued to CIRNAC-GMRP;
- May 25, 2020 – Response to Information Requests due and received;
- May 27, 2020 – Information Request Responses distributed for review and comment;
- June 10, 2020 – Comments on Information Request Responses due;
- June 18, 2020 – CIRNAC-GMRP response to comments on Information Request responses due;
- June 29, 2020 – Claims for Water Compensation decisions by the Board; and
- **July 28, 2020 – Final Land Use Permit Issuance decision by the Board and recommendations for the Minister on Water Licence issuance.**

3. Discussion

Project History

The Giant Mine, located in Yellowknife, produced gold from 1948 until 1999. After the mine owner (Royal Oak Mines Ltd.) went into receivership in 1999, the mine was transferred to Indian and Northern Affairs Canada (DIAND). Immediately thereafter, DIAND entered into an agreement by which Miramar Giant

Mine Ltd. continued to operate the mine, with the gold ore shipped offsite for processing from 1999 until 2004. Mining ceased in July 2004 and DIAND again took control of the site. The Giant Mine became "orphaned and abandoned" when Miramar Giant Mine Ltd. was assigned into bankruptcy. DIAND, now Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), has managed the site in a state of care and maintenance since the mine closed in 2004.

Regulatory Procedural History

The surface land lease for Giant Mine, L-3668T, was returned to the GNWT following the operations of the mine. The GNWT subsequently established a reserve in favour of DIAND, Reserve R662T, with the same boundaries as the former lease. DIAND, now CIRNAC, remains in control of the site and has contracted Parsons Canada (Parsons) as the Main Construction Manager (MCM). Parsons will continue the required maintenance and environmental management activities at the Giant Mine Remediation Site. All activities will take place within the boundaries of the former lease L-3668T, with two exceptions: the areas of the former Giant Mine "Townsite", and an area of historic tailings deposition along the north shore of the Yellowknife Bay. These additional areas were added to the reserve lands under DIAND responsibility. The entire Project is located within the limits of the City of Yellowknife. GNWT is a co-proponent with the Government of Canada on the Project, as was established with the signing of the 2005 Cooperation Agreement.

On October 19, 2007 DIAND Contaminants and Remediation Division (CARD) submitted to the MVLWB their Type A Water Licence Application with accompanying Giant Mine Remediation Plan and supporting documents for the remediation of the Giant Mine Site. On February 20, 2008 the Board decided to approve the [Preliminary Screening](#) and proceed with the regulatory process with the understanding that any impacts of the development on the environment could be mitigated through the imposition of terms and conditions in a Water Licence and that there was not a likelihood of significant adverse impacts on the environment or probable cause of public concern. On March 31, 2008, however, the City of Yellowknife [referred](#) Licence Application MV2007L8-0031 to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) for Environmental Assessment (EA) on the basis that the proposed activities to take place during the term of the Water Licence would have, in the City's opinion, an adverse impact on the environment within its municipal boundaries.

Following the City's referral, EA0809-001 was initiated by MVEIRB. On June 20, 2013, MVEIRB released its [Report of Environmental Assessment \(REA\)](#) for the GMRP and on August 11, 2014, the Minister of DIAND provided approval of the REA, including [modified Measures](#). Since 2014, the Project team has worked towards fulfilling the requirements of the 26 Measures set forth in the REA before re-applying for the authorizations needed to complete the Giant Mine Remediation Project. Ongoing site maintenance and stabilization activities have been authorized under the following existing authorizations:

- [MV2012L8-0010](#)
- [MV2016S0016](#)
- [MV2017L8-0006](#)
- [MV2017X0030](#)

On April 1, 2019, the GMRP Team submitted its Post-EA Information Package for Water Licence MV2007L8-0031 and Land Use Permit Application MV2019X0007 to the Board. The activities covered under these authorizations, if issued, should cover all existing activities under the authorizations listed above.

Description of Application

The Post-EA Information Package and Land Use Permit Application submitted by CIRNAC-GMRP included various plans, programs, and reports for the closure and remediation of the Giant Mine Site, including:

- i. New Land Use Permit Application, including an application form, proposed permit conditions, and an Updated Project Description
- ii. Post-EA Information, including water licence information, an Updated Project Description, and proposed licence conditions
- iii. Proposed Surveillance Network Program
- iv. Response to Pre-Engagement Reviewer Comments
- v. Spill Contingency Plan
- vi. Waste Management and Monitoring Plan
- vii. Engagement Plan, Log and Summaries
- viii. Preliminary Screening Document
- ix. Closure and Reclamation Plan, including 29 appendices
- x. Aquatic Effects Monitoring Program Design Plan – Baker Creek
- xi. Effluent Quality Criteria Report
- xii. Standard Operating Procedures for Effluent and Water Sampling
- xiii. Water Management and Monitoring Plan
- xiv. Conceptual Aquatic Effects Monitoring Program Design Plan – Yellowknife Bay
- xv. Dust Management and Monitoring Plan
- xvi. Erosion and Sediment Management and Monitoring Plan
- xvii. Tailings Management and Monitoring Plan
- xviii. Wildlife and Wildlife Habitat Monitoring and Management Plan

Reviewers comments and recommendations were received on the Post-EA Information Package and Permit Application on May 30, 2019 and CIRNAC-GMRP responded on June 25, 2019. Board staff held a technical session to discuss the GMRP in Yellowknife from July 9-12, 2019 ([see agenda](#)). From September 9-10, 2019 a Closure Criteria Workshop was held by Board staff for the Project ([see agenda](#)), followed by a second technical session from September 11-13, 2019 ([see agenda](#)). The workshop and second technical session were also held in Yellowknife.

Following the submission of Interventions, a Public Hearing was held in Yellowknife ([see agenda](#)) from January 20-24, 2020. A Draft Land Use Permit and Draft Water Licence were distributed for review and comment in March 2020 and comments and recommendations on the draft conditions were due on the same day as each party's Closing Statements. Links to all relevant documents are provided below.

There are three Project phases that have been identified by CIRNAC-GMRP: Existing Condition (Phase 1), Active Remediation and Adaptive Management (Phase 2), and Post-Closure Maintenance and Monitoring (Phase 3). For Active Remediation, CIRNAC-GMRP has identified 12 Project Components:

1. **Underground mine workings** – backfill and stabilize tunnels and shafts, close openings to the surface, maintain the minewater level, and create a long term-term access portal.
2. **Freeze program/Arsenic Trioxide Frozen Shell** – prepare the freeze area and freeze the ground using thermosyphons placed into the ground around the arsenic storage areas.
3. **Open pits and mine workings** – fill or partially fill the pits with clean rock and/or contaminated soils and materials and waste rock.
4. **Contaminated soils and sediments** – excavate and dispose of certain contaminated soils/sediment across the site, cap certain areas where contamination is deep, and develop administrative controls around areas with high arsenic concentration in bedrock, forest and wetlands.

5. **Baker Creek and surface water drainage** – widen Baker Creek flood plain, re-align certain portions of the creek, and remove contaminated sediments along the entire creek.
6. **Tailings Containment Areas (TCAs)** – relocate South Pond tailings to Central and North Ponds, place some contaminated soils in TCAs, place covers over TCAs and contour the surface, construct spillways at the edge of the covered TCAs to drain water from the surface, improve TCA dams, and extend Foreshore Tailings Cover.
7. **Borrow/Quarry material** – obtain borrow material as a by-product of Closure Activities as well as from additional coarse and fine-grained materials that will be sourced from excavation of select locations on the Giant Mine site.
8. **Water Treatment Plant and outfall system** – build a new Water Treatment Plant that will remove more arsenic from water compared to the current Effluent Treatment Plant. The Water Treatment Plant will operate year-round and release treated water through an outfall system (a pipe) into Yellowknife Bay near the mouth of Baker Creek. Currently the Effluent Treatment Plant discharges treated water directly into Baker Creek.
9. **Buildings and site infrastructure** – removal of structures from mining activities, debris and stockpiled waste, utilities, site access roads, and fencing.
10. **Non-hazardous waste landfill** – construct the landfill with one cell for remaining site debris and wastes from the demolition of various buildings and infrastructure and a second cell to contain dewatered sludge from the new Water Treatment Plant.
11. **Contamination downgradient of Dam 3** – Plans for remediation of a historic spill downgradient of Dam 3 is the subject of a Reclamation Research Plan.
12. **Passive/Semi-passive wetland treatment** – Plans for the development of a wetland treatment system in the Baker Pond/JoJo Lake area is the subject of a Reclamation Research Plan.

Preliminary Screening

As per the Preliminary Screening Requirement Regulations of the MVRMA, the Board completed a preliminary screening for the GMRP on the Post-EA Information Package and Land Use Permit Application.¹ Under the *Exemption List Regulations*, the GMRP could have been exempt from Preliminary Screening if it had *not* been modified since the development fulfilled the requirements of the environmental assessment process established by the MVRMA (Screening and EA).

The GMRP Team submitted a [Preliminary Screening Document](#) on April 1, 2019 with their Post-EA Information Package and Land Use Permit Application. In the document, the GMRP Team identified 16 Project “modifications” and three potential Project “modifications” since the 2007 Application. The 16 Project “modifications” identified by the GMRP Team include:

1. Implement a passive freeze system, using a dry method (i.e., a frozen shell).
2. Backfill open pits fully or partially; water diversions/berms and scour protection materials will be installed when needed to reduce risk of water from Baker Creek entering pits. Engineered covers will be installed where needed to protect underground water quality/quantity (Refer to Modification #3 for a discussion of use of contaminated soils as a component of pit fill).
3. Place contaminated soils in A1 Pit (with possible placement in B2 Pit if needed).
4. Re-contour A1 Pit and A2 Pit highwalls.
5. Excavate contaminated sediments in Baker Creek bed and banks down to bedrock or underlying native soils to reduce arsenic loadings to receiving environment.
6. Remediate Townsite/Marina area soils to residential standards.

¹ See the Mackenzie Valley Environmental Impact Review Board (www.reviewboard.ca) for the [Environmental Impact Assessment Guidelines](#), 2004.

7. Partial excavation and covering of Shoreline Lands including shoreline soils and near-shore sediments along Townsite area, to Foreshore Tailings cover.
8. Expansion of remediation efforts of tailings-impacted soil down-gradient of Dam 3 to industrial standards.
9. Fence forested terrain, wetlands, and bedrock areas to encompass area most impacted by Roaster emission fallout, a radius of approximately one kilometer from the roaster.
10. Place a coarse rock cover with a geosynthetic liner over tailings ponds.
11. Relocate South Pond and consolidate in North and Central Ponds to reduce tailings footprint.
12. Minewater will be treated using an ion exchange method to meet the arsenic concentration of 10 µg/L and approved effluent quality criteria (EQC) for all other parameters of concern at the point of discharge.
13. Install a near-shore outfall in the vicinity of Baker Creek.
14. Expansion of onsite borrow areas for required rock material.
15. Install a freshwater intake in Yellowknife Bay.
16. Construction of long-term underground access.

The three potential Project “modifications” identified by the GMRP Team include:

17. Development of a wetland treatment system or use of other passive treatment technology in Baker Creek.
18. Partial controlled raise of the minewater elevation in underground mine workings.
19. Continued research in area north of Dam 3 on North Pond (in addition to Modification #8), to identify whether further remediation efforts in this area would be valuable.

On September 15, 2019, the Board made its [Preliminary Screening Decision](#) on Project modifications it felt had not been previously considered.

Engagement

An [Engagement Plan and Engagement Log](#) were included in the Application. The Engagement Log includes engagement activities that have taken place since 1999 leading up to the April 1, 2019 submissions (until the end of 2018). CIRNAC-GMRP noted they have engaged with the following parties:

- Yellowknives Dene First Nation (YKDFN)
- North Slave Métis Alliance (NSMA)
- Tłıchq Government
- Residents of Yellowknife
- Residents of Ndilo
- Residents of Dettah
- Alternatives North
- Ecology North
- Back Bay Community Association
- The Great Slave Sailing Club
- Fly Kids Foundation
- Yellowknife Historical Society
- Giant Mine Oversight Board (GMOB)
- City of Yellowknife – Administration
- City of Yellowknife – Council
- Department of Fisheries and Oceans (DFO)
- Environment and Climate Change Canada (ECCC)
- Workers’ Safety and Compensation Commission (WSCC)

According to the Engagement Plan and Log, certain key engagement activities that took place since EA0809-001 contributed to reclamation activity decisions made by the GMRP Team. For instance, Surface Design Engagement (SDE) that took place from 2015 to 2017 through eleven focused sessions that provided input into plans for remediating the surface of the mine. Key decisions based on SDE input included, among others, filling the open pits with waste rock and new quarried rock and relocating tailings from the South Pond to consolidate with tailings in the North and Central Ponds.

Management Plans

Most Management and Monitoring Plans associated with Project activities were provided with the Land Use Permit Application and Post-EA Information Package. These include:

- Giant Mine Remediation Project Closure and Reclamation Plan;
- Spill Contingency Plan;
- Engagement Plan;
- Waste Management and Monitoring Plan;
- Water Management and Monitoring Plan;
- Erosion and Sediment Management and Monitoring Plan;
- Dust Management and Monitoring Plan;
- Tailings Management and Monitoring Plan;
- Aquatic Effects Monitoring Program Design Plan; and
- Wildlife and Wildlife Habitat Management and Monitoring Plan.

Additional Plans required by conditions of the draft Licence include:

- Borrow Materials and Explosives Management and Monitoring Plan;
- Arsenic Trioxide Frozen Shell Management and Monitoring Plan;
- Design Plans; and
- Construction Plans.

Security and Project Funding

Section 94 of the MVRMA² excludes Canada and the Territorial Government from the requirement to post security pursuant to section 71 of the MVRMA for land use permits. This same exemption is typically applied to Water Licences for the Federal and Territorial governments.

Nevertheless, many reviewers expressed concerns about the long-term funding to support perpetual care and monitoring at the Giant Mine Site. To meet measure 6 of EA0809-001, GMRP commissioned a Long-Term Funding Report that outlines long-term funding options. In general, Intervenor expressed their disappointment in the Deloitte report during the public hearings and continued to make recommendations to CIRNAC-GMRP for more creative ways to secure funding for the future.

In August 2019, the federal government announced its Northern Abandoned Mine Reclamation Program (NAMRP) designed to invest \$2.2 billion over the next 15 years to remediate high-risk abandoned mine sites in the Yukon and Northwest Territories, including Giant Mine. CIRNAC-GMRP noted that this Program will cover the full implementation cost for the GMRP.

4. Comments

² See [Mackenzie Valley Resource Management Act](#), current to August 28, 2019.

Comments and recommendations were received from Parties on many occasions throughout the Board's regulatory process for the GMRP. Links to the Online Review System (ORS) are provided below. These include reviews on the Land Use Permit Application and Post-EA Information Package:

- [Review 1 of 7 – Land Use Permit Application](#)
- [Review 2 of 7 – Water Licence Post EA Information Package](#)
- [Review 3 of 7 – Management Plans Group 1 \(Standard\)](#)
- [Review 4 of 7 – Preliminary Screening Information](#)
- [Review 5 of 7 – Closure and Reclamation Plan](#)
- [Review 6 of 7 – Management Plans Group 2 \(Water\)](#)
- [Review 7 of 7 – Management Plans \(Other\)](#)

The Parties that participated in the review of the Applications included:

- Alternatives North
- City of Yellowknife
- Ecology North
- Environment and Climate Change Canada (ECCC)
- General Public: Ian McCrea
- General Public: Ryan Silke
- General Public: Yellowknife Climbing Club
- General Public: Yellowknife Historical Society
- Giant Mine Oversight Board (GMOB)
- Great Slave Sailing Club: Charles Jeffery
- Government of the Northwest Territories (GNWT) Education, Culture and Employment (ECE)
- MVLWB staff
- North Slave Metis Alliance (NSMA)
- Slater Environmental Consulting (SEC)
- Yellowknives Dene First Nation (YKDFN)

Following the initial Applicant review, two technical sessions and a Closure Criteria Workshop were held. Each of the technical session resulted in several follow-up Information Requests:

- July Technical Session Information Request Responses
 - [Response to Request GMRP](#)
 - [Response to Request GMRP – Appendix 5](#)
 - [Response to Request ECCC](#)
 - [Response to Request ECCC – Follow up](#)
 - [Response to Request GNWT-ENR](#)
- September Technical Session Information Request responses
 - [CIRNAC Response to Information Request](#)
 - [CIRNAC Response to Information Request – Appendix 5](#)

Interventions for the Public Hearing were received from:

- [Slater Environmental](#)
- [Alternatives North](#)
- [Environment and Climate Change Canada](#)
- [North Slave Métis Alliance](#)

- [Yellowknives Dene First Nation](#)
- [Department of Fisheries and Oceans](#)
- [Yellowknife Historical Society](#)
- [Giant Mine Oversight Board](#)
- [City of Yellowknife](#)

CIRNAC-GMRP Responded to all Interventions:

- [GMRP Response to Interventions](#)

Following the Public Hearing, draft conditions for the Land Use Permit and Water Licence were distributed for review on the ORS. Board Staff attempted, where possible, to address all concerns and discussions through the draft conditions presented.

- [Draft Authorizations ORS Summary Table](#)

The review of these authorizations resulted in one information request to CIRNAC-GMRP. The CIRNAC-GMRP response was also distributed for review:

- [GMRP Response](#)
- [Comment Summary Table](#)

A revised Draft Land Use Permit and Water Licence are provided in this package for the Board's consideration.

5. Review Summaries

Scope and Term of Licence

There are three Project phases that have been identified by CIRNAC-GMRP: Existing Condition (Phase 1), Active Remediation and Adaptive Management (Phase 2), and Post-Closure Maintenance and Monitoring (Phase 3). CIRNAC-GMRP have applied for a 20-year term of Licences to cover the time anticipated to complete Active Remediation plus additional time to account for possible Project delays. The Project timeline presented in the [Updated Project Description](#) shows that it should take an estimated 10 years to complete Active Remediation, once initiated.

During the review of the Applications, particularly through Interventions and at the Public Hearing, interveners identified concerns with the proposed 20-year term. Some concerns reflected the parties' desire to re-hear and re-assess the Project prior to it entering the Post-Closure Phase.

To address some of the concerns associated with the requested 20-year term, Board staff suggested limiting the scope of the Licence to Phases 1 and 2 during the Public Hearing.

The scope of the Licence reflects the triggers identified in Schedule VIII of the Mackenzie Valley Federal Areas Waters Regulations (MVFAWR) for miscellaneous activities that involve the use of Water and/or deposit of Waste on federal lands.³ Board staff suggest that the scope be limited to Phases 1 and 2, as suggested during the Public Hearing. The scope of the Draft Licence was written with the intent of ensuring CIRNAC-GMRP will be entitled to conduct all activities which have been applied for and screened by the Board for Phases 1 and 2 of the Project. Activities that have not been identified in detail (such as open water drilling and winter roads) may require additional applications to the Board.

³ See [Mackenzie Valley Federal Areas Waters Regulations](#), schedule VIII.

Concerns about legacy issues beyond the Project boundaries are the responsibility of the GNWT (the landowner) and outside the scope of these Applications. Similar Projects, including other Remediation projects at the Con Mine and smaller Remediation projects completed by the Contaminants and Remediation Division (CARD) have not been required to address legacy issues beyond the project's scope under the authorizations issued by the Board.

Scope and Term of Permit

CIRNAC-GMRP has applied for a term of five years for the Permit. A Land Use Permit will be required for the duration of the GMRP. Board staff suggest the maximum term of five years is an appropriate term for this undertaking to allow the GMRP to progress through the land use activities, as proposed before needing to apply for an extension or renewal. The scope of the Permit reflects the triggers identified in the Mackenzie Valley Land Use Regulations (MVLUR) for activities on land within the boundaries of a local government. It ensures the Permittee is entitled to conduct activities which have been applied for and screened by the Board. The scope was also developed with the understanding that all existing activities permitted onsite would be covered under this Permit. Upon issuance, CIRNAC-GMRP will be able to apply for a discontinuance of all existing Board-issued authorizations.

Definitions

On May 15, 2020, Board staff issued an Information Request to CIRNAC-GMRP to help clarify the use and definitions of some terms used in the draft Licence. Specifically, the definitions for Contact Water, Surface Runoff Criteria, and the use of the terms Engineered Structure and Engineered/Project Component were discussed. In the draft Licence, Board staff understood Contact Water to include all Waters running off or seeping through Engineered Structures, from which it could encounter Waste or Wastewater, throughout the Project site. CIRNAC-GMRP, however, understood Contact Water to refer to all Waters being captured and managed within the 'Developed Area.' The majority of Engineered Structures being used or Constructed for the Project are found within the Developed Area. The few exceptions (water crossings), remain subject to monitoring under the Site Wide Management and Monitoring Plans.

The definition of Surface Runoff Criteria added to the Licence reflects the intent of the term 'Contact Water Criteria' Board staff used in the draft Licence. The use of Surface Water Criteria more accurately defines the intent of this criteria. Although these criteria will be applied to Water that was previously captured and managed as Contact Water, it is the Project's intent that, through remediation activities (such as engineered covers), the Water will no longer be in contact with Waste and will therefore become Surface Runoff that can flow freely to the receiving environment.

The definitions of Project Component and Engineered Structure in the Licence reflect discussions with CIRNAC-GMRP during the technical sessions and the Closure Criteria Workshop identifying components of the Project in the context of Design Plans, Construction Plans, and Completion Reports. Under the draft conditions, Project Components will require Design Plans for Board approval while Engineered Structures will require Construction Plans. There may be several Construction Plans associated with each Design Plan. The Project Component term refers to all major parts of the GMRP Closure Activities described in the Updated Project Description and the CRP. It includes all works associated with: 1) underground mine workings; 2) freeze/Arsenic Trioxide Frozen Shell; 3) open pit mine workings; 4) contaminated soils and sediments, 5) Baker Creek and surface Water drainage, 6) Tailings Containment Areas; 7) borrow/quarry material; 8) Water Treatment Plant and outfall systems; 9) buildings and site infrastructure; 10) Non-Hazardous Waste Landfill; 11) contamination downgradient from Dam 3; and 12) passive/semi-passive wetland treatment.

The definition of Engineered Structure includes any structure or facility and associated area related to Water Use or the deposit of Waste that is designed and approved by a Professional Engineer. CIRNAC-GMRP have suggested that Borrow sources not be included in the definition of an Engineered Structure since they are already subject to several levels of regulatory review and oversight between the Board and GNWT and, in their view, should not be subject to additional inspections and plans required of Engineered Structures under Part E and F, condition 17 of the draft Licence. Board staff note that the term “Engineered Structure” is used to trigger the submission of Construction Plans, and it is Board staff’s understanding that Construction Plans would be submitted for Borrow Pits. Regarding requirements of Engineered Structures under Part F, condition 17: Board staff have added “at a frequency outlined in approved applicable Design Plans and/or Site Wide Management and Monitoring Plans”. Consequently, if GMRP does not believe inspections outlined in this condition are relevant to Borrow Pits, that can be explained in the Design Plan or Borrow and Explosives Management and Monitoring Plan.

Annual Report

In its intervention, closing statements and comments on the Draft Water Licence conditions, the City of Yellowknife recommended that the Water Licence Annual Report be submitted for Board approval. In their intervention response, CIRNAC-GMRP suggested that it is unclear what standards the Board would use to determine whether the reporting should be approved. Water Licence Annual Reports are not typically subject to Board approval. The Annual Report is a submission of results monitored and activities undertaken during the previous year. There is nothing in the Annual Report that should require Board Approval for moving the Project forward. If Parties review and have concerns regarding the results reported or activities undertaken as reported in the Annual Report, they can be discussed directly with the Proponent or addressed through the Board, much like any other submission.

CIRNAC-GMRP have indicated that the success of Remediation would be demonstrated through Performance Assessment Reports (PARs), which will be for review and approval, and the Final Closure and Reclamation Report.

Engagement

Board staff determined that CIRNAC-GMRP’s pre-engagement for the Post-EA Information Package and Land Use Permit Application was determined to be in accordance with the Engagement Guidelines and the Engagement Policy.

During the review for the GMRP Post-EA Information Package and Land Use Permit Application, a lingering concern identified was the level of community engagement as the Project progresses. Particularly, concerns with engagement associated with Fisheries Authorizations and perpetual care communications were discussed at length during the public hearing. The draft Permit and Licence include the new *Identify Traditional Knowledge* condition to reflect the significance of ongoing engagement for communities regarding the Project’s progress. Site-Wide Management and Monitoring Plan revisions and Design Plans distinctly require a discussion on how engagement and Traditional Knowledge have helped inform them. The draft authorizations also require the revision and resubmission for Board approval of an updated Engagement Plan. Long-term risk communication and perpetual care communications are included in the Engagement Plan requirements and should therefore be reported on through the Water Licence Annual Report. The Annual Report is required to report on all engagement activities.

CIRNAC-GMRP have committed to pre-engagement efforts on Site-Wide Management and Monitoring Plans updates and the development of Design Plans. The precise strategy for this pre-engagement should be outlined in the revised Engagement Plan. Regarding engagement and stakeholder participation in the Aquatic Effects Monitoring Program (AEMP), CIRNAC-GMRP has committed to establishing an aquatic engagement group, comprised of members from ECCC, YKDFN, NSMA or other Environmental Agreement

signatories who wish to participate. Board staff suggest that if parties have continued concerns about the methods of engagement proposed in that Plan, it would be best addressed at the time of review.

Giant Mine Remediation Project Closure and Reclamation Plan

During the regulatory review, Parties have expressed concerns about the proposed Closure Criteria presented in the GMRP Closure and Reclamation Plan (CRP); in some cases this includes a lack of detail on the specific plans for project component Closure Activities. Board staff hosted a Closure Criteria Workshop, providing an opportunity for all parties to discuss concerns with proposed criteria and the process for further refining them. CIRNAC-GMRP have committed to a process to provide the missing details through Design Plans and Construction Plans.

Revisions to the Closure Objectives and Criteria Table from the CRP (Table 5.0A) were submitted by CIRNAC-GMRP twice, once following each technical session. Other revisions required for the CRP have also been identified and detailed in the draft Licence. CIRNAC-GMRP have suggested that the CRP needs to be approved at issuance to initiate Project activities and that revisions to the CRP be resubmitted for Board Staff conformity only. Board staff suggest that the scope of change may be beyond that appropriate for an internal conformity check, and suggest the Board include the *Closure and Reclamation Plan – Revised* condition in the Permit and Licence. Board staff have attempted to allow CIRNAC-GMRP enough time to make the edits necessary in the draft conditions but note that the revised CRP should be approved prior to the initiation of Phase 2.

In order to ensure the main CRP document is updated on a regular basis to reflect Project changes introduced, reviewed, and approved through the Design Plans, Board staff suggest including the *Closure and Reclamation Plan – Annual Update* condition. Updated Closure and Reclamation information that had been subject to review and approval through the Design Plans would not require additional review and approval when merged with the CRP.

Final site conditions for the closure of Giant Mine site components are set through the approval of the CRP and Design Plans and will be considered by the Board through the submission of PARs. This is consistent with the Board's *Guidelines for Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*. PARs will be required to demonstrate that monitoring data meet Closure Criteria approved through the CRP and/or relevant Design Plans, and that conditions identified have been, and should continue to be, met. CIRNAC-GMRP have proposed to submit one PAR to address all Project Components and expect that it will be required to be resubmitted until all Project Components consistently achieve Closure Criteria approved through the CRP and Design Plans. PARs will be submitted for Board approval since they will be the mechanism for CIRNAC-GMRP to present to the Board argument and evidence to support the reduction or elimination of certain adaptive management and post-closure monitoring activities when it is demonstrated that Closure Objectives and Criteria are being met. The first PAR should be completed upon submission of the Final Closure and Reclamation Report.

The Closure and Reclamation Completion Reports are not for Board approval in the draft authorizations since they merely provide an updated description of existing conditions at the site. The Final Closure and Reclamation Report will bring all the Closure and Reclamation Completion Reports together in one final report that should demonstrate how the whole site has been successfully remediated (under Phase 2). This report will signal the end of 'Active Remediation'.

Post-Closure Monitoring and Maintenance Plan

If the Board accepts the limitation suggested for the scope of the Project to Phases 1 and 2, it may not be appropriate to review and approve a Plan for activities beyond the scope of this authorization (Phase 3 – Post-Closure). Nevertheless, as CIRNAC-GMRP proceeds through Active Remediation and Adaptive Management (Phase 2), there will likely be a better understanding of what Post-Closure Monitoring will be required on-site. The *Post-Closure Monitoring and Maintenance Plan – Table of Contents* condition has been included in this Licence in anticipation of the move from Active Remediation and Adaptive Management (Phase 2) to Post-Closure Monitoring and Maintenance (Phase 3).

At this time, it is unclear what scale of post-closure monitoring will be appropriate for all components of the GMRP. The submission of a table of contents prior to the end of this authorization will provide the Board and reviewers plenty of time to review and revise the content expected to be presented by CIRNAC-GMRP to support its transition into Post-Closure. The draft *Post-Closure Monitoring and Maintenance Plan – Table of Contents* condition requires CIRNAC-GMRP to submit its proposed table of contents for the Post-Closure Monitoring and Maintenance Plan, and a draft Licence schedule, within one year of submitting its final Design Plan. Development-related triggers are preferred to specific dates in the event of unexpected Project delays. This timeline should provide the Project ample development time to complete the Perpetual Care Plan and ensure a public review process is established long before application of authorizations for the implementation of Post-Closure Monitoring and Maintenance (Phase 3).

CIRNAC-GMRP suggested that the Post-Closure Monitoring and Maintenance Plan would provide the details of planned monitoring that would be enforceable from the Perpetual Care Plan, which is required under the *Environmental Agreement*. CIRNAC-GMRP committed to providing the Perpetual Care Plan as an appendix to the Post-Closure Monitoring and Maintenance Plan. This commitment is reflected in the draft *Post-Closure Monitoring and Maintenance Plan – Table of Contents* condition. Any changes to monitoring proposed in Performance Assessment Reports (above), following Active Remediation and Adaptive Management (Phase 2) will be most appropriately reflected in the Post-Closure Monitoring and Maintenance Plan than in the CRP. Changes to monitoring or adaptive management approaches approved by the Board through PARs will likely also prompt updates to the Site-Wide Management and Monitoring Plans.

Design and Construction Plans and Site-Wide Management Plans

The City of Yellowknife expressed concerns with the timing for resubmission of Site-Wide Management and Monitoring Plans and Design Plans. They are concerned that many Plans could be submitted simultaneously, impacting parties' abilities to thoroughly review. The draft authorizations require Design Plan submissions 90 days prior to initiation of Active remediation of each component. Most Management Plan submissions are required a minimum of 90 days prior to initiation of Phase 2 - this applies to Site-Wide Management and Monitoring Plans that were included with the Project Applications, and 120 days for Plans not already reviewed (Borrow Materials and Explosives Management and Monitoring Plan and the Arsenic Trioxide Frozen Shell Management and Monitoring Plan). CIRNAC-GMRP argued that the proposed 90-day period was standard for Board processes and that anything longer could impact the Project's ability to proceed efficiently and on schedule considering the short field seasons in the North. If CIRNAC-GMRP carries out pre-engagement, as previously committed, the online review of these Plans should be straight-forward.

Where possible, Board staff suggest that the Board encourage CIRNAC-GMRP to submit updated plans sooner. The onus is on CIRNAC-GMRP to submit revised Plans that adequately address all requirements and reviewer comments collected during the Post-EA Information Package review. Though the conditions read with the same minimum submission dates, the staggering of report submissions wherever possible will allow more time for reviewers, Board staff, and the Board to properly consider each plan. If the plans

are not submitted in this way, CIRNAC-GMRP may risk delay in the Project schedule before Active Remediation and Adaptive Management (Phase 2) can begin. If necessary, extensions to review times can be requested of the Board. Regardless of the 90-day minimum, Design Plans must be approved by the Board before Active Remediation can begin on each closure component of the Project.

Design Plans and Construction Plans

As referred to above, Design Plans are intended to provide the missing detailed design for the remediation of all Project Components. These are intended to add detail to the information currently provided in the GMRP CRP and may strengthen the measurability of Closure Criteria currently under development. They can also be used to present the plans for a constructed wetland and the clean up downgradient of Dam 3 (if and) when those activities take place following the completion of the Reclamation Research. Design Plans can also present any changes or updates to adaptive management monitoring for the post-Construction period.

The draft Licence requires separate submissions for *Design Plans* and *Construction Plans*, which is a divergence from the Board's *Guidelines for Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*. This arrangement reflects the need for CIRNAC-GMRP to first clarify specific Design Plans for each Project Component before proceeding with the tendering process to complete the work described and approved by the Board. The contractors hired to complete the work will then work with CIRNAC-GMRP to complete the Construction Plan(s) based on the approved Design Plan(s).

Construction Plans are intended to lay out the construction-related monitoring requirements that may not be detailed in the broader Site-Wide Management and Monitoring Plans for the more discrete construction activities. There may be several Construction Plans associated with each Design Plan (i.e. separate Construction Plans for the backfilling and covering of each open pit identified in the open pit Design Plan). Construction Plans are not intended to provide new information requiring Board approval, but to demonstrate how activities for completing component-specific Construction will meet previously approved management and monitoring commitments.

Site-Wide Management and Monitoring Plans

Site-Wide Management and Monitoring Plans include: the Waste Management and Monitoring Plan, the Water Management and Monitoring Plan, the Erosion and Sediment Management and Monitoring Plan, the Dust Management and Monitoring Plan, the Tailings Management and Monitoring Plan, the Borrow Materials and Explosives Management and Monitoring Plan, the Arsenic Trioxide Frozen Shell Management and Monitoring Plan, and the Wildlife and Wildlife Habitat Management and Monitoring Plan.

CIRNAC-GMRP have committed to update the Site-Wide Management and Monitoring Plans to reflect comments and commitments made during the regulatory process. CIRNAC-GMRP have requested that all Site-Wide Management and Monitoring Plans submitted with the Post-EA Information Package and the Land Use Permit Application be approved as-is for the Existing Condition (Phase 1) so that efforts can be focused on updating those plans in response to reviewer feedback prior to the initiation of Active Remediation and Adaptive Management (Phase 2). Board staff agree with CIRNAC-GMRP's request and suggest that the Board provide interim approval for all Site-Wide Management and Monitoring Plans submitted with the Land Use Permit Application and Post-EA Information package.

The draft Permit and Licence requires CIRNAC-GMRP to revise and resubmit all Plans for Board Decision prior to the initiation of Active Remediation and Adaptive Management (Phase 2). These Plans are also required to be updated if monitoring approved in Design Plans differ or provide additional detail not already found in applicable Site-Wide Plans.

Waste Management Plan

Agreements with the City of Yellowknife, KBL Environmental Ltd., or any other Waste management provider must be provided with the revised plan so that approval to use those facilities for certain Waste streams can be verified for Active Remediation and Adaptive Management (Phase 2). The Waste Management and Monitoring Plan must also outline an auditing procedure that will be in place to verify that Waste being sent to the City of Yellowknife Waste facility has been appropriately segregated and free of hazardous substances.

In response to specific requests from GMOB during the public hearing, the Waste Management and Monitoring Plan is also required to present details for the strategic placement of arsenic-contaminated materials into Chamber 15 and the B1 pit. Through a review comment on the draft Water Licence, GMOB specifically recommended the Waste Management and Monitoring Plan include an analysis of how removal of placed materials will be achieved, with the actual analysis being included within the Reclamation Completion Report. CIRNAC-GMRP argue that removal of this waste is not part of this Application and should not be made a requirement of the Waste Management Plan. A requirement to include these details has been added to the draft Schedule for the Waste Management Plan, but Board staff is seeking Board direction on this inclusion.

Water Management Plan

Discussion regarding chloride and sulphate effluent quality criteria for the ETP and WTP occurred throughout the CIRNAC-GMRP regulatory proceeding. Board staff suggest that CIRNAC-GMRP be required to include information on the chloride and sulphate management and monitoring for the Water Treatment Plant, including frequency of monitoring and Action Levels, in the Water Management and Monitoring Plan instead of identifying strict limits in the Licence as EQC. This should address both the concerns identified about possible increasing trends of chloride and sulphate while recognizing that the currently proposed WTP is not designed to treat these parameters and the storage of WTP effluent that cannot meet EQC is limited. This will provide the flexibility to re-visit the criteria as more information becomes available.

The management of Runoff and Contact Water was also discussed extensively during the proceeding. The draft Water Licence that CIRNAC-GMRP submitted with their Post-EA Information Package and Land Use Permit Application did not contain any conditions with respect to Runoff or Contact Water, or specific Discharge Criteria for Runoff or Contact Water, but its Water Management and Monitoring Plan did. During the first technical session, an Information Request was issued to ECCC to clarify what Runoff Waters throughout the site must adhere to limits outlined by the Metal and Diamond Mine Effluent regulations (MDMER) for metals, suspended solids, nutrients, and pH. ECCC responded that “in the present case, if the undeveloped area has not been disturbed or cleared, it would therefore not be considered to be part of the mine...” This resulted in the need to identify two types of site runoff. ‘Contact Water’ refers specifically to Runoff and Seepage from Engineered Components that would be managed under the Water Management and Monitoring Plan while ‘Runoff’ refers to Water from undeveloped parts of the Giant Mine site that is not actively managed. Once Contact Water meets Surface Runoff Criteria, as approved through the Water Management and Monitoring Plan, the Water will no longer be in contact with Waste and will therefore become surface Runoff. The Surface Runoff Criteria in the first revision of the Water Management and Monitoring Plan will be required to meet, at a minimum, MDMER limits, however, CIRNAC-GMRP committed to reducing the proposed criteria if modelling or monitoring suggests lower criteria can be achieved. In addition, discussion have led to CIRNAC-GMRP commitments to include acute toxicity testing, where possible, and geochemical parameters to the list of Surface Runoff Criteria.

In line with the requirements of other Site-Wide Management and Monitoring Plans, the Water Management and Monitoring Plan should also provide information on adaptive management or contingency activities that can be implemented if the results of monitoring, identified in the Plan, are not trending towards meeting Closure Criteria following the Construction period.

Erosion and Sediment Management and Monitoring Plan

This Plan is required by the Licence to ensure any potential release of sediment is managed in accordance with the MVRMA. CIRNAC-GMRP acknowledged that there is information missing to inform the Erosion and Sediment Management and Monitoring Plan. This includes Project Component specific erosion control details and maps or diagrams identifying areas in the Project area that may be most susceptible to erosion. In response, details about erosion and sediment evaluations and management and monitoring requirements have been included in the schedules for the Design Plans and Construction Plans. Updates to sediment and erosion control approved through Design Plans should be incorporated through revisions to the Erosion and Sediment Management and Monitoring Plan.

Dust Management and Monitoring Plan

This Plan includes an Air Quality Monitoring Plan as an appendix. CIRNAC-GMRP acknowledged that there is information missing to inform the Dust Management and Monitoring Plan. Requirements for revision are identified in the draft Licence. Of interest is the draft requirement to include adaptive management thresholds for PM_{2.5}, NO₂ and metals (arsenic, antimony, lead, iron, and nickel). This requirement responds to concerns raised by ECCC in its intervention to measure concentrations of arsenic, co-located metals, and other pollutants that have the potential to impact human health and establish trigger values and adaptive management strategies in the Dust Management and Monitoring Plan.

Tailings Management and Monitoring Plan

The Tailings Management and Monitoring Plan must address all Tailings management plans for the Giant Mine site, including the Tailings Containment Area and the Foreshore Tailings. During the Project review, ECCC consistently identified concerns with CIRNAC-GMRP's plans for the management of the Foreshore Tailings. CIRNAC-GMRP have proposed to cover the Foreshore Tailings with a riprap rock cover to limit the likelihood of erosion and human contact with the Tailings material buried below. ECCC argued that Water quality and the health of benthic populations in the area should also be monitored under the AEMP to ensure that the cover placed will prevent long term leaching of contaminants into Great Slave Lake. During the public hearing, CIRNAC-GMRP agreed to carry out the monitoring recommended by ECCC and suggested that a monitoring program would be best established through discussions with DFO during the Fisheries Authorization process and presented as part of the special study for the AEMP. If CIRNAC-GMRP believe the Foreshore Tailings monitoring is best addressed through the Water Management and Monitoring Plan or the AEMP, cross-references can be made, but because the Foreshore is a Tailings management component, some discussion should be included in the Tailings Management and Monitoring Plan.

Spill Contingency Plan

The Spill Contingency Plan is a standard condition for Licences issued by the Board. It ensures that CIRNAC-GMRP, and its Main Construction Manager, Parsons Inc., have identified lines of authority and responsibility, action plan(s) for responses to spills and Unauthorized Discharges, and reliable reporting and communication procedures.

Board staff suggest that the Board provide interim approval for the Spill Contingency Plan for Phase 1 and require re-submission of the Plan prior to Phase 2. Commitments made for Plan updates during the ORS review are expected with the next iteration of the Spill Contingency plan.

Borrow Materials and Explosives Management and Monitoring Plan

Requirements for the submission for the Borrow Materials and Explosives Management and Monitoring Plan have been laid out in Part F and Schedule 4 of the draft Licence. These largely reflect the intention of these plans described by CIRNAC-GMRP in its Application (Draft Licence conditions). This Plan was not available for review during the course of the regulatory review, however, it was clear that many reviewers still have concerns about the need to disturb additional lands to provide borrow material to support proposed Closure Activities. During the week of December 2, 2019, CIRNAC-GMRP hosted a Borrow Engagement Workshop in Dettah and Yellowknife. The purpose of these meetings was to collect feedback on borrow concerns and priorities for the development of the Borrow Materials and Explosives Management and Monitoring Plan. This plan should identify known, appropriate borrow sources being proposed to support Remediation activities, the intended geochemical verification methods to ensure proposed sources will not generate acid or leach metals to the environment, monitoring programs, and plans to reclaim any on-site borrow sources. All rock used for onsite Construction will be required to meet geochemical criteria approved in the Borrow Materials and Explosives Management Plan. The proposed use of materials that diverge from the standard geochemical criteria can be included in Design Plans that will be reviewed and considered for approval. If concerns remain following these engagement efforts and review of the Plan, they can be addressed through the Board's process.

Arsenic Trioxide Frozen Shell Management and Monitoring Plan

Requirements for the submission of the Arsenic Trioxide Frozen Shell Management and Monitoring Plan have been laid out in Part F and Schedule 4 of the draft Licence. These largely reflect the intention of these plans described by CIRNAC-GMRP in its Application (Draft Licence conditions). This Plan was not available for review during the regulatory review. One of the main concerns regarding the freeze program is its ability to be reversed if a more permanent solution to the management of the arsenic trioxide waste is ever identified. These details should be provided in the submission for Board approval.

Wildlife Habitat Management and Monitoring Plan

CIRNAC-GMRP included a Wildlife and Wildlife Habitat Management and Monitoring Plan (WWHMMP) in the Post-EA Information Package and Land Use Permit Application, which details mitigations to reduce or eliminate impacts to wildlife and wildlife Habitat. On July 5, 2019, The Government of the Northwest Territories Department of Environment and Natural Resources (GNWT-ENR) wrote to CIRNAC-GMRP to share its determination that a Wildlife Management and Monitoring Plan would not be required under subsection 95(1) of the *Wildlife Act*. In the reasons for the determination, GNWT-ENR refer to the general nature of Remediation projects as being beneficial to wildlife and wildlife Habitat through the reduction of contaminant loadings to the Receiving Environment, the removal of physical hazards, and the restoration of wildlife Habitat on previously disturbed sites. In its letter, GNWT-ENR also referred to its participation in the review of the WWHMMP submitted with the Post-EA Information Package and Land Use Permit Application and its general satisfaction regarding the monitoring and mitigation plans described within.

Board staff note that provisions in the MVLUR apply to protection of wildlife habitat, and not wildlife itself. Impacts to wildlife are the jurisdiction of the GNWT through the *Wildlife Act*. In general, Board staff agrees with GNWT-ENR's assessment of the overall beneficial nature of effects on wildlife and wildlife habitat because of the GMRP.

Board staff suggest that the Board provide interim approval for the WWHMMP for Phase 1 and require re-submission of the Plan prior to Phase 2. Commitments made for Plan updates during the ORS review are expected with the next iteration of the WWHMMP. This includes the commitment to provide an evaluation of potential programs for small mammal and insect monitoring and sampling. Given the

Board's limited jurisdiction and the remedial nature of the GMRP, Board staff suggest revisions could be confirmed through Board staff review. Standard conditions in Permit MV2019X0007 reflect the requirements of CIRNAC-GMRP to comply with commitments outlined in the WWHMMP.

In response to comments on the ORS, CIRNAC-GMRP committed to maintaining an up-to-date WWHMMP and to providing regular wildlife reports. Though it is unusual to require land use reporting requirements through a condition of a Licence, Board staff suggest that, to reduce the number of submissions, these commitments could be reflected in the requirements of the Water Licence Annual Report.

Aquatic Effects Monitoring Program Design Plan

CIRNAC-GMRP submitted two Aquatic Effects Monitoring Program (AEMP) Design Plans with its Applications. One for Baker Creek, where Effluent will continue to flow until construction of the new Water Treatment Plant, and a conceptual plan for Yellowknife Bay. CIRNAC-GMRP have committed to resubmitting one AEMP that will cover all discharge locations for the life of the Project. Board staff believe that the AEMP Design Plan submitted with the Post-EA Information Package can be considered interim approval for Phase 1. The revised AEMP is due within 90 days of Licence issuance according to the draft Licence. Board recommend that a revised AEMP should outline when the AEMP Response Plan will be submitted to the Board for approval. All requirements for resubmission are outlined in Schedule 6 of the draft Licence. Because GMRP committed to updating the AEMP Design Plan following the proceeding based on resolutions from the Licence proceeding, Board staff believe that the first AEMP Design Plan resubmitted following Licence issuance could be confirmed through Board staff review as opposed to a public review.

Measure 17 requires the AEMP to be developed for the Project as per the *Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs for Development Projects in the Northwest Territories*, June 2009, with corresponding Action Levels and management response framework. A more current guidance document, *Guidelines for Aquatic Effects Monitoring Programs*, March 2019 (the AEMP Guidelines), was issued by the Land and Water Boards of the Mackenzie Valley and the Government of the Northwest Territories prior to CIRNAC-GMRP submitting their Post-EA Information Package and Type A Land Use Permit Application. The 2019 document is therefore referenced in the Water Licence in place of the 2009 document.

The application of the AEMP Guidelines to the GMRP is unique when compared to a development that is just commencing operations; aquatic effects have already been realized in Baker Creek and Yellowknife Bay due to historic mining operations and the GMRP has been monitoring aquatic effects since 2003 under an Environmental Effects Monitoring Program as per ECC's Metal and Diamond Mining Effluent Regulations (MDMER). Requirements of the AEMP must also ensure that measures 12, 13, 15 and 17 of EA0809-001 are met.

CIRNAC-GMRP indicated that the initial Baker Creek-focused AEMP would undergo re-evaluation in approximately 2023, as per the Boards' AEMP Guideline. The requirement to re-evaluate the AEMP Design Plan by 2023 is included in the draft *Aquatic Effects Monitoring Program Design Plan* and the *Aquatic Effects Monitoring Program Re-Evaluation Report* conditions. The Boards' AEMP Guidelines recommend a three-year cycle for re-evaluation and possible re-design of AEMP's; however, CIRNAC-GMRP recommended a trigger in relation to the commencement of Discharge from the WTP for the Re-evaluation and Design Plan that would occur in 2026. This has been captured in the draft *Aquatic Effects Monitoring Program Design Plan – Updated* and *Aquatic Effects Monitoring Program Re-Evaluation Report* conditions. The AEMP Re-evaluation Report should come three months prior to the AEMP Design Plan to ensure that information can be reviewed and considered for the submission of the Design Plan. Should the WTP not

commence Discharge in 2026 as planned at the time of Water Licence issuance, AEMP re-evaluation and possible re-design would still be required for Board approval on a three-year cycle (Part H, condition 2 and 8(a) of the Water Licence).

CIRNAC-GMRP clarified that, after 2026, the biological monitoring in Baker Creek would be linked to that required under the Fisheries Authorization for Construction in Baker Creek; biological monitoring will be specifically reviewed and approved in the Baker Creek Design Plan and monitoring data will be presented in Annual Water Licence Reports, the PAR and the Post-Closure Monitoring Plan.

Water Use

Water Use was not identified as a subject of concern by reviewers during the course of the GMRP review and Board staff recommends the Board allow for up to the maximum Water Use needs in the *Water Source Maximum Volume* condition (up to 1,200 cubic meters per day (m³/day) for a total of 438,000 m³/year). The Project has committed to place and design the intake to follow the DFO *Freshwater Intake End of Pipe Fish Screen Guideline* (1995) and be installed upon approval from DFO.

Effluent Quality Criteria

The Board's approach to managing the deposit of Waste to the Receiving Environment through Water licence conditions is described in the Board's *Water and Effluent Quality Management Policy*.

EQC recommended for the Discharge of Effluent from the Effluent Treatment Plant as per the *Effluent Quality Criteria – Effluent Treatment Plant* condition, are as follows:

Final EQC for ETP - Water Licence MV2007L8-0031

Parameters	Maximum Average Concentration	Maximum Grab Concentration
Total Ammonia	See Table Below	See Table Below
Total Arsenic	0.3	0.6
Chloride	660	720
Total Copper	0.03	0.06
Total Lead	0.003	0.006
Total Nickel	0.1	0.2
Nitrate (as N)	13	25
Sulphate	1310	1440
Total Zinc	0.1	0.2
Total Suspended Solids	15	30

EQC recommended for the Discharge of Effluent from the Water Treatment Plant as per the *Effluent Quality Criteria – Water Treatment Plant* condition, are as follows:

Final EQC WTP - Water Licence MV2007L8-0031

Parameters	Maximum Average Concentration	Maximum Grab Concentration
Total Ammonia	See Table Below	See Table Below
Total Antimony	0.2	0.3
Total Arsenic	0.01	0.02
Total Copper	0.024	0.033
Total Lead	0.003	0.008
Total Nickel	0.1	0.15
Nitrate (as N)	13	25
Total Zinc	0.08	0.16
Total Suspended Solids	15	30

Total Petroleum Hydrocarbons	3	5
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mg/L = milligrams per litre

Total Petroleum Hydrocarbons	3	5
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mg/L = milligrams per litre

pH	Maximum Average Total Ammonia Concentration	Maximum Grab Total Ammonia Concentration
6.5	3.1	6.2
7.0	2.7	5.5
7.1	2.6	5.3
7.2	2.5	5.0
7.3	2.4	4.7
7.4	2.2	4.4
7.5	2.0	4.1
7.6	1.8	3.7
7.7	1.7	3.3
7.8	1.5	3.0
7.9	1.3	2.6
8.0	1.1	2.3
8.1	0.97	2.0
8.2	0.83	1.7
8.3	0.71	1.4
8.4	0.60	1.2
8.5	0.51	1.0

mg-N/L = milligrams of Nitrogen per litre

pH	Maximum Average Total Ammonia Concentration	Maximum Grab Total Ammonia Concentration
6.5	10.9	22
7.0	9.7	19
7.1	9.2	19
7.2	8.8	18
7.3	8.3	17
7.4	7.7	15
7.5	7.1	13
7.6	6.5	11
7.7	5.8	9.6
7.8	5.2	8.1
7.9	4.6	6.8
8.0	4.0	5.6

mg-N/L = milligrams of Nitrogen per litre

Board staff note that CIRNAC-GMRP are also required to ensure Discharge is not acutely toxic, in accordance with the *Fisheries Act* and the *Effluent Quality – Toxicity – Effluent Treatment Plant and Water Treatment Plant* condition. This is a standard condition.

Minewater at the mine site is currently pumped from the underground to surface by deep well pumps from the Akaitcho pumping system at the northern end of the site, or collected from surface runoff, and stored in the Northwest Pond for treatment in the ETP. The ETP currently operates seasonally and discharges during open-water conditions to Baker Creek through a siphon from a Polishing Pond. To meet the Giant Mine Remediation Project Report of Environmental Assessment EA0809-001 measures for arsenic, a new WTP is required to be constructed to replace the existing ETP. The ETP will continue to operate until the new WTP is commissioned. There will be a transition period of approximately one year

while the new WTP is tested and the existing ETP remains as a functional backup. Once commissioned, the WTP will operate year-round and discharge via an outfall directly to Yellowknife Bay.

The Board's general process for setting EQCs is to first derive the Water quality based EQCs and then consider whether (a) the EQCs are reasonably achievable, and (b) if the EQCs could be made more stringent based on what is technologically feasible for the site. An Effluent Quality Criteria Report was submitted by CIRNAC-GMRP as part of its Post-EA Information Package and Land Use Permit Application to support proposed EQCs and provide justification for EQCs proposed. A formal screening process to identify Parameters of Potential Concern (POPC) was not completed for the existing ETP because CIRNAC-GMRP requested to the Board that the discharge concentrations similar to present-day concentrations from the ETP be permitted through the Water licence process until the new WTP is commissioned.

For the ETP, CIRNAC-GMRP proposed the Metal and Diamond Mine Effluent Regulations (MDMER) discharge limits as the starting point for proposing EQCs for pH, total suspended solids (TSS), un-ionized ammonia, arsenic, copper, lead, nickel, zinc, radium-226 and cyanide. For copper, lead, nickel, and zinc, which had historical and predicted concentrations below the MDMER limits in the ETP, the proposed EQCs were lowered below the MDMER limits based on consideration of measured concentrations in the treated effluent and predicted future treated effluent concentrations. Cyanide was also lowered below the MDMER limits based on historical treatment efficiency and Minewater quality at Akaitcho. An EQC for total petroleum hydrocarbons was also proposed by CIRNAC-GMRP because of the additional traffic and fuel storage on site and the potential for release of hydrocarbons from potentially unidentified areas impacted by historical operations.

To meet Environmental Assessment Measure 15 (protect water uses 200 m from the outfall) as well as Measures 12 and 13 (meet water quality objectives in the vicinity of Baker Creek), CIRNAC-GMRP proposed a combined mixing zone that includes inflows from both the new WTP effluent and Baker Creek. CIRNAC-GMRP also provided evidence that the combined mixing zone will allow the Project to meet its EQCs and Water Quality Objectives (WQOs) for all parameters while accounting for the influence of Baker Creek water quality in the mixing zone. In addition, there were no concerns raised regarding the proposed size of the mixing zone throughout the proceedings from stakeholders. WQOs define the level of Water quality that must be maintained in order to protect a given Water use in a specific Receiving Environment. WQOs are required to be met at the mixing zone boundary during the most restrictive mixing conditions. Recommended WQOs for the Project are:

Constituent	Unit	SSWQO or WQO
Major Ions		
Chloride	mg/L	128
Fluoride	mg/L	1.5
Potassium	mg/L	41
Sulphate	mg/L	128
Nutrients		
Total Ammonia	mg-N/L	1.2 (1.2)
Un-ionized Ammonia	mg-N/L	0.019

Constituent	Unit	SSWQO or WQO
Nitrate	mg-N/L	3.2 (16.4)
Nitrite	mg-N/L	0.04
Total Metals		
Aluminum	µg/L	240
Antimony	µg/L	6
Arsenic	µg/L	10
Barium	µg/L	1000
Boron	µg/L	1500
Cadmium	µg/L	0.09
Chromium	µg/L	5
Cobalt	µg/L	1.4
Copper	µg/L	6.3
Iron	µg/L	300
Lead	µg/L	1
Manganese	µg/L	270
Molybdenum	µg/L	73
Nickel	µg/L	25
Selenium	µg/L	1
Silver	µg/L	0.25
Strontium	µg/L	10700
Thallium	µg/L	0.8
Uranium	µg/L	15
Vanadium	µg/L	120
Zinc	µg/L	7.2

POPC are defined as those chemical parameters in the effluent that have, in the Board's opinion, the potential to adversely affect Water quality in the Receiving Environment. In this step of the EQC setting process, the Board considers the evidence as to which chemical parameters qualify as POPC. CIRNAC-GMRP identified seven parameters from the parameters for review list to be considered as POPC in the WTP discharge: chloride, sulphate, antimony, arsenic, copper, lead, and nickel. The predictions for the new WTP effluent were based on a site Water quality model that predicted underground and WTP influent

concentrations. Although zinc was not identified as a POPC, a Water quality-based EQC was also proposed for zinc, to align with the list of MDMER metals.

During the Water licence proceedings, the Giant Mine Oversight Board (GMOB) recommended “that additional work on potential nutrient loadings to Yellowknife Bay as a result of the Project should be completed,” acknowledging that for “phosphorus, this may need to wait until an appropriate analytical method has been developed.” Total phosphorous should be reconsidered as a potential POPC for the Project once reliable phosphorous data are available, and that information on the analytical method development for phosphorus should be communicated through the Annual Water Licence Report.

During the Project proceeding, GMOB also noted that “GMRP should already have estimates of tonnages of quarry material needed to implement its proposed remediation strategy, therefore it should be possible to estimate potential loadings of nitrogen to the environment. CIRNAC-GMRP acknowledged that a limitation of the EQC Report “was that the models did not account for a source of residual nitrate and ammonium from quarrying activities during active remediation... and it is recognized that nitrate and ammonia loadings will likely increase during quarrying, due to anticipated use of explosive ammonium nitrate fuel oil.” As such, Board staff considers total ammonia and nitrate to be POPC for the ETP and WTP. A pH range of 6.5 to 8.0 is proposed for the WTP so that un-ionized ammonia will be below MDMER limits and will be similar to pH values in Yellowknife Bay.

Although chloride and sulphate were identified as POPC for the new WTP, the EQC Report did not propose EQCs for chloride and sulphate because the chloride and sulphate concentrations did not exceed the chronic SSWQO at the mixing zone boundary. These are discussed above with reference to requirements of the Water Management and Monitoring Plan.

For arsenic, the EQCs are based on meeting concentrations below the Health Canada *Guidelines for Canadian Drinking Water Quality* value of 0.01 mg/L at the outfall as per EA0809-001 measure 14 and 15. The EQC for arsenic is technology based because the new WTP will be designed to reduce arsenic concentrations to meet the arsenic value *Guidelines for Canadian Drinking Water Quality*.

TSS were also set equal to the MDMER limits. These limits were noted to be similar to TSS EQCs for other mines in NWT including Ekati Diamond Mine, the Diavik Diamond Mine and the Gahcho Kué Mine, which have MAC and MGC EQCs of 15 and 25 mg/L, respectively. CIRNAC-GMRP notes that with the unit operations of coagulation, clarification, and filtration, the new WTP will meet the proposed TSS EQC.

Compensation

As discussed on June 28, 2020, the Board wished to re-visit the idea of including a condition in the Licence to ensure commitments made by CIRNAC-GMRP to reconstruct and maintain water access in the Townsite area for the duration of Active remediation are followed. A draft condition has been included in the draft Licence for the Board’s consideration.

Surveillance Network Program

The SNP details the sampling and monitoring requirements required by the Licence. Requirements for measuring flows, volumes, and meteorological data are based on standard Water license conditions as are the reporting requirements. SNP monitoring will evolve through the term of the Licence and note that the requirements of Design Plans (Schedule 3, condition 1) and the Water Management and Monitoring Plan (Schedule 4, condition 2) include updates to the Surveillance Network Program.

Archaeological Sites

The standard setback distance for known or suspected archaeological sites in the *Archaeological Buffer* condition is 150 metres. The intent of this condition is to protect cultural sites, whether known or suspected. The 150 metres distance reflects the desire of the Prince of Wales Northern Heritage Centre (PWNHC) to have an adequate buffer surrounding sites whose precise locations have not been confirmed using recent technology. In the case of the GMRP, recent archaeological overview and impact assessments have been completed and the precise location and footprint of nearby archaeological and heritage sites have been identified. For this reason, and to reflect the requirements of section 6 of the MVLUR, the Board requires the 30 metres minimum buffer be maintained.

In response to a request from the Yellowknives Dene First Nation, Board staff included a requirement to the *Site Discovery and Notification* condition that requires CIRNAC-GMRP to notify any affected Aboriginal communities and organizations where a suspected archaeological or historical site, or burial ground, is discovered.

The *Site Disturbance* condition has been modified as proposed by CIRNAC-GMRP. The PWNHC did not provide feedback on the recommended edits to this criterion during its review. The standard conditions require that no archaeological specimen or site shall be removed, disturbed, or displaced. CIRNAC-GMRP acknowledge that there are archeological sites within contaminated areas that will require Remediation; therefore, some sites will be disturbed. The GMRP have committed to work with the PWNHC to mitigate these sites, prior to disturbance. To reflect these requirements, the draft conditions allows for the disturbance of archaeological sites or specimens once deemed sufficiently mitigated by the PWNHC.

EA0809-001 Measures

#	Topic	Approved Measures from EA0809-001	Where item is addressed in the Licence/Permit
1	Life of Project	To prevent the significant adverse impacts on environment and the significant public concern from the proposed perpetual timeframe, the Project will proceed only as an interim solution, for a maximum of 100 years.	Term of Licence sought is a maximum of 20 years.
2	Closure Approach/Research	<p>Every 20 years after the beginning of Project implementation, the Developer will commission an independent review of the Project to evaluate its effectiveness to date, and to decide if a better approach can be identified. This will:</p> <ol style="list-style-type: none"> 1. consider results of the ongoing research 2. be participatory in nature 3. follow the requirements of procedural fairness and be transparent in nature. <p>If the periodic review identifies a better approach that is feasible and cost-effective, the Developer will further study it, and make the study and its results of the study public.</p>	Term of Licence sought is a maximum of 20 years. Report results can be used to support a renewal application, as required.

3	Research Funding	<p>To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant mine site, the Developer will fund research activity as advised by stakeholders and potentially affected Parties through the Oversight Body. The ongoing funding for this research, and the additional resources required to manage its coordination, will be negotiated and included as part of the environmental agreement specified in Measure 7 and will make best use of existing research institutions and programs. The Oversight Body will ensure through the research activity that, on a periodic basis:</p> <ol style="list-style-type: none"> 1. reports on relevant emerging technologies are produced; 2. research priorities are identified; 3. research funding is administered; 4. results of research are made public, and 5. results of each cycle are applied to the next cycle of these steps. 	<p>Not Applicable to conditions of the Licence or Permit under the Board's jurisdiction.</p>
4	Closure Approach/Research	<p>The Oversight Body will provide the results of the research funding by the Developer to the periodic reviews of the Project described in Measure 2. If better technology options are identified through the funding research in-between these periodic 20-year reviews, these will be reported publicly by the Oversight Body to the Parties, the Developer and the Canadian Public. The developer will consider these technologies and make decision regarding their feasibility. The developer will make such decisions public.</p>	<p>If technological advances are incorporated during the life of the Licence, they can be included through an amendment and/or through updates provided in the Water Licence Annual Report.</p> <p>If outcomes from work completed by the Giant Mine Oversight Board impact any Management or Monitoring Plans or Closure Activities, they should be captured through Annual Updates as required by Licence conditions, or through the submission of Design Plans specific to a changed component.</p>
5	Quantitative Risk Assessment (QRA)	<p>In order to mitigate significant adverse impacts that are otherwise likely, the Developer will commission an independent</p>	<p>As required by the measure, the QRA was required prior to regulatory</p>

		<p>quantitative risk assessment to be completed before the Project receives regulatory approvals. This will include:</p> <ol style="list-style-type: none"> 1. Explicit acceptability thresholds, determined in consultation with potentially affected communities 2. An examination of risks from a holistic perspective, integrating the combined environmental, social, health and financial consequences. 3. Possible events of a worst-case/ low frequency high consequence nature 4. Additional considerations specified in Appendix D of the Report of EA <p>From this, the Developer will identify any appropriate Project improvements and identify management responses to avoid or reduce the severity of predicted unacceptable risks.</p>	<p>approval, and has been completed by CIRNAC-GMRP. Results will be presented to the public and carried forward in future versions of Design Plans as required.</p> <p>A summary of engagement on findings from the QRA are required to be included in the Water Licence Annual Report as part of engagement completed under the Engagement Plan. A summary of results of the QRA are also required to be included in the GMRP CRP. A discussion of how the results of the QRA have been incorporated into design, and an explanation of how proposed monitoring will assess the risks identified in the QRA, are requirements for Design Plans that are to be submitted under the Licence.</p>
6	Long-term Funding	<p>The Developer will:</p> <ul style="list-style-type: none"> • investigate long-term funding options for the ongoing maintenance of this Project and for contingencies, including a trust fund with multi-year up front funding, • involve stakeholders and the public in discussions on funding options; and, • make public a detailed report within three years that describes its consideration of funding options, providing stakeholders with the opportunity to comment on the report. 	<p>The final long-term funding report was engaged upon and provided outside the Water Licence process. Based on discussion from the public hearing and the reasons described in the Reasons for Decision, the Board has identified why it is confident in the financial responsibility of CIRNAC-GMRP for the life of this authorization, and beyond, as required under paragraph 72.03(5)(d) of the MVRMA.</p>
7	Environmental Agreement and GMOB	<p>The Developer will negotiate a legally-binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate</p>	<p>Environmental Agreement signed outside the Water Licence process. GMOB has been established and has</p>

		representative organizations, to create an independent Oversight Body for the Giant Mine Remediation Project. These negotiations will build on the existing discussion paper and draft environmental agreement of the Giant Oversight Working group. This oversight body will exist for the life of the Project unless otherwise agreed by the Parties to the Environmental Agreement. Every effort will be made to have the Oversight Body in place as early as possible. The negotiations will make significant progress within six months of the Ministers' environmental assessment decision or proceed to mediation. The Developer will cover any mediation costs. The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the Oversight Body.	been involved in the regulatory review of the Project.
8	Role of GMOB	<p>The activities of the oversight body will include:</p> <ul style="list-style-type: none"> • Keeping track of monitoring activities by the Developer and the results of those activities, including water quality and aquatic effects monitoring, health monitoring and other monitoring • Considering the adequacy of funding for the Project and ongoing research • Providing advice to the Developer, regulators and government on ongoing improvements in monitoring and Project management to prevent risks and mitigate any potential impacts • Sharing the oversight body's conclusions with the general public and potentially affected communities in a culturally appropriate manner 	Not Applicable to conditions of the Licence or Permit under the Board's jurisdiction.
9	Health Effects Monitoring Program (HEMP)	The Developer will work with other federal and territorial departments as necessary to design and implement a broad health effects monitoring program in Ndilo, Dettah and Yellowknife focussing on arsenic and any other contaminants in people which might result from this Project. This will include studies of baseline health effects of these contaminants and ongoing periodic monitoring. This will be designed with input from:	<p>As required by the measure, the HEMP is required to be carried out by a third-party. It was established in 2017. Results will continue to be presented to the public.</p> <p>A summary of engagement on findings from the HEMP are required to be included</p>

		<ul style="list-style-type: none"> • Health Canada, GNWT Health and Social Services and the Yellowknife medical community; and • The Yellowknives Dene and other potentially affected communities. <p>The organization conducting the monitoring will provide regular plain language explanations of the monitoring results in terms that are understandable to lay people, and communicate this to potentially affected communities in a culturally appropriate manner.</p>	<p>in the Water Licence Annual Report as part of engagement completed under the Engagement Plan. If future outcomes of the HEMP impact any Management or Monitoring Plans or Closure Activities, they should be captured through Annual Updates as required by Licence conditions, or through the submission of Design Plans specific to a changed component.</p>
10	Human Health and Ecological Risk Assessment (HHERA)	<p>The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. This human health risk assessment will be completed before the Project receives regulatory approvals. It will:</p> <ol style="list-style-type: none"> 1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports; 2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of EA); 3. Decide whether a Tier III risk assessment is appropriate; 4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner; 5. Provide interpretation of results and related guidance; and 6. Inform the broad health effects monitoring program (described in Measure 9 above). <p>The Developer may conduct the human health risk assessment concurrently with the quantitative risk assessment described in Measure 5. Based on the results of this human health risk assessment, and on any</p>	<p>The HHERA is included as an appendix to the CRP and has been used to support proposed Closure Activities.</p> <p>A summary of activities and monitoring conducted in accordance with the Wildlife and Wildlife Habitat Protection Plan is required to be provided in the Annual Water Licence Report. This should include an evaluation of potential programs for small mammal and insect monitoring and sampling.</p>

		existing results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.	
11	Baker Creek Diversion Options	<p>The Developer, with meaningful participation from the Oversight Body and other parties, will thoroughly assess options for, and the environmental impacts of, diversion of Baker Creek to a north diversion route previously considered by the Developer or another route that avoids the mine site and is determined appropriate by the Developer. Within one year of the project receiving its water licence, a report outlining a comparison of options including the current on-site realignment will be provided to the appropriate regulatory authorities, the Oversight Body and the public.</p> <p>Once informed by the advice of the Oversight Body and regulatory authorities, the Developer will determine and implement the preferred option. In doing so, the Developer will consider the advice of the Oversight Body, regulatory authorities, and the public, and will ensure that the primary considerations in selecting an option are to:</p> <ul style="list-style-type: none"> a) Minimize the likelihood of Baker Creek flooding and entering the arsenic chambers, stopes and underground workings, and b) Minimize the exposure of fish in Baker Creek to arsenic from existing contaminated sediments on the minesite or tailings runoff. If off-site diversion is selected, the Developer will seek required regulatory approvals to implement the diversion within five years of receiving its initial water licence. 	<p>Pre-Application engagement and reporting led to Project changes described in the GMRP CRP: Changes include pit fill and recontouring, removal of sediments from Baker Creek, Baker Creek realignment including erosion-resistant berms, enlarged floodplain, etc. These activities are part of the Project as approved by the Board and implementation reports are required through Design Plans, Construction Plans, Closure and Reclamation Completion Reports, and Performance Assessment Reports before final closure can be confirmed, where possible.</p> <p>Water Quality requirements: EQCs, AEMP, SNP Water monitoring are established to ensure contaminants in Baker Creek and Yellowknife Bay are being reduced and minimized through closure efforts. All monitoring data will be reported for review and approval through the Annual Water Licence Report.</p>

12	Site-Specific Water Quality Objectives (SSWQOs)	<p>To prevent significant adverse impacts on Great Slave Lake from contaminated surface water in the existing or former channel of Baker Creek, should it be re-routed to avoid the mine site, the Developer will ensure that water quality at the outlet of Baker Creek channel will be site-specific water quality objectives based on the CCME <i>Guidance on the Site-Specific Application of Water Quality Guidelines in Canada</i>.</p>	<p>Effluent Quality Criteria (EQC) have been established as conditions of the Licence and Surface Runoff Criteria will be established through approvals of the Water Management and Monitoring Plan. EQCs have been calculated so that SSWQOs will be met upon completion of the GMRP Active Remediation and Adaptive Management (Phase 2) and will be met in the vicinity of the outlet of Baker Creek (see measure 13) and at the edge of a 200 m mixing zone (see measure 15) that includes the Project's new Water Treatment Plant outfall and the influence of Baker Creek.</p> <p>Compliance with EQCs, measured at SNP stations should ensure SSWQOs are being met and any impacts on aquatic life are aligned with AEMP predictions and requirements.</p>
13	Site-Specific Water Quality Objectives (SSWQOs)	<p>The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the existing or former Baker Creek channel, should it be re-routed to avoid the mine site, excluding Reach 0:</p> <ul style="list-style-type: none"> a) Water quality changes due to discharge from Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity; b) Water quality changes due to discharge from Baker Creek will not harm fish health, abundance or diversity; c) Water quality changes due to 	<p>Measure 13 a) through d) are satisfied by selecting Water Quality Objectives for Yellowknife Bay that are protective of aquatic life and drinking Water. Arsenic concentrations in Great Slave Lake, beyond the edge of the mixing zone (200 m from breakwater), will not increase from present-day concentrations as demonstrated in the EQC Report and supporting documentation (see measure 12). The Annual Water Licence Report and Aquatic Effects</p>

		<p>discharge from Baker Creek will not adversely affect areas used as drinking water sources,</p> <p>d) Water quality changes due to discharge from Baker Creek will not adversely affect any traditional or recreational users; and,</p> <p>e) There is no increase in arsenic levels in Great Slave Lake due to discharge from Baker Creek beyond the parameters described in Measure 12.</p>	<p>Monitoring Program (AEMP) Annual Report will provide annual summaries and analysis of all monitoring results occurring at the Giant Mine site including an analysis of how this measure is being met.</p> <p>Effluent Quality Criteria (EQC) have been established as conditions of the Licence and Surface Runoff Criteria will be established through approvals of the Water Management and Monitoring Plan.</p> <p>Compliance with EQCs measured at SNP stations should ensure SSWQOs are being met and any impacts on aquatic life are aligned with AEMP predictions, requirements and action plans.</p>
14	Water Treatment Plant (WTP)	<p>The Developer will add an ion exchange process to its proposed water treatment process to produce water treatment plant effluent that at least meets Health Canada drinking water standards (containing no more than 10 µg/L of arsenic), to be released using a near shore outfall immediately offshore of the Giant mine site instead of through the proposed diffuser. The Developer will achieve this concentration without adding lake water to dilute effluent in the treatment plant.</p>	<p>The ion exchange process and near shore outfall in the vicinity of Baker Creek are approved as part of the Project, as applied for.</p> <p>Health Canada drinking Water standards for arsenic are included in the end-of-pipe EQCs for the WTP as a condition of the Licence.</p>
15	Water Treatment Plant (WTP) Effluent Quality Criteria (EQC)	<p>The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern:</p> <ol style="list-style-type: none"> 1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and, 	<p>Measure 15 is satisfied by selecting Effluent Quality Criteria at the outfall that are protective of aquatic life and drinking Water. The Annual Water Licence Report and Aquatic Effects Monitoring Program (AEMP) Annual Report will</p>

		<p>2. The following water quality objectives in the receiving environment are met:</p> <ul style="list-style-type: none"> a) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity at 200 metres from the outfall; b) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity; c) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and, d) There is no increase in arsenic levels in Yellowknife Bay water at 200 metres from the outfall; and e) There is no increase in arsenic levels in Yellowknife Bay sediments at 500 metres from the outfall. 	<p>provide annual summaries and analysis of all monitoring results occurring at the Giant Mine site including an analysis of how this measure is being met.</p> <p>A Plume Delineation Study is also being required to verify that the extent of treated Effluent in the Receiving Environment is meeting measure limits and requirements. Results of the Plume Delineation Study will inform the AEMP Re-evaluation Report.</p> <p>Effluent Quality Criteria (EQC) and Surface Runoff Criteria have been established as either conditions of the Licence or through approvals of the Water Management and Monitoring Plan, respectively. Compliance with EQCs, measured at SNP stations should ensure SSWQOs are being met and any impacts on aquatic life are aligned with AEMP predictions and requirements.</p>
16	Arsenic Re-suspension	Before construction, the Developer will model re-suspension of arsenic from sediments and resulting bioavailability in the vicinity of the outfall. If the modelling results indicate that the outfall may re-suspend arsenic from sediments, the Developer will modify the outfall design until operation does not cause re-suspension of arsenic from sediment.	The potential of sediment resuspension is being mitigated through design of a sediment cover, rather than modelling. Details on cover design and monitoring will be provided for review and approval through the submission of a Design Plan.
17	Aquatic Effects Monitoring Program (AEMP)	Before operating the outfall, the Developer will design and implement a comprehensive aquatic effects monitoring program that is sufficient to determine if	AEMP requirements are outlined in the Licence including the need to submit to the Board, for

		<p>the water quality objectives listed in Measure 15 are being met. This program will:</p> <ol style="list-style-type: none"> 1. at a minimum, be able to identify any accumulation of arsenic over time in the water, sediment or fish in the receiving environment 2. include appropriate monitoring locations near Ndilo, in Back Bay and in Yellowknife Bay, with a focus on areas in the vicinity of the outfall and areas used by people. 3. include the establishment of a baseline for aquatic effects in Back Bay before beginning Project construction and installation of the outfall. 4. be developed according to AANDC <i>Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs for Development Projects in the Northwest Territories</i>, June 2009, with corresponding action levels and management response framework. 	<p>approval, Aquatic Effects Monitoring Program Design Plans, an Aquatic Effects Baseline Report for Yellowknife Bay, a Plume Delineation Study, and AEMP Re-Evaluation Reports.</p> <p>The Annual Water Licence Report and Aquatic Effects Monitoring Program (AEMP) Annual Report will provide annual summaries and analysis of all monitoring results occurring at the Giant Mine site including an analysis of how this measure is being met.</p> <p>Effluent Quality Criteria (EQC) have been established as conditions of the Licence and Surface Runoff Criteria will be established through approvals of the Water Management and Monitoring Plan. Compliance with EQCs, measured at SNP stations should ensure SSWQOs are being met and any impacts on aquatic life are aligned with AEMP predictions and requirements.</p>
18	Freeze Design	<p>Prior to preparing chambers and stopes for freezing, the Developer will conduct a comprehensive quantitative risk assessment evaluating both wet and dry methods for the initial freezing design, with respect to current risks and implications for future removal. This will include an evaluation of potential effects of the proposed freezing and wetting method on the thawing or frozen excavations, and potential impacts of ongoing design changes prior to implementing the Project. The Developer</p>	<p>A dry method passive freeze system has been approved as part of the Project, as applied for. Additional assessment completed as per measure 18 identified the dry method to be sufficient to meet Closure Objectives; it does not require wetting of arsenic trioxide dust before freezing. The dry method would facilitate future</p>

		will release a plain language report to the public describing its considerations and the resulting design.	removal which satisfies measure 19. The Freeze Optimization Study identified that a passive system is sufficient to achieve a frozen state, reducing long-term operational and energy needs.
19	Reversibility	Considering the results of the risk assessment described in Measure 18, the Developer will not adopt any method of freezing that significantly reduces opportunities for future arsenic removal or other remediation by future technologies.	Closure Objective F2 of the CRP and associated Closure Criteria address reversibility in the CRP. Closure Criteria must be demonstrated through Performance Assessment Reports prior to the Project moving from Active Remediation and Adaptive Management (Phase 2) to Long-term Monitoring and Maintenance (Phase 3) of closure.
20	Dust Control	The Developer will conduct all major demolition and construction activities with the potential to release large amounts of dust or contaminants into the air when wind directions will minimize the chances of dust and contaminants blowing into the City of Yellowknife, Dettah and Ndilo.	<p>The Air Quality Monitoring Program (AQMP) was developed in accordance with measure 25 and includes monitoring details for activity-specific monitoring, fence line monitoring at the project boundary, and community monitoring. The AQMP is included as an appendix to the Dust Management and Monitoring Plan.</p> <p>The Dust Management and Monitoring Plan addresses both wind erosion of existing site features and minimizing dust generation during implementation of Closure Activities. It is subject to review and is for Board approval. Results of Dust Monitoring will be reported in the Water Licence Annual Report.</p>

21	Dust Monitoring	<p>The Developer will collect dust and contaminant level data from soil and vegetation in the vicinity of major reclamation activities before and after major demolition or construction activities to serve as a baseline for any related adaptive management activities that may follow.</p>	<p>The Air Quality Monitoring Program (AQMP) was developed in accordance with measure 25 and includes monitoring details for activity-specific monitoring, fence line monitoring at the project boundary, and community monitoring. The AQMP is included as an appendix to the Dust Management and Monitoring Plan.</p> <p>The Dust Management and Monitoring Plan addresses both wind erosion of existing site features and minimizing dust generation during implementation of Closure Activities. It is subject to review and is for Board approval. Baseline conditions have been identified and are used for determining action levels in the event impacts are measured. Results of Dust Monitoring including any mitigative measure, if required, will be reported in the Annual Water Licence Report.</p>
22	Cover Design	<p>The Developer will conduct a study to determine appropriate depth of the tailings cap and B1 pit cover, in consultation with Environment Canada and responsible regulators, to verify that the depth proposed will ensure the tailings cap and B1 pit cover are not compromised by vegetation growth. The Developer will provide a report of this study to the Mackenzie Valley Land and Water Board before it issues a water license for the Project.</p>	<p>Detailed cover design plans will be required in the component-specific Design Plans for Board approval. The current closure plan for pit covers includes a rock cover to discourage vegetation growth. Geomembrane liners may also be used to improve the quality of Runoff Water, further discouraging the growth of vegetation on these features. These activities have been approved as part of the CRP.</p>

23	Tailings Management and Monitoring	The Developer will work cooperatively with responsible regulatory authorities and interested Parties in the development and submission of a Tailings Monitoring and Management Plan prior to receiving regulatory approvals. This plan will not only identify potential issues for the management of tailings but will also identify mitigation measures to prevent problems related to the tailings cap failure, and will include consideration of the B1 pit cover as applicable.	<p>A Tailings Monitoring and Management Plan was provided with the Application and will be resubmitted for review and approval prior to the initiation of Active Remediation and Adaptive Management (Phase 2).</p> <p>Detailed cover design plans will be required in the component-specific Design Plans for Board approval. Where not yet available, mitigation measures to prevent problems related to cap failure will be addressed in more detail.</p>
24	Cover Design	The Developer will physically prevent all-terrain vehicle access to the tailings cap and B1 pit cover to prevent the surface from being eroded or otherwise compromised. The Developer will monitor the effectiveness of this prevention, and will take any additional management measures as necessary to prevent all-terrain vehicle access.	<p>ATV passage over coarse rock covers on Tailings, if it occurs, will not harm the performance and structure of the covers. It will, in fact, be more likely to harm the vehicles.</p> <p>Detailed cover design plans will be required in the component-specific Design Plans for Board approval. Monitoring activities for Active Remediation are outlined in the Tailings Management and Monitoring Plan. Post-closure monitoring requirements will be identified in the component-specific Design Plans and the Post-Closure Monitoring and Maintenance Plan.</p>
25	Air Quality Monitoring Plan (AQMP)	The Developer will work cooperatively with responsible regulatory authorities and interested Parties in the development and submission of an Air Quality Management Plan which incorporates an ongoing air quality monitoring program. This ongoing monitoring program will include all	The Air Quality Monitoring Program (AQMP) was developed in accordance with measure 25 and includes monitoring details for activity-specific monitoring, fence line

		<p>previously identified on-site air quality monitoring stations and one off-site air quality monitoring station near Niven Lake. At a minimum, ambient concentrations of NO2 and PM2.5 will be monitored at the Niven lake site. Total suspended particulate and metal concentrations will be monitoring at the on-site locations. This air quality monitoring program will identify action levels and trigger additional management and mitigation activities, if required.</p>	<p>monitoring at the project boundary, and community monitoring. The AQMP is included as an appendix to the Dust Management and Monitoring Plan.</p> <p>Results of air quality monitoring will be reported in the Water Licence Annual Report.</p>
26	End Use	<p>In conjunction with Measure 10 above, the Developer will consider the results of the comprehensive human health risk assessment, and consult with the YKDFN and City of Yellowknife when determining suitable end uses of the site, to ensure that those proposed uses do not pose a health risk to people, including toddlers.</p>	<p>The HHERA was completed in 2018 and results were presented to the YKDFN, the City of Yellowknife and other affected parties. The HHERA did assess risk levels for toddlers.</p> <p>The CRP provides constraints to end land use (specifically Figure 3.4-1 Post-Closure Site Conditions). A site-wide Closure Objective and associated Closure Criteria is for residual risks to be identified and for local residents to continually be informed of residual hazards. The core development area will have access controls designed to restrict and/or discourage access. Future uses for the remaining areas and ongoing communications about the site and its risks are identified and described in the Perpetual Care Plan. Future use will be determined by the GNWT and/or the City of Yellowknife. Engagement associated with the Perpetual Care Plan is to be reported annually in the Annual Water Licence Report. The Perpetual Care</p>

			Plan should be included as an appendix to the Post-Closure Monitoring and Maintenance Plan that will be required for Long-term Monitoring and Maintenance (Phase 3).
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6. Conclusion

Based on information in the Post-EA Information Package and Permit Application, the public review, technical session and workshop discussions, Public Hearing and review of draft authorizations, Board staff suggest that the draft conditions presented to the Board for consideration should address concerns and recommendations discussed during the Project review, and help to reduce or minimize potential environmental effects associated with the use of land, water and deposit of waste from the GMRP.

7. Recommendations

Board staff recommend the Board:

- a) **Make a motion to recommend approval to the Minister of the Type A Water Licence MV2007L8-0031** for a term of 20 years and **associated Reasons for Decisions**.
- b) **Make a motion to approve the Type A Land Use Permit MV2019X0007** for a term of five years and **associated Reasons for Decision**.
- c) **Make a motion to approve the Giant Mine Remediation Project Closure and Reclamation Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Closure and Reclamation Plan in accordance with MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, comments and commitments made during this review, and Schedule 2, condition 1 of MV2007L8-0031. The revised Closure and Reclamation Plan must be submitted within six months of Licence issuance or within nine months of Permit issuance, whichever comes first, for Board staff confirmation of conformity.
- d) **Make a motion to approve the Spill Contingency Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Spill Contingency Plan in accordance with the INAC *Guidelines for Spill Contingency Planning*, comments and commitments made during this review, and Schedule 5, condition 1 of MV2007L8-0031. The revised Spill Contingency plan must be submitted within 90 days of Licence issuance or 90 days prior to the initiation of Phase 2, whichever comes first, for Board decision.
- e) **Make a motion to approve the Engagement Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Engagement Plan in accordance with the MVLWB *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, comments and commitments made during this review, and Schedule 1, condition 2 of MV2007L8-0031. The revised Engagement Plan must be submitted within 90 days of Licence issuance or within six months of Permit issuance, whichever comes first, for Board decision.
- f) **Make a motion to approve the Waste Management and Monitoring Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Waste Management and Monitoring Plan in accordance with the MVLWB *Guidelines for Developing a Waste Management Plan*, comments and commitments made during this review, and Schedule 4, condition 1 of MV2007L8-0031 a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board decision.

- g) **Make a motion to approve the Water Management and Monitoring Plan as an interim submission** CIRNAC-GMRP is required to submit a revised Water Management and Monitoring Plan in accordance with comments and commitments made during this review and Schedule 4, conditions 2 and 3 of MV2007L8-0031 a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board decision.
- h) **Make a motion to approve the Erosion and Sediment Management and Monitoring Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Erosion and Sediment Management and Monitoring Plan in accordance with comments and commitments made during this review and Schedule 4, conditions 4 and 5 of MV2007L8-0031 a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board decision.
- i) **Make a motion to approve the Dust Management and Monitoring Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Dust Management and Monitoring Plan in accordance with comments and commitments made during this review and Schedule 4, conditions 6 and 7 of MV2007L8-0031 a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board decision.
- j) **Make a motion to approve the Tailings Management and Monitoring Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Tailings Management and Monitoring Plan in accordance with comments and commitments made during this review and Schedule 4, condition 8 of MV2007L8-0031 a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board decision.
- k) **Make a motion to approve the Aquatic Effects Monitoring Program Design Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Aquatic Effects Monitoring Program Design Plan in accordance with comments and commitments made during this review and Schedule 6, conditions 1 and 2 of MV2007L8-0031 within 90 days of Licence issuance, for Board staff confirmation of conformity.
- l) **Make a motion to approve the Wildlife and Wildlife Habitat Management Plan as an interim submission.** CIRNAC-GMRP is required to submit a revised Wildlife and Wildlife Habitat Management Plan in accordance with comments and commitments made during this review a minimum of 90 days prior to commencement of Active Remediation and Adaptive Management (Phase 2), for Board staff confirmation of conformity.

A draft decision letter for the Land Use Permit is attached for the Board's consideration. A draft letter to the Minister recommending approval of the Water Licence is attached for the Board's consideration.

8. Attachments

- Comment Summary Table – With Board Staff Analysis – Information Request Response
- Comment Summary Table – With Board Staff Analysis – Draft Water Licence and Land Use Permit Conditions
- Draft Land Use Permit Cover Page and Conditions
- Draft Water Licence Conditions and Cover Page
- Draft Reasons for Decision
- Draft Water Licence Recommendation Letter to Federal Minister
- Draft Land Use Permit Decision Letter from the Board

Registry Files

[MV2007L8-0031](#)

[MV2019X0007](#)

Application Documents

- [Land Use Permit Application – Cover Letter, Application Form, Proposed Permit Conditions and Updated Project Description](#)
- [Post Environmental Assessment Package – Cover Letter, Water Licence Information, Updated Project Description and Proposed Licence Conditions](#)
- [Proposed Surveillance Network Program \(Proponent\)](#)
- [Response to Pre-Engagement Reviewer Comments](#)

Closure and Reclamation Plan and Appendices

- [Closure and Reclamation Plan](#)
- [Appendix 1A – Concordance Table](#)
- [Appendix 1B – Surface Design Engagement Options Evaluation Workshop](#)
- [Appendix 2A – Site Photos](#)
- [Appendix 2B – Baker Creek Ecosystem Synthesis Report](#)
- [Appendix 2C – Water Quality Tables](#)
- [Appendix D – Giant Mine 2017 MMER/EEM Annual Report](#)
- [Appendix 2E – Human Health and Ecological Risk Assessment – Part 1](#)
- [Appendix 2E – Human Health and Ecological Risk Assessment – Part 2](#)
- [Appendix 2E – Human Health and Ecological Risk Assessment – Part 3](#)
- [Appendix 2E – Human Health and Ecological Risk Assessment – Part 4](#)
- [Appendix 4 A – Lessons Learned](#)
- [Appendix 5.0A – Closure Objectives and Criteria](#)
- [Appendix 5.1A – Arsenic Waste Disposal Scenarios Memo](#)
- [Appendix 5.1B – Planned Minewater Level Raise Reclamation Research Plan](#)
- [Appendix 5.2A – Freeze Program Design Basis Report](#)
- [Appendix 5.3A – Description of Open Pits](#)
- [Appendix 5.3B – Open Pit Closure Options Assessment](#)
- [Appendix 5.4A – Remedial Strategy for Contaminated Soil and Sediment](#)
- [Appendix 5.4B – Contamination Down Gradient of Dam 3 Reclamation Research Plan](#)
- [Appendix 5.5A – Baker Creek Diversion Alternative Evaluation](#)
- [Appendix 5.5B – Passive and Semi-Passive Treatment Systems Reclamation Research Plan](#)
- [Appendix 5.5C – Baker Creek Flood Hazard Assessment](#)
- [Appendix 5.6A – Conceptual Tailings Cover Design](#)
- [Appendix 5.6B – Tailings Remedial Options Report](#)
- [Appendix 5.6C – Geotechnical and Geochemical Investigation Factual Report – North, Central, and South Ponds Part 1](#)
- [Appendix 5.6C – Geotechnical and Geochemical Investigation Factual Report – North, Central, and South Ponds Part 2](#)
- [Appendix 5.6D - Cover Design Remedial Operations and Trade-Off Report](#)
- [Appendix 5.7A – Supplemental Borrow Source Identification Report](#)
- [Appendix 5.8A – Preliminary Design Report for Giant Mine Water Treatment Plant](#)
- [Appendix 5.8B – New Effluent Treatment Plant – Outfall Location Options Analysis](#)
- [Appendix 5.9A – Preliminary Design Report for Surface Demolition and Debris Removal Part 1](#)
- [Appendix 5.9A - Preliminary Design Report for Surface Demolition and Debris Removal Part 2](#)

- [Appendix 5.9A - Preliminary Design Report for Surface Demolition and Debris Removal Part 3](#)
- [Appendix 5.9A - Preliminary Design Report for Surface Demolition and Debris Removal Part 4](#)
- [Appendix 5.10A – Non-Hazardous Waste Landfill Preliminary Design Report](#)
- [Appendix 5.10B – Site Location for Non-Hazardous Waste Landfill](#)

Management Plans

- [Engagement Plan and Log](#)
- [Spill Contingency Plan](#)
- [Waste Management and Monitoring Plan](#)
- [Dust Management and Monitoring Plan](#)
- [Erosion and Sediment Management and Monitoring Plan](#)
- [Wildlife and Wildlife Habitat Monitoring and Management Plan](#)
- [Aquatic Effect Monitoring Program, Design Plan – Baker Creek](#)
- [Effluent Quality Criteria Report](#)
- [Effluent Quality Criteria Report – Attachments](#)
- [Standard Operating Procedures for Effluent and Water Sampling – Part 1](#)
- [Standard Operating Procedures for Effluent and Water Sampling – Part 2](#)
- [Water Management and Monitoring Plan](#)
- [Conceptual Aquatic Effects Monitoring Program, Design Plan – YK Bay](#)

Comment Summary Table from Initial Reviews

- [Review 1 of 7 – Land Use Permit Application](#)
- [Review 2 of 7 – Water Licence Post EA Information Package](#)
- [Review 3 of 7 – Management Plans Group 1](#)
- [Review 4 of 7 – Preliminary Screening Information](#)
- [Review 5 of 7 – Closure and Reclamation Plan](#)
- [Review 6 of 7 – Management Plans Group 2](#)
- [Review 7 of 7 – Management Plans \(Other\)](#)
- [Comments from Health Canada - Application](#)

Technical Session #1

July 9 – 12, 2019

- [Agenda](#)
- [Transcripts Day 1 \(July 9, 2019\)](#)
- [Transcripts Day 2 \(July 10, 2019\)](#)
- [Updated Agenda for Day 3 and 4](#)
- [Transcripts Day 3 \(July 11, 2019\)](#)
- [Transcripts Day 4 \(July 12, 2019\)](#)
- [Technical Session Presentations](#)

Information Request from Technical Session #1

- [Information Request](#)
- [Response to Request GMRP](#)
- [Response to Request GMRP – Appendix 5](#)
- [Response to Request ECCC](#)
- [Response to Request ECCC – Follow up](#)

- [Response to Request GNWT-ENR](#)

Technical Session #2

September 11-13, 2019

- [Closure Criteria Workshop Agenda](#)
- [Technical Workshop Notes](#)
- [Technical Session Agenda](#)
- [Transcripts Day 1 \(September 11, 2019\)](#)
- [Transcripts Day 2 \(September 12, 2019\)](#)
- [Transcripts Day 3 \(September 13, 2019\)](#)

Information Request from Technical Session #2

- [information Request](#)
- [CIRNAC Letter](#)
- [CIRNAC Response to Information Request](#)
- [CIRNAC Response to Information Request – Appendix 5](#)

Preliminary Screening Documents

- [February 20, 2008 Preliminary Screening](#)
- [March 31, 2008 City of Yellowknife referral to EA](#)
- [June 30, 2013 Report of Environmental Assessment EA0809-001](#)
- [August 11, 2014 Minister of DIAND approval of the REA, including modified Measures](#)
- [GMRP Preliminary Screening Document](#)
- [Board staff draft Preliminary Screening Document](#)
- [Engagement Plan and Engagement Log](#)
- [Letter from GMRP, GNWT-ENR regarding Water Act vs. MVRMA](#)
- [Giant Mine Human Health and Ecological Risk Assessment](#)
- [Giant Mine Remediation Project Developer's Assessment Report from EA0809-001](#)
- [ETP Sludge and WTP Media Waste Characterization Results](#)
- [Letter from GMRP regarding the Partial Minewater Raise Reclamation and Research Plan](#)
- [Staff Report and Comments](#)
- [Preliminary Screening Form](#)

Public Hearing Notices

- [Notice of Public Hearing – December 16, 2019](#)
- [Notice of Public Hearing – January 3, 2020](#)
- [Notice of Public Hearing – January 10, 2020](#)

Interventions

- [B. Slater](#)
- [Alternatives North](#)
- [Environment and Climate Change Canada](#)
- [North Slave Métis Alliance](#)
- [Yellowknives Dene First Nation](#)
- [Department of Fisheries and Oceans](#)
- [Yellowknife Historical Society](#)

- [Giant Mine Oversight Board](#)
- [City of Yellowknife](#)
- [GMRP Response to Interventions](#)
- [Pre-Hearing Conference Agenda](#)
- [Pre-Hearing Conference Notes](#)

Presentations

- [GMRP Evening Presentation](#)
- [GMRP Presentation 1](#)
- [GMRP Presentation 2](#)
- [GMRP Presentation 3](#)
- [Slater Environmental](#)
- [North Slave Métis Alliance](#)
- [Environment and Climate Change Canada](#)
- [Alternatives North](#)
- [City of Yellowknife](#)
- [Department of Fisheries and Oceans](#)
- [Giant Mine Oversight Board](#)
- [Yellowknife Historical Society](#)
- [Yellowknives Dene First Nation](#)

Public Hearing

- [Public Hearing Agenda](#)
- [Transcripts Day 1 \(January 22, 2020\)](#)
- [Transcripts Day 2 \(January 23, 2020\)](#)
- [Transcripts Day 3 \(January 24, 2020\)](#)
- [Transcripts Day 4 \(January 25, 2020\)](#)
- [Transcripts Day 5 \(January 26, 2020\)](#)
- [Public Hearing Undertakings to GNWT](#)
- [Public Hearing Undertakings to CIRNAC](#)

Responses to Undertakings

- [Cover letter from GMRP](#)
- [GMRP Undertaking 2 – Updated Surveillance Network Program](#)
- [GMRP Undertaking 2 – Updated Standard Operating Procedures](#)
- [GMRP Undertaking 3 – Recommendations outside Jurisdiction](#)
- [GNWT Undertaking 4](#)
- [GMRP Undertaking 5 – Project Commitments on Plans](#)
- [GMRP Undertaking 6 – EA Measures Update](#)

Closing Statements

- [GMRP](#)
- [Slater Environmental](#)
- [Alternatives North](#)

- [City of Yellowknife](#)
- [Department of Fisheries and Oceans](#)
- [Environment and Climate Change Canada](#)
- [Giant Mine Oversight Board](#)
- [North Slave Métis Alliance](#)
- [Yellowknives Dene First Nation](#)

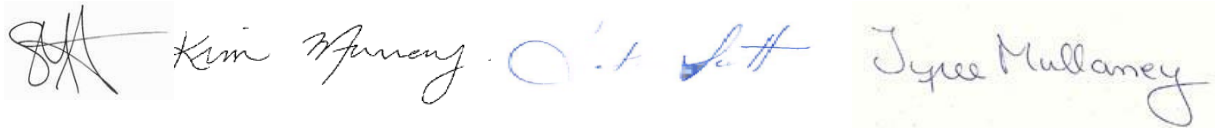
Draft Land Use Permit and Water Licence Condition Review

- [Comment Summary Table](#)

Information Request – May 2020

- [Information Request](#)
- [GMRP Response](#)
- [Comment Summary Table](#)

Respectfully submitted,



Shannon Allerston
Regulatory
Specialist

Kim Murray
Regulatory
Specialist

Heather Scott
Senior Technical Advisor

Tyree Mullaney
Regulatory Specialist

Review Comment Table

Board:	MVLWB
Review Item:	CIRNAC - Giant Mine Remediation Project - Draft Land Use Permit and Draft Water Licence Conditions (MV2019X0007 and MV2007L8-0031)
File(s):	MV2007L8-0031 MV2019X0007
Proponent:	DIAND - GIANT
Document(s):	Draft Water Licence Conditions (931kb) Draft Land Use Permit Conditions (359kb)
Item For Review Distributed On:	Mar 5 at 15:09 Distribution List
Reviewer Comments Due By:	Mar 23, 2020
Proponent Responses Due By:	Apr 17, 2020
Item Description:	<p>The purpose of this draft Land Use Permit and Water Licence is to allow reviewers to comment on possible conditions for the authorization of activities associated with the Giant Mine Remediation Project. These draft materials are not intended to limit, in any way, the scope of reviewers' comments.</p> <p>The Board is not bound by the contents of the draft Permit or Licence and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all reviewers. Please note that review comments and recommendations on the draft Permit and Licence must not introduce new evidence at this point in the proceeding.</p> <p>Reviewers are invited to submit comments, and recommendations using the Online Review System (ORS) by the review comment deadline specified below. Please clearly indicate which draft authorization and which draft condition(s) you are commenting on.</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>
General Reviewer Information:	<p>In addition to the email distribution list, the following organizations received review materials by fax:</p> <p>Northwest Territory Métis Nation; Tim Heron; NWTMN IMA Coordinator; (867) 872-3586; tim.heron@nwtmetis.ca or (alternatively) lands.resources@nwtmetis.ca</p>
Contact Information:	<p>Kim Murray (867) 766-7458 Shannon Allerston 867-766-7465 Tyree Mullaney 867-766-7464</p>

Comment Summary

DIAND - GIANT (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
2	General File	Comment (doc) Cover Letter for Comments on Draft Land Use Permit and Draft Water Licence Conditions. Recommendation		
Alternatives North: Katharine Thomas				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Scope and Term of Licence	Comment In the eyes of the public, acting within the parameters of the regulatory remit, inspectors representing the Department of Indian Affairs and Northern Development (DIAND) have consistently found in favour of the interests of the miner over those of the public. It bears mentioning that everything that contributed to the need for the current billion-plus dollar publicly-funded stabilization and remediation of the Giant Mine site occurred under the watch of local DIAND inspectors. The history of northern mine closures and abandonments is replete with examples of permanent environmental damage and enduring public liability, without recourse to profits made or to those responsible. Recommendation Given this history, AN can not recommend a water licence for the twenty year period requested by the project proponents. A return to the licensing process after no more than one decade is required for enduring public	Apr 16: Please see the GMRP's response to YKDFN comment 3 and the GMRP's closing argument regarding Water Licence term.	Subsection 72(2) of the MVRMA allows for a Licence term of not more than 25 years or the duration of the undertaking. During the Public Hearing, Board staff asked the Project if there were any concerns with limiting the scope of the Licence to Phases 1 and 2, as described in the Updated Project Description. None were identified. Funding for the project has been secured for the next 15 years, however, as GMRP point out, financial responsibility of the Federal government has never previously been a concern of the Board (see previous RFD for Federal and Territorial government Projects) for issuing authorizations. The conditions of a Licence for active remediation are likely much more conservative than that of a post-closure Licence. There are many opportunities for engagement, communication, review, approval, updates, etc. built into the terms and

		confidence. AN supports the scope of the licence being limited to Phase 1, Existing Condition, and Phase 2, Active Remediation and Adaptive Management. As with other intervenors, AN recommends that the term of the licence extend no longer than ten years. Many reasons for this were advanced during the hearings, in addition to the one presented above.		conditions of the draft WL and LUP. A renewal process mid-remediation would divert focus, funding, attention and progress away from the Project. With the scope limited to Phases 1 and 2, GMRP have agreed that, if remediation is complete within the 20-year term, it would re-apply for post-closure authorizations that reflect the phase and scope of the Project.
2	Schedule 1, Condition 2; Schedule 2, Condition 3; Schedule 3, Condition 1; Schedule 4, Condition 10: Risk Communications	<p>Comment AN maintains that a consistent strategy for communicating risks to future generations through visual site-design elements is fundamental to effectively minimizing perpetual care requirements.</p> <p>Recommendation Recommend adding engagement on a site appearance strategy to the list of engagement topics found in Schedule 1, Condition 2, and adding a requirement for a summary of engagement activities on site aesthetic design to Schedule 3, Condition 1. Conducting engagement on site appearance and research into how site appearance may help to effectively communicate site risks to future generations should consistently inform relevant decisions in various Design Plans. AN recommends that Schedule 4, Condition 10 require an estimation of the cost of converting passive thermosyphons into hybrid units, to help inform engagement on Long-Term Funding. It would be of value</p>	<p>Apr 16: The GMRP accepts the recommendation to adding the engagement on site appearance to the engagement activities. The GMRP does not support a condition for research into how site appearance may effectively communicate risk and has indicated that this will be discussed during the development of the Perpetual Care Plan. Furthermore, the GMRP does not support the recommendation to require a cost-estimate to convert thermosyphons from active to passive; this is not necessary for a Management and Monitoring Plan. Discussions on long-term funding will continue under the Perpetual Care Plan and the GMRP can provide information as required. The GMRP does not support the</p>	<p>Engagement on site appearance has been added as a Board Directive for the Engagement Plan in the Draft Water Licence. Engagement on site aesthetic considerations included in Design Plans, though, is arguably included already in the need to engage on the development of each Design Plan. Through these engagements, Parties can take some responsibility in ensuring topics of concern are being addressed and, if not adequately presented in the Design Plans submitted to the Board for approval, can be identified during the course of the public review on that item. Requirements to detail the option to convert passive thermosyphons to hybrid units if climate trends are on a path to exceed current expectations are already required in Schedule 4, Condition 10. Board staff acknowledge that discussions on long-term funding will continue under the Perpetual Care</p>

		if cost estimates were also made publicly available for other proposed responses to any circumstance where Engineered Components fail to meet Closure Criteria, as described in Schedule 2, Condition 3.	recommendation to make cost estimates publicly available in the Performance Assessment Report as this would be in violation of the Government of Canada's procurement policies.	Plan and have not added this requirement to the schedule of the Arsenic Trioxide Frozen Shell Management and Monitoring for this reason. The intent of the Licence and conditions therein is to design for successful closure, however, the need to develop contingency plans and mitigation measures in the event of failure is being built into each phase and is required to be addressed in each Design Plan.
3	Part H, Condition 1, Schedule 1, Condition 2: Socio-Economic Strategy and Long-Term Funding Plans	<p>Comment While it is valuable to include a description of engagement activities undertaken to inform decision making in Part H, item 1 and Schedule 1, Condition 1, AN is concerned to note that a Socio-Economic Strategy and a Long-Term Funding Plan, two specific areas of interest to several parties, are listed in Schedule 1, Condition 2 without any apparent follow up elsewhere in the draft licence conditions. Engagement on a Socio-Economic Strategy and a Long-Term Funding Plan seems likely to be ineffective if the results captured by that engagement process are not reflected elsewhere in the decision making process or in the final details of the licence.</p> <p>Recommendation It should be acknowledged that engagement has, overall, been good at incorporating stakeholder concerns into the evolving design. Maintaining this level of</p>	<p>Apr 16: The GMRP appreciates the feedback on engagement to-date. The GMRP notes that there is no specific "Long-Term Funding Plan" currently being contemplated or prepared by the GMRP outside of the requirements (from the Environmental Agreement) to address long term access to funds in the Perpetual Care Plan.</p>	<p>Including the need to develop an engagement strategy in the Engagement Plan for the Socio-Economic Strategy and Long-Term Funding Plan means that progress on these activities should be reported on accordingly in the WL Annual Report. It is hard to anticipate how and where results of these initiatives will influence decision-making. Requirements of almost all Plans being submitted for Board approval require a discussion of how engagement is being used meaningfully to inform the Project. Socio-Economic and Funding Plans are not subjects the Board regulates and the content of those Plans will not be dictated by the Licence but the intent of including reports in the Engagement Plan and Annual Report is to provide a discussion of how these strategies are being used to help the Project where the Board is</p>

		strong engagement should be encouraged moving forward. We recommend that the Board require the proponent to demonstrate that community concerns regarding those topics which are raised during the engagement process are meaningfully addressed within the final Socio-Economic Strategy and Long-Term Funding Plan.		concerned - Project design and its impact on the environment.
4	Part B, Conditions 21-22: Engagement	<p>Comment Issuing directives for a revised Engagement Plan also presents an opportunity to not only ensure that public feedback and concerns are captured for inclusion in design considerations, but also to encourage a deeper level of public engagement through support for the local arts community.</p> <p>Recommendation Knowing that creative arts enjoy great cultural persistence, establishing an arts grant focused on communicating key messages about Giant Mine would foster more effective, long-term communication and represent an additional socio-economic benefit.</p>	Apr 16: The GMRP notes that there is no recommendation regarding the content of the Water Licence. No response required.	The methods for engagement, especially creative and inventive approaches to engagement, are beyond the requirements laid out in the Board's Engagement Policy and Guidelines are not for the Board to dictate. AN can encourage Giant to develop these methods outside the Board's process through ongoing engagement on plan development and during the public review of the Engagement Plan.
5	GHG Emissions Reporting	<p>Comment Emissions reporting standards are generally becoming more widespread and stringent, and it seems likely that international reporting standards will continue to follow that trend during the term of the licence. This leads to the possibility that reporting the GHG emissions of the GMRP may become required before remediation is completed, even if current</p>	Apr 16: The GMRP does not support the recommended condition as this is not a standard requirement by the MVLWB and the GMRP will not be a significant emitter of GHGs.	Board staff believe that if GHG Reporting is required, it should be done through ECCC or GNWT who have a mandate for its management.

		<p>projected GHG emissions fail to reach the current minimum threshold for reporting. A requirement to measure emissions may additionally serve to encourage decision making to prioritize minimizing climate impacts.</p> <p>Recommendation Within a context of climate change concerns, AN recommends that the Board consider adding a requirement for the GMRP to calculate the greenhouse gas (GHG) footprint of remediation activities as they are conducted.</p>		
City of Yellowknife: Kerry Penney				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	A - Scope - 1	<p>Comment Scope should include the disposal of waste off site - Hazardous and at the City Waste Management Facility</p> <p>Recommendation Add an entry that covers transportation of material off site.</p>	<p>Apr 16: The GMRP disagrees that this should be added, given that external facilities are regulated under their own permits and licences. The GMRP is committed to following the GNWT Guidelines for Hazardous Waste and is required to meet the requirements under the Transportation of Dangerous Goods Act.</p>	<p>The scope relates only to activities in the Project area that relate to triggers identified in The Schedules of the MVFAWR.</p>
2	B - General Conditions - 10	<p>Comment This is not covered under the current or future engagement plan requirements and the City believes that it should be. Changes to the license could range from minor or significant, and the City believes that the project's commitments around pre-engagement include these types of matters. The Board provides engagement</p>	<p>Apr 16: The GMRP has committed to pre-engagement on the next version of Site-Wide Management and Monitoring Plans only. The GMRP will not pre-engage on revisions to the Site-Wide Management and Monitoring Plans for subsequent changes. The changes to those</p>	<p>Pre-engagement for the submission of Plans submitted for the Project are included in Schedule 2, Condition 1.</p>

		<p>direction on several themes as conditions in schedule 1.</p> <p>Recommendation Either provide for a longer review or ensure that this is covered by a clear engagement requirement with all interested parties</p>	<p>plans will be focused and limited in scope, i.e. changes will not be wholesale overhauls of the documents but rather edits such as the addition of a monitoring station or an addition of a mitigation technique, or a change in one limited area of the Project. Ninety days of review time is standard and the GMRP considers it to be sufficient.</p>	
3	B - General Conditions - 18	<p>Comment Provide inspector and Board authority to require replacement of monitoring equipment</p> <p>Recommendation Insert a passage that requires not just maintenance, but replacement if deemed necessary</p>	<p>Apr 16: This is a standard condition. The GMRP does not see rationale to change it.</p>	<p>This is a standard condition. Clarification that the intent of the condition includes the need to replace or repair equipment if necessary is included in the RFD.</p>
4	B - General Conditions - 19	<p>Comment When wells (or other key monitoring instruments) are judged to be inoperable, the inspector and Board should have authority to require replacement.</p> <p>Recommendation Insert a passage that requires not just maintenance, but replacement if deemed necessary</p>	<p>Apr 16: The condition already includes "replace". No edit should be necessary.</p>	<p>This is addressed, as above.</p>
5	B - General Conditions - 20	<p>Comment As there is no other mechanism for involving Board approval during operations, the annual license should be provided for Board approval.</p> <p>Recommendation Require this report to be submitted for Board Approval.</p>	<p>Apr 16: The GMRP disagrees that the annual Water Licence report should be submitted for approval, which is consistent with other Water Licences issued by the Board.</p>	<p>The Annual Report is a submission of monitoring results and activities undertaken during the previous year. There is nothing in the Annual Report that requires Board Approval for moving the Project forward. Many submissions will be submitted and subject to review and approval during the life of the</p>

				<p>authorization. If Parties review and have concerns regarding the results reported or activities undertaken as reported in the Annual Report, they can be discussed directly with the Proponent or addressed through the Board. Annual Reports, especially for larger Projects such as this, are posted to the Board's registry and distributed for review and comment even if it is not for approval. Any issues identified can be addressed through a similar process as that with other plans.</p>
6	B - General Conditions - 23	<p>Comment This forward looking schedule should be not just available to the Board and Inspectors on request, but should be a required submission as part of the requirements of schedule 1, condition 1</p> <p>Recommendation This schedule should be publicly available.</p>	<p>Apr 16: The GMRP notes that a forward-looking schedule is required under Schedule 1, Condition 1, Item 1 (b) of the MVLWB Draft Water Licence.</p>	<p>It is required by Schedule 1, Condition 1, b).</p>
7	B - General Conditions - 24	<p>Comment These notifications should be provided not just to the Board and the Inspector, but also to YKDFN, NSMA and the City to aide building knowledge and information of activities at the site.</p> <p>Recommendation Include local and indigenous levels of government to the distribution list</p>	<p>Apr 16: All notifications to the Board are posted on the registry. Any party, including the City of Yellowknife, can request automatic email notifications to be sent to them for any postings to the Public Registry related to a specific water licence or land use permit. Furthermore, any public reviews are posted on the Board's Online Review System (ORS) for review. The GMRP does not support any</p>	<p>This sort of engagement and notification, if agreed to, should be reflected in the Engagement Plan, and can be discussed during the pre-engagement and Public Review on that document. As mentioned by the GMRP, notifications of all submissions posted to the Registry can be requested through the Board's website.</p>

			revisions to this condition.	
8	B - General Conditions - 25	<p>Comment These notifications should be provided not just to the Board and the Inspector, but also to YKDFN, NSMA and the City to aide building knowledge and information of activities at the site.</p> <p>Recommendation Include local and indigenous levels of government to the distribution list</p>	Apr 16: Please see the GMRP response to CoY - 07 (B General Conditions - 24).	This sort of engagement and notification, if agreed to, should be reflected in the Engagement Plan, and can be discussed during the pre-engagement and Public Review on that document. As mentioned by the GMRP, notifications of all submissions posted to the Registry can be requested through the Board's website.
9	B - General Conditions - 26	<p>Comment These notifications should be provided not just to the Board and the Inspector, but also to YKDFN, NSMA and the City to aide building knowledge and information of activities at the site.</p> <p>Recommendation Include local and indigenous levels of government to the distribution list</p>	Apr 16: Please see the GMRP response to CoY - 07 (B General Conditions - 24).	This sort of engagement and notification, if agreed to, should be reflected in the Engagement Plan, and can be discussed during the pre-engagement and Public Review on that document. As mentioned by the GMRP, notifications of all submissions posted to the Registry can be requested through the Board's website.
10	B - General Conditions - 27	<p>Comment When an inspector provides authorizations or direction, a copy shall be provided to the Board, YKDFN, NSMA and the City. The City supports providing discretion for decisions that may not reach the threshold of needing MVLWB direction, but wants to ensure transparency, thereby encouraging ongoing information building among the orders of government.</p> <p>Recommendation Include local and indigenous levels of government to the distribution list</p>	Apr 16: Please see the GMRP response to CoY - 07 (B General Conditions - 24).	This sort of engagement and notification, if agreed to, should be reflected in the Engagement Plan, and can be discussed during the pre-engagement and Public Review on that document. As mentioned by the GMRP, notifications of all submissions posted to the Registry can be requested through the Board's website.
11	B - General Conditions - New	<p>Comment Require the project to ensure that quiet hours are factored into their</p>	Apr 16: The GMRP is within City Limits and therefore subject to the	If the City has bylaws regarding quiet hours, it is theirs to enforce. Not the

		<p>operations. While we understand that the project has not had a noise complaint during its Site Stability Program, the residents of the City would like to ensure that this continues during these upcoming years of a much higher operational tempo</p> <p>Recommendation Include condition requiring the project to comply with noise bylaws and enforce quiet hours.</p>	<p>City's noise by-laws. As stated throughout the Water Licence process, the GMRP will adhere to City of Yellowknife's bylaws. No new condition is required.</p>	<p>Inspector's who ensure compliance with WL conditions issued by the Board.</p>
12	D - Closure - 3	<p>Comment If Board direction is understood, text should be added to note that the first submission under this clause will be 18 months from the effective license date.</p> <p>Recommendation Include a date for the first submission of this updated closure and reclamation plan.</p>	<p>Apr 16: The GMRP has made recommendations specific to Part D, Clause 3 of the MVLWB Draft Water Licence that would render this recommendation moot.</p>	<p>The first yearly update can be at the discretion of the GMRP and the Board. The City is correct that 18 months would be a year following the first resubmission of the CRP, however, this submission may come sooner. It might also make more sense for the Project to submit subsequent annual updates at different times to coincide with other submissions. Specific direction for the next submission of the CRP following the one required by Part D, condition 2 will be given by the Board in its decision letter.</p>
13	E - Construction - 5	<p>Comment Part F, section 19 uses language citing "design criteria" while this clause uses "quantifiable performance objectives". Clarity and inclusion as a definition in Part B may be warranted.</p> <p>Recommendation Ensure congruity in language if the intent is the same</p>	<p>Apr 16: The GMRP has provided recommendation for edits to Part E, Condition 5 to more accurately reflect the requirements of the Canadian Dam Association and what the GMRP has included in the Operations, Maintenance and Surveillance (OMS) Manual. These</p>	<p>The quantifiable performance objectives are not necessarily the same as closure criteria presented in the CRP. This is a new standard condition and the phrasing reflects that used by the CDA, BC, Independent Panel and/or MAC documents. The words themselves are self-explanatory enough. These are performance</p>

			performance criteria are associated with the operation of the dam and should not be confused with closure or design criteria.	objectives for the tailings facility, that ideally are quantifiable (e.g., beach length must be 100 m). The changes recommended by GMRP have been applied to help aid in clarification of the condition's intent.
14	E - Construction - 10	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission, only the need to report on what engagement was done (either in this section, schedule 2 or schedule 3, condition 1). The City hopes that the engagement is meaningful, but believes that additional direction to include the design plans is warranted, particularly as implementation of aspects of the Board's closure guidelines may be delayed until this point, the need for, and significance of the engagement is greater.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>	<p>Apr 16: A Water Licence is not intended to codify every commitment made by the Project. Pre-engagement is an expectation of the MVLWB and not included in other Water Licenses as a condition. Furthermore, the GMRP did not commit to pre-engagement on all Design Plans. The GMRP did commit to engagement on specific topics of particular importance that have been identified by rights and stakeholders (borrow, Baker Creek, foreshore tailings, and nearshore sediments) prior to completing Design Plans. The GMRP also committed to pre-engagement on the criteria under development. These engagement efforts are limited in time i.e. not on-going for the life of the Project or the life of the Water Licence, and should not be included as a condition. These commitments will be included in the next version of the Engagement Plan as per Schedule 1, Condition 2,</p>	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.

			e). Finally, the GMRP has a strong record of meeting its commitments with respect to engagement. The GMRP does not consider additional conditions to be required.	
15	F - Waste Mgmt Plan - 2	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission (either in this section, schedule 2 or schedule 4, condition 1). While the City is content with Phase I proceeded, we have concerns with Phase II and want to ensure that there is sufficient time for adequate engagement that allows for an appropriate 'back and forth' rather than just a 'conversation via letters'. The City believes that a directive for meaningful pre-engagement should be included in one of the license positions mentioned.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>	Apr 16: Please see the above response to CoY 14 (E-Construction - 10).	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.
16	F - Water Mgmt Plan - 4	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission (either in this section, schedule 2 or schedule 4, condition 2). While the City is content with Phase I proceeded, we have concerns with Phase II and want to ensure that there is sufficient time for adequate engagement that allows for an appropriate 'back and forth' rather than just a</p>	Apr 16: Please see the above response to CoY 14 (E-Construction - 10).	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.

		<p>'conversation via letters'. The City believes that a directive for meaningful pre-engagement should be included in one of the license positions mentioned.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>		
17	F - Erosion Mgmt Plan - 6	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission (either in this section, schedule 2 or schedule 4, condition 4). While the City is content with Phase I proceeded, we have concerns with Phase II and want to ensure that there is sufficient time for adequate engagement that allows for an appropriate 'back and forth' rather than just a 'conversation via letters'. The City believes that a directive for meaningful pre-engagement should be included in one of the license positions mentioned.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>	Apr 16: Please see the above response to CoY 14 (E-Construction - 10).	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.
18	F - Dust Mgmt Plan - 8	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission (either in this section, schedule 2 or schedule 4, condition 6). While the City is content with Phase I proceeded, we have concerns with Phase II and want to ensure that there is sufficient time for adequate engagement that allows for</p>	Apr 16: Please see the above response to CoY 14 (E-Construction - 10).	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.

		<p>an appropriate 'back and forth' rather than just a 'conversation via letters'. The City believes that a directive for meaningful pre-engagement should be included in one of the license positions mentioned.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>		
19	F - Tailings Mgmt Plan - 10	<p>Comment There is no requirement to enact the project's commitment for early engagement prior to submission (either in this section, schedule 2 or schedule 4, condition 8). While the City is content with Phase I proceeded, we have concerns with Phase II and want to ensure that there is sufficient time for adequate engagement that allows for an appropriate 'back and forth' rather than just a 'conversation via letters'. The City believes that a directive for meaningful pre-engagement should be included in one of the license positions mentioned.</p> <p>Recommendation Ensure that there is Board direction to complete meaningful pre-engagement (either here and/or elsewhere)</p>	Apr 16: Please see the above response to CoY 14 (E-Construction - 10).	All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans.
20	F - Borrow - 13	<p>Comment The project accepted the City's recommendation that the Borrow Management Plan should be submitted for approval within a year. Considering this, we recommend that this be included with an 'OR' qualifier that allows this to be captured in addition to</p>	Apr 16: The GMRP acknowledges this recommendation and agrees.	Board staff have updated the draft Water Licence accordingly.

		<p>the Board's suggested language.</p> <p>Recommendation</p> <p>Incorporate the agreement on Borrow Management Plan into the license</p>		
21	F - Operations - 16c	<p>Comment The deterioration or erosion of structures and facilities should be reported not just to the inspector, but also to the Board, to be posted to the registry to ensure that failures at site are transparently reported.</p> <p>Recommendation Within one of the effective license date, OR a minimum of 120 days prior to the commencement of Active Remediation...</p>	<p>Apr 16: The GMRP disagrees with the proposed revisions, and submits that Part F, Condition 16 (d) makes it clear that any deterioration or erosion that is significant and requires repair shall be reported to the inspector, and the Board, and repaired immediately.</p>	<p>As noted by GMRP, d) requires Board notification when erosion is significant and requires repair. This is the standard condition. It is likely unnecessary to require Board notification of every little incident that is quickly and easily managed.</p>
22	F - Inspection - 19	<p>Comment Dam competence is a critical issue for the Parties to this process. The Geotechnical Report should be provided to the Parties</p> <p>Recommendation The geotechnical inspection report should be circulated to the Parties</p>	<p>Apr 16: All notifications to the Board are posted on the registry. Any member of the public, including the City of Yellowknife, can request automatic email notifications to be sent to them for any postings to the Public Registry related to a specific water licence or land use permit. Furthermore, any public reviews are posted on the Board's Online Review System (ORS) for review. The GMRP does not support any revisions to this condition.</p>	<p>Once submitted, this report, like other can be distributed using the Board's distribution list. As mentioned by the GMRP, notifications of all submissions posted to the Registry can be requested through the Board's website.</p>
23	G - Spills - c, d	<p>Comment This is one of the largest contaminated sites in the country. It is within the City Boundary and the City wishes to be informed with regard to what's happening on site.</p> <p>Recommendation Under item (c), add City to</p>	<p>Apr 16: All notifications to the Board are posted on the registry. Any member of the public, including the City of Yellowknife, can request automatic email notifications to be sent to them for any</p>	<p>Communications between the City and the Project need to be negotiated under a separate process. Not a requirement of the Board's authorization as a distinct condition. If the GMRP plan on including the City in its notifications,</p>

		<p>notifications, under (d) add City as a recipient.</p>	<p>postings to the Public Registry related to a specific water licence or land use permit. Furthermore, any public reviews are posted on the Board's Online Review System (ORS) for review. The GMRP does not support any revisions to this condition.</p>	<p>the best place for that to be documented is in the Spill Contingency Plan. This can be discussed during the Spill Contingency Plan pre-engagement activities and the public review of the Spill Contingency Plan.</p>
24	H - Aquatic Effects - 2,3,4,5,6,8	<p>Comment The engagement plan required under Part B, section 22 must also clarify the methods and processes the project will undertake to engage with parties with respect to *each* of these clauses/requirements. Both the language in part H, section 1(c) and the conditions under schedule 6 only requires the description of activities undertaken. The City wishes to ensure that the process is rigorous and that there is a transparent way to ensure that those departments responsible for matters under the AEMP can be held to expected standards in addition to the project.</p> <p>Recommendation The engagement plan must identify it's list of responsibilities and how it will address and respond to them. The previous edition was 'generic' and did not address even the more conventional obligations brought about because of the water license. One of the outcomes of the hearing the shifting of so much responsibility and onus into pre-engagement for virtually everything. This will require</p>	<p>Apr 16: The GMRP considers the intervener's comment to be already addressed by MVLWB through Schedule 1, Condition 2 (b).</p>	<p>All commitments for engagement should be reflected in the updated Engagement Plan, and the results of that engagement is to be reported in the appropriate Plans. Schedule 1, condition 2 b) requires the Engagement Plan update to: Update the trigger table to reflect the commitments made through the licensing process and to reflect changes in the proposed submission process.</p>

		clear-sighted planning, detailed processes, and clear linkages between efforts and engagement outcomes.		
25	H - Aquatic Effects - 9	<p>Comment The City believes that immediate public notification with informed follow up should form part of this part of the license. Leaving the matter to the license could result in delays of notification and/or consequential delay of remedial actions of up to a year.</p> <p>Recommendation The exceeded trigger should be accompanied by notifications and a proposed response timeline.</p>	<p>Apr 16: This is a standard MVLWB condition. This condition is specific to low action levels. Condition 10 requires a more prompt level of reporting for the exceedance of higher action levels. The GMRP does not see a rationale to change this condition.</p>	<p>According to the condition, once an Action Level is exceeded GMRP will have to implement the response actions described in the approved Aquatic Effects Monitoring Program Design Plan. GMRP's currently proposed AEMP Design Plan indicates that when a Low Action Level is exceeded the GMRP will be required to contact the Board within 30 days to prepare a plan to respond (AEMP Response Plan), which would be for review and approval, and would include remedial actions. Therefore, Parties will be notified through the Board's process.</p>
26	Schedule 1 - Condition 1, 3e - New	<p>Comment Given the project's renewed commitment to participate in the land use planning process, the annual report should contain a section that highlights a summary of all actions undertaken.</p> <p>Recommendation Add a clause requiring such a section</p>	<p>Apr 16: As the GMRP is not the land owner and therefore would not be in control of any future land use or planning process, a condition of this nature is not appropriate. The GMRP will provide information to support land-use planning but does not support a requirement to summarize such actions in the Water Licence Annual Report.</p>	<p>Board staff agree with GMRP. GMRP cannot dictate the end land use, conditions of the land and water are required to meet those approved through the Board's process.</p>
27	Schedule 1 - Condition 1 - New	<p>Comment Related to the item 3(a), 2(a)(ii), 2(b)(xv), 2(c)(iv), 2(d)(iv/vi), 2(e)(iv), 2(f)(vi), 2(g)(iii), a summary of all lessons learned and consequential changes to procedure to improve the effectiveness of operation at minimizing the likelihood or</p>	<p>Apr 16: The Annual Water Licence Report is for tracking and reporting on the year's activities. If improvements to the site's management are required, these will be identified through the</p>	<p>Added to draft schedule. A summary of changes and/or lessons learned should be easy to summarize for each monitoring program, as requested. All such summaries can be reported in the annual</p>

		<p>magnitude of operations effecting the environment.</p> <p>Recommendation Include a section detailing what was learned and how it's resulted in changes to improve site operations.</p>	<p>response to action levels and revisions will be made to associated management and monitoring plans as required. These revised plans will be submitted to the MVLWB for approval. No additional item is required.</p>	<p>report for ease of organization of materials.</p>
28	Schedule 1 - Condition 1 - 2(b)(iii)	<p>Comment Suggest that this include initial expectations of the volumes, allowing for easy comprehension between anticipated and observed. This is similar to clause 2(b)(xii) below</p> <p>Recommendation Add what the expected/predicted volumes were</p>	<p>Apr 16: The GMRP disagrees with this recommendation. The GMRP has requested a maximum volume similar to any other water licensee and will report data to demonstrate that the GMRP has abided by the volume set by the MVLWB.</p>	<p>Added to draft schedule. This is a simple comparison of actual water volumes used compared with those allowed by the Licence.</p>
29	Schedule 1 - Condition 1 - 2(b)(xi)	<p>Comment Suggest that this contain comparisons to initial predictions as well as Non-Hazardous demonstration.</p> <p>Recommendation Include comparison with predicted concentrations</p>	<p>Apr 16: There is no value to comparing the results to predictions. The only relevant comparison is to standards required for disposal in a non-hazardous landfill. The GMRP does not consider a change to the item is required.</p>	<p>Added to draft schedule in relation to relevant Guidelines instead of predictions.</p>
30	Schedule 1 - Condition 2 - New	<p>Comment From City Water License Application comments Part 2, ID 20, the project commits to detailing how it is addressing how it actively minimizing impacts to the life and well-being of City residents.</p> <p>Recommendation The project should be required to engage and demonstrate how it working to minimize the impacts of this very large scale project on the citizens of Yellowknife.</p>	<p>Apr 16: The GMRP's original response to the City's Reviewer comment is provided here for transparency: "The GMRP believes a new condition is not required and that public concern is taken into consideration through activities outlined in the Engagement Plan." The GMRP's position remains the same and no change to the Draft Water Licence is required.</p>	<p>Board staff are not sure what the City expects with this comment. Through carrying out this process, and through the drafting of conditions, the Board has endeavored, as required, to minimize impacts of the project on the environment and people of the Mackenzie Valley through the mechanisms available to it. Board Staff believe the terms and conditions of the Licence and Permit and the Project proposed by the GMRP</p>

				aim to achieve the recommendation put forth by the City.
31	Schedule 1 - Condition 2 - c	<p>Comment The City is unclear why *only* these plans are an issue for the pre-engagement efforts given the project's commitments for early engagement on all of the site wide plans prior to phase II submissions, as well as their early (pre) engagement for all of the future submissions to address the limited review timelines. Clarity on how this commitment will be manifested must be provided in the Engagement Plan, otherwise the City is concerned that the nature of the commitment may slip (as with so many previous commitments from the EA) and the extreme timelines will force compromised reviews.</p> <p>Recommendation Board direction and requirements for all matters that were nominated to be furthered through 'pre-engagement', including timelines and suggested outcomes</p>	<p>Apr 16: The GMRP will update Engagement Plan with the commitments for pre-engagement on the management plans as per Schedule 1, Condition 2, b).</p>	Board staff have updated Schedule 1, Condition 2 so the Draft Water Licence includes a requirement to "Outline pre-engagement for the Site-Wide Management and Monitoring Plans".
32	Schedule 1 - Condition 2 - e	<p>Comment Blast Notification Procedures (from Schedule 4, Condition 9 (d) and Blast Size Management (Schedule 4, Condition 9 (h)(iii)(c)) should be a specific topic/focus of these engagements. The project indicated that they would address blast size and timing concerns (City Water License Application review comments, Part 2, ID 32)</p> <p>Recommendation Include language to require clear blast size and timing constraints</p>	<p>Apr 16: The GMRP does not consider it necessary to add additional language to the condition. In order to limit the disturbance to local communities, blasting will take place during daylight and the GMRP will respect the city's noise by-law, and not blast during the designated "quiet time" (11pm-7am). Blast size will be limited based on the results of the</p>	These concerns can be addressed during the pre-engagement and public review of the Borrow and Explosives Management and Monitoring Plan. The blast size and timing plans should be outlined therein and will require Board approval based on comments from the review. As recommended by the City, above. A requirement to summarize any lessons learned or changes to management

			<p>measured levels of blast fumes, blast vibrations and dust levels. Should blast fumes, blast vibrations (frequency) or dust levels be detectable, outside of the blast exclusion zone and Giant Mine Project Boundary, at levels that could cause harm to local communities, wildlife or infrastructure, an investigation will be completed to determine the cause of the exceedance and if restrictions to blast size are required as part of future risk mitigation. This as well as further information regarding risk mitigation due to blasting will be detailed in the Borrow and Explosive Management and Monitoring Plan.</p>	<p>practices onsite should be included in the Water Licence Annual Report. If any changes are required based on a scenario like the one GMRP outlined in its response, these can be discussed at that time. If changes require updating to the Management and Monitoring Programs, those changes will also be subject to public review.</p>
33	Schedule 2 - Condition 1	<p>Comment NOTE: All comments relating to Closure Criteria found below</p> <p>Recommendation Specific Comments relating to direction on closure criteria starting at line 51</p>	<p>Apr 16: No response required.</p>	N/A
34	Schedule 3 - Condition 1 - a	<p>Comment The project has noted that special consideration of permafrost conditions is required and this consideration has underpinned the design decisions. The project has committed to providing more detail in the design plans.</p> <p>Recommendation Board guidance to include and explicitly discuss how these considerations have (or have not) influenced the design being submitted (See City WL</p>	<p>Apr 16: The GMRP considers that the MVLWB has already addressed this concern through Schedule 3, Condition 1 d) ii.</p>	<p>Board staff have updated the Draft Water Licence Schedule 3, Condition 1 to specifically include permafrost as information that must be included as relevant background information used to inform the design (as relevant).</p>

		Concerns, Part 5 ID 21) would aid the design plan creation.		
35	Schedule 3 - Condition 1 - vii	<p>Comment In addition to the linkages to the other aspects of the closure plan, the critical assumptions should be detailed.</p> <p>Recommendation Given the project's stated interconnected nature of the site, key assumptions should be required to be provided.</p>	<p>Apr 16: Critical assumptions are typically included in design documentation. The GMRP submits that the current condition will provide adequate detail and no specific clause or condition is required.</p>	Added to draft schedule.
36	Schedule 3 - Condition 1 - x	<p>Comment Our belief is that this was most recently numbered Site-Wide 3-1. Another simple example of the value of an approved final set of criteria.</p> <p>Recommendation Site-wide 3-1</p>	<p>Apr 16: The GMRP concurs that the reference should be to SW 3-1.</p>	Correct. Edit made. Administrative updates such as this can be made by the Board following the final approval of a CRP.
37	Schedule 3 - Condition 1 - xii	<p>Comment The design plans must detail not just the closure criteria but the design criteria that will define success. In particular, closure criteria based on design must carry forward the targets and metrics for success so that parties and the Board can be assured that the proponent's approved design has been successfully been implemented.</p> <p>Recommendation Include design criteria that must be met to assess and demonstrate that the design plan has been successfully implemented</p>	<p>Apr 16: GMRP has submitted numerous design-related and performance-related closure criteria in the CRP; the few remaining will be finalized in the design plans. If the City of Yellowknife is referring to design specifications, these are numerous and highly technical. To capture these numerous specifications, the GMRP put forward the following Closure Criteria: "Design engineering drawings are signed and stamped sealed by a Qualified Professional and the specifications outlined therein are met." The GMRP submits that this criteria already meets this recommendation and no additional item is required.</p>	<p>All criteria Design Plans must refer to are identified in the CRP. Design details will be provided in both the Design Plans and Construction Plans, and demonstrated in Reclamation Completion Reports and Performance Assessment Reports. Together, these reporting requirements should meet the City's recommendation.</p>

38	Schedule 3 - Condition 2 - New	<p>Comment Water License Application review comments, Part 2, ID 31 notes that there are a series of considerations relating to moving tailings and backfilling. In response to City comments the project stated that these concerns would be addressed in the detailed design. Board guidance capturing this would help ensure that this is addressed.</p> <p>Recommendation Board direction to develop conditions and constraints</p>	<p>Apr 16: There is no need for additional Board direction; these details will be forthcoming as they are integral to development and completion of the design and management of this activity.</p>	<p>These requirements have been made explicit in the Tailings Management and Monitoring Plan, as per Schedule 4, Condition 8: Information regarding the monitoring and management of Tailings being moved including: Procedures for the safe movement of Tailings; and Risks and mitigation measures for potential leaks or spills of Tailings.</p>
39	Schedule 4 - Condition 7 - c	<p>Comment The project agreed (Water License Application review comments, Part 1, ID 7 and Part 2, ID 28) that stockpile management and overburden management need to be addressed.</p> <p>Recommendation Board direction should require commitment and action. If the condition is written as such, there is no requirement for the Board to enact any steps towards stockpile management or salvaging organics.</p>	<p>Apr 16: The GMRP considers the MVLWB has addressed this concern already through Schedule 4, Condition 7 c). No revisions are necessary.</p>	<p>The purpose of the Management and Monitoring Plans is to outline the commitments and actions of the Project.</p>
40	Schedule 4 - Condition 1 - g	<p>Comment When improper segregation is observed, what is the project's response? At some diamond mines, the responsible departments were required to go to the landfill and remedy the situation</p> <p>Recommendation Additional direction in this passage to provide mechanisms for remedial correction if/when auditing uncovers improper segregation of waste streams (e.g. Action on auditing/verification outcomes)</p>	<p>Apr 16: If an audit were to identify improper segregation, the GMRP would mitigate the concern on site, if this were to occur in the City of Yellowknife's landfill, the GMRP would work with the City of Yellowknife to resolve this issue. The GMRP submits that no specific clause or condition is required.</p>	<p>Added to draft schedule.</p>

41	Schedule 4 - Condition 6 - g (iii)	<p>Comment Suggest a passage that requires the project to indicate how drilling methods will be selected to minimize dust (UPD, table 4-3, p64) have incorporated dust generation into their operations (see commitment from City Water License Application review comments, Part 2, ID 66)</p> <p>Recommendation Include language for project to indicate how drilling choices were evaluated to minimize dust</p>	<p>Apr 16: The GMRP suggests that specific language related to how drilling methods will be selected to minimize dust is not required nor is it advisable. Drilling methods will be chosen based on the activity requiring a drill, in line with industry best practice (i.e., choosing the best drilling method for a given task). Dust mitigations and best management practices will apply to all site activities, including drilling, as laid out in the Dust Management and Monitoring Plan, Schedule 4, Condition 6, g) ii.</p>	<p>Drilling would be one of the activities that should be considered. This can be addressed during pre-engagement and the public review of the Dust Management and Monitoring Plan. Board staff believe it would be inefficient for the Board to identify on its own what activities require consideration under this part and may limit the considerations required by the Project.</p>
42	Schedule 4 - Condition 8 - new	<p>Comment In its response to City Water License Application review comments, Part 2, ID 66 the project states that "Climate data will be obtained from either an onsite meteorological station as part of the tailings cover monitoring or water treatment plant, or alternatively the Yellowknife Airport".</p> <p>Recommendation The Board should require the project to provide this information as part of the direction in Schedule 4, Condition 8.</p>	<p>Apr 16: The GMRP can provide the source of climate data in the Annual Water Licence Report.</p>	<p>This information, as in the options available to GMRP for collecting meteorological information, should also be included in the Air Quality Monitoring and Management Plan appended to the Dust Management and Monitoring Program. What was actually used could then be reported in the Water Licence Annual Report.</p>
43	Schedule 4 - Condition 9	<p>Comment Best practices for incomplete/failed shots are important, but the City believes that reporting should be included, at a minimum detailing occurrences and actions undertaken in response.</p>	<p>Apr 16: The requirements around reporting and handling of misfires is defined in Section 14.56 of the Mine Health and Safety Act and Regulations. All misfires and cut-offs</p>	<p>These concerns could be addressed under item h for Schedule 4, condition 9. Any instances would then be reported in the Water Licence Annual Report.</p>

		Recommendation As an aspect of part J, the proponent should provide information on failed shot	will be documented in a logbook kept for this purpose. The logbook will be in the care and custody of the mine Supervisor and misfires will be reported to CIRNAC. Actions undertaken in response to the misfire will be a reportable requirement in the misfire logbook. Further details regarding how misfires will be handled and documented will be described in the Borrow and Explosive Management and Monitoring Plan.	
44	Schedule 4 - Condition 10 - f	Comment Sub-Numbering error Recommendation Typo	Apr 16: No response required.	Adjusted.
45	Schedule 4 - Condition 10 - f (new)	Comment Direction to provide updated climate modelling and evaluation against predictions, to be provided on a regular multi-year timescale. Recommendation Direction to provide updated climate modelling and evaluation against predictions, to be provided on a regular multi-year timescale.	Apr 16: Schedule 4, Condition 10 (f) ix. addresses the intervener's recommendation regarding frequency of evaluation against predictions. The GMRP has already committed to including information regarding when an update to the models should be required in the Arsenic-Trioxide Frozen Shell Management and Monitoring Plan and will abide by its commitments regardless of if this is included in Schedule 4 Condition 10 or not. A regular multi-year timescale may not be the most efficient or appropriate timing. GMRP recommends	Requirement to identify frequency of updates to the Arsenic Trioxide Frozen Shell Management and Monitoring Plan. This proposed frequency can then be discussed during the public review.

			that the Project set the triggers for model updates in the Arsenic Trioxide Frozen Shell Management and Monitoring Plan, which will be subject to pre-engagement, review and approval.	
46	Schedule 4 - Condition 10 - d (iii/new) or g	<p>Comment The Board should direct the proponent to include a discussion which outlines the number of thermistors that are required for effective monitoring for each of the frozen areas. This will ensure that there will be a base level of monitoring instruments active and operating to ensure that the frozen shell and the thermal modelling is coherent.</p> <p>Recommendation Include a requirement to set the base number of monitoring devices necessary to demonstrate that the freeze is performing as expected</p>	<p>Apr 16: The necessity for monitoring devices will be identified in the Arsenic Trioxide Shell Monitoring and Management Plan and details for the number of holes will be identified in the Freeze Design Plan.</p>	Board staff have updated the draft Schedule of the Arsenic Trioxide Frozen Shell Management and Monitoring Plan accordingly.
47	Closure Criteria Comments to follow	<p>Comment None</p> <p>Recommendation None</p>	<p>Apr 16: No response required.</p>	N/A
48	Underground - 1 - 3	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. The City's expectation is these types of Design Criteria will feature the same kind of logical foundation as ideally found</p>	<p>Apr 16: The GMRP does not support a clause requiring design plans to outline the full design specifications. The GMRP does meet this recommendation through the process outlined. As discussed at the Closure Objectives Workshop in September, the GMRP has submitted numerous design-related and performance-related closure criteria in the CRP; the few remaining will be finalized in the</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the</p>

		<p>with Closure Criteria. The City feels that the use of two levels of Board level administration to assess if the Closure Criteria is met is not ideal, but notes that CIRNAC prefers that route. The need for two steps, with two levels of review, two levels of reporting and two levels of assessing is unclear.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>design plans. 'Design specifications' are numerous and highly technical, to capture these numerous specifications, the GMRP put forward the following Closure Criteria: "Design engineering drawings are signed and stamped sealed by a Qualified Professional and the specifications outlined therein are met". The GMRP agrees that where possible, it is important to include closure criteria which measure performance. However, as described at the closure workshop, the GMRP believes there is a benefit to the inclusion of design-based closure criteria. Criteria which require a component to be "built to design" hold the Project accountable to "build what it said it would". Designs include many different measurable requirements that contribute to achieve the overall intent or objective of the closure activity. Design-based closure criteria can often provide an earlier evaluation of reclamation work compared with performance-based closure criteria. The GMRP believes both types of criteria are important and work</p>	<p>Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
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			together to evaluate the success of a Project.	
49	Underground - 2 - 2	<p>Comment The project already has an estimate of 0.1 m/day. Its unclear what uncertainty exists or how the design of the project will impact the underground stability. This is something that should be established BEFORE design, as the design will be informed by this.</p> <p>Recommendation Direction should be provided to establish this criteria in the next CRP version.</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is in development and will be supplied with the Underground Design Plan.</p>	<p>This specific criteria is acknowledged to be under development. This was initially part of the Minewater Drawdown Research Plan which has been dropped from the scope of the Project. 0.1 m/day was an estimate. This will be confirmed and provided for review upon submission of applicable Design Plans.</p>
50	Underground - 3 - 2	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. The City's expectation is these types of Design Criteria will feature the same kind of logical foundation as ideally found with Closure Criteria.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
51	Underground - 3 - 3	<p>Comment Rather than using a design plan, this is an inherently physical and numeric criteria that should</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on</p>	<p>Limits on surface subsidence will be set including stope by stope movement criteria. The</p>

		<p>have been considered here. What kind of erosion, slumping or mass movement is proposed as acceptable? As with other well understood fields of construction, this shouldn't have required decades to arrive at measurable values that are necessary for long term containment of arsenic trioxide.</p> <p>Recommendation Direction should be provided to establish this criteria in the next CRP version.</p>	<p>this closure criterion. It is in development and will be supplied with the Underground Design Plan.</p>	<p>criteria may differ from place to place depending on the chemistry of the backfill and pressure it is under.</p>
52	Underground - 3 - 4	<p>Comment UG3-4 should be modified to reflect the capacity of the paste backfill to fill empty voids. UG4-5 and 4-6 suggest that this can be done to a point which limits potential subsistence to 1m. The questions therefore are two-fold: 1) What infrastructure is vulnerable with a 1m subsistence and 2) If filling above that is needed and possible, what obstacles exist to filling voids where infrastructure is not at risk but landuse is unknown</p> <p>Recommendation Direction should be provided to establish this criteria in the next CRP version.</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. The definition of critical infrastructure was given as a footnote to the criterion Table 5.0A-2 : 'the freeze pads, thermosyphons and arsenic bulkheads'. Details on this will be submitted in the Underground Design Plan.</p>	<p>The 'Approach' section once stated that "Design plan will outline monitoring of surface subsidence to verify backfill stays in place. Limits on movement will be set for each crown pillar void." As a result, this criteria has been identified as 'under development'.</p>
53	Underground - 4 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met".</p> <p>Recommendation Ensure that design plans feature a specific section detailing the</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the</p>

		specifications that the design will meet		Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.
54	Underground - 4 - 4	<p>Comment see 3-4. 22 years into this project and we don't know how to quantify or qualify the statement 'paste backfill will mostly stay where we put it'. The project is choosing not propose useful criteria for evaluation.</p> <p>Recommendation Direction should be provided to establish this criteria in the next CRP version.</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is in development and will be supplied with the Underground Design Plan. As discussed in the Closure Objective workshop in September, this UG4-4 will be modified and made more specific based on engineering design.</p>	Details to come for review and approval through the Design Plan process. Specifics might change based on locations and influences.
55	Underground - 4 - 5 & 6	<p>Comment This will be "demonstrated" through a design plan. If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. The City's</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed</p>

		<p>expectation is these types of Design Criteria will feature the same kind of logical foundation as ideally found with Closure Criteria.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
56	Freeze - 1 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
57	Freeze - 2 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-</p>

		<p>"specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. In particular, the expectation is that the Qualified Professional will specifically outline the reversibility specifications as part of the design (as opposed to other specifications that may form part of the evaluation of the design to achieve F1-1)</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>Built Report – Engineered Structure(s)” to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the ‘design criteria’.</p>
58	Freeze - 2 - General	<p>Comment It's not clear what F2-1 delivers that F2-2 doesn't. Why are these separated when the mechanism is the same (design) and they feature the same consideration (reversibility)?</p> <p>Recommendation Direction to provide clarity and provide update for review</p>	<p>Apr 16: F2-1 refers to maintaining access to the underground to support reversibility i.e. future mining equipment access. A new underground portal will be designed and included in design plans. F2-2 refers to the frozen shell concept (cold dust in the chambers/stopes not wet and frozen as identified in the DAR). Drifts and plugs filled with tailings paste within the shell are designed such that they can excavated in the frozen or thawed shell.</p>	<p>Clarification noted.</p>
59	Pits - 1 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p>

		<p>Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. In particular, the expectation is that the Qualified Professional will specifically outline the matters relating to the flood prevention as part of the design</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
60	Pits - 1 - 3	<p>Comment Low flux features is not a defined term. Provide clarity for this term, utilizing numeric value.</p> <p>Recommendation This should be simple clarification to be provided with the next update.</p>	<p>Apr 16: GMRP has provided a Low flux definition in the note section of Table 5.0A-4 : 'is a design element used to restrict flow of water through an earthen structure. Typical low flux features include fine grained soil layers or geosynthetic barriers'.</p>	<p>**A low flux feature is a design element used to restrict flow of water through an earthen structure. Typical low flux features include fine grained soil layers or geosynthetic barriers. This definition is included at the bottom of the Table.</p>
61	Pits - 1 - 4	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the</p>

		<p>Criteria can be assessed as completed or not. In particular, the expectation is that the Qualified Professional will specifically outline the matters relating to the prevention of erosion as part of the design so that this Closure Criterion can be evaluated</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
62	Pits - 2 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. In particular, the expectation is that the Qualified Professional will specifically outline the matters relating to safety as part of the design so that this Closure Criterion can be evaluated</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
63	Pits - 2 - 3	<p>Comment The City is unclear on why this criterion is so complex that that a Closure</p>	<p>Apr 16: The GMRP does not support a water licence condition to</p>	<p>The final landscape remains under engagement and has not</p>

		<p>Criterion cannot be proposed for evaluation. Even the project states "Reclamation research is not required as choosing a safe pit slope angle is a well understood principle of civil engineering" Safety around walls and heights seems to be a matter well understood. Further, the project proposes a number of slopes throughout the Closure Plan. It's a mystery why the project cannot set forth a criterion that demonstrates the planning constraint that the project will apply to its designs. Instead, the project is proceeding with design, after which we may learn what they consider safe - which is to be driven not by the objective of safety to the public workers, or wildlife, but as the project states in its response to the City of YK (Part 4, ID 3) the constraint is to "determine the steepest slope that can be practicably constructed". The need for further time is not about safety, its about constructability.</p> <p>Recommendation Provide direction that this well understood issue should be an issue to be resolved in the next issue.</p>	<p>provide direction on this closure criterion. It is in development and will be supplied with the Pit Design Plan. As discussed in the Closure Objective workshop in September, this will be modified and made more specific based on engineering design in relation to public safety. These particular high walls needed additional consideration given the interests of the Yellowknife Historical Society, and other intervenors</p>	<p>yet been determined. Final form will reflect several factors and will likely change pit to pit.</p>
64	Pits - 2 - 4	<p>Comment Rather than applying a percentage subsistence, utilizing a simpler value such as the 1m for paste backfill would be easier to demonstrate. Furthermore, there is no clear answer as to why the project needs to rely on a design plan. The response to City WL review comment</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is in development and will be supplied with the Pit Design Plan. As discussed in the Closure Objective workshop in September, the</p>	<p>The final landscape remains under engagement and has not yet been determined. Final form will reflect several factors and will likely change pit to pit.</p>

		<p>Part 5, ID 58 indicates that this has been previously set in the based on engineering design values that included options analysis and backup calculations. If these "would have been refined" based on existing values, why does this criterion need more development? p2-4 was established through existing design work and no further research is required (see response to City WL review comment Part 5, ID 58). The Board should direct the project to resolve this criteria in its update.</p> <p>Recommendation As no further research is required, board direction to provide the criterion for review should be included.</p>	<p>specifics are variable if a pit is partially or fully filled, if the pit will be frozen (e.g., B1). The City is not correct in saying this was completely resolved in options analyses.</p>	
65	Pits - 3 - 1	<p>Comment Relying on design rather than demonstrating outcomes does not make sense for this objective.</p> <p>Recommendation As this objective is something to be demonstrated rather than designed for, this item should be reconsidered and resubmitted for the next version.</p>	<p>Apr 16: As previously mentioned in the July 2019 Reviewer Comments, in general terms, GMRP agrees that the achievement of the goal is the key point. Criteria P3-1 should be taken in context of the other related numeric criteria, including P3-2, and the criteria associated with Objectives SW1, UG2 and WTP2, which provide measurement of the endpoints related to meeting the goal. However, successful execution of the closure activities, which have been designed to achieve the objective, is a fundamental component of achieving that objective. GMRP fully agrees that good</p>	<p>Once approved, the criteria could be updated to include the use of fill that meets the geochemical characteristics approved by the Board.</p>

			design is important, but also recognizes that a design is not the same thing as a constructed engineering work, and Criteria P3-1 provides an opportunity certify that pit fill has been place in accordance with design, representing the endpoint of construction supervision and quality control/quality assurance procedures. It is a clear criteria to mark success on the progress towards achieving the objective.	
66	Contaminated Soils - 1 - 8	<p>Comment The criterion only commits the project to determining the area downgradient of Dam 3. As we saw with the project's response to Measure 6, where a report with no recommendations or useful information was produced, the Board needs to ensure that there are actions connected to this.</p> <p>Recommendation The Board should direct this criterion to be changed to not just determine the area, but to potentially remediate the area to industrial standards.</p>	Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is in development and will be further developed through the Reclamation Research Plan process as outlined the Closure guidelines.	Board staff understand that is what is under development - the final criteria. Activities associated with the objective include the actions connected with the Dam 3 area. The City is correct - this could be set as a minimum of Industrial Standard.
67	Contaminated Soils - 1 - 9	<p>Comment There is little information in terms of the commitments and nature of this criteria. Failure to provide a Criterion or an approach has left this item more or less unexamined at this point - at best parties think they know what the project will do, at worst, there's so much uncertainty that the project has</p>	Apr 16: The GMRP does not agree. The GMRP has proposed a specific engagement process to work with rights holders and stakeholders and regulatory authorities including DFO to finalize this criterion. The GMRP is committed to engaging with the GMRP Working Group	An activity associated with this criteria is to "Partially excavate and/or cover nearshore sediments with clean backfill material". The specific quality of that material is not yet determined but will be provided for review as the criteria is more defined.

		<p>discretion to complete almost anything and declare success. Given that DFO's ambition, as presented at the hearing, was to ensure that the works to be undertaken are not to cause further harm, that sets an extremely low bar. The Fisheries Authorization will not ensure that the risk is reduced to humans or the wildlife. If the Board chooses to cede its authority on this matter, then there should be no reasonable expectation of improving or minimizing the risk.</p> <p>Recommendation If the Board does not require a comprehensive update, then they should require all matters where the project has sought to rely on DFO should be returned to the Board for approval.</p>	<p>and its wider community of stakeholders on Baker Creek final design and closure criteria in-development, remediation activities in Yellowknife Bay including nearshore sediments and foreshore tailings design.</p>	
68	Baker Creek - 1 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure</p>

				Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.
69	Baker Creek - 2 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	Apr 16: Please see response to City of Yellowknife comment 48.	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
70	Baker Creek - 3 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as</p>	Apr 16: Please see response to City of Yellowknife comment 48.	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the</p>

		<p>completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
71	Baker Creek - 5 -	<p>Comment The ambition for this objective distinctly fails to meet the promise of the Environmental Assessment. The project intends to encourage "natural rehabilitation" versus delivering on "maximizing the productivity". It's a shame that the residents of the City will inherit whatever comes rather than something that builds towards the positive legacy we hoped for.</p> <p>Recommendation Board direction on this objective should specially instruct the proponent to demonstrate that it is meeting the promises for Baker Creek established in the Environmental Assessment</p>	<p>Apr 16: As stated in previous GMRP responses, the GMRP followed the Board's closure guidance and set more broad closure goals that applied to the whole site, with more specific objectives that are applicable to specific mine components. For instance, while "maximizing the productivity of Baker Creek" is no longer a goal, there are now four specific objectives for Baker Creek. These replace the one specific Baker Creek 'goal' that was presented in the Environmental Assessment (EA), in a form that is better aligned with current MVLWB guidance, consistent with those previously presented for the GMRP in the Giant Mine Remediation Plan (SRK/Senes 2007) and the DAR (INAC and</p>	<p>"Maximizing productivity" of the Baker Creek system would be a very hard goal to measure by itself. Board staff believe the proposed closure criteria under BK4 and BK5 work together to best support this outcome in more measurable and manageable outcomes.</p>

			<p>GNWT 2010). The specific Baker Creek closure objectives were developed based on affected party input, the report of the EA, and 2018 technical sessions, as stated in Section 1.2 of the CRP. In particular, the objectives take into account Fisheries Act amendments and changing emphasis on the word 'productive' given it is hard to measure, as well as input from engagement during SDE that indicated that not all parties had the same goal for Baker Creek. Some parties wanted fish excluded and others wanted a sport fishery retained. The EA process did not necessarily approve closure goals as written nor did it specify that they could not be refined. GMRP considers that taken together, the fully revised and updated goals, principles and objectives of the CRP are a significant improvement on the DAR, one that is better aligned with both affected party input and current MVLWB guidance.</p>	
72	Baker Creek - 5 - 1	Comment The City hopes that the Board would set forth it's expectations rather than relying on a closed, ministerial decision from Ottawa without any clear	Apr 16: No response required.	The Minister approves the Licence, the Board approves all plans required by the Licence.

		<p>processes or co-management. Particularly as DFO has failed to provide any effective aide for this reclamation.</p> <p>Recommendation Provide notification that the Board will be the final arbiter of the closure criteria and closure success for this site.</p>		
73	Baker Creek - 5 - 2	<p>Comment Benthic diversity and abundance should not be compared to 2011 or 2019, as we know that these are impacted environments. If diversity or abundance was lower it would be a great shock as we're now 22 years from the cessation of operations. This criterion does not reflect the project's EA commitment for Baker Creek.</p> <p>Recommendation The Board should direct the project to propose and utilize better points of reference than a watercourse that was significantly degraded from decades of being the receiving environment for Giant. Maximizing the productivity involves comparison to what the creek could or should be, not comparisons to its impacted state a few years after mining.</p>	<p>Apr 16: The GMRP agrees that the Baker Creek fish and benthos should be more specific. However, it is noted that this is a criterion in development, and it is assumed the Fisheries Act Authorization engagement and habitat compensation planning will inform this such that specifics can be given. Details of the monitoring under the habitat compensation are not yet known and cannot be supplied in this table. The GMRP has noted these as 'in development' to allow more work to be done to finalize these.</p>	<p>The use of results from 2011 and 2019 were discussed at the Closure Criteria Workshop in September. These years were identified to be the basis for comparison because benthic invertebrate communities were sampled in 2011 (to inform the evaluation of Baker Creek remediation options) and 2019 (under the Phase 6 Environmental Effects Monitoring Program). Board staff note that the Criteria may be updated based on Fisheries Act Authorization engagement.</p>
74	Baker Creek - 5 - 3	<p>Comment This criterion does not reflect the project's EA commitment for Baker Creek. According to traditional knowledge, this was a very productive creek - this criterion does not reflect the commitment around productivity.</p> <p>Recommendation Board direction on this objective should specially instruct the</p>	<p>Apr 16: As stated in previous GMRP responses, the GMRP followed the Board's closure guidance and set more broad closure goals that applied to the whole site, with more specific objectives that are applicable to specific mine components. For</p>	<p>"Maximizing productivity" of the Baker Creek system would be a very hard goal to measure by itself. Board staff believe the proposed closure criteria under BK4 and BK5 work together to best support this outcome in more measurable and manageable outcomes.</p>

		<p>proponent to demonstrate that it is meeting the promises for Baker Creek established in the Environmental Assessment</p>	<p>instance, while "maximizing the productivity of Baker Creek" is no longer a goal, there are now four specific objectives for Baker Creek. These replace the one specific Baker Creek 'goal' that was presented in the Environmental Assessment (EA), in a form that is better aligned with current MVLWB guidance, consistent with those previously presented for the GMRP in the Giant Mine Remediation Plan (SRK/Senes 2007) and the DAR (INAC and GNWT 2010). The specific Baker Creek closure objectives were developed based on affected party input, the report of the EA, and 2018 technical sessions, as stated in Section 1.2 of the CRP. In particular, the objectives take into account Fisheries Act amendments and changing emphasis on the word 'productive' given it is hard to measure, as well as input from engagement during SDE that indicated that not all parties had the same goal for Baker Creek. Some parties wanted fish excluded and others wanted a sport fishery retained. The EA process did not necessarily approve</p>	
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			closure goals as written nor did it specify that they could not be refined. GMRP considers that taken together, the fully revised and updated goals, principles and objectives of the CRP are a significant improvement on the DAR, one that is better aligned with both affected party input and current MVLWB guidance.	
75	Tailings - 1 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
76	Tailings - 2 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p>

		<p>'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>		<p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>
77	Tailings - 2 - 2	<p>Comment This criterion should have been established. There is an existing tailings cover over these tailings - its unclear what the uncertainty is</p> <p>Recommendation There is no need to wait for a fisheries authorization. The Board should provide direction that this is to be completed and provided with the next version</p>	<p>Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is in development and will be supplied with the Tailings Design Plan. As discussed in the Closure Objective workshop in September, the specifics are to be defined through further engagement with DFO on the foreshore tailings. The interaction with potential fish habitat, which the existing cover does not have, will necessitate interaction with DFO.</p>	<p>Criteria could be updated to include the acceptable TSS/TDS measurements in the area of the Foreshore Tailings SNP stations. These updates and improvements in this criteria should all be included with the associated Design Plan.</p>
78	Tailings - 2 - 3	<p>Comment This criterion should have been</p>	<p>Apr 16: The GMRP does not support a water</p>	<p>Design of the new cover is not complete, and as such</p>

		<p>established. There is an existing tailings cover over these tailings - why can't the project state what the design is intended to be</p> <p>Recommendation There is no need to wait for a fisheries authorization. The Board should provide direction that this is to be completed and provided with the next version</p>	<p>licence condition to provide direction on this closure criterion. It is in development and will be supplied with the Tailings Design Plan. As discussed in the Closure Objective workshop in September, the specifics are to be defined through further engagement with DFO on the foreshore tailings. The interaction with potential fish habitat, which the existing cover does not have, will necessitate interaction with DFO.</p>	<p>the criteria is in development.</p>
79	Tailings - 3 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.</p>

80	Tailings - 3 - 2	<p>Comment This is phrased to allow the proponent to determine which of the CDA guidelines it feels are appropriate. The proponent must be more specific and should have engaged with parties and especially the Board on what should form this criterion.</p> <p>Recommendation Direction to provide specificity for next version</p>	<p>Apr 16: The Board's draft water licence provides further direction on dam reviews Part F condition 20 & 21. The T3-2 criteria was phrased to provide clarity that CDA guidelines exist that would not be relevant/'applicable' to the dams of the type present at the site (for instance, guidance related to concrete dams). For clarity, all guidelines that are applicable will be used.</p>	<p>All CDA Inspections and recommendations come from a third-party based on the Dam Class.</p>
81	Tailings - 4 - all	<p>Comment Ultimately, these criteria do specifically achieve the objective unless the use of the word 'avoid' is to be interpreted as a qualifier related to design effort - as in "we tried to avoid water on the TCAs". There is nothing that says that water will not be retained (see p2-2 for something definitive)</p> <p>Recommendation Provide direction that the criteria must demonstrate that the criteria is achieved, not simply designed for</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Board staff are of the opinion that the City of Yellowknife makes a strong argument. Board staff propose a Board Directive for GMRP to update the criteria for T4 as applicable to demonstrate that the objective is achieved. This could include a quantification of water ponding that is considered acceptable, if any.</p>
82	Water Treatment - 2 - 2	<p>Comment As with a number of other cases, the project should ask itself if they need to include things that they're doing anyways. In other venues the project has argued against inclusion of regulatory items (e.g. Chlorides as an EQC) based on their assertion that this is not going to be an issue. Not certain why that logic doesn't apply in these cases where the project is compelled to meet these standards. If, in</p>	<p>Apr 16: No response required.</p>	<p>Board staff believe that WTP2-2 is a measurable piece of information that demonstrates success of the WTP.</p>

		<p>this case, the project were to set a value more stringent than the barer of requirements - never any demonstration of chronic toxicity - then that could be used.</p> <p>Recommendation None</p>		
83	Water Treatment - 3 - 1	<p>Comment Using the 2017 NWT guidelines is fine for today, but the Closure Criterion should omit the year and simply commit to meeting the guidelines. This is a project that will be treating in perpetuity, and should be responsive to the guidelines of the future without having to seek an amendment to the license.</p> <p>Recommendation Provide direction to remove reference to the 2017 edition rather than language referring to the guidelines that would be evergreen</p>	<p>Apr 16: The GMRP does not agree to the revision. The design of the WTP is currently being completed and is predicated on meeting this guidance. If the guidance were to change in 10 or 15 years, the design of the WTP may need to be changed. That is not the purpose of this criterion, it is to confirm this meets what the guidelines say now.</p>	<p>Board staff note GMRP's response to the review comment. No edit to the criteria required.</p>
84	Site Infrastructure - 1 - 1	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition "As-Built Report – Engineered Structure(s)" to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure</p>

				Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the 'design criteria'.
85	Site Infrastructure - 1 - 3	<p>Comment The language of this criterion is unwieldy</p> <p>Recommendation Rephrase this unwieldy Criterion. Suggest "Site infrastructure will not cause ponding or interrupt the flow of water"</p>	Apr 16: The GMRP does not agree to the revision. Extensive discussion occurred at the Closure Objectives workshop with input from parties on their intention for this wording.	Edits not required at this time.
86	Site Infrastructure - 3 - 2	<p>Comment If human safety is assessed through the number of trespassers, how will the project assess wildlife safety. Perhaps a rethink in line with the Objective is warranted.</p> <p>Recommendation Provide direction to reconsider if this criterion address the objective.</p>	Apr 16: The GMRP does not support a water licence condition to provide direction on this closure criterion. It is under development and will be submitted as part of a Design plan. Note - refer to SI3-1 which relates to management, or safety, of wildlife through engineering controls e.g. fences. It is noted that the approach to monitoring the success of that would occur through the wildlife management and monitoring plan	Criteria could include reduction in wildlife observations but that may not be a goal. Interaction may be fine - just so long as it is not disadvantageous or negative in nature. This is hard to measure.
87	Landfill - 2 - 1	<p>Comment Indicate which guidelines these are. WTP cell deposition is already specified.</p> <p>Recommendation Provide direction to provide clarity</p>	Apr 16: GMRP has included those specifics in the note section of Table 5.0A-11 "Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories (GNWT 2003) , Solid Waste Management for Northern and Remote Communities-Planning	Reference given at the bottom of the Table.

			and Technical Guidance Document(ECCC 2017), Guideline for Hazardous Waste Management (GNWT 2017).	
88	Landfill - 2 - 2	<p>Comment If the Board chooses not to require further precision from the Closure Criteria, then the 'design criteria' must be specifically noted during the Design Plans such that the "specifications outlined therein are met". Evaluation of those criteria must be done in a transparent, ideally quantitative, and specific manner so that this Closure Criteria can be assessed as completed or not. For this Criterion, specific clarity on what these items may be versus L2-3, L2-4, L2-5, and L2-6 should be highlighted.</p> <p>Recommendation Ensure that design plans feature a specific section detailing the specifications that the design will meet</p>	<p>Apr 16: Please see response to City of Yellowknife comment 48.</p>	<p>Design specifications are included in the requirements for Design Plans.</p> <p>Further, Board staff have added the condition “As-Built Report – Engineered Structure(s)” to the Draft Water Licence that will require GMRP to submit an As-Built Report within 90 days of completion of the Construction of the Engineered Structure. The As-Built Report will need to be stamped and signed by a Professional Engineer, and referenced when the Closure and Reclamation Completion Report is submitted for a Project Component, along with a list of the relevant Closure Criteria the completed work is to satisfy in part or in full. This process will allow for a follow-up on the success of the ‘design criteria’.</p>
89	Sitewide - 2 - 4	<p>Comment City believes that it is premature to delete this. If other criteria are included to demonstrate the objective, why is this to be removed? There should be consistency in the approach. With so many items are left uncertain, why be definitive on this particularly as DFO hasn't participated or offered opinions on this matter (Publicly)</p> <p>Recommendation Do not delete this.</p>	<p>Apr 16: The GMRP accepted the input of parties on this criterion. The general recommendation out and agreement of the September Closure Objectives workshop was that this criterion was too aspirational and should not be included.</p>	<p>There are things that go on in Baker Creek that are outside of GMRP's control that could make this criteria impossible to achieve. Criteria must be achievable. Discussions for the Fisheries Authorization could re-establish a similar criteria through the Design Plan.</p>

90	Sitewide - 4 - 3	<p>Comment How is this different to the yet to be completed SI3-1?</p> <p>Recommendation Provide distinction and clarity</p>	<p>Apr 16: SI1-3 speaks to remaining infrastructure on site after remediation activities are completed (e.g. water treatment plant etc.), while SW4-3 speaks to general residual risks which could be soils etc. No revision is required.</p>	Clarification noted.
91	Sitewide - 4 - 3	<p>Comment The Perpetual Care Plan (PCP) will not currently demonstrate this. The City's review and understanding of the PCP's current vision will not involve management actions such as this. The Board must provide direction for the project to find a new approach to demonstrate that this will be achieved. Perhaps this may come, but the Closure Plan cannot rely on the PCP as a tool to demonstrate.</p> <p>Recommendation Correct this inaccuracy and find a new mechanism to achieve the intent</p>	<p>Apr 16: SW 4-3 references the installation of perimeter barriers to communicate risk. The closure table 5.0A-1 approach section references that the 'PCP will outline the types of barriers or communication tools, and that maintenance/inspection will be done through the post closure monitoring and maintenance plan'. To further clarify the PCP will make reference to communication tools, in this case a perimeter barrier, however details of maintenance or inspection will be housed in the OMP and the post closure monitoring and maintenance plan.</p>	Demonstration of the success of meeting criteria will come through the approval of Performance Assessment Reports.
92	Sitewide - 4 - 4	<p>Comment The City does not believe that a map alone can convey sufficient information. Similar to the project response to Measure 6 where they submitted a report which recommended nothing and received the support of zero parties, yet they called the matter resolved, the closure</p>	<p>Apr 16: GMRP project agrees that the future of the Site is guided and controlled by a variety of tools and options. The Project can assist rights and stakeholders, as well as GNWT-Lands in future land-use planning exercises in two ways: the Project</p>	Some criteria depend on the success of related criteria and work in combination to achieve the objective. This is an example.

		<p>criterion for future land use must be more rigorous else we will risk receiving a map that only suits the project's purposes - checking this criterion as complete. Moreover, our hope is that the future use of this site is guided and controlled by a variety of tools and options that reflect the dynamic nature of contamination that will be left to the residents - arsenic values will range from 340 ppm to 3000, many times the NWT guidance, hundreds of times the CCME guidelines.</p> <p>Recommendation Board direction to ensure more active involvement and participation towards land use planning is necessary</p>	<p>will provide necessary information to make informed decisions about land-use of the Site (i.e., contaminations levels, HHERA assumptions, exposure pathways) and the Project can provide assistance in representing visually what the Site may look like post-remediation. The GMRP will provide information and expertise about the final state of remediation and will outline any residual risks and/or constraints to the Commissioner of the NWT.</p>	
93	Sitewide - 5 - 1	<p>Comment Rather than design to resist erosion, the Closure Criterion should, at a minimum, be "will resist erosion" and demonstrate that by looking at how much erosion is occurring.</p> <p>Recommendation As stated elsewhere, this is a criterion that should be based on outcomes rather than design.</p>	<p>Apr 16: The four criteria SW5 (1-4) together are intended to collectively demonstrate that Objective SW5 was met (e.g. Runoff quality criteria as per the Water Management and Monitoring Plan). The Sediment and erosion plan will also define monitoring that will ensure that the effectiveness and success of the closure criteria.</p>	<p>This criteria is still in development. The details the City requests may be provided in the Design Plan(s)</p>
94	Sitewide - 5 - 2	<p>Comment City is still not sure how meeting the effluent quality criteria addresses erosion or provides physical stabilization. No explanation has been provided as to how these criteria demonstrate that the objective is met</p> <p>Recommendation Clarity is needed, as this was suggested to be deleted</p>	<p>Apr 16: S5-2 references 'approved surface runoff quality criteria'. Meeting surface runoff water quality criteria and monitoring the receiving environment (meet WQOs) will provide the indicators that the remediated site is stable and</p>	<p>Clarification noted.</p>

		earlier. Its not clear how meeting this criterion this will achieve erosional stability.	significant erosion is not occurring, and aquatic habitat is protected. The four criteria together are intended to collectively demonstrate that Objective SW5 was met.	
95	Sitewide - 5 - 3	Comment City is still not sure how meeting the effluent quality criteria addresses erosion or provides physical stabilization. No explanation has been provided as to how these criteria demonstrate that the objective is met Recommendation Its not clear how meeting this criterion this will achieve erosional stability.	Apr 16: S5-2 references 'approved surface runoff quality criteria'. Meeting surface runoff water quality criteria and monitoring the receiving environment (meet WQOs) will provide the indicators that the remediated site is stable and significant erosion is not occurring, and aquatic habitat is protected. The four criteria together are intended to collectively demonstrate that Objective SW5 was met.	Contact Water criteria can be developed to demonstrate a minimum amount of solids which would indicate a minimum amount of erosion.
96	Sitewide - 5 - (Former)1	Comment Rather than delete, specifying what the elements are would provide value. It's not redundant because we don't know what they were referring to. Further, if this is redundant, how are the criteria that are literally the same language as in other sections not considered redundant. Recommendation Require the project to update this and resubmit	Apr 16: The GMRP does not agree, the current version includes stakeholder inputs from two technical sessions as follows: An information request was submitted for a revised Appendix 5.0A Closure Objectives based on the Technical Session 1. In this submission SW5-1 Elements are designed to meet regulations as described in tables of Chapter 5 and below, and design specifications are met (CRP Jan 2019 version) was suggested for removal as it was redundant. This	Board staff believe criteria can be measured to achieve the objective as proposed.

			Information Request submission was consulted in Technical Session 2. During this session there was agreement for this to not be deleted but updated to its current text; which includes a measurable update; armoring and targeted revegetation. An information request was submitted for a revised Appendix 5.0A Closure Objectives based on the Technical Session 2. The GMRP submitted these as the final closure objectives for the project.	
DIAND - GIANT: Candace DeCoste				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	LUP Part A, Item 1	Comment (Submitted after Due Date) The GMRP understands the proposed scope of the LUP to identify the triggers for a Land Use Permit which are applicable to the Giant Mine project, however notes that the use of explosives is not a trigger for the GMRP as we are operating within the boundaries of a local government. The GMRP notes that not all land-use activities are triggers and therefore not all activities are described by the current scope. Regardless, the GMRP understands the proposed Permit to regulate all activities described in the Apr 1, 2019 MV2019X0007 Land Use Permit application and understands this to be addressed through the inclusion of Part A, Condition		Board staff have reviewed the scope and confirm that the intent of Part A, condition 2 is to cover as much existing activity and proposed activities in the current applications. So long as activities have been applied for and screened, they should be covered by the scope of this authorization. Activities that have not been identified in detail (such as open water drilling, winter roads) may require additional work.

		<p>2. As indicated in the Inspectors comments it is important that all activities required to undertake the Project are encompassed in the respective scopes, whether explicitly or implicitly. The GMRP would like to ensure that applicable activities related to engineering investigations and ongoing site maintenance are also encompassed in the scope of the Licence. Numerous investigations will continue with Licence and Permit issuance to inform detailed design, as well as activities related to ensuring the continued safe operations of site during remediation. This includes ice road construction, drilling on ice and in open water, and new openings to surface from underground. As well, currently decommissioning and demolition activities are not explicitly included in the proposed list of activities, but the GMRP considers these activities to be related to the handling of waste and therefore suggest they be included. Similarly, the GMRP notes that the activities to establish the arsenic trioxide frozen shell are not included however these activities are associated with storing waste and therefore the GMRP suggests these activities should be included. As part of the compensation process, the GMRP committed to constructing a new boat ramp and keeping the same draft at the dock and suggests this construction as</p>		
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		<p>well as potential excavation of sediment be included in the scope.</p> <p>Recommendation The GMRP requests the scope be reviewed to ensure it implicitly or explicitly encompasses the following activities identified in our application and through the Water Licence proceeding: decommissioning and demolition of old buildings and infrastructure, drilling on ice and in open water, excavation of sediment and other in-water construction activities, ice road construction, new openings to surface from underground, and “establishment and maintenance of the arsenic trioxide frozen shell”.</p>		
2	LUP Part B, Definitions, Active Remediation and Adaptive Management	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B.</p> <p>Recommendation The GMRP requests that the definitions be consistent with the Water Licence.</p>		Board staff have updated the Draft Water Licence accordingly.
3	LUP Part B, Definitions, Closure Activities	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B.</p> <p>Recommendation The GMRP requests that the definitions be consistent with the Water Licence.</p>		Updated to reflect the definition used in the <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> and the WL.
4	LUP Part B, Definitions, Closure Criteria	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B.</p> <p>Recommendation The GMRP requests that the definitions be consistent with the Water Licence.</p>		Updated to reflect the definition used in the <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> and the WL.

5	LUP Part B, Definitions, Closure Objectives	Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B. Recommendation The GMRP requests that the definitions be consistent with the Water Licence.		Updated to reflect the definition used in the <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> and the WL.
6	LUP Part B, Definitions, Construction Plan	Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B. Recommendation The GMRP requests that the definitions be consistent with the Water Licence.		Board staff have updated the Draft Permit and removed the definition for “Construction Plan”, similar to the update for the Draft Water Licence.
7	LUP Part B, Definitions, Design Plan	Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B. Recommendation The GMRP requests that the definitions be consistent with the Water Licence.		Board staff have updated the Draft Permit and have removed the definition of Design Plan, similar to the update for the Draft Water Licence.
8	LUP Part B, Definitions, Engineered Component	Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B. Recommendation The GMRP requests that the definitions be consistent with the Water Licence.		Board staff have updated the Draft Permit, including deletion of the definition ‘Engineered Component’ and adding the definition ‘Engineered Structure’ and ‘Project Component’ as per GMRP’s comments on the Water Licence.
9	LUP Part B, Definitions, Giant Mine Remediation Project Closure and Reclamation Plan	Comment (Submitted after Due Date) The GMRP suggests adding a reference to the Water Licence. Recommendation The GMRP recommends adding a reference to the corresponding Water Licence.		Board staff have added reference to the Water Licence to the draft Permit.
10	LUP Part B, Definitions, Minister	Comment (Submitted after Due Date) The definition should be updated to the Minister of Northern Affairs. Recommendation The GMRP requests that the definition		‘Canada’ removed from the draft Permit.

		of Minister be updated to the Minister of Northern Affairs.		
11	LUP Part B, Definitions, Site-Wide Management and Monitoring Plans	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B.</p> <p>Recommendation The GMRP requests that the definitions be consistent with the Water Licence.</p>		Water management included in definition.
12	LUP Part B, Definitions, Spring Break-up	<p>Comment (Submitted after Due Date) The GMRP recommends this date be modified to April 15.</p> <p>Recommendation The GMRP recommends that Spring Break-up be defined as April 15 each year, for the purpose of this operation.</p>		Board staff agree and have updated the date in the Draft Permit accordingly.
13	LUP Part B, Definitions, Sump definition	<p>Comment Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B.</p> <p>Recommendation The GMRP requests that the definitions be consistent with the Water Licence.</p>		The definition in the Draft is the new standard definition. For a given project, the purpose, design, and management of sumps should be set out in the Waste Management and Monitoring Plan.
14	LUP Part C, Condition 5	<p>Comment (Submitted after Due Date) Following Part C, Item 4, the GMRP understands Part C, Item 5 to be in relation to the construction of new lines, trails, and right-of-ways and recommends the standard condition be modified to reflect this.</p> <p>Recommendation The GMRP recommends Part C, Condition 5 be revised as follows: "The Permittee shall locate all new lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings."</p>		'New' added to the draft Permit provide clarification of the condition's intent.

15	LUP Part C, Condition 6	<p>Comment (Submitted after Due Date) The GMRP understands this condition to be applicable to new sumps and recommends the standard condition be modified to reflect this.</p> <p>Recommendation The GMRP recommends the following revision to Part C, Condition 6: "The Permittee shall not locate any new Sump within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector."</p>		'New' added to provide clarification of the condition's intent.
16	LUP Part C, Condition 7	<p>Comment (Submitted after Due Date) The GMRP requests that the standard condition be used to require an inspection, as currently worded, the frequency of inspections may become burdensome.</p> <p>Recommendation The GMRP recommends the standard condition be used: "Prior to the commencement of the land use operation, the permittee shall accompany an inspector during an inspection of the proposed land use area".</p>		This condition was drafted to keep the Inspectors informed of all new activities being initiated on site. No change made.
17	LUP Part C, Condition 8	<p>Comment (Submitted after Due Date) The GMRP recommends this standard condition be modified to include a maximum right-of-way of 30 m to allow work to be carried out in a safe manner.</p> <p>Recommendation The GMRP recommends the condition be modified to: "The Permittee shall confine the width of the right-of-way of a road to a maximum of 30 metres."</p>		Draft Permit is updated to specify that the right-of-way should be confined to 30 metres.

18	LUP Part C, Condition 10	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part B, condition 24.</p> <p>Recommendation The GMRP request this condition be revised to be consistent with the similar condition in the Water Licence.</p>		'Activity' added to definition.
19	LUP Part C, Condition 11	<p>Comment (Submitted after Due Date) The GMRP recommends the standard condition be used, as the completion of activities may not align with the completion of a specific design plan.</p> <p>Recommendation The GMRP recommends that condition be revised as follows: "At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of..."</p>		The intent of this condition is to provide notifications on two levels - when the entire Project is complete (Phase 2) and when each component is complete along the way. No change made.
20	LUP Part C, Condition 14	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Erosion and Sediment Management and Monitoring Plan Part F, Item 7. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan.</p> <p>Recommendation The GMRP recommends removing condition 14 to avoid confusion with the Water Licence.</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
21	LUP Part C, Condition 16	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Dust Management and Monitoring Plan Part F, Item 9. It is recommended that the plan be submitted under the</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.

		<p>Water Licence, to avoid having 2 submission requirements for the same plan.</p> <p>Recommendation The GMRP recommends removing condition 16 to avoid confusion with the Water Licence.</p>		
22	LUP Part C, Condition 18	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Tailings Management and Monitoring Plan Part F, Item 11. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan.</p> <p>Recommendation The GMRP recommends removing condition 18 to avoid confusion with the Water Licence.</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
23	LUP Part C, Condition 20	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Borrow Materials and Explosives Management and Monitoring Plan Part F, Item 13. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan.</p> <p>Recommendation The GMRP recommends removing condition 20 to avoid confusion with the Water Licence.</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
24	LUP Part C, Condition 22	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Arsenic Trioxide Frozen Shell Management and Monitoring</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons

		Plan Part F, Item 15. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan. Recommendation The GMRP recommends removing condition 22 to avoid confusion with the Water Licence.		for Decision document. No change is required.
25	LUP Part C, Condition 23	Comment (Submitted after Due Date) The draft Water Licence has a similar condition for Design Plans in Part E, Item 10. It is recommended that the plan be submitted under the Water Licence, to avoid having submission requirements for the same plan. Recommendation The GMRP recommends removing condition 23 to avoid confusion with the Water Licence.		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
26	LUP Part C, Condition 25	Comment (Submitted after Due Date) The draft Water Licence has a similar condition for Construction Plans in Part E, Item 11. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan. Recommendation The GMRP recommends removing condition 23 to avoid confusion with the Water Licence.		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
27	LUP Part C, Condition 29	Comment (Submitted after Due Date) As described in the GMRP Land Use Permit application, boreholes associated with freeze program of the underground		Recommendation incorporated into draft Permit condition.

		<p>arsenic trioxide stores, underground stabilization, paste backfill delivery and monitoring, or those with instrumentation for long-term monitoring cannot be completely sealed following the completion of operations because instrumentation will be installed within the boreholes.</p> <p>Recommendation The GMRP recommends that Part C, Condition 29 be replaced with the following: “Immediately upon completion of operations at each Borehole, except for Boreholes for freeze program of the underground arsenic trioxide stores, underground stabilization, paste backfill delivery and monitoring, or those with instrumentation for long-term monitoring, the Permittee shall remove or cut off and seal each drill casing at ground level.”</p>		
28	LUP Part C, Condition 38	<p>Comment (Submitted after Due Date) The GMRP understands this condition to be referring to natural ground and not disturbed areas such as the Tailings Containment Areas. If that is not the general understanding, the GMRP recommends the word "natural" be added to read "natural ground surface".</p> <p>Recommendation The GMRP recommends that the word "natural" be added to the condition as follows: "The Permittee shall prepare the site in such a manner as to prevent rutting of the natural ground surface."</p>		<p>The intent of this condition is to prevent damage to vegetation and rutting of the ground with heavy machinery, especially during summer in Permafrost regions where there are unstable soils with high ice content. It requires the use of some type of supporting and insulating pad or mat or geotextile, or a snow/ice pad, and requires that the Permittee be proactive in preventing rutting. There is no reference to natural areas only, and the use of lines and trails are included in this and associated standard</p>

				conditions concerned with rutting of the surface.
29	LUP Part C, Condition 39	<p>Comment (Submitted after Due Date) The GMRP understands this condition to be referring to natural ground and not disturbed areas such as the Tailings Containment Areas. If that is not the general understanding, the GMRP recommends "over natural ground" to be added.</p> <p>Recommendation The GMRP recommends that "over natural ground" be added to the condition: "The Permittee shall suspend overland travel over natural ground of equipment or vehicles at the first sign of rutting or gouging."</p>		This condition would apply to land-use operations carried out during summer where machinery and vehicles make repeated trips over lines and trails, eventually rutting the ground and damaging the vegetation, especially in wet areas. This condition could also apply to spring break-up and fall freeze-up when the ground may not be sufficiently frozen for vehicles to travel without damaging the soil and vegetation.
30	LUP Part C, Condition 40	<p>Comment (Submitted after Due Date) The GMRP understands this condition to be referring to natural ground and not disturbed areas such as the Tailings Containment Areas. If this is not the general understanding, the GMRP recommends adding "natural" to read "natural ground surface".</p> <p>Recommendation The GMRP recommends that the word "natural" be added to the condition as follows: "The Permittee shall not move any equipment or vehicles unless the natural ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. "</p>		This condition puts the onus on the Permittee to determine whether or not the ground is dry and firm enough or sufficiently frozen to support machinery and vehicles. The intent is to prevent damage to the land surface and vegetation. There is no reference to natural areas only, and the use of lines and trails are included in this and associated standard conditions concerned with rutting of the surface.
31	LUP Part C, Condition 46	<p>Comment (Submitted after Due Date) The GMRP suggests the language in the condition be updated to</p>		Agreed. This is the new standard – the draft Permit has been updated accordingly.

		<p>reflect WHMIS 2015 use of terminology for Safety Data Sheets (SDS) rather than Material Safety Data Sheets (MSDS).</p> <p>Recommendation The GMRP recommends that Part C, Condition 46 be revised as follows: "At least seven days prior to the use of any chemicals that were not identified in the application, the Safety Data Sheets must be provided to the Board and an Inspector."</p>		
32	LUP Part C, Condition 56	<p>Comment (Submitted after Due Date) The GMRP understands this condition to be referring to domestic waste and debris.</p> <p>Recommendation The GMRP recommends the condition be modified to: "The Permittee shall keep all domestic garbage and debris in a secure container until disposal."</p>		<p>This condition applies mainly to very small camps where the volume of garbage produced each day is not enough to warrant daily burning or removal. This could, however, apply to operations occurring throughout the Project site (i.e. drilling operations). The purpose of containment is to stop wildlife from getting into the garbage. Examples of a secure container may include: any container inside a building, a covered metal container, etc. Inspector will use his/her discretion to determine whether a container is adequate or not. GMRP's recommendations is included to add clarification.</p>
33	LUP Part C, Condition 59	<p>Comment (Submitted after Due Date) The GMRP site contains a number of archaeological sites deemed to have been mitigated by the Prince of Wales Northern Heritage Centre following the 2018 Archaeological Impact Assessment. GMRP</p>		<p>Board staff agree with GMRP's understanding.</p>

		understands condition 59 to be followed in conjunction with condition 61 and as such, mitigated sites do not require the 30 metre buffer. Recommendation No recommendation.		
34	LUP Part C, Condition 74	Comment (Submitted after Due Date) It appears that the submission timelines for the Spill Contingency Plan outlined in Part G, Condition 3 of the Draft Licence and Condition 74 of the Draft Permit will differ if the Permit is issued on a different date than the Licence. Recommendation The GMRP recommends that the submission deadline should be clarified.		Board staff have updated the timing requirement for the Spill Contingency Plan in the Draft Land Use Permit to align with the timing in the Draft Water Licence: 90 days prior to Phase 2.
35	LUP Part C, Condition 76	Comment (Submitted after Due Date) The GMRP requests that personal vehicles be exempt from this condition. Recommendation The GMRP recommends this condition be modified to: "All equipment, with the exception of personal vehicles, that may be parked for two hours or more shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately."		Agreed. Clarification will be provided in the Reasons for Decision.
36	LUP Part C, Condition 78	Comment (Submitted after Due Date) The GMRP understands this condition to be referring to reportable spills. Recommendation No recommendation.		Spills must be reported in order to ensure adequate cleanup occur, necessary mitigation measures are implemented, and records are maintained. In addition to reporting spills to the spill report line, this condition also explicitly requires the Permittee to maintain records of all

				spills, to report each 'reportable' spill to an Inspector within 24 hours, and to submit reports to the Board and Inspector within 30 days regarding the spill and the Permittee's cleanup efforts.
37	LUP Part C, Condition 79	<p>Comment (Submitted after Due Date) The GMRP will dispose of all brush and trees as outlined in the revised Waste Management and Monitoring Plan. GMRP Recommends the condition to updated to specify this.</p> <p>Recommendation The GMRP recommends this condition be modified to: "The Permittee shall dispose of all brush and trees as outlined in the Waste Management and Monitoring Plan; all disposal shall be completed prior to the end of this land use operation."</p>		This condition refers more specifically to the progressive nature of the clearing of brush. The methods for disposal will be approved through the Waste Management and Monitoring Plan. No change required.
38	LUP Part C, Condition 82	<p>Comment (Submitted after Due Date) It appears that the submission timelines for the Closure and Reclamation Plan outlined in Part D, Condition 2 of the Draft Licence and Condition 82 of the Draft Permit will differ if the Permit is issued on a different date than the Licence.</p> <p>Recommendation The GMRP recommends that the submission deadline should be clarified.</p>		The Licence requires resubmission within 6 months of issuance. Board staff have updated the Draft Permit to require resubmission within 9 months of Issuance so that the timing better aligns.
39	LUP Part C, Condition 83	<p>Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Giant Mine Project Closure and Reclamation Plan in Part D, Item 2. It is recommended that the plan be submitted</p>		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.

		under the Water Licence, to avoid having 2 submission requirements for the same plan. Recommendation The GMRP recommends removing condition 83 to avoid confusion with the Water Licence.		
40	LUP Part C, Condition 84	Comment (Submitted after Due Date) The draft Water Licence has a similar condition for Closure and Reclamation Completion Reports in Part D, Item 5. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan. Recommendation The GMRP recommends removing condition 84 to avoid confusion with the Water Licence.		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
41	LUP Part C, Condition 85	Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Final Closure and Reclamation Report in Part D, Item 6. It is recommended that the plan be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan. Recommendation The GMRP recommends removing condition 85 to avoid confusion with the Water Licence.		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons for Decision document. No change is required.
42	LUP Part C, Condition 86	Comment (Submitted after Due Date) The draft Water Licence has a similar condition for the Performance Assessment Report in Part D, Item 7. It is recommended that the plan		These plans are required under both authorizations. One plan to cover both requirements will suffice and this will be made clear in the associated Reasons

		<p>be submitted under the Water Licence, to avoid having 2 submission requirements for the same plan.</p> <p>Recommendation The GMRP recommends removing condition 86 to avoid confusion with the Water Licence.</p>		for Decision document. No change is required.
43	LUP Part C, Condition 87	<p>Comment (Submitted after Due Date) See GMRP comments on the draft Water Licence, Part D, Item 8.</p> <p>Recommendation The GMRP recommends removing condition 87 to avoid confusion with the Water Licence.</p>		Board staff have deleted this condition in the Draft Permit, similar to in the Draft Water Licence.
44	LUP Part C, Condition 89	<p>Comment (Submitted after Due Date) GMRP understands this to be a standard condition. GMRP notes multiple land use permits will likely be required for the completion of the work covered under the associated Water Licence and all work will not be completed prior to the expiry date of this Permit.</p> <p>Recommendation No recommendation.</p>		Board staff note that this is a standard condition. To make it more clear, Board staff have added “as described in the approved Giant Mine Remediation Closure and Reclamation Plan and associated Design Plans”.
45	LUP Part C, Condition 90	<p>Comment (Submitted after Due Date) GMRP understands this to be a standard condition. GMRP notes multiple land use permits will likely be required for the completion of the work covered under the associated Water Licence and some areas will not be ready for revegetation prior to the expiry date of this Permit.</p> <p>Recommendation No recommendation.</p>		Noted. Standard condition, revegetation to be completed as laid out in the CRP and Design Plans.

46	LUP Part C, Condition 95	<p>Comment (Submitted after Due Date) Timelines for the Engagement Plan outlined in Part B, Condition 22 of the Draft Licence and Condition 95 of the Draft Permit will differ if the Permit is issued on a different date than the Licence.</p> <p>Recommendation The GMRP recommends that the submission deadline should be clarified.</p>		<p>The Draft Licence has been updated to indicate that the Engagement Plan will be required to be submitted 90 days post-issuance. The Permit requires submission within 6 months of Issuance. GMRP is correct, assuming the Board decides to issue both authorizations, the Permit will come into effect before the Licence - which will require Ministerial approval. The timelines proposed, however, should work. The Minister has up to 90 days to make a decision on the Licence, so 90 days following the Effective date of the Licence will align with the 6 months following the Permit.</p>
47	Water Licence Part A, Item 1	<p>Comment (Submitted after Due Date) Referring to phases of the project is unnecessary and could lead to confusion as some Project components will enter post remediation prior to the end of Phase 2.</p> <p>Recommendation The GMRP recommends removing the reference to phases from the scope of the Licence, instead referring to activities, and replace the first paragraph with the following: "This Licence entitles the Licensee to use Water and deposit Waste for the following activities: "</p>		<p>It is clear based on evidence from the proceeding that reviewers want the scope of the WL limited to Phases 1 and 2. GMRP did not identify this concern during discussions on limiting the scope of the Licence. The Reasons for Decision document can be clear that this means the duration of Phase 2. It is Board staff's understanding that all Adaptive Management and what GMRP are calling post-closure in its response can be covered by the Terms and conditions of this Licence and Permit. Post-Closure will not be recognized by the Board until the Final Closure and Reclamation Completion Report is submitted. The Updated Project</p>

				Description identifies Phase 3 (Post- Closure) as “long-term monitoring and maintenance <i>after all site remediation is complete.</i> ”
48	Part A, Item 1, Sub.1	<p>Comment (Submitted after Due Date) The GMRP understands the proposed scope of the Water Licence to identify the triggers for a Water Licence which are applicable to the Giant Mine project. The GMRP notes that not all activities are triggers and therefore not all activities are described by the current scope. Regardless, the GMRP understands the proposed Licence to regulate all activities described in the Apr 1, 2019 MV2007L8-0031 Water Licence application and believes that this is covered by Part A Condition 1(a) and Condition 2. The GMRP's preferred approach would be that the scope include only Part A Condition 1(a) and Conditions 2-4 as conditions 1(b)-(l) does not appear to be inclusive of all specific activities in the application and therefore may be misleading. The GMRP understands the Board will determine the best approach to writing the scope. As indicated in the Inspectors comments it is important that all activities required to undertake the Project are encompassed in the respective scopes, whether explicitly or implicitly is at the discretion of the MVLWB. The GMRP would like to ensure that applicable activities related to engineering investigations</p>		<p>Board staff have reviewed the scope and confirm that the intent of Part A, condition 2 is to cover as much existing activity and proposed activities in the current applications. So long as activities have been applied for and screened, they should be covered by the scope of this authorizations. Activities that have not been identified in detail (such as open water drilling) may require additional work.</p>

		<p>and ongoing site maintenance are also encompassed in the scope of the licence. Numerous investigations will continue with licence and permit issuance to inform detailed design, as well as activities related to ensuring the continued safe operations of site during remediation. This includes ice road construction, drilling on ice and in open water, and new openings to surface from underground. As well, currently decommissioning and demolition activities are not explicitly included in the proposed list of activities, but the GMRP considers these activities to be related to the handling of waste and therefore suggest they be included if the preferred approach described above is not taken. Similarly, the GMRP notes that the activities to establish the arsenic trioxide frozen shell are not included however these activities are associated with storing waste and therefore the GMRP suggests these activities should be included if the preferred approach described above is not taken. As part of the compensation process, the GMRP committed to constructing a new boat ramp and keeping the same draft at the dock and suggests this construction as well as potential excavation of sediment be included in the scope if the preferred approach described above is not taken.</p>		
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		<p>Recommendation The GMRP requests the scope be reviewed to ensure it encompasses the following activities identified in our application and through the Water Licence proceeding: decommissioning and demolition of old buildings and infrastructure, drilling on ice and in open water, dredging and other in-water construction activities, ice road construction, new openings to surface from underground, and “establishment and maintenance of the arsenic trioxide frozen shell” The GMRP leaves it to the MVLWB as to whether these activities are best included explicitly or implicitly.</p>		
49	Part A, Item 2. Definitions	<p>Comment (Submitted after Due Date) The GMRP recommends the addition of a definition for acute lethality.</p> <p>Recommendation The GMRP recommends the addition of the following definition for "Acutely Lethal": a sample is considered to fail an acutely lethal test if >50% mortality for the applicable test species is observed after being subjected to full strength Wastewater for the protocol-stipulated test duration. The applicable test species of testing acute lethality of discharges are Rainbow Trout and Daphnia magna."</p>		This definition has not been included. Acute toxicity will be outlined in the SNP.
50	Part A, Item 2. Definition of Acid Rock Drainage	<p>Comment (Submitted after Due Date) The GMRP notes that this definition has been modified from the standard definition unnecessarily.</p> <p>Recommendation The GMRP</p>		Board staff agree. Draft Water Licence changed accordingly.

		recommends the Water Licence use the MVLWB standard definition: "acidic Water, often with elevated sulphate concentrations, that occurs as a result of oxidation of sulphide minerals contained in rock or other materials that are exposed as a result of natural weathering processes, Construction, or Project activities."		
51	Part A, Item 2. Definition of Active Remediation and Adaptive Management (Phase 2)	<p>Comment (Submitted after Due Date) The GMRP requests updating the definition of "Active Remediation and Adaptive Management (Phase 2)" to align with suggested changes to Project Component(s).</p> <p>Recommendation The GMRP Recommends the following edit to "Active Remediation and Adaptive Management (Phase 2)", replacing Engineered Components with Project Components: "when Construction commences on the first Project Component(s). The Active Remediation and Adaptive Management phase lasts until all Closure Activities are complete."</p>		Board staff agree; Draft Water Licence changed accordingly, and added "and is marked by the submission of the Final Closure and Reclamation Completion Report".
52	Part A, Item 2. Definition of Closure Activities	<p>Comment (Submitted after Due Date) Definitions are useful to understanding the remainder of the Water Licence and should be readily available to the reader rather than in a cross-referenced document.</p> <p>Recommendation The GMRP recommends that the definition from the MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and</p>		Board staff agree; Draft Water Licence changed accordingly.

		Mine Sites in the Northwest Territories be repeated here instead of cross referenced. i.e. "the closure and reclamation activity chosen from the closure options for each project component."		
53	Part A, Item 2. Definition of Closure Criteria	<p>Comment (Submitted after Due Date) Definitions are useful to understanding the remainder of the Water Licence and should be readily available to the reader rather than in a cross-referenced document.</p> <p>Recommendation The GMRP recommends that the definition from the MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories be repeated here instead of cross referenced. i.e. "standards that measure the success of selected closure activities in meeting closure objectives. Closure criteria may have a temporal component (e.g., a standard may need to be met for a pre-defined number of years). Closure criteria can be site-specific or adopted from territorial/federal or other standards and can be narrative statements or numerical values."</p>		Board staff agree; Draft Water Licence changed accordingly.
54	Part A, Item 2. Definition of Closure Objectives	<p>Comment (Submitted after Due Date) Definitions are useful to understanding the remainder of the Water Licence and should be readily available to the reader rather than in a cross-referenced document.</p> <p>Recommendation The GMRP recommends that the definition from the</p>		Board staff agree; Draft Water Licence changed accordingly.

		MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories be repeated here instead of cross referenced. i.e. "statements that describe what the selected closure activities are aiming to achieve; they are guided by the closure principles. Closure objectives are typically specific to project components, are measurable and achievable, and allow for the development of closure criteria."		
55	Part A, Item 2. Definition of Construction Plan	<p>Comment (Submitted after Due Date) The GMRP submits that a definition of Construction Plan is not necessary as there is a schedule outlining the details of a Construction Plan.</p> <p>Recommendation The GMRP recommends removal of this definition in conjunction with the recommendation for Part E, Condition 11. However, if the MVLWB believes a definition is required, the GMRP recommends the proposed definition be adjusted to: "Construction Plan - a description of the construction plan for an Engineered Structure including construction specifications, design drawings and contingency measures related to Construction activities and planning."</p>		Board staff have deleted the definition 'Construction Plan' and 'Design Plan' from the Draft Water Licence according to the review comment.
56	Part A, Item 2. Definition of Contact Water	<p>Comment (Submitted after Due Date) The use of "Engineered Component" in this definition is inconsistent with the GMRPs application.</p> <p>Recommendation The GMRP</p>		Board staff sent an Information Request (IR) to GMRP on May 15, 2020 that addressed this definition.

		recommends the definition of Contact Water be revised as follows: "Contact Water - Runoff or Seepage from Engineered Structure(s) that has encountered Wastewater and/or Waste within the Developed areas as defined in the Closure and Reclamation Plan."		The definition of Contact Water in the Draft Water Licence has been updated according to the IR response, and comments and responses made on the IR response on the Board's Online Review System.
57	Part A, Item 2. Definition of Design Plan	<p>Comment (Submitted after Due Date) The use of the term 'Engineered Component' is not the intent of the GMRP nor does it match the closure guidance. The GMRP proposes a Design Plan for each of the relevant Project Components for which there is a CRP chapter as per the closure guidance.</p> <p>Recommendation The GMRP recommends the definition of "Design Plan" be revised as follows: "Design Plan - a description of specific Project Component remediation activities including how the component will be designed to meet Closure Objectives and Closure Criteria and how success will be demonstrated through post-Construction monitoring."</p>		Board staff have updated the Draft Water Licence accordingly.
58	Part A, Item 2. Definition of Dam	<p>Comment (Submitted after Due Date) The GMRP notes that this definition unnecessarily deviates from the standard definition by the addition of the word "engineered." The GMRP submits that this introduces unnecessary complications as many of the dams on-site were constructed many years ago and it is not necessarily evident if all dams were "engineered."</p> <p>Recommendation The GMRP recommends the definition</p>		Board staff have updated the Draft Water Licence to include the term "barrier". The term Engineered Structure has been included in this definition, as per GMRP's comments on the Draft Water Licence.

		from the Canada Dam Association Dam Safety Guidelines be used i.e. "a barrier constructed for the retention of water, water containing any other substance, fluid waste, or tailings, provided the barrier is capable of impounding at least 30,000 m3 of liquid and is at least 2.5 m high".		
59	Part A, Item 2. Definition of Engineered Component	<p>Comment (Submitted after Due Date) As per the GMRP comments in Part A, Item 2, Definition of Design Plan, the use of Engineered Component is not in line with what the GMRP has proposed and described throughout the water licence process in Technical Sessions and the Public Hearing. The term Engineered Component and the definition as provided in the draft Water Licence and Land Use Permit circulated by the MVLWB are not the same and will lead to confusion. GMRP proposes the use of two separate terms: "Engineered Structure" and "Project Component".</p> <p>Recommendation The GMRP recommends that "Engineered Component" be removed and replaced with "Engineered Structure: Any structure or facility and associated area related to water use or the deposit of waste that is designed and approved by a Professional Engineer." The GMRP further recommends a new term be added to definitions: "The GMRP has been divided into projected components, following the approach outlined in the</p>		Board staff have updated the Draft Water Licence according to GMRP's comments on the definition of Engineered Structure and Project Component.

		MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories. The twelve project components are: 1) underground mine workings; 2) freeze/Arsenic Trioxide Frozen Shell; 3) open pit mine workings; 4) contaminated soils and sediments, 5) Baker Creek and surface Water drainage, 6) Tailings Containment Areas; 7) Borrow material; 8) Water Treatment Plant and outfall systems; 9) Buildings and Site Infrastructure; 10) Non-Hazardous Waste Landfill; 11) Contamination downgradient from Dam 3; and 12) Passive/semi-passive Treatment."		
60	Part A, Item 2, Definition of Engineer of Record	<p>Comment (Submitted after Due Date) The GMRP will design improvements to the Tailings Containment Areas but did not design the original dams on Site. As such, it cannot be responsible for a design it did not execute. Therefore, the GMRP recommends removal of the word 'design'.</p> <p>Recommendation The GMRP recommends the definition of Engineer of Record be revised as follows: "Engineer of Record - a qualified Professional Engineer who is responsible for the performance of the Tailings Containment Areas and Dams"</p>		Board staff agree and have changed the Draft Water Licence accordingly.
61	Part A, Item 2, Definition of Freeboard	<p>Comment (Submitted after Due Date) The GMRP recommends the definition for Freeboard be modified to align with the definition used</p>		Board staff have updated the Draft Water Licence according to GMRP's comment.

		by the Canadian Dam Association. Recommendation The GMRP recommends the definition of Freeboard to be modified to: "The vertical distance between the still water surface elevation in the reservoir and the lowest elevation at the top of the containment structure."		
62	Part A, Item 2, Definition of Foreshore Tailings	Comment (Submitted after Due Date) This definition uses a spatial term to define a kind of material. Such a discrepancy can lead to miscommunication or lack of clarity. Recommendation The GMRP recommends updating the definition of Foreshore Tailings by removing the reference to area: "Foreshore Tailings: tailings that were historically deposited along the shore of north Yellowknife Bay without dams to contain them."		Board staff agree and the Draft Water Licence has been updated accordingly.
63	Part A, Item 2, Definition of Maximum Average Concentration	Comment (Submitted after Due Date) The GMRP requests additional wording to clarify the definition of Maximum Average Concentration. Recommendation The GMRP recommends the definition of Maximum Average Concentration be revised as follows: "Maximum Average Concentration – the concentration of a parameter that cannot be exceeded by the running average of any four consecutive analytical results, collected in accordance with the sampling and analysis requirements specified in the Surveillance Network Program (SNP)."		Board staff agree and the Draft Water Licence has been updated accordingly.

64	Part A, Item 2, Definition of Maximum Grab Concentration	<p>Comment (Submitted after Due Date) The GMRP requests additional wording to clarify the definition of Maximum Grab Concentration.</p> <p>Recommendation The GMRP recommends the definition of Maximum Grab Concentration be revised as follows: "Maximum Grab Concentration - " a concentration of a parameter that cannot be exceeded in any one analytical result collected in accordance with the sampling and analysis requirements specified in the Surveillance Network Program (SNP)."</p>		Board staff agree and the Draft Water Licence has been updated accordingly.
65	Part A, Item 2, Definition of Non-Hazardous Waste Landfill	<p>Comment (Submitted after Due Date) The GMRP suggests updating the definition of Non-Hazardous Waste Landfill to align with the proposed Project Component definition.</p> <p>Recommendation The GMRP recommends revising the definition of Non-Hazardous Waste Landfill by replacing the word "Engineered" with "Project" as follows: "Non-Hazardous Waste Landfill - the Project Component designed to contain solid non-hazardous Waste."</p>		Board staff have updated the Draft Water Licence accordingly.
66	Part A, Item 2, Definition of Perpetual Care Plan	<p>Comment (Submitted after Due Date) The Perpetual Care Plan required by the Environmental Agreement has a broader scope than described here. Given that it is referred to in project documentation based on that broader scope it may be confusing to provide a definition that is more limited.</p> <p>Recommendation The GMRP</p>		Board staff agree and the Draft Water Licence has been updated accordingly.

		<p>recommends that the definition of Perpetual Care Plan be revised to more closely follow the description provided in the Environmental Agreement :</p> <p>"Perpetual Care Plan - required by the Environmental Agreement, a document that addresses improvements in records management, communication with future generations, long-term access to funds for the Project and analysis of different possible future scenarios that might affect the Perpetual Care of the Project"</p>		
67	Part A, Item 2, Definition of Reclamation Research	<p>Comment (Submitted after Due Date) Definitions are useful to understanding the remainder of the Water Licence and should be readily available to the reader rather than in a cross-referenced document.</p> <p>Recommendation The GMRP recommends that the definition from the MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories be repeated here instead of cross referenced. i.e. "literature reviews, laboratory or pilot-scale tests, engineering studies, and other methods of resolving uncertainties. Proponents conduct reclamation research to answer questions pertaining to environmental risks; the design of reclamation research plans aims to provide data and information</p>		<p>Board staff agree and the Draft Water Licence has been updated accordingly. This aligns with the Board's recently approved Standard Water Licence Conditions.</p>

		which will reduce uncertainties for closure options, selected closure activities, and/or closure criteria.”		
68	Part A, Item 2, Definition of Site-Wide Management and Monitoring Plan	<p>Comment (Submitted after Due Date) GMRP suggests that the Site Wide Management Plans include management of water as well as waste given the mandate of the Board.</p> <p>Recommendation The GMRP recommends the following updated definition: "Site-Wide Management and Monitoring Plans - Plans that outline the general, site-wide, requirements for the maintenance and management of Water and Waste for the Project."</p>		Board staff agree and the Draft Water Licence has been updated accordingly.
69	Part A, Item 2, Definition of Sump	<p>Comment (Submitted after Due Date) GMRP recommends that the definition of Sump be aligned with the standard definition.</p> <p>Recommendation The GMRP recommend that the standard definition be used for the definition. i.e. “a human-made pit or natural depression in the earth's surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.”</p>		The definition in the Draft Water Licence is the new standard definition. For a given project, the purpose, design, and management of sumps should be set out in the Waste Management and Monitoring Plan.
70	Part A, Item 2, Definition of Tailings Containment Areas	<p>Comment (Submitted after Due Date) This definition is restricted to 4 ponds listed therein and the GMRP suggests removing the reference to Engineered Components.</p> <p>Recommendation The GMRP recommends the definition of Tailings Containment Area be revised as follows:</p>		Board staff agree and the Draft Water Licence has been updated accordingly.

		"Tailings Containment Areas - the area(s) designed to contain Tailings generated during historical operations, including the Northwest Pond, the North Pond, Central Pond, and the South Tailings Pond."		
71	Part A, Item 2, Definition of Water Supply Facility	<p>Comment (Submitted after Due Date) This definition will lead to confusion because (1) as written, this definition would apply to minewater collection (i.e., the minewater intake that will supply minewater to the Water Treatment Plant); and (2) the GMRP has not used this term in any of its documentation. The GMRP has used the term "Fresh Water Intake".</p> <p>Recommendation The GMRP recommends this definition be removed and replaced with "Fresh Water Intake - the structure and associated infrastructure used to supply fresh water to the Project".</p>		Board staff agree and the Draft Water Licence has been updated accordingly.
72	Part B, Item 19, INOPERABLE WELL	<p>Comment (Submitted after Due Date) Not all wells that become inoperable should be replaced by default.</p> <p>Recommendation The GMRP recommends the following update: "The Licensee shall, to the satisfaction of an Inspector, replace, repair or decommission any monitoring wells that become inoperable. For greater certainty, a "dry well" is not an inoperable well within the meaning of this Licence."</p>		Board staff agree and the Draft Water Licence has been updated accordingly.
73	Part B, Item 22, REVISED ENGAGEMENT PLAN	<p>Comment (Submitted after Due Date) The GMRP recommends the standard timeline of 90 days be used instead of 60.</p>		Board staff note that a Board decision is required as to if the Engagement Plan will be required to be re-submitted 60 vs. 90

		Recommendation The GMRP recommends a revised Engagement Plan be provided within 90 days of the effective date of this Licence, consistent with the Draft Standard Water Licence Conditions.		days following the effective date of the Licence.
74	Part B, Item 24, NOTIFICATION - COMMENCEMENT	<p>Comment (Submitted after Due Date) The GMRP recommends specifying Project activity as the trigger for notification, as there may be different contacts depending on the specific activity.</p> <p>Recommendation The GMRP recommends specifying notifications will be triggered by the activity, by revising the condition as follows: "Notification shall include the commencement date and the name and contact information for the individual responsible for overseeing the Project activity. Written notification shall be provided to the Board and an Inspector if any changes occur."</p>		Board staff agree and the Draft Water Licence has been updated accordingly.
75	Part C, Item 1, WATER SOURCE AND MAXIMUM VOLUME	<p>Comment (Submitted after Due Date) The daily volume provided by the MVLWB is based on assuming a consistent water taking over 365 days/year. This is an unlikely scenario. The GMRP did not request a daily limit and will require flexibility during the open water season. Other Water Licences of which the GMRP is aware do not provide a daily limit. The requested volumes will have no impact on Yellowknife Bay.</p> <p>Recommendation The GMRP recommends that Part C, Item 1 be revised to read:</p>		Draft Water Licence updated to include the yearly limit in the condition instead of the daily limit. Board staff note that this is similar to other Type A licences issued by the Board.

		"The Licensee may withdraw up to 438,000 m3/year of water from Yellowknife Bay for the Project."		
76	Part C, Item 2, WASTEWATER USE	<p>Comment (Submitted after Due Date) Dust suppression may need to occur at times when the ETP is not operating so this condition is not achievable as written. Further, dust suppression inside the Tailings Containment Areas (TCAs) during construction should not require 'clean' water and the GMRP requires the ability to use water currently in the TCA (that does not meet EQC) for dust suppression within the TCAs and for paste backfill.</p> <p>Recommendation The GMRP recommends the addition of "outside the Tailings Containment Areas" to this condition as follows: "The Licensee may use Wastewater for dust suppression outside the Tailings Containment Areas only if that Wastewater meets the Effluent Quality Criteria identified in Part F, condition 26 while the Effluent Treatment Plant is operational or Part F, condition 27 while the Water Treatment Plant is operational."</p>		<p>Board staff have updated the draft Water Licence to indicate that Wastewater that will not meet EQC (for the use of Wastewater for dust suppression in the TCAs or paste backfill) can be approved through the Water Management and Monitoring Plan or the Dust Management and Monitoring Plan.</p> <p>Board staff added "The Licensee shall submit the Water quality data to the Board and an Inspector to confirm Part F, conditions 26 or 27 can be met as applicable prior to use".</p>
77	Part D, Item 2, CLOSURE AND RECLAMATION PLAN - REVISED	<p>Comment (Submitted after Due Date) The version of the Giant Mine Project Closure and Reclamation Plan submitted within 6 months of the licence will only reflect the changes in Schedule 2, Condition 1. The GMRP suggests that this will require a conformity check, rather than a public review and</p>		<p>Board staff note that a Board decision is required as to if the revised CRP submitted 6 months following the effective date of the Licence will be for approval with a public review or for conformity. Details about what sections of the CRP will need to be updated will be</p>

		approval process. Recommendation The GMRP recommends removal of 'for approval' from this condition.		provided in the Reasons for Decision.
78	Part D, Item 3, CLOSURE AND RECLAMATION PLAN - ANNUAL UPDATES	<p>Comment (Submitted after Due Date) The requirement to update the CRP annually based on Closure and Reclamation Completion Reports and/or Performance Assessment Reports effectively turns the CRP into a progress report. This is redundant as the Annual Water Licence Report already requires a progress update (Part B Schedule 1 Condition 1 (1)). Furthermore, the Performance Assessment Report is only developed once closure is complete. Once closure is complete it is unnecessary to continue to update the Closure and Reclamation Plan. An annual update of the CRP is overly burdensome to the GMRP. It will require significant resources and will serve minimal purpose. The GMRP understands the desire to track CRP-related approvals and can commit to maintaining an up-to-date list of all approved documents in the Annual Report to direct affected parties to the most current approved information for each component of the Project.</p> <p>Recommendation The GMRP recommends the revised condition read: "The Licensee shall submit an updated version of the Closure Objectives and Closure Criteria each year to reflect revised and new criteria approved through the Design Plans." The Project also</p>		<p>Board staff have removed reference to the Closure and Reclamation Completion Reports and Performance Assessment Reports.</p> <p>Board staff note that a Board decision will be required to determine what the CRP – Revised condition will entail. The Reasons for Decision will provide details about the requirements for this condition.</p>

		recommends that the Annual Water Licence Report include an up-to-date list of all approved documents in the Annual Report to direct affected parties and the MVLWB to the most current approved information for each component of the Project.		
79	Part D, Item 4, POST-CLOSURE MONITORING AND MAINTENANCE PLAN - TABLE OF CONTENTS	<p>Comment (Submitted after Due Date) The GMRP understands that this table of contents is to outline the monitoring and maintenance requirements in Phase 3 of the Project. As described in Schedule 3, Condition 1(e) post-construction monitoring for some components will occur prior to Phase 3 and will be approved through the respective Design Plans. In consideration of Part D, Draft Item 8, the GMRP believes the best method of documenting approved post-Construction monitoring would be for the Post-Closure Monitoring and Maintenance Plan be submitted with the first Closure and Reclamation Completion Report in full rather than only the Table of Contents. In addition, the Perpetual Care Plan is currently in development and if required, would be provided only for informational purposes to inform the Table of Contents.</p> <p>Recommendation The GMRP recommends that a condition be added to require the Post-Closure Monitoring and Maintenance Plan be submitted with the first Closure and Reclamation Completion Report to</p>		<p>Board staff note that an Information Request that was sent to GMRP on May 15, 2020 included a question about the Post-Closure Monitoring and Maintenance Plan.</p> <p>Based on comments and responses made about GMRP's IR response, Board staff have not included a requirement for GMRP to submit the Post-Closure Monitoring and Maintenance Plan with the first Closure and Reclamation Completion Report.</p>

		document approved post-construction monitoring and maintenance. If required as a submission, the Licence should specify that the Perpetual Care Plan is to be submitted for information purposes only.		
80	Part D, Item 5, CLOSURE AND RECLAMATION COMPLETION REPORT	<p>Comment (Submitted after Due Date) The GMRP recognizes that Reclamation Completion Reports are to be submitted to document the work completed in accordance with the MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories. As identified above, the GMRP has concerns with the draft definition of Engineered Component and has proposed an alternative definitions or Project Component and Engineered Structure. The GMRP notes that due to the duration of remediation of a given Project Component (revised definition), the GMRP would like to maintain the flexibility to submit Closure and Reclamation Completion Report as portions of each component is completed. The GMRP has provided comments on Schedule 2, Condition 2. The GMRP notes that a 90 day timeline would likely not be feasible and has proposed instead a six month timeline which would allow time to compile information from multiple contractors.</p> <p>Recommendation The GMRP recommends that Part D, Item 5, be revised as follows:</p>		Board staff note that an Information Request that was sent to GMRP on May 15, 2020 included a question about submission of the Closure and Reclamation Completion Reports. According to the comments and responses from the review of GMRP's IR Response, Board staff have updated the trigger for submitting Project Component-specific Closure and Reclamation Completion Reports, and added a requirement to the Annual Report for GMRP to communicate updates to reviewers and affected Parties on the progress of remediation.

		"Within 6 months of completing Closure and Reclamation of any Project Component, or closure and reclamation of a part of the Project Component, the Licensee shall submit to the Board a Component-specific Closure and Reclamation Completion Report. The Report shall be in accordance with the MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories and with Schedule 2, condition 2. Any updates to activity-specific monitoring require Board approval prior to implementation."		
81	Part D, Item 6, FINAL CLOSURE AND RECLAMATION REPORT	<p>Comment (Submitted after Due Date) The GMRP understands the Final Closure and Reclamation Report to be a compilation of all Closure and Reclamation Completion Reports.</p> <p>Recommendation No recommendation.</p>		This is also Board Staff's understanding. This is clarified in the Reasons for Decision.
82	Part D, Item 8, UPDATE PLANS	<p>Comment (Submitted after Due Date) As per comments on Part D, Item 3, the CRP will not be updated with post-closure details. Monitoring identified in the Closure and Reclamation Completion Reports and the PAR will be incorporated into the Post Closure Monitoring and Maintenance Plan.</p> <p>Recommendation The GMRP recommends the following revision to Part D Item 8: "Once approved, the management and monitoring details submitted in the Closure and Reclamation Completion Reports are to be</p>		Board staff have deleted the condition GMRP is referring to in the Draft Water Licence.

		incorporated into the 'Giant Mine Remediation Project Post-Closure Monitoring and Maintenance Plan'.		
83	Part E, Item 3, DAMS - ENGINEER OF RECORD	<p>Comment (Submitted after Due Date) As outlined in the definition of Engineer of Record, the engineer is responsible for the performance of dams but not the design of existing dams.</p> <p>Recommendation The GMRP recommends this condition remains as is provided the recommendation for the definition of Engineer of Record is accepted.</p>		Noted. Board staff updated the Engineer of Record definition in the Draft Water Licence as recommended by GMRP.
84	Part E, Item 5, QUANTIFIABLE PERFORMANCE OBJECTIVES	<p>Comment (Submitted after Due Date) The GMRP recommends the following wording to reflect more accurately what is in the Operations, Monitoring and Surveillance Manual, which follows Canadian Dam Association and Mining Association of Canada guidance.</p> <p>Recommendation The GMRP recommends Part E, Item 5 be revised to read: "The Licensee shall ensure that the Engineer of Record establishes performance objectives for all Dams on site and reviews the associated quantifiable performance criteria annually for the life of the Facility."</p>		Board staff have updated the Draft Water Licence using the alternative wording to aid in clarifying the intent of this condition.
85	Part E, Item 6, ENGINEERED COMPONENTS - GENERAL	<p>Comment (Submitted after Due Date) The GMRP has recommended that the definition for "Engineered Component" be removed, and as such this condition should be modified to use the term Engineered Structure rather than Engineered Component.</p> <p>Recommendation The GMRP</p>		Board staff have updated the Draft Water Licence accordingly.

		<p>recommends the following update to Part E, Item 6:</p> <p>"The Licensee shall ensure that all Engineered Structures are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements."</p>		
86	Part E, Item 7, CONSTRUCTION MATERIAL - GEOCHEMICAL CRITERIA	<p>Comment (Submitted after Due Date) While its understood this is a standard condition, this condition as written restricts the use of contaminated soils or materials in pits and other activities where lower quality material will then be covered by higher quality material. It is suggested that the relevant Design Plan for Open Pits, Tailings including Foreshore Tailings area, Landfill etc. specify the geochemical criteria for the material used.</p> <p>Recommendation The GMRP recommends the following revision to Part E, Item 7:</p> <p>"The Licensee shall ensure that all material used in Construction of the Project meets the geochemical criteria specified in the approved relevant Design Plan or the Borrow Materials and Explosives Management and Monitoring Plan."</p>		<p>Board staff have only included the reference to the Borrow Materials and Explosives Management and Monitoring Plan. Geochemical criteria should be located in one spot. Board staff note the proposed use of other materials such as contaminated soil, etc. Design Plans that detail any diversion from geochemical criteria will be reviewed prior to approval. Board staff note that the Board's standard condition explains that this condition is: "included 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. The criteria may be set out directly in this Licence condition or in a relevant management plan. More than one version of this condition may be needed to capture all geochemical criteria that apply for the Project."</p>

87	Part E, Item 8, CONSTRUCTION RECORDS	<p>Comment (Submitted after Due Date) The GMRP is unclear on the records being requested.</p> <p>Recommendation The GMRP recommends more detail be provided with respect to what records are required.</p>		<p>This condition is included in the Board's recently approved Standard Water Licence Conditions.</p> <p>The intent of this condition is to ensure a record of the source(s) of Construction materials is available, and will confirm that Construction material meets the Geochemical Criteria, as outlined in Part E, condition 7. This should not be onerous since annual reporting of all construction materials and geochemical testing results are also required for the Water Licence Annual Report.</p>
88	Part E, Item 10, DESIGN PLAN	<p>Comment (Submitted after Due Date) As discussed above, the GRMP has identified concerns with the draft definition of Engineered Component and proposed and alternative definition for Project Component which is reflective of the proposed process.</p> <p>Recommendation The GMRP recommends the following revision to Part E, Item 10: "A minimum of 90 days prior to commencement of Construction of any Project Component, the Licensee shall submit to the Board, for approval, a Design Plan, in accordance with Schedule 3, condition 1 and Schedule 3, condition 2: Board Directives for Specific Project Component Design Plans. The Licensee shall not commence Construction prior to Board approval."</p>		<p>Board staff have updated the Draft Water Licence accordingly.</p>

89	Part E, Item 11, CONSTRUCTION PLAN	<p>Comment (Submitted after Due Date) As previously noted related to the term engineered structure, the GMRP recommends this condition be modified to use the term Engineered Structure rather than Engineered Component.</p> <p>Recommendation The GMRP recommends the following revision to Part E, Item 11: "A minimum of 45 days prior to commencement of Construction of any Engineered Structure, the Licensee shall submit to the Board, a Construction Plan, in accordance with Schedule 3, condition 3."</p>		Board staff have updated the Draft Water Licence accordingly.
90	Part E, Item 12, NOTIFICATION - CONSTRUCTION	<p>Comment (Submitted after Due Date) As previously noted related to the term engineered structure, the GMRP recommends this condition be modified to use the term Engineered Structure rather than Engineered Component.</p> <p>Recommendation The GMRP recommends the following revision to Part E, Item 12: "A minimum of 10 days prior to the commencement of Construction of any Engineered Structure, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing Construction. Written notification shall be provided to the Board and an Inspector if any changes occur."</p>		Board staff have updated the Draft Water Licence accordingly.

91	Part E, Item 13, CONSTRUCT AS DESIGNED	<p>Comment (Submitted after Due Date) As previously noted the GMRP has proposed revised definitions to replace 'Engineered Component'. The GMRP recommends this condition be modified to use the term Engineered Structure rather than Engineered Component.</p> <p>Recommendation The GMRP recommends the following revision to Part E, Item 13: "The Licensee shall ensure that all Engineered Structure are constructed in accordance with applicable approved Design Plans and applicable Construction Plans."</p>		Board staff have updated the Draft Water Licence accordingly.
92	Part E, Item 14, UPDATE PLANS	<p>Comment (Submitted after Due Date) Monitoring in Design Plans is generally for the post-closure of a Project Component, not side-wide and as such is more relevant to the Post-Closure Monitoring and Maintenance. Construction plans will be area-specific plans and will have to conform to the Site-wide plans. It is anticipated that Site-Wide plans will require updates based on phases of Project and milestones but generally not in relation to specifics Design or Construction plans. Furthermore, this would require that Site-Wide Management and Monitoring Plans be updated every time a new Construction Plan is approved, which is not the intent and would substantially increase administrative burden on all parties. The Closure and Reclamation Plan will not be</p>		Board staff agree and have updated the Draft Water Licence condition to read "Once approved, the management and monitoring details submitted in the Design Plans are to be incorporated into the applicable existing Site-Wide Management and Monitoring Plans. Updated Plans are to be submitted to the Board."

		<p>revised to reflect these details.</p> <p>Recommendation The monitoring in Design Plans is generally for the post-closure of a Project Component, not site-wide and as such is more relevant to the Post-Closure Monitoring and Maintenance Plans. The GMRP recommends the following revision to Part E, Item 14: "Once approved, the management and monitoring details submitted in the Design Plans are to be incorporated into the applicable existing Site-Wide Management and Monitoring Plans or the Post-Closure Monitoring and Maintenance Plan, where appropriate and relevant. Updated Plans are to be submitted to the Board." The GMRP does not agree with updating the Closure and Reclamation Plan with monitoring details provided in either Design Plans or Construction Plans.</p>		
93	Part F, Item 13	<p>Comment (Submitted after Due Date) The GMRP has committed to pre-engagement on the next version of Site-Wide Management and Monitoring Plans, including the Borrow Materials and Explosive Management and Monitoring Plan. As such, the GMRP recommends the standard 90 day review period for this plan.</p> <p>Recommendation The GMRP recommends a 90-day review period for the next version of the Borrow and Explosives Management and Monitoring Plan.</p>		<p>Board staff note that a Board decision is required to determine the trigger for submitting the Borrow Materials and Explosives Management and Monitoring Plan.</p>

94	Part F, Item 15	<p>Comment (Submitted after Due Date) The GMRP has committed to pre-engagement on the next version of Site-Wide Management and Monitoring Plans, including the Arsenic Trioxide Frozen Shell Management and Monitoring Plan. As such, the GMRP recommends the standard 90 day review period for this plan.</p> <p>Recommendation The GMRP recommends a 90-day review period for the next version of the Arsenic Trioxide Frozen Shell Management and Monitoring Plan.</p>		Board staff note that a Board decision is required to determine the trigger for submitting the Arsenic Trioxide Frozen Shell Management and Monitoring Plan.
95	Part F, Item 16	<p>Comment (Submitted after Due Date) The GMRP Project components include some things to which this condition would not apply, such as contaminated soils and sediments. The GMRP proposes this is more applicable to Engineered Structures. s (e) i. design criteria are different than closure criteria. The monitoring is intended to confirm that closure criteria is being met. GMRP also recommends removing Construction plans from e) i. as construction plans will not contain closure criteria.</p> <p>Recommendation The GMRP recommends Part F, Item 16, be updated as follows: "The Licensee shall construct, operate, and maintain all Engineered Structures to the design specifications and engineering standards, such that: a) The specifications described in the applicable approved Design Plans, referred to in Part E are</p>		Board staff agree and have updated the Draft Water Licence accordingly.

		<p>maintained at all times; b) Any collected Seepage or Contact Water from the facility to the Receiving Environment that does not meet the Discharge criteria for Contact Water, as specified in the Water Management and Monitoring Plan shall be collected and returned for treatment; c) Any deterioration or erosion of structures or facilities shall be reported immediately to an Inspector; d) Any deterioration or erosion of structures or facilities that requires repair shall be reported to an Inspector and the Board, and repaired immediately; and e) Monitoring of the facility is sufficient to ensure that: i. closure criteria, as described in the approved Giant Mine Remediation Project Closure and Reclamation Plan and applicable approved Design Plans referred to in Part E are being met; and ii. Necessary changes in operation of the facility, including additional mitigations, are identified."</p>		
96	Part F, Item 17	<p>Comment (Submitted after Due Date) As per the comment above, (Part F, Item 16) this condition would not necessarily be applicable to all engineered components. The GMRP proposes this is more applicable to Engineered Structures. Furthermore, given the range of different kinds of Structures on site, not all require weekly inspections and such a requirement would result in an unnecessary burden to the operations of the site</p>		<p>Board staff have updated the Draft Water Licence according to the comment as follows: "The Licensee shall conduct inspections of the Engineered Structures at a frequency outlined in the approved applicable Design Plans and/or Site-Wide Management and Monitoring Plans, or as otherwise directed by an Inspector or the Board. Record of these inspections shall be made available to the Board or</p>

		<p>with no real benefit. The GMRP agrees that regular inspections are reasonable, but requests the flexibility for engineers to determine the necessary frequency.</p> <p>Recommendation The GMRP recommends that Part F, Item 17 be reworded as follows: "The Licensee shall conduct regular inspections of the Engineered Structures as outlined in applicable approved design and/or site-wide plans, or as otherwise directed by an Inspector of the Board. Records of these inspections shall be made available to the Board or an Inspector upon request."</p>		<p>an Inspector upon request."</p>
97	Part F, Item 19	<p>Comment (Submitted after Due Date) This condition should be in relation to Engineered Structures rather than Engineered Components. Not all Engineered Structures necessarily require a geotechnical inspection. For example, the water treatment plant would not necessarily require an annual geotechnical inspection. This requirement should not specify all but rather provide for flexibility so that only Engineered Structures that require these types of inspections. (b) The GMRP has a series of quality assurance and review procedures that make a 90 day requirement difficult to meet.</p> <p>Recommendation The GMRP recommends the following edits to Part F, Item 19:" The Licensee shall ensure that geotechnical inspections of Dams and earthen structures</p>		<p>Board staff note that the use of the term "earthen structures" could be confusing and may require its own definition. Board staff have updated the condition in the Draft Water Licence as follows: "The Licensee shall ensure that geotechnical inspections of all Dams and Engineered Structures, as per the approved Design Plan, are conducted annually, during the summer months, and following any unforeseen events that exceed design criteria by a Professional Engineer..."</p>

		are conducted annually, during the summer months, and following any unforeseen events that exceed design criteria, by a Professional Engineer. The Licensee shall: a) A minimum of two weeks prior to the annual inspections, and following an event that exceeds design criteria, provide written notification to an Inspector; and b) Within 120 days of completing the inspection, submit the Professional Engineer's full Geotechnical Inspection Report to the Board and an Inspector. The Report shall include: i. A covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer, including rationale for any decisions that deviate from the Professional Engineer's recommendations; ii. Identification of Dam classifications; and iii. A summary of any actions taken by the Licensee to address the recommendations made following the previous year's inspection."		
98	Part F, Item 21	Comment (Submitted after Due Date) The GMRP interprets the date of "completing a Dam Safety Review" to be the date the report is finalized. Recommendation Based on the interpretation in the comment field, the GMRP has no concerns.		Noted.
99	Part F, Item 23	Comment (Submitted after Due Date) As some effluent (treated wastewater) may be		Board staff have updated the condition in the Draft Water Licence to include

		<p>used as dust suppressant and in paste backfill operations, as per Part C, Condition 2, of the draft licence, the GMRP recommends adding text to this condition to clarify.</p> <p>Recommendation The GMRP recommends the following updated Part F, Item 23: "The Licensee shall direct all Effluent from the Effluent Treatment Plant to Baker Creek, via the existing Discharge system, and all Effluent from the Water Treatment Plant, once operational, to Yellowknife Bay, with the exception of that effluent used for dust suppression or other project activities."</p>		<p>"with the exception of Effluent used for dust suppression or other activities, as described in the Dust Management and Monitoring Plan or the Water Management and Monitoring Plan.</p>
100	Part F, Item 24	<p>Comment (Submitted after Due Date) The GMRP recognizes this is a MVLWB standard condition, however as it reads it could cause confusion as there many closure activities that could be considered depositing waste in a licenced facility on-site (i.e. deposit of waste to on-site landfill).</p> <p>Recommendation The GMRP recommends updating Part F, Item 24 as follows: "A minimum of ten days prior to depositing any Waste for the first time in the calendar year into an off-site licenced facility, the Licensee shall provide written notification, including a letter of acceptance from licenced facility, to the Board and an Inspector."</p>		<p>Board staff agree and have updated the Draft Licence accordingly.</p>
101	Part F, Item 26	<p>Comment (Submitted after Due Date) The GMRP proposes changing the upper limit of the pH range from 8.0 to 8.5. The pH in the</p>		<p>Board staff have updated the Draft Licence accordingly.</p>

		<p>Polishing Pond has been above 8.0 in recent years and lowering the pH below 8.0 cannot be reasonably and consistently achieved with the existing ETP infrastructure. Adjusting the pH at the discharge of the mechanical tankage portion of the existing ETP is not possible; the ETP overflows a thin slurry of process water, coagulant, polymer and lime. The slurry needs to remain at an elevated pH to maximize the precipitation of metals for retention in the Settling Pond. Maintaining the pH below 8.5 is consistent with current practice, which is the request until the new WTP is commissioned.</p> <p>Recommendation The GMRP recommends revising Part F, Item 26 as follows: "The Licensee shall ensure that Discharges from the Effluent Treatment Plant at SNP 43-1 have a pH between 6.5 and 8.5 and meet the following Effluent Quality Criteria (EQC):"</p>		
10 2	Part F, Item 27	<p>Comment (Submitted after Due Date) (1) The GMRP has proposed measurements for total petroleum hydrocarbons (TPH), not oil and grease, for a number of reasons: TPH provides more information on the source of the hydrocarbon, should it be detected, as various petroleum fractions are provided by the laboratory in addition to the total number; consistency within Project as the proposed SNP, Yellowknife Bay special study, and AEMP all require TPH; and most other recent</p>		<p>Board staff have updated the Draft Water Licence accordingly.</p> <p>Board decision regarding Water Licence EQC.</p>

		<p>Type A Water Licences require TPH rather than oil and grease. (2) Radium-226 and Total Cyanide are MDMER parameters. During the Water Licence process interveners recommended that these parameters be removed from the EQC because they were not identified as Parameters of Potential Concern and GMRP agreed. However, if the MVLWB disagrees with this approach, it is recommended that at a minimum, a footnote should be added for un-ionized ammonia, total cyanide and radium-226 to indicate these parameters have 'limits to be consistent with Project MDMER requirements, and that these parameters are only included in the EQC for as long as the GMRP remains an open mine under the MDMER.'</p> <p>Recommendation (1) The GMRP recommends the removal of "less than 5 mg/L oil and grease" from Part F, Item 27. (2) a footnote should be added for un-ionized ammonia, total cyanide and radium-226 to indicate these "parameters have limits to be consistent with Project MDMER requirements. These parameters are only included in the EQC for as long as the GMRP remains an open mine under the MDMER.</p>		
103	Part F, Item 28	<p>Comment (Submitted after Due Date) The GMRP understands the purpose of this condition is to confirm that any applicable EQC are met prior to Discharge. The GMRP agrees with this</p>		<p>Board staff note that this condition is not intended to apply to maintenance shutdowns, power outages or other similar reasons, and in the instance of a power outage GMRP</p>

		<p>purpose. However, Discharge may stop for many reasons (e.g., power outage) and durations. GMRP understands 'resuming' to mean after a significant malfunction or delay, or exceedance. Providing results five days prior to Discharge may not always be reasonable and could result in holding water longer, increases operational costs and possibly re-treating, for water that meets criteria.</p> <p>Recommendation The GMRP recommends this condition be revised to require results prior to commencing or resuming discharge.</p>		<p>would not be required to provide SNP quality data five days prior to commencing or resuming Discharge. This will be made clear in the Board's RFD.</p>
104	Part F, Item 29	<p>Comment (Submitted after Due Date) The GMRP understands the purpose of this condition is to confirm that any applicable EQC are met prior to Discharge. The GMRP agrees with this purpose. However, Discharge may stop for many reasons (e.g., power outage) and durations. GMRP understands 'resuming' to mean after a significant malfunction or delay, or exceedance. Providing results five days prior to Discharge may not always be reasonable and could result in holding water longer, increases operational costs and possibly re-treating, for water that meets criteria.</p> <p>Recommendation The GMRP recommends this condition be revised to require results after a significant malfunction or delay or exceedance "prior to commencing or resuming discharge."</p>		<p>Board staff note that this condition is not intended to apply to maintenance shutdowns, power outages or other similar reasons, and in the instance of a power outage GMRP would not be required to provide SNP quality data five days prior to commencing or resuming Discharge. This will be made clear in the Board's RFD.</p>

10 5	Part F, item 30	<p>Comment (Submitted after Due Date) The GMRP recommends the proposed language to provide clarity and accuracy.</p> <p>Recommendation The GMRP recommends part d) be modified to say: "d) Comply with the approved Standard Operating Procedures and QA/QC Plan for Effluent and Water Sampling and any other procedures and contingencies outlined in the approved Water Management and Monitoring Plan."</p>		Board staff have updated the Draft Water Licence accordingly.
10 6	Part F, Item 31	<p>Comment (Submitted after Due Date) The GMRP proposed a report submitted to the MVLWB 6 months prior to discharge from the WTP to address the concern from reviewers during pre-engagement that the design of the WTP was still underway. Updated modelling is very expensive and may not be necessary. The GMRP does not support a required to submit a revised EQC report.</p> <p>Recommendation The GMRP recommends the following revision to Part F, Item 31: "A minimum of 6 months prior to initial Discharge from the Water Treatment Plant, the Licensee shall submit a report to the Board demonstrating that the Water Treatment Plant design will satisfy the EQC in Part F, condition 27 and approved EA0809-001 measures 14 and 15. "</p>		Board staff have revised the condition to take out the "using updated site Water models" and "The Report shall include updated Minewater quality data and predicted effluent quality data at SNP 43-1A for chloride and sulphate" because other requirements in the Draft Licence address these items. However, Board staff do not see the harm in naming the report the Water Treatment Plant Effluent Quality Criteria Report.
10 7	Part F, Item 32	<p>Comment (Submitted after Due Date) The GMRP recommends the proposed language to provide clarity</p>		Board staff agree and have updated the Draft Water Licence accordingly.

		and accuracy. Recommendation The GMRP recommends that Part F, Item 32, be revised to read: "The Licensee shall ensure that collected Seepage and Contact Water are managed in accordance with the approved Water Management and Monitoring Plan."		
108	Part F, Item 33	Comment (Submitted after Due Date) The GMRP recommends the stations for acute toxicity related to discharges of contact water to the receiving environment be provided in the Water Management and Monitoring Plan, for approval. This would allow flexibility as it is anticipated there will be some stations that may not flow or that will not be released to the environment and these could be updated through the Water Management and Monitoring Plan updates, rather than an amendment. Recommendation The GMRP proposes the condition be revised as follows: "The Licensee shall ensure that Discharges of Contact Water to the Receiving Environment are not acutely toxic to aquatic life as described in the Water Management and Monitoring Plan."		Board staff have updated the Draft Water Licence accordingly.
109	Part F, Item 34	Comment (Submitted after Due Date) The GMRP supports this condition as is on the basis that the MVLWB accepts the proposed change to the Contact Water definition proposed by the GMRP. Recommendation The GMRP recommends that Part F,		Board staff sent an Information Request (IR) to GMRP on May 15, 2020 that addressed the Contact Water definition. The Draft Water Licence was updated based on GMRP's Response, and review comments and

		Item 34 be revised as follows: "A minimum of five days prior to commencing Discharge of collected Contact Water from Engineered Structures to the Receiving Environment, the Licensee shall submit the Surveillance Network Program Water quality data to the Board and an Inspector to confirm Discharge criteria for Contact Water specified in Water Management and Monitoring Plan, can be met."		responses made on GMRP's response.
110	Part G, Item 3	Comment (Submitted after Due Date) Part G, Item 3 proposes that a revised Spill Contingency Plan be submitted within 60 days of the effective date of the Licence. The GMRP is unaware of a reason by which the standard 90 day review timeline should not be applied. Recommendation The GMRP recommends a revised Spill Contingency Plan be provided within 90 days of the effective date of this Licence, consistent with the Draft Standard Water Licence Conditions.		Board staff note that the trigger for the timing of the re-submittal of the Spill Contingency Plan will be decided by the Board.
111	Part G, item 4	Comment (Submitted after Due Date) The GMRP understands this condition to be referring to reportable spills. All spills will be handled in accordance with the approved Spill Contingency Plan. Recommendation Given this interpretation, the GMRP has no concerns.		Spills must be reported in order to ensure adequate cleanup occur, necessary mitigation measures are implemented, and records are maintained. In addition to reporting spills to the spill report line, this condition also explicitly requires the Licensee to maintain records of all spills, to report each 'reportable' spill to an Inspector within 24 hours, and to submit reports to

				the Board and Inspector within 30 days regarding the spill and the Licensee's cleanup efforts.
11 2	Part H, Item 2	<p>Comment (Submitted after Due Date) The GMRP anticipates that the Plume Design Plan will be submitted as part of the 2023 AEMP Design Plan.</p> <p>Recommendation The GMRP recommends the following revision to Part H, Item 2, which includes the Plume Delineation study: "Within 90 days of the effective date of this Licence, the Licensee shall re-submit to the Board, for approval, an Aquatic Effects Monitoring Program Design Plan. The Plan shall be in accordance with the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs and the requirements of Schedule 6, condition 1, and Schedule 6, condition 2: Board Directives for the existing Aquatic Effects Monitoring Program Design Plan and address approved EA0809-001 measure 17. The Licensee shall submit an updated Aquatic Effects Monitoring Program Design Plan to the Board, including the Plume Delineation Study for approval, by June 2023 and every three years thereafter, or as directed by the Board."</p>		Board staff do not believe a change is required. Part H condition 6 has been updated to make it clear that the Plume Delineation Study Design can be submitted with the 2023 Aquatic Effects Monitoring Program Design Plan. Board staff feel that adding "including the Plume Delineation Study" to condition 2 is not appropriate because Board staff are unclear if GMRP meant "Plume Delineation Study Design" and are unclear if the Plume Delineation Study Design would be submitted for June 2023 and every three years thereafter.
11 3	Part H, Item 5	<p>Comment (Submitted after Due Date) The GMRP submits that the baseline report should not be for approval. The Baseline Design Plan will have been approved and the data collected under the baseline program will be submitted annually in the</p>		Board staff note that the condition 8 that requires an Aquatic Effects Monitoring Program Re-Evaluation Report will provide an analysis of data and is approved by the Board. The Licence has been updated to indicate

		<p>AEMP Annual Report. The reporting of this data does not require approval. There is no need to identify how this information will be used to inform the AEMP Design Plan as this information will be included in the AEMP Re-evaluation Report.</p> <p>Recommendation The GMRP recommends the following edits: "A minimum of 6 months prior to initial Discharge from the Water Treatment Plant, the Licensee shall submit to the Board, an Aquatic Effects Baseline Report for Yellowknife Bay which shall include an analysis of the results of studies done prior to installation of the outfall and Discharge from the Water Treatment Plant to establish the existing baseline conditions for Water quality, quantity and aquatic life in Yellowknife Bay."</p>		that the Aquatic Effects Baseline Report is not for approval.
114	Part H, Item 6	<p>Comment (Submitted after Due Date) It is not necessary for the Plume Delineation Study Design to be submitted under a separate condition. The GMRP proposes that this straightforward and standard study design will be submitted as part of the AEMP Study Design in 2023.</p> <p>Recommendation The GMRP proposes deleting this clause and combining it with Part H, Item 2.</p>		See Board staff analysis to GMRP comment ID: 112.
115	Part H, Item 7	<p>Comment (Submitted after Due Date) There is no need for the results to be provided as a separate report.</p> <p>Recommendation The GMRP proposes the following revision: "The Licensee shall submit a the results of the</p>		Board staff agree and have updated the Draft Licence accordingly.

		Plume Delineation Study in the Aquatic Effects Monitoring Program Annual Report, following completion."		
11 6	Part H, Item 8	<p>Comment (Submitted after Due Date) The GMRP submits that item 8 (b) is repetitive of schedule 4 and potentially contradictory and should be removed.</p> <p>Recommendation The GMRP proposes the following revision: "The Report shall be in accordance with the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs, shall evaluate the overall effectiveness of the Aquatic Effects Monitoring Program to date, and meet the following objectives and satisfy the requirements of Schedule 6, condition 4: a) To describe the Project-related effects on the Receiving Environment as measured from Project inception and compared against predictions made in the Environmental Assessment, and in any other submissions to the Board; b) To provide supporting evidence, if necessary, for proposed revisions to the Aquatic Effects Monitoring Program Design Plan."</p>		Board staff note that predictions of Project related effects on the Receiving Environment based on monitoring results obtained since Project inception is not a requirement of Schedule 4, and it is unclear to Board staff which requirement of Schedule 4 GMRP could be referring to. However, Board staff note that a similar requirement is included in Schedule 6, condition 4 for the Aquatic Effects Monitoring Program Re-Evaluation Report, and agree this requirement can be removed from Part H, Item 8 b).
11 7	Annex A, Part A, 1 SNP 43-1A	<p>Comment (Submitted after Due Date) The GMRP recommends that the timing of the acute toxicity sample prior to commencement of discharge at SNP 43-1A be changed from one week prior to 10 days prior as is reflected in the timing requirements for SNP 43-1. Toxicity tests take a number of days to complete and</p>		Board staff have updated the Draft Water Licence accordingly.

		<p>received results and 10 days is more reflective of the time required.</p> <p>Recommendation The GMRP recommends the timing of acute toxicity sample submission be modified to 10 days from one week prior to discharge at SNP 43-1A. "10 days prior to commencement of Discharge - acute toxicity"</p>		
11 8	Schedule 1, Condition 1, Item 1 c)	<p>Comment (Submitted after Due Date) Monitoring undertaken through the Construction Plans will be reported through Schedule 1, Condition 1, Item 2. (c) ii. confirmation soil sampling results will be provided through Reclamation Completion Reports; (c) iii the summary of mitigative actions will be addressed through the reporting in 2.</p> <p>Recommendation The GMRP recommends that Item 1. (c) be revised as follows:" A summary of monitoring undertaken during and after completion of activities approved through Design Plans and Construction Plans, including: i. A summary of any maintenance work identified or implemented"; The GMRP further recommends that parts ii)and iii) be removed from this condition.</p>		Board staff note GMRP's answer and have added "confirmation soil sampling results" to Schedule 2, Condition 2 for the Closure and Reclamation Completion Reports. Board staff agree that item iii. will be covered through Site-Wide Management and Monitoring Plans.
11 9	Schedule 1, Condition 1, Item 1 d)	<p>Comment (Submitted after Due Date) The post-closure performance of Project Components will be compared to Closure Objectives and Criteria and will be reported in the PAR, it is recommended that this condition be revised.</p> <p>Recommendation The GMRP proposes that Item 1 (d) be</p>		Board staff note that an evaluation of closure performance with respect to associated Closure Objectives and Criteria will be provided in PARs. Consequently, the schedule item has been revised accordingly.

		revised as follows: "A summary of adaptive management actions taken for Closed Project Components."		
120	Schedule 1, Condition 1, Item 1 f)	<p>Comment (Submitted after Due Date) The GMRP Annual Water Licence Report is not the place to report on the research being conducted by a third-party that is outside the scope of the GMRP.</p> <p>Recommendation The GMRP recommends that Item 1 (f) be removed.</p>		Board staff have updated the Draft Licence according to the comment.
121	Schedule 1, Condition 1, Item 2 a) i	<p>Comment (Submitted after Due Date) Wastes often don't have a volume but rather a count, such as number of light ballasts, number of batteries, drums of oily rags, bags of domestic waste, etc. and it is recommended that the condition be updated to allow greater flexibility in reporting</p> <p>Recommendation The GMRP recommends that Item 2 (a) i. be revised as follows: "Volumes and/or counts of new Waste generated."</p>		Draft Licence updated accordingly.
122	Schedule 1, Condition 1, Item 2 b) xii and xiii	<p>Comment (Submitted after Due Date) (b) xii. it is very likely that there will be divergences between the water balance predictions for any year and an actual measurement. It is only the significant divergences that merit an explanation and it is recommended that the condition be updated to reflect this. (b) xiii. An updated water balance will be provided as necessary in revisions to the Water Management and Monitoring Plan and should not be required in the annual Water Licence report.</p>		Board staff agree; Draft Licence updated accordingly.

		<p>Recommendation The GMRP recommends the following revision to Item 2(b) xii.: "A comparison of Water and Wastewater quantities measured in the year to the Water balance predictions for the year in the approved Water Management and Monitoring Plan, and an explanation of any significant divergence between predictions and actual measurements." The GMRP recommends that Item 2 (b) xiii. be removed.</p>		
12 3	Schedule 1, Condition 1, Item 2 c) i and ii	<p>Comment (Submitted after Due Date) (c) i. depending on the interpretation of this item it could be redundant with Schedule 4 Condition 4 (a) i and Schedule 4 Condition 5 (d). The GMRP recommends revised wording. (c) ii. this information will be included in revised Sediment and Erosion Control Management and Monitoring Plan and redundant here.</p> <p>Recommendation The GMRP recommends that Item 2 (c) i. be revised as follows: "A summary of activities undertaken to prevent or mitigate erosion in moderate and high erosion susceptible areas." The GMRP recommends Item 2 (c) ii. be removed.</p>		<p>Board staff agree with the revised wording to c) i., and have updated the Licence accordingly.</p> <p>Board staff note that the intent of c) ii. is to provide a summary of activity-specific monitoring updates, including Board approved updates made to the Erosion and Sediment Management and Monitoring Plan. This requirement is not meant to be onerous, and a similar requirement is included for annual reporting with respect to other Site-Wide Management and Monitoring Plans.</p>
12 4	Schedule 1, Condition 1, Item 2 e)	<p>Comment (Submitted after Due Date) The GMRP prefers that comparisons of Contact Water quantity/quality in Item 2 (e) iii. be moved to Item 2 (b) as this information will be collected and reported under the Water Management and Monitoring Plan.</p>		<p>Board staff agree and have updated the Licence accordingly.</p>

		Recommendation The GMRP recommends that Item 2 (e) iii. be moved to Item 2 (b) .		
12 5	Schedule 1, Condition 1, Item 2 f)	<p>Comment (Submitted after Due Date) The information requested in Item 2 (f) ii. is not related to management and monitoring but rather overall Project design. The geotechnical investigations requested in Item 2 (f) iv. will be finalized and presented in the Borrow Design Plan, however a geochemical verification program will be outlined in the management and monitoring plan and it would be appropriate to report those results here.</p> <p>Recommendation The GMRP recommends Item 2 (f) ii. be removed and the following added to Item 1 (a) updated forecast of borrow volume to be blasted by year for duration of borrow activities. Further, the GMRP recommends Item 2 (f) iv be revised as follows: "A summary of results of geochemical verification of borrow materials."</p>		Board staff agree and have updated the Licence accordingly.
12 6	Schedule 1, Condition 1, Item 3 b)	<p>Comment (Submitted after Due Date) The Wildlife plan is called the Wildlife and Wildlife Habitat Management and Monitoring Plan.</p> <p>Recommendation The GMRP requests that Item 3 (b) be revised as follows: "A summary of activities and monitoring conducted in accordance with the Wildlife and Wildlife Habitat Management and Monitoring Plan, required by condition 52 of Permit MV2019X0007 undertaken during the previous year."</p>		Board staff have updated the Licence accordingly.

12 7	Schedule 1, Condition 1, Item 3 first e)	<p>Comment (Submitted after Due Date) The numbering in Item 3, should be checked to avoid duplication of numbering. With respect to Item 3 (e) related to a summary of engagement activities, it is not useful to itemize initiatives that are complete or that are of a limited duration. The HHERA and the QRA, for example, will not have engagement activities associated with them once the Water Licence is issued. There is no "Long-Term Funding Plan" currently being contemplated or prepared by the GMRP outside of the requirements (from the Environmental Agreement) to address long term access to funds in the Perpetual Care Plan.</p> <p>Recommendation The GMRP recommends (e) i, vi, and vii be removed.</p>		Board staff have removed the HHERA and Long-Term Funding Plan accordingly. However, Board staff note that GMRP has indicated to Board staff that the QRA released on May 31, 2020 will be followed up with engagement on the Plan with Parties. Consequently, the QRA has been left in this Schedule item. Board staff note that when an update on Engagement for the QRA is no longer necessary, GMRP can note this in the Annual Water Licence Report.
12 8	Schedule 1, Condition 1, Item 3 second d)	<p>Comment (Submitted after Due Date) The last sentence in Item 3 (d) referring to raw data is similar to the previous sentence referring to tabular summaries and should be removed to avoid repetition.</p> <p>Recommendation The GMRP recommends deleting the repeated sentence in Item 3 (d): "The Licensee shall provide raw data in electronic form to the Board;"</p>		Board staff agree and have updated the Draft Licence accordingly.
12 9	Schedule 1, Condition 1, Item 3 h)	<p>Comment (Submitted after Due Date) The GMRP accepts this requirement on the basis that this is specifically for metres on the Fresh Water Intake and Effluent Discharges (SNP 43-1 and SNP 43-1a) only. The GMRP will operate many pumps</p>		Board staff note that Part B, condition 18 is referenced in this Schedule requirement. Part B, condition 18 specifies meters and devices for measuring the volume of Water used and Waste Discharged. Consequently,

		across the site as part of its operations. The GMRP does not expect to have to provide calibration and other details on all pumps across the site. Recommendation The GMRP recommends that this requirement be limited to the intake and effluent discharge locations.		Board staff agree with GMRP's interpretation of the requirement
130	Schedule 1, Condition 1, Item 3 j)	Comment (Submitted after Due Date) The GMRP has indicated that the risk register is an internal document and should not be required as part of the annual Water Licence report. Recommendation The GMRP recommends Item 3 (j) be removed.		Board staff have updated the Draft Licence accordingly.
131	Schedule 1, Condition 1, Item 3 m)	Comment (Submitted after Due Date) The GMRP is unclear of what is expected within this condition, given that many of the commitments related to the water licence process are included in the Licence through Board Directives and need to be reported on in specified plans through a conformity table. In addition, Item 3 (l) provides annual progress reports on the measures and suggestions from the Environmental Assessment and it is therefore unclear what further information would be provided. Recommendation The GMRP recommends that Item 3 (m) be removed.		Board staff agree and have updated the Draft Licence accordingly.
132	Schedule 1, Condition 2, Item e)	Comment Submitted after Due Date) The GMRP has issued the report summarizing the borrow engagement held in late 2019 and presented the results and progress since		Board staff note that in response to the City of Yellowknife, comment 14 GMRP stated that they have committed to "engagement on specific topics of particular

		<p>then at the Public Forum in March 2020. No further specific borrow engagement on volumes and location of borrow sources is planned or required.</p> <p>Recommendation The GMRP recommends that Item (e) i. be removed.</p>		<p>importance that have been identified by rights and stakeholders (borrow, Baker Creek, foreshore tailings, and nearshore sediments) prior to completing Design Plans". Board staff are unaware of what topics were discussed at the Public Forum in March 2020.</p> <p>Consequently, this requirement has been left in the draft Licence. If GMRP feels this requirement has already been met, that can be discussed in the updated Engagement Plan.</p>
13 3	Schedule 1, Condition 2, Item h)	<p>Comment (Submitted after Due Date) As per comments in Schedule 1, Condition 1, item 3 there is not further engagement planned for the HHERA and QRA and there is no Long - Term Funding Plan outside of the requirements (from the Environmental Agreement) to address long term access to funds in the Perpetual Care Plan.</p> <p>Recommendation The GMRP recommends that Item (h) i, v, and vi be removed.</p>		<p>Board staff have removed the HHERA and Long-Term Funding Plan accordingly. However, Board staff note that GMRP has indicated to Board staff that the QRA released on May 31, 2020 will be followed up with engagement on the Plan with Parties. Consequently, the QRA has been left in this Schedule item.</p>
13 4	Schedule 1, Condition 2, Item j)	<p>Comment (Submitted after Due Date) The GMRP does not plan to enter into any socio-economic agreements outside of the standard, annual Contribution Agreements.</p> <p>Recommendation The GMRP recommends that Item (j) be removed.</p>		<p>Board staff have updated the wording to indicate "socio-economic strategy" as was committed to during the Public Hearing. It is noted that the Annual Water Licence Report includes a requirement for GMRP to provide an update regarding their socio-economic strategy under the update for the Engagement Plan. As such, this requirement has been changed to state "socio-economic strategy".</p>

13 5	Schedule 2, Condition 1, Item a)	<p>Comment (Submitted after Due Date) There is no global climate change modelling that covers 120 years.</p> <p>Recommendation The GMRP recommends 120 years be deleted and replaced with 100 years</p>		Draft Licence updated appropriately.
13 6	Schedule 2, Condition 1, Item e)	<p>Comment (Submitted after Due Date) This information is not relevant to the CRP, as augmented reality cannot be included in a paper document. Tools such as this will be referenced in the engagement plan.</p> <p>Recommendation The GMRP recommends that Item (e) be removed.</p>		Board staff have updated the Licence accordingly.
13 7	Schedule 2, Condition 2, Items a) and c)	<p>Comment (Submitted after Due Date) The information requested in Items a) and c) is duplicated, and it is recommended that Item a) be removed.</p> <p>Recommendation The GMRP recommends that Item (a) be removed.</p>		Board staff have updated the Draft Water Licence to remove item c) and update a) to read "Reference to the relevant As-Built Report(s) for Engineered Structures, as per Part D, condition 14". Part D, condition 14 was added based on the Board's Standard Water Licence Conditions Template to ensure that as-built information is available on the public record after Engineered Structures have been constructed.
13 8	Schedule 2, Condition 2, Item f)	<p>Comment (Submitted after Due Date) The Closure and Reclamation Completion Reports are not intended to be forward looking documents, however they will be used to demonstrate that certain closure criteria have been satisfied.</p> <p>Recommendation The GMRP recommends the following edit for clarity: "List the relevant Closure Objectives and Criteria that the</p>		Board staff have updated the Licence accordingly.

		completed work has satisfied in part or in full."		
139	Schedule 2, Condition 2, Items g), h) and i)	<p>Comment (Submitted after Due Date) The details in Items (g) and (i) will be included in the Design Plan. It would be appropriate to provide any required updates to these items in the Closure and Reclamation Completion Report.</p> <p>Recommendation The GMRP recommends that the wording be updated as follows: (g) "Any updates to anticipated maintenance and the approximate timeframe/frequency in which it is anticipated;" and (i) "Updates as required to associated monitoring program, including where and how results are being analyzed and reported;"</p>		Board staff have updated the Draft Licence accordingly.
140	Schedule 2, Condition 2, Item k)	<p>Comment (Submitted after Due Date) The GMRP will not be providing component-specific PARs and the timeline for the PAR is defined in Part D, condition 7.</p> <p>Recommendation The GMRP recommends that Item (k) be removed.</p>		Board staff have updated the Draft Licence accordingly.
141	Schedule 2, Condition 3, Item a) and (new)	<p>Comment (Submitted after Due Date) The purpose of the PAR is to report on the progress towards achieving the closure criteria, not to provide a summary of all monitoring at site.</p> <p>Recommendation The GMRP recommends Item a) be deleted and replaced with: "(a) An analysis of the conditions at site compared to the closure objectives and criteria closure criteria with supporting evidence from the associated monitoring</p>		Board staff have updated the Draft Licence accordingly.

		programs and (new) an assessment of residual risks. "		
14 2	Schedule 2, Condition 3, Item b)	Comment (Submitted after Due Date) (b) Clarification is requested on the information being requested in this condition. Recommendation The GMRP recommends Item b) be clarified or removed.		Board staff have updated the requirement to read "A discussion of human and/or wildlife health and safety related to each Engineered Project Component, as is applicable". This requirement is based on information in the Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories.
14 3	Schedule 2, Condition 3, Item c)	Comment (Submitted after Due Date) (c) This information belongs in the Post Closure Monitoring and Maintenance Plan and not within the PAR, which is intended to report on progress towards achieving closure criteria, rather than as a planning tool for contingencies. Recommendation The GMRP recommends (c) be removed.		Board staff have updated the Draft Water Licence accordingly.
14 4	Schedule 2, Condition 3, Item d)	Comment (Submitted after Due Date) (d) there will be no updates to the Closure and Reclamation Plan or Design Plans in Post-Closure. Any updates or changes Site-Wide Management and Monitoring Plans in Post-Closure do not need to be documented in the PAR, as the plans themselves will contain this information. Recommendation The GMRP recommends (d) be removed and replaced with "Any associated updates required to be made to the Post-		Board staff agree and have updated the Licence accordingly.

		Closure Monitoring and Maintenance Plan.”		
14 5	Schedule 3, Condition 1, Item a)	<p>Comment (Submitted after Due Date) The intent of the Design Plans is to provide the engineering design details that the MVLWB indicates are required in a final CRP as per the Closure Guidelines. The GMRP's goal for the Design Plans is to keep these as streamlined as possible while still providing the MVLWB all the details it requires. Interveners have also expressed a concern of the review burden that this project may present. As such, if details are provided already in other documents, such as the CRP, GMRP will not repeat that information in the design plans. Specifically, Item a) i. a summary of existing conditions is provided in the CRP and it is not necessary to repeat this information in the Design Plans. With respect to Item a) iv., it is not necessary to include a discussion of alternative designs considered and the rationale for excluding alternate methods because this is addressed in the CRP. The potential impacts and mitigations of the Project in Item a) v. have already been documented through the environmental assessment and in the CRP. The intent of Item a) vi. is unclear and not consistent with the nature of design criteria or other the MVLWB guidelines or other licences.</p> <p>Recommendation The GMRP recommends Items (a) i, iv, v, and vi be removed.</p>		<p>Board staff agree that a) iv, v, and vi can be removed and have updated the Draft Water Licence accordingly.</p> <p>Board staff are of the opinion that a) i will be helpful to provide context for the Design Plans, and have added “and how it influences the design” at the end of the requirement for clarity. Board staff note that GMRP could reference the CRP as appropriate to meet this requirement.</p>

14 6	Schedule 3, Condition 1, Item c)	<p>Comment (Submitted after Due Date) The GMRP does not support the requirement to include the IPRP's opinion on the closure approach for the Design Plan. The closure approach has been determined either through the Environmental Assessment or in the Preliminary Screening. This is not relevant to the Design Plan. The IPRP forms part of the GMRP's internal review process, the results of which are captured in the final design that will be provided in the Design Plan. Other proponents are not required to submit the results of internal quality control activities.</p> <p>Recommendation The GMRP recommends Item (c) be removed.</p>		Board staff agree with GMRP, and item c) has been updated to remove the reference to the IPRP. GMOB can ask for IPRP's opinion for specific Design Plans if required.
14 7	Schedule 3, Condition 1, Item d) iii	<p>Comment (Submitted after Due Date) The GMRP has previously indicated that it is not anticipated that the stress study will directly affect the design of components.</p> <p>Recommendation The GMRP recommends that the reference to the Stress Study be removed from condition 1, Item (d) iii and revised as follows: "Discussion of how results of the Quantitative Risk Assessment have been incorporated into the design, as applicable. "</p>		Board staff have updated the Draft Water Licence accordingly.
14 8	Schedule 3, Condition 1, Item e)	<p>Comment (Submitted after Due Date) The GMRP submits that e) is actually provided for in item f) and should therefore be removed.</p> <p>Recommendation The GMRP recommends that Item (e) be removed.</p>		Board staff do not agree with GMRP and were under the impression that outlining the monitoring and mitigation for post-construction would be a major component of the Design Plans. The

				requirements of f) (contingency activities that will be undertaken if monitoring results show that Project Components are not meeting Closure Criteria) will make more sense to reviewers if the post-construction monitoring and mitigation details are outlined in the Design Plans.
14 9	Schedule 3, Condition 1, Item f)	<p>Comment (Submitted after Due Date) The current wording of Condition 1, Item (f) could be subject to multiple interpretations, and the GMRP proposes an alternative wording that is believed to meet the intent of the MVLWB. Specifically, GMRP recommends deleting reference to "performance criteria"; this is understood to be a reference to performance based closure criteria, which are encompassed under the term "closure criteria" (as are design-based closure criteria). The term "closure criteria" is defined in both the CRP and the MVLWB guidance, and its consistent use here would help with clarity in the condition. In addition, GMRP recommends clarifying (f)i. to refer to the risks of not achieving closure criteria (as opposed to the as-written "risks related to the achievement of the Closure Criteria"), which we understand to better reflect the intent of this condition.</p> <p>Recommendation The GMRP recommends the following update to Item (f): " A description of contingency activities that will be</p>		Board staff have updated the wording accordingly in the draft Water Licence.

		undertaken if monitoring results show that Engineered Structures are not meeting Closure Criteria, or are not trending towards meeting Closure Criteria. This includes: i. Risks that have been identified related to not achieving of the Closure Criteria; ii. A threshold or Action Level which defines the point at which monitoring indicates a response is necessary; and iii. The proposed response to be implemented if a threshold is exceeded."		
150	Schedule 3, Condition 2, Item 4	Comment (Submitted after Due Date) The details in Item 4 (a) and (b) will be presented in the Baker Creek Design Plan. Recommendation The GMRP recommends moving Items 4 (a) and (b) to Condition 2, Item 7 Baker Creek and Surface Water Drainage Design Plan.		Board staff have updated the Draft Licence accordingly.
151	Schedule 3, Condition 2, Item 8 a)	Comment (Submitted after Due Date) The GMRP finds Item 8 (a) to be unclear. Recommendation The GMRP recommends the following clarification of wording for Item 8 (a): "Identify acceptable limits of differential settlement in the cover that are needed to protect liner integrity. Identify mitigation or repair measures to be undertaken if differential settlement exceeds these limits; and"		Board staff agree and have updated the text in the Draft Licence accordingly.
152	Schedule 3, Condition 3, Item c)	Comment (Submitted after Due Date) As presented in Technical Session 2 and as discussed above, the GMRP recommends that Construction Plans be triggered by the construction		Board staff agree and have updated the Draft Water Licence accordingly.

		<p>of an Engineered Structure. All design details including any reference to closure criteria, and operations and maintenance will be in the Design Plans. Item c includes details that will be in the Design Plans, not the Construction Plans. GMRP notes that there are two (c) i. The second (c) i. can be provided in the Design Plan as will (c) iii, v and vi.</p> <p>Recommendation The GMRP recommends changing Engineered Component to Engineered Structure. Further, the GMRP recommends removing the second (c) i., iii, v. and vi.</p>		
15 3	Schedule 3, Condition 3, Item d)	<p>Comment (Submitted after Due Date) With respect to Item (d): (ii) ,this information will be provided in the design plans. The GMRP does not believe that it would be beneficial to duplicate the information in construction plans, nor will it be beneficial to the use of the construction plans. Monitoring related to closure criteria will be documented in the Design Plans. (iv) Construction plans do not normally contain predictions. Construction plans are based on detailed drawings, specifications, schedules, work method statements, and similar execution-oriented documentation. Change management and QA/QC procedures are used in construction projects to ensure that works are completed in accordance with design intent, as part of internationally accepted construction practices.</p>		<p>Board staff agree and have updated the Draft Licence accordingly.</p> <p>Board staff have added the condition As Built Report - Engineered Structure(s) to Part E, condition 14 to ensure that as-built information is available on the public record after Engineered Structures have been constructed.</p>

		<p>Developing predictions of how construction is expected to proceed and contingency plans for each possible deviation would place a unique and unreasonable administrative burden on the proponent that is not in keeping with how construction projects are normally executed.</p> <p>Recommendation The GMRP recommends removing (d) ii. and iv.</p>		
15 4	Schedule 3, Condition 3, Item h)	<p>Comment (Submitted after Due Date) The closure criteria and the Closure Reclamation Completion Report already require a stamped as-built drawing. The MVLWB should not specify field personnel or the details of the QA/QC program. In many cases, field QA/QC is not provided by Professional Engineers but by qualified technicians and such a requirement would increase the Project's costs substantially and unnecessarily.</p> <p>Recommendation The GMRP recommends the following edits to Item (h): "A Quality Control Plan for the construction of the Engineered Structure;"</p>		Board staff have updated the Draft Licence accordingly.
15 5	Schedule 4, Condition 2, Item a) i.	<p>Comment (Submitted after Due Date) The GMRP finds it unclear as to what the word "it" refers to in this Item.</p> <p>Recommendation The GMRP recommends the following revisions to Item (a) i. for improved clarity: "Information regarding Water, Wastewater and Contact Water management, including: i). A summary, with appropriate maps or</p>		Board staff have taken "it" out of i. and replaced it with "Water management system".

		diagrams, of the components of the Water management system, including monitoring locations and maps, at key stages of Remediation and at post-closure;"		
15 6	Schedule 4, Condition 2, Item a) iv. d.	<p>Comment Submitted after Due Date) The GMRP submits that the use of the term "plan" within a Plan is confusing and can lead to misinterpretation of other conditions. The GMRP supports a requirement for a stand-alone section within the Water Management and Monitoring Plan (Water MMP) that addresses specifically the management of chloride and sulphate at the WTP. The GMRP does not consider it appropriate to require response plans in the sulphate and chloride management section of the Water MMP. Following the framework of action levels and response plans set out in the MVLWB Guidelines for Aquatic Effects Monitoring Programs, the GMRP recommends that Response Plans will be developed in the event that a medium or high action level is exceeded.</p> <p>Recommendation The GMRP recommends the following revisions to Item (a) iv. d: "Information on chloride and sulphate management and monitoring plan for the Water Treatment Plant, including frequency of monitoring and Actions Levels; "</p>		Board staff agree and have updated the Draft Water Licence accordingly.
15 7	Schedule 4, Condition 2, Item a) iv. e.	<p>Comment (Submitted after Due Date) Similar to comment above, the GMRP supports a stand-alone section in the Water MMP</p>		Board staff note that the site-specific Surface Runoff Criteria can still be based on federal or other Project specific criteria, as

	<p>that addresses specifically Contact Water Management.</p> <p>(a) iv. e. i. The GMRP does not support the use of the term "site-specific" as this implies that site-specific criteria must be developed whereas it could be the case that federal or other project-specific criteria are appropriate. (a) iv. e. ii. The GMRP considers the requirement for "follow up procedures" to be redundant. (a) iv. e. iii. the GMRP suggests that the term compliance suggests compliance with a Water Licence condition. The contact Runoff Quality Criteria will be in the Water Management and Monitoring Plan and therefore if there is an exceedance this would result in an adaptive management response rather than being out of compliance with the Water Licence. (a) iv. e. iv. The GMRP has been clear that the proposed Runoff Quality Criteria is to determine when runoff from covers, (TCA covers, pit covers and the cover of the landfill) can be allowed to drain naturally to the receiving environment. The GMRP has provided edits to maintain this clarity. (a) iv. e. v. The GMRP suggests that that this item be removed, as the requirements can be addressed in iv above. (a) iv. e. vi. The GMRP suggests relating this condition to engineered structures, to provide additional clarity.</p> <p>Recommendation The GMRP recommends the following edits to Item (a) iv. e:</p>		<p>appropriate, similar to Site-Specific Water Quality Objectives. Board staff have updated the Draft Water Licence according to the comments, where it appeared appropriate. To avoid a lengthy Schedule item, item v. was left as is and not incorporated into vi.</p> <p>Board staff updated this section of the Water Licence based on the IR issued to GMRP on May 15, 2020 and the subsequent public review of GMRP's response (e.g. Contact Water Discharge criteria was changed to Surface Runoff Criteria.</p>
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		<p>Information on Contact Water management and monitoring plan, including, but not limited to: i. Identification and evaluation of site-specific Contact Water Discharge criteria (parameters and concentrations) in alignment with the Board's Water and Effluent Quality Management Policy; ii. Details of water chemistry and toxicity testing for Contact Water; iii. Identification of Surveillance Network Program contact water stations that will be monitored prior to release to the Receiving Environment; iv. A description of how Contact Water from engineered structures is deemed appropriate for Discharge to the Receiving Environment including duration, frequency, and analysis of testing; Recommend removing item v. and including a statement in the item above to capture this concept vi. Contingency measures if Contact Water from engineered structures does not meet Discharge criteria;</p>		
15 8	Schedule 4, Condition 2, Item a) iv. g.	<p>Comment (Submitted after Due Date) All standard operating procedures will be provided in stand-alone SOP documents. As per the MVLWB Standard Outline for Management Plans, Standard Operating Procedures are "not for Board approval and is at the discretion of the company whether they include a list of all relevant standard operating procedures or the actual standard operating</p>		Board staff agree and have updated the Draft Water Licence accordingly.

		<p>procedures themselves". The GMRP will adhere to the guidance, however this expectation should be explicit in the Licence.</p> <p>Recommendation The GMRP recommends Item (a) iv. g. be removed.</p>		
15 9	Schedule 4, Condition 2, Item a) v.	<p>Comment (Submitted after Due Date) Given that the potential for wetlands remain in research, and that a Design Plan will be required in the event that a wetland option is pursued, the details regarding potential wetlands would be provided in the Design Plan. The Water Management and Monitoring Plan would be updated at that time as necessary.</p> <p>Recommendation The GMRP recommends Items (a) v. a) through g) be removed.</p>		<p>Board staff agree and have removed the requirements for the constructed wetlands from the Water Management and Monitoring Plan Schedule. Board staff note that the Schedule can be updated in the future, if warranted. The requirements, as appropriate, were moved to Schedule 3, Condition 2: Board Directives for specific Project Component Design Plans 9. Constructed wetlands.</p>
16 0	Schedule 4, Condition 2, Items b) and c)	<p>Comment (Submitted after Due Date) The GMRP submits that the Water MMP is intended as an operational document to direct how water is managed on-site. The requirement to include a discussion of water quality monitoring, provisions for updates and anticipated changes does not belong in the Water MMP and will make the document more cumbersome. The GMRP did commit to including details as to when the modelling for the site would be reviewed and/or updated and therefore the GMRP has provided an edit to (b) to reflect the timing of model updates and that item (c) be removed.</p> <p>Recommendation The primary connection between closure criteria and the</p>		<p>Board staff have updated the draft Water Licence accordingly.</p>

		Water MMP is that the Water MMP specifies the details of the surface runoff criteria. Revisions are provided to reflect this connection. The GMRP recommends that Item (b) be edited as follows: "Water balance estimates for the period of Active Remediation and Adaptive Management (Phase 2) and triggers for when the water balance requires revisions." The GMRP recommends that Item (c) be removed.		
16 1	Schedule 4, Condition 2, Item e) ii.	Comment (Submitted after Due Date) The detail required by this item are the same as details in the SNP and therefore redundant to be included here. Recommendation The GMRP recommends Item (e) ii. be removed as this is fully addressed in the SNP.		Board staff agree and have updated the Draft Water Licence accordingly.
16 2	Schedule 4, Condition 2, Item e) iii.	Comment (Submitted after Due Date) The monitoring described in the waste management plan will be operational to mitigate any operational risks. Monitoring to evaluate residual risk will be proposed in the Design Plans and will be described in the Post Closure Monitoring and Maintenance Plan. The Quantitative Risk Assessment only assessed risk post-closure and so, similarly, the reference here is not appropriate. Item (f) ii addresses the requirement to demonstrate how monitoring is used to manage risk during remediation activities and therefore Item e) iii. is not required. Recommendation The GMRP		Board staff agree and have updated the Draft Water Licence accordingly.

		recommends Item e) iii. be removed		
16 3	Schedule 4, Condition 2, Item e) iv.	<p>Comment (Submitted after Due Date) The GMRP supports this requirement (for this and for all other similar requirements in all other Management and Monitoring Plans) on the basis that this requirement can be satisfied by a schematic that shows the linkages between the Project's various plans and reports in a general way, similar to the schematic provided by the GMRP during Technical Session 2, and recommends removing "where data will be reported". Any more in-depth explanation of linkages or even a list of other plans to which another is related will become quickly cumbersome and convoluted and would require frequent revisions and resubmissions of the plans that would increase reviewer burden unnecessarily.</p> <p>Recommendation The GMRP recommends Item (e) iv. be revised as follows: "Linkages to other Site-Wide Management and Monitoring Plans, the Aquatic Effects Monitoring Program, Giant Mine Remediation Project Closure and Reclamation Plan, Design Plans, Construction Plans, and Closure and Reclamation Completion Reports."</p>		<p>Board staff have removed the clause "where data will be reported" in the draft WL.</p> <p>Board staff note that how GMRP addresses this requirement (e.g. including by submitting a schematic) is up to GMRP; reviewers will have the opportunity to comment.</p>
16 4	Schedule 4, Condition 2, Item e) v.	<p>Comment (Submitted after Due Date) The Water MPP provided to the MVLWB for review in the GMRP Water Licence Application includes a list of closure objectives</p>		Board staff believe that it will be helpful for Site-Wide Management and Monitoring Plans to include linkages to any Closure Objectives and

		<p>related to water management. These were provided to help the reader understand the broad objectives that the GMRP was working towards, but the Management and Monitoring Plans are not the vehicle by which the closure objectives and criteria are met, nor are Management and Monitoring Plans the vehicle by which the GMRP's progress towards achieving the closure objectives and criteria are met. The Site-Wide Management and Monitoring Plans are in place to protect the environment while closure activities are underway. Furthermore, given that in many cases, closure criteria will not be met until the end of remediation, providing these criteria in the Water MMP could lead to confusion for the operators and site staff using the Water MMP and therefore it is not recommended that these be included generally.</p> <p>Recommendation The primary connection between closure criteria and the Water MMP is that the Water MMP specifies the details of the surface runoff criteria. Revisions are provided to reflect this connection. The GMRP recommends the following edits to Item (e) v: "Linkages to any Closure Objectives and Closure Criteria from the approved Giant Mine Remediation Project Closure and Reclamation Plan or Design Plan(s) that refer to the Surface runoff criteria in</p>		<p>Closure Criteria, particularly following the public review of GMRP's response to the May 15, 2020 IR, where GMRP indicated that "it is appropriate to use Site-wide Management and Monitoring Plans as a mechanism to update or make changes to monitoring in relation to completion of a closure activity and resulting monitoring".</p>
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		the Water Management and Monitoring Plan;"		
16 5	Schedule 4, Condition 2, Item e) vi.	<p>Comment (Submitted after Due Date) Given that the existing water management system has been in place for many years and was not necessarily "designed", this item as written may only be applicable to Phase 3 and not Phase 2.</p> <p>Recommendation The GMRP recommends the following revisions to Item (e) vi: "An inspection plan for the Water management system to verify that it is operating as appropriate for the relevant remediation phase including rationale;"</p>		Noted. Board staff have updated Draft Licence accordingly.
16 6	Schedule 4, Condition 2, Item e) vii.	<p>Comment (Submitted after Due Date) The GMRP has already worked with laboratories to find an analytical method for phosphorus that is not affected by arsenic and the effort was unsuccessful. The GMRP does not support the inclusion of this item.</p> <p>Recommendation The GMRP recommends Item (e) vii. be removed.</p>		<p>Board staff note that GMRP indicated that they are "continuing to work with laboratories to develop an appropriate analytical method for phosphorus and progress will be reported in Annual Water Licence Reports" (Review 6 of 7, Giant Mine Oversight Board: 4, June 25).</p> <p>Board staff note that total phosphorus should be reconsidered as a potential POPC for the Project once reliable phosphorus data are available. As such, Board staff have removed this item from Schedule 4, Condition 2 and have added it to the Annual Water Licence Report.</p>
16 7	Schedule 4, Condition 2, Item e) viii.	<p>Comment (Submitted after Due Date) The information about the establishment of a sediment sampling location in Baker Creek will be provided in the Baker Creek</p>		Noted. Board staff have moved the requirement to the Board Directive for the Baker Creek Design Plan.

		Design Plan. The GMRP does not support the inclusion of this item in the Water MMP. Recommendation The GMRP recommends Item (e) viii. be removed.		
16 8	Schedule 4, Condition 2, Item e) ix.	Comment (Submitted after Due Date) This is provided through the AEMP and SNP and should be not also be required in the Water Management and Monitoring Plan. Recommendation The GMRP recommends Item (e) ix. be removed.		Board staff note that this wording is used for every Site-Wide Management and Monitoring Plan for flexibility for Proponents to include other information that may demonstrate EA measures are being met, or Part F, condition 1 of the Licence. Board staff note that GMRP can reference the AEMP and SNP regarding meeting EA measures if GMRP feels that is appropriate.
16 9	Schedule 4, Condition 2, Item f)	Comment (Submitted after Due Date) (f) i through iii. The GMRP understands the intent of action levels is to provide early indication to a site operator that adjustments to the site's operations may be required to continue to protect the environment. Action levels are set low enough to give the operator time to respond. (f) iv. The GMRP does not support a dedicated public communications plan to communicate the routine adaptive management of the site. The MVLWB already has a sufficient system in place for notification and reporting on action levels and response plans. Furthermore, the GMRP has established regular communication with rights and stakeholders including Working Group as outlined in the Engagement Plan and Environmental		Board staff have removed the requirement a description of the public communications plan in the event Action Levels are realized. Regarding f) Board staff have removed the words "are not meeting Closure Criteria" from the requirement and have retained the wording "are not trending towards meeting Closure Criteria" as Board staff believe this will be helpful for reviewers.

		<p>Agreement requirements, no additional communications plan is necessary.</p> <p>Recommendation The GMRP recommends the following edits to Item (f): "A description of maintenance or contingency activities that will be undertaken if monitoring results show that Water management systems are not meeting Part F, condition 1 of this Licence. The contingencies section of the Water Management and Monitoring Plan will include:</p> <ul style="list-style-type: none"> i. Identified risks related to Water management; ii. A threshold or Action Levels for relevant monitoring locations that define the point at which monitoring indicates a response is necessary; iii. Proposed response and possible contingency actions to be implemented if action level exceeded" <p>The GMRP recommends Item (f) iv. be removed.</p>		
170	Schedule 4, Condition 3, Item b)	<p>Comment (Submitted after Due Date) It is not recommended that the Water Licence direct operational monitoring requirements within the WTP. The WTP will run daily/hourly conductivity measurements as part of the WTP Operating Procedures. Given the correlation between conductivity and chlorides, daily sampling of chlorides is not required. Details will be provided in the chloride and sulphate management section of the Water MMP already required in (a) iv. d of this document. Further, weekly influent (SNP 43-28) and effluent (SNP 43-</p>		<p>Noted. Board staff have removed the requirement from the Draft Water Licence accordingly. The frequency of sampling can be reviewed through the Water Management and Monitoring Plan, as indicated by GMRP.</p>

		1A) will be provided to the MVLWB per the SNP. No further condition required. Recommendation The GMRP recommends Item (b) be removed.		
17 1	Schedule 4, Condition 3, Item c)	Comment (Submitted after Due Date) The GMRP has provided this information in Undertaking #2. Recommendation The GMRP recommends Item (c) be removed.		Board staff have updated the Draft Licence accordingly.
17 2	Schedule 4, Condition 4, Item a) iv.	Comment (Submitted after Due Date) Areas planned for re-vegetation will be identified in the relevant Design Plans. Recommendation The GMRP recommends Item (a) iv. be removed.		Board staff believe this can be included in this plan since it is a major component of erosion management. Any changes based on Design Plan specifics can be updated as appropriate.
17 3	Schedule 4, Condition 4, Item c)	Comment (Submitted after Due Date) Closure Objectives and Criteria will not be achieved through this management and monitoring plan. As stated in comment on Schedule 2 Condition 2 (e) v, the Site Wide Management and Monitoring Plans are intended to protect the environment while closure activities are underway and therefore closure objectives and criteria will not be satisfied explicitly by this management system. Recommendation The GMRP recommends Item (c) iv. be removed		
17 4	Schedule 4, Condition 4, Item d)	Comment (Submitted after Due Date) Closure Objectives and Criteria will not be achieved through this management and monitoring plan. As stated in comment on Schedule 2 Condition 2 (e) v, the Site Wide		See Board staff analysis to GMRP comment ID: 169.

		<p>Management and Monitoring Plans are intended to protect the environment while closure activities are underway and therefore closure objectives and criteria will not be satisfied by this management system.</p> <p>(d) i. GMRP will update management and monitoring plans as required to reflect the current activities on site, and requests that references to phases of the project be removed. With respect to item (d) iv. and as per GMRP's comment on Schedule 2 Condition (f) iv, The GMRP does not support a dedicated public communications plan to communicate the routine adaptive management of the site. The MVLWB already has a sufficient system in place for notification and reporting on action levels and response plans. Furthermore, the GMRP has established, regular communication with rights and stakeholders including Working Group as outlined in the Engagement Plan and Environmental Agreement requirements, no additional communications plan is necessary.</p> <p>Recommendation The GMRP recommends the following edits to Item (d): "A description of maintenance or contingency activities that will be undertaken if monitoring results show that erosion management systems are not meeting Part F, condition 1 of this Licence. The contingencies section of the Erosion and Sediment Management and Monitoring</p>		
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		Plan will include: i. Identified risks related to erosion management; ii. A threshold or Action Level to define the point at which monitoring indicates a response is necessary; iii. Proposed response to be implemented if action level exceeded." The GMRP recommends Item (d) iv. be removed.		
17 5	Schedule 4, Condition 6, Item c)	Comment (Submitted after Due Date) The GMRP submits that Item c) should not be included in the Dust MMP, given that it is constantly being updated and is better suited to the existing reporting mechanisms of the Air Quality Monitoring Program. Recommendation The GMRP recommends Item (c) be removed.		Board staff acknowledge that the Dust MMP includes the Air Quality Monitoring Program as an appendix, and has updated the Draft Water Licence accordingly.
17 6	Schedule 4, Condition 6, Item f)	Comment (Submitted after Due Date) Future planned engagement related to scaling back this plan as the Project moves to post-closure does not belong in the Dust Management and Monitoring Plan as it is not pertain to the daily operation of the site. Recommendation The GMRP recommends that Item (f) be moved to the Engagement Plan.		Board staff have moved the requirement to a requirement of the Engagement Plan, as recommended by GMRP.
17 7	Schedule 4, Condition 6, Item h) v.	Comment (Submitted after Due Date) As per GMRP comments on Schedule 4, Condition 2, Item e) v. Recommendation The GMRP recommends Item (h) v. be removed.		See Board staff analysis to GMRP comment ID: 164.
17 8	Schedule 4, Condition 6, Item i)	Comment (Submitted after Due Date) As stated in comment on Schedule 2 Condition 2 (e) v, the Site		See Board staff analysis to GMRP comment ID: 169.

		<p>Wide Management and Monitoring Plans are intended to protect the environment while closure activities are underway and therefore closure objectives and criteria will not be satisfied by this management plan</p> <p>Recommendation The GMRP recommends the following edits to Item (i): "A description of maintenance or contingency activities that will be undertaken if monitoring results show that dust management systems are not meeting Part F, condition 1 of this Licence. The contingencies section of the Dust Management and Monitoring Plan will include:</p> <ul style="list-style-type: none"> i. Identified risks related to dust management ii. A threshold or Action Level to define the point at which monitoring indicates a response is necessary; iii. Proposed response to be implemented if threshold exceeded; and iv. A description of the public communications plan in the event Action Levels are realized." 		
179	Schedule 4, Condition 7, Item b)	<p>Comment (Submitted after Due Date) Information on detailed operational constraints and actions for activities taking place during remediation will be provided in construction plans.</p> <p>Recommendation The GMRP recommends removing Item b).</p>		<p>Board staff note that the current Schedule for the Construction Plans does not include information on operational constraints, and furthermore GMRP requested that "Operational requirements and any anticipated maintenance, as applicable" be removed from the Schedule for the Construction Plans. Consequently, Board staff have added "Information</p>

				on operational constraints” to the Schedule requirements for the Construction Plans.
180	Schedule 4, Condition 8, Items d), e) and f)	<p>Comment (Submitted after Due Date) An explanation of how proposed monitoring will assess risk in conditions (d) i. c. and (e) i. e. will be provided in (f) ii. and therefore not required. The numbering of this section should be revised.</p> <p>Recommendation The GMRP recommends Item (d) i. c. be removed.</p>		Board staff have updated the Water Licence accordingly.
181	Schedule 4, Condition 8, Item e) i. e	<p>Comment (Submitted after Due Date) An explanation of how proposed monitoring will assess risk in conditions (d) i. c. and (e) i. e. will be provided in (f) ii. and therefore not required. The numbering of this section should be revised.</p> <p>Recommendation The GMRP recommends Item (e) i. e. be removed.</p>		Board staff have updated the Draft Water Licence accordingly.
182	Schedule 4, Condition 8, Item f)	<p>Comment (Submitted after Due Date) The GMRP does not support a dedicated public communications plan to communicate the routine adaptive management of the site. The MVLWB already has a sufficient system in place for notification and reporting on action levels and response plans. Furthermore, the GMRP has established, regular communication with rights and stakeholders including Working Group as outlined in the Engagement Plan and Environmental Agreement requirements, no additional communications plan is necessary.</p> <p>Recommendation The GMRP recommends item f) ii. be</p>		See Board staff analysis to GMRP comment ID-169.

		removed. The GMRP recommend f) iii. be re-worded to read: Proposed response and possible contingency actions to be implemented if action level exceeded" The GMRP recommends Item (f) iv. be removed.		
18 3	Schedule 4, Condition 9, Item b)	<p>Comment (Submitted after Due Date) The information regarding engagement to select borrow sources belongs in the Borrow Design Plan. The GMRP suggests that this Item should be edited to be aligned with similar Conditions regarding Management and Monitoring Plans.</p> <p>Recommendation The GMRP recommends that Item (b) be revised as follows: "A description of any engagement activities undertaken to inform the Borrow Materials and Explosives Management and Monitoring Plan."</p>		Board staff agree and have updated the Draft Water Licence accordingly.
18 4	Schedule 4, Condition 9, Item c)	<p>Comment (Submitted after Due Date) This requirement is not appropriate for the management plan. The engagement on borrow sources and volumes is complete. The GMRP provided excellent visuals at the engagement session.</p> <p>Recommendation The GMRP recommends Item (c) be removed.</p>		Board staff have edited the requirement to read "Illustrate the impact of borrow on the final landscape".
18 5	Schedule 4, Condition 9, Items e) and f)	<p>Comment (Submitted after Due Date) For Items (e) and (f) i - iii this information will be provided in the Borrow Design Plan, not the Management and Monitoring Plan. (f) iv. the GMRP understands this item to be referring to overburden that</p>		Board staff have moved schedule items to be under the Board Directives for the Borrow Materials and Explosives Monitoring and Management Plan Design Plan or Board Directives for the Waste

		<p>may be contaminated from historic aerial deposition. The GMRP committed to including the details of the management of that material in the Waste Management and Monitoring Plan.</p> <p>Recommendation The GMRP recommends Items (e) and (f) i, iii be removed. The GMRP also recommends that (f) iv be removed.</p>		Management Plan as applicable.
18 6	Schedule 4, Condition 9, Item i)	<p>Comment (Submitted after Due Date) The information for Item (i) will be provided in the Design Plan .</p> <p>Recommendation The GMRP recommends (i) be removed.</p>		Board staff have moved the requirements to the Board Directives for the Borrow Materials and Explosives Monitoring and Management Plan Design Plan.
18 7	Schedule 4, Condition 9, Item j) iii	<p>Comment (Submitted after Due Date) For Item (j) iii. the blast residues terminology may be confusing, and the GMRP suggests using nitrogen residues as it is referred to in (h) iii. f).</p> <p>Recommendation The GMRP recommends Item (j) iii. refer to nitrogen residues instead of blast residues.</p>		Board staff agree and have updated the Draft Water Licence accordingly.
18 8	Schedule 4, Condition 9, Item j)	<p>Comment (Submitted after Due Date) With respect to Item (j) v., as per earlier comments, this item is addressed through the second (h) ii. and therefore not required.</p> <p>Recommendation The GMRP recommends Item j) v. be removed.</p>		Board staff have updated the Draft Water Licence accordingly.
18 9	Schedule 4, Condition 9, Item second h)	<p>Comment (Submitted after Due Date) The GMRP notes that there is a second item (h) in Condition 9 which should likely be revised to "Item (k)". As stated previously, this management plan will not satisfy closure criteria. The GMRP does not</p>		See Board staff analysis to GMRP comment ID-169.

		<p>support a dedicated public communications plan to communicate the routine adaptive management of the site. The MVLWB already has a sufficient system in place for notification and reporting on action levels and response plans. Furthermore, the GMRP has established, regular communication with rights and stakeholders including Working Group as outlined in the Engagement Plan and Environmental Agreement requirements, no additional communications plan is necessary.</p> <p>Recommendation The GMRP recommends the following edits for the second Item (h) : ""A description of maintenance or contingency activities that will be undertaken if monitoring results show that Water management systems are not meeting Part F, condition 1 of this Licence. The contingencies section of the Water Management and Monitoring Plan will include: i. Identified risks related to Water management; ii. A threshold or Action Levels for relevant monitoring locations that define the point at which monitoring indicates a response is necessary; iii. Proposed response and possible contingency actions to be implemented if action level exceeded" The GMRP recommends second Item h) iv. be removed.</p>		
190	Schedule 4, Condition 10, Item b)	<p>Comment (Submitted after Due Date) This requirement will be addressed in the Design Plan.</p> <p>Recommendation The GMRP</p>		Noted. Board staff have updated the Board Directives for the Design Plan for the Arsenic Trioxide Frozen Shell

		recommends Item b) be removed.		Management and Monitoring Plan accordingly.
19 1	Schedule 4, Condition 10, Item c)	Comment (Submitted after Due Date) The GMRP has already completed a plain language summary of the Freeze Program Design Basis Report as required by Measure 18. The CRP also provides a plain language explanation of the freeze program. An additional plain language summary of the Design Basis Report would be redundant. As described in Board guidance, the Arsenic Trioxide Frozen Shell Management and Monitoring Plan will "state the overall purpose and provide a summary of the key features of the plan using non-technical language." Recommendation The GMRP recommends that Item c) be removed or aligned with Board guidance.		Board staff agree and have updated the Draft Water Licence accordingly.
19 2	Schedule 4, Condition 10, Item f) x.	Comment (Submitted after Due Date) Item f) x is addressed in Item g) and therefore is not required. Recommendation The GMRP recommends Item f) x. be removed.		Board staff have updated the Draft Water Licence accordingly.
19 3	Schedule 4, Condition 10, Item f) xi.	Comment (Submitted after Due Date) Please see GMRP comment on Schedule 4, Condition 2, Item e) iv. Recommendation The GMRP recommends Item f) xi. be removed		See response to GMRP-163.
19 4	Schedule 4, Condition 10, Item f) xii.	Comment (Submitted after Due Date) As per previous comments, the Management and Monitoring Plan will not satisfy closure objectives and criteria in and of itself, but will rather provide evidence		See Board staff analysis to GMRP comment ID-164.

		<p>to demonstrate that these criteria have been or are being met. This will be presented in the PAR.</p> <p>Recommendation The GMRP recommends that Item f) xii. be revised as follows: "provide a list relevant Closure Objectives and Criteria."</p>		
19 5	Schedule 4 Condition 10 Item g)	<p>Comment (Submitted after Due Date) Details on the option to convert passive thermosyphons to active thermosyphons will only be provided generally as a contingency.</p> <p>Recommendation The GMRP recommends Item g) i) remove "for each Phase of the Project and Item g) ii. be removed. The GMRP recommends Item f) vii. be re-worded to read: "Proposed response and possible contingency actions to be implemented if action level exceeded"</p>		<p>Board staff agree with the recommendations for Item g) i) and Item f) vii. Board staff do not agree with GMRP's recommendation to remove Item g) ii. Board staff note that GMRP agreed to provide contingencies to address climate change uncertainties during the public review (Review 5 of 7, Shannon Allerston: 36, June 25). Board staff note that presenting the action of converting passive thermosyphons to active thermosyphons could satisfy the requirement of this schedule item.</p>
19 6	Schedule 4, Condition 10, Item g) viii	<p>Comment (Submitted after Due Date) The GMRP does not support a dedicated public communications plan to communicate the routine adaptive management of the site. The MVLWB already has a sufficient system in place for notification and reporting on action levels and response plans. Furthermore, the GMRP has established, regular communication with rights and stakeholders including Working Group as outlined in the Engagement Plan and Environmental Agreement requirements, no additional communications plan is necessary.</p>		<p>See Board staff analysis to GMRP comment ID-169.</p>

		Recommendation The GMRP recommends Item g) viii. be removed.		
19 7	Schedule 6, Condition 1 Item c)	<p>Comment (Submitted after Due Date) The AEMP Design Plan will direct the design of the Special Study to gather baseline data from YK Bay. The results of the Special Study will be reported in the AEMP annual report (for approval). The Aquatic Effects Baseline Report is a one-time report to collate the results gathered over multiple years. The AEMP Re-evaluation Report (for approval) submitted before the outfall as per condition Part H, 8. will provide the information regarding how the baseline data informed the study design. Additionally, Part H, Condition 8(c) outlines that the re-evaluation will note how the Study Designs will be updated based on special studies and other analyses, therefore this Schedule 6, Condition 1(c) is not needed.</p> <p>Recommendation The GMRP recommends Item (c) be removed.</p>		Board staff agree and have updated the Draft Water Licence accordingly.
19 8	Schedule 6, Condition 1 Item d)	<p>Comment (Submitted after Due Date) d) iv. GMRP proposes that dust will be monitored through the Dust Monitoring and Management Plan, Air quality Monitoring plan as well as site-specific construction monitoring plans. The GMRP did not propose this in the AEMP. If results indicate that dust becomes a significant stressor, then this can be re-evaluated, but at this time it is not considered a major stressor requiring a WL</p>		Board staff agree with GMRP's argument regarding d) iv. And have removed the Schedule item. Board staff do not see the harm in keeping d) vi. in the Draft Water Licence as it addresses a specific measure from the EA. Board staff note that GMRP does not have to address this item until it is relevant to the Design Plan.

		<p>condition under the AEMP. (d) vi. Sediment re-suspension is monitored under d)(i)(c), therefore, this clause is redundant. Also note, Measure 14 is incorrect in this reference. {Measure 16 is the correct reference}. The GMRP proposed to mitigate and monitor to meet Measure 16.</p> <p>Recommendation The GMRP recommends Items (d) iv. and vi. be removed.</p>		
199	Schedule 6, Condition 1 Item e)	<p>Comment (Submitted after Due Date) The Community Based Monitoring remains under development including how it will be led and who will hold the data; therefore the GMRP cannot accept a WL condition that may not be within its power to control. The GMRP will summarize available results in the annual AEMP Report if and when the results are available, or use available results to inform future Design Plans.</p> <p>Recommendation The GMRP recommends Item (e) iii. be removed.</p>		Board staff have updated the Draft Water Licence accordingly and note that the Community Based Monitoring is addressed in the Annual WL Report and AEMP Annual Report. Further, Schedule 6, Condition 1 h) could discuss the Community Based Monitoring, as is appropriate.
200	Schedule 6, Condition 1 Item g)	<p>Comment (Submitted after Due Date) This item is unclear and vague and appears unnecessary.</p> <p>Recommendation The GMRP recommends that the MVLWB consider rewording to provide clarity on this condition, or recommend Item (g) be removed.</p>		Board staff agree and have updated the Draft Water Licence accordingly.
201	Schedule 6, Condition 2 Item g)	<p>Comment (Submitted after Due Date) Item g) was addressed in ORS 6 #26 and is complete. The sample size of fish is appropriate in the draft AEMP Design Plan.</p> <p>Recommendation The GMRP</p>		Noted. Draft licence updated accordingly.

		recommends Item (g) be removed.		
20 2	Schedule 6, Condition 3 Items c) and d)	<p>Comment (Submitted after Due Date) As per earlier comments, the results of the Plume Study and the Reference Area Reconnaissance will simply be reported in the AEMP Annual Report and not under a separate cover.</p> <p>Recommendation The GMRP recommends Items (c) and (d) be removed and replaced with “Results and interpretation from applicable Special Studies.”</p>		Board staff believe that it will be more clear to reviewers if GMRP can indicate the specific study where results came from. Board staff do not understand why this requirement would be more onerous compared to changing the requirement to “Results and interpretation from applicable Special Studies”. Further, Board staff note that these requirements are not meant to be required repeatedly in each Aquatic Effects Monitoring Program Annual Report, but rather the appropriate Annual Report after the studies are complete.
20 3	Schedule 6, Condition 4 Items b), c) and d)	<p>Comment (Submitted after Due Date) The studies identified in Items b), c) and d) will happen only once so it does not seem appropriate to require a review and summary of these every time that we do a revaluation.</p> <p>Recommendation The GMRP recommends Items (b), (c) and (d) change to “A review and summary of applicable Special Studies”.</p>		Board staff note that these requirements are not meant to be required repeatedly in each Aquatic Effects Monitoring Program Re-Evaluation Report, but rather the appropriate Report after the studies are complete. Board staff have updated the wording of c) and d) accordingly.
20 4	Schedule 6, Condition 4 Item g)	<p>Comment (Submitted after Due Date) With respect to Item g), given that there is re-evaluation every three years, the focus of predicted impacts should not necessarily extend to the end of the Project life but should rather focus on more immediate potential impacts.</p> <p>Recommendation The GMRP recommends Item (g) be</p>		Board staff agree and have updated the Draft Water Licence accordingly.

		revised as follows: "Updated predictions of Project-related aquatic effects or impacts from the time of writing to the end of Project life or the appropriate Project Phase based on Aquatic Effects Monitoring Program results to date and any other relevant operational monitoring data;"		
Environment and Climate Change Canada: Russell Wykes				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
8	General File	Comment (doc) ECCC cover letter Recommendation		
1	Part G: Spill Contingency Planning (3):	Comment According to INAC's Spill Contingency Guidelines, the guidelines do not absolve the licensee from ensuring compliance with all applicable federal legislations such as E2 regulations. This is important to note because the proponent requested that the Project site remain regulated according to E2 regulations once the mine is considered a closed mine. Recommendation The Proponent should ensure that the information requirements relating to the E2 plan under the E2 regulations are considered in the contingency plan.	Apr 16: The GMRP acknowledges this recommendation and agrees.	Noted. No impacts on Licence or Permit conditions.
2	Schedule 5: Spill Contingency Plan Part G (Condition 1(b)):	Comment INAC's Spill Contingency Guidelines are similar to E2 requirements. However, the Proponent should still ensure that all requirements listed in E2 regulations are covered in the contingency plan. This is important to note because the Proponent requested that the Project site remain regulated according to E2	Apr 16: The GMRP acknowledges this recommendation and agrees.	Noted. No impacts on Licence or Permit conditions.

		regulations once the mine is considered a closed mine. Recommendation The Proponent should ensure that the information requirements relating to the E2 plan under the E2 regulations are considered in the contingency plan.		
3	Part H. Aquatic Effects Monitoring Item 6. Plume Delineation Study Design	Comment This licence condition recommends development of a plume delineation study design in accordance with the MVLWB/GNWT Guidelines for Effluent Mixing Zones. These guidelines provide an overarching approach to plume delineation, but do not provide specifics. ECCC notes that more detailed guidance is available at https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/conduct-effluent-plume-delineation.html The plume study design will be submitted for approval, and the expectation would be that a detailed monitoring program would be outlined that follows best technical guidance, such as the detailed guidance provided in the ECCC document. Recommendation ECCC recommends that the licence condition be expanded to include the statement "in accordance with current best practices, the MVLWB/GNWT Guidelines'	Apr 16: The GMRP does not support the recommendation. The plume study will follow the guidance from the MVLWB, which is appropriate given the jurisdiction and in line with the May 2019 MVLWB draft standard conditions.	Board staff believe that the suggested wording is ambiguous for inclusion in the Water Licence and agree with GMRP that the reference to the Board guidelines is sufficient.
4	Schedule 4, Condition 8 b) Tailings Management and Monitoring Plan Item b)	Comment It is not clear whether the noted condition refers to the pre-remediation conditions, or is instead intended to be post-closure, or perhaps both.	Apr 16: As stated in section 1.2 of the submitted Tailings Management and Monitoring Plan, the TMMP is written to	These are meant to be descriptions of existing conditions and the plans for the covers in the Foreshore during active Closure (included in

	Information regarding the management of the Foreshore Tailings: ii) A description of the Foreshore Tailings cover;	Recommendation ECCC recommends that the licence condition specify whether this requirement is to be met pre-remediation, or post-remediation of the Foreshore Tailings, or both.	reflect the approach to management and monitoring following closure of the TCAs (i.e., during the adaptive management and post-closure phases). Therefore the GMRP recommends this apply following the completion of closure activities during the post-closure phase.	Section 2 of the TMMP) and Adaptive Management Plans can be addressed in Section 3 and 4. There is currently no description of the Foreshore Tailings in the TMMP.
5	Annex A: Surveillance Network Program Part A - Surveillance Network Program Description and Monitoring Requirements Part F. Item 33:	Comment ECCC notes that the Surveillance Network Program tables for the referenced SNP Stations do not include a requirement(s) for toxicity testing. ECCC recommends that such a requirement be specified in the SNP Program. Recommendation ECCC recommends that toxicity testing be specified for SNP Stations 43-26a, 43-26b, 43-26c, 43-34, 43-35, 43-36, 43-37, 43-38, 43-39, 43-40, 43-41, 43-42, 43-43, and 43-44, when flows permit.	Apr 16: The toxicity testing for these stations will be a one-time test and therefore should not be specified in the Water Licence. The GMRP has committed to detailing the toxicity testing requirements in the Water Management and Monitoring Plan and this is reflected in Schedule 4, Condition 2 (a) iv.(e) ii.	Board staff agree with GMRP that the toxicity test requirements will be outlined in the Water Management and Monitoring Plan and it is not necessary to include in condition 33.
6	Condition 26(1)(m) Fuel Storage (73):	Comment INAC's Spill Contingency Guidelines are similar to E2 requirements. However, the Proponent should still ensure that all requirements listed in E2 regulations are covered in the contingency plan. This is important to note because the Proponent requested that the Project site remain regulated according to E2 regulations once the mine is considered a closed mine. Recommendation The Proponent should ensure that the information requirements relating to the E2 plan under the E2	Apr 16: The GMRP acknowledges this recommendation and agrees.	Noted. No impacts on Licence or Permit conditions.

		regulations are considered in the contingency plan.		
7	Condition 26(1)(m) Fuel Storage (74):	<p>Comment According to INAC's Spill Contingency Guidelines, the guidelines do not absolve the licensee from ensuring compliance with all applicable federal legislations such as E2 regulations. This is important to note because the Proponent requested that the Project site remain regulated according to E2 regulations once the mine is considered a closed mine.</p> <p>Recommendation The Proponent should ensure that the information requirements relating to the E2 plan under the E2 regulations are considered in the contingency plan.</p>	Apr 16: The GMRP acknowledges this recommendation and agrees.	Noted. No impacts on Licence or Permit conditions.

Fisheries and Oceans Canada: Tatiana Leclerc-Beaulieu

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Cover Letter	<p>Comment (doc) Please refer to the attached cover letter.</p> <p>Recommendation n/a</p>	Apr 16: No response required	
2	General : Impacts to Fish and Fish Habitat	<p>Comment (doc) Impacts to fish and fish habitat can occur during remediation activities through loss of riparian habitat during site clearing, erosion and sedimentation, release of drilling fluids and cuttings into aquatic environments, disturbance to fish and fish habitat during sensitive life stages, and water withdrawals, particularly during low water periods, associated with drilling, surface stripping and camp operations. Direct fish mortality can occur as a result of the use of explosives in or near water and during pumping activities either</p>	Apr 16: The GMRP acknowledges this recommendation and agrees.	Commitments to recommendations should be reflected in appropriate site-wide management and monitoring plans (blasting in the Borrow and Explosives Management and Monitoring Plan and water use in the Water Management and Monitoring Plan)

		<p>through dewatering or entrainment/impingement.</p> <p>Recommendation In order to comply with the Fisheries Act, it is recommended that the Proponent follow DFO's protective measures for fish and fish habitat and standard codes of practice which can be found on DFO's website (https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html and https://www.dfo-mpo.gc.ca/pnw-ppe/practice-pratique-eng.html). In addition, the Proponent should follow the DFO Protocol for Winter Water Withdrawal in the NWT and respect the NWT in-water works restricted activity timing windows (https://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/nwt-eng.html). It remains the proponent's responsibility to meet the other requirements of federal, territorial and municipal agencies. Should the plans change or if the Proponent omitted some information in the proposal such that the proposal meets the criteria for a site specific review, as described on DFO's website (https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-003-eng.html), they should complete and submit the request for review form available on the website (<a 111="" 702="" 936="" 953"="" data-label="Page-Footer" href="https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-</p> </td><td></td><td></td></tr> </table> </div> <div data-bbox="> <p>MV2019X0007 and MV2007L8-0031 – CIRNAC-GMRP – Giant Mine Remediation Project</p> </p>
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		demande-d-examen-004-eng.html).		
3	Part C: Condition 1 (water withdrawal)	Comment Impacts to fish or fish habitat can occur during pumping activities through dewatering. However, please note that DFO's current Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut (2010) does not apply for Great Slave Lake. Recommendation DFO has no recommendations at this time.	Apr 16: No response required	Noted.
4	Part C: Condition 5 (intake screens)	Comment Direct fish mortality can occur during pumping activities through entrainment/impingement. Entrainment occurs when a fish is drawn into a water intake and cannot escape. Impingement occurs when a fish is held in contact with the intake screen and is unable to free itself. DFO developed a code of practice to provide national guidance on the design, installation and maintenance of small end-of-pipe water intake fish screens to prevent entrainment and impingement of fish. This code of practice is for small-scale water intakes (e.g. irrigation, construction, municipal and private water supplies, mining exploration) where the water intake flow rate is up to 0.150 m ³ /s, or 150 litres per second (L/s). Recommendation The Proponent should refer to DFO's Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater (available at	Apr 16: The GMRP acknowledges this recommendation and agrees.	Noted.

		https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html) when using fish screens, if water intake flow rate is up to 0.150 m ³ /s, or 150 litres per second (L/s).		
5	Part C: Conditions 4 & 6 (Water source/Watercourse)	<p>Comment In Part C: Condition 1, Yellowknife Bay in the only approved Water source. However, Part C: Conditions 4 & 6 used the wording "Water source" and "Watercourse" instead of Yellowknife Bay.</p> <p>Recommendation DFO recommends Part C: Conditions 4 & 6 wording to be consistent with each other, or with Part C: Condition 1 (e.g., "Watercourse" in Part C: Condition 6 should be changed to "Water source"; or "Water source" and "Watercourse" from both Conditions, should be changed to "Yellowknife Bay")</p>	Apr 16: The GMRP would support either recommendation.	Condition 4 refers to Water sources in a less specific way because the Project may be able to use water from its Settling Pond if it meets the appropriate EQCs. Condition 1 limits the use of fresh water from Yellowknife Bay. Watercourse has been changed to Waters in Condition 7. This Condition reflects a general rule for all fish-bearing water bodies but, in accordance with Condition 1, the Proponent is limited to obtaining fresh water from Yellowknife Bay.
6	Part C: Condition 6 (water intake location)	<p>Comment DFO understands the Inspector will be a CIRNAC employee. We would like to note that construction of the Intake in Yellowknife Bay may require a Letter or Advice or a Fisheries Act Authorization from DFO. DFO would like clarification whether we will be engaged prior to this inspection, or if the Inspection will occur prior to DFO's review process. Note that under this condition, DFO will not be able to provide a Fisheries Act Authorization (if required) prior to the inspection.</p> <p>Recommendation DFO would like clarification</p>	Apr 16: The GMRP understands that the freshwater intake may require a fisheries authorization and this would be required well in advance of installation and inspections. The GMRP recommends that DFO and MVLWB align their requirements and communicate these clearly to the GMRP.	This should be a conversation between the Inspector and DFO. If GMRP understands, perhaps it should be included in the Engagement Plan, Water Management and Monitoring Plan, or Annual Water Licence Report.

		regarding our implication prior to or during the Inspection.		
7	Part E: Conditions 10 and 11 (Design and Construction Plans)	<p>Comment Please note that the in-water construction of some Engineered Components (e.g., Baker Creek, Foreshore Tailings) may harm fish or fish habitat and the Proponent may need a Letter of Advice or Fisheries Act Authorization from DFO. The Fisheries Act Authorization cannot be provided if the Design Plans have not been approved. Construction of works that may impact fish or fish habitat will need to be reviewed to assess whether a Fisheries Act authorization is required. The Fisheries Act Authorization process can take up to a 150 days, and can be paused if additional engagement is required.</p> <p>Recommendation DFO has no recommendations at this time.</p>	Apr 16: No response required	Board staff note that as per Part B, Condition 10 in the Draft Water Licence GMRP could propose changes at any time by submitting revised plans to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. According to this condition an approved Design Plan could be updated if necessary due to engagement related to a Fisheries Act authorization.
8	Part F: Condition 23	<p>Comment The volumes of effluent discharged into Baker Creek during summer and early fall allow for the maintenance of fish habitat during times where the stream would naturally be dry. The transition of effluent discharge into Yellowknife Bay may reduce, or even stop flow in some reaches of Baker Creek. This transition should be made in a way that fish will not be stranded in Baker Creek (e.g., not in summer/fall when discharge into Baker Creek would have continued).</p> <p>Recommendation DFO asks the Proponent to consider implementing the transition</p>	Apr 16: The GMRP proposes to commission the new WTP in late fall to late winter to avoid the spawning and outmigration windows. The GMRP assumes fish salvage in Baker Creek may be required prior to remediation of various reaches and that will be discussed with DFO through the fisheries authorization process. No revisions to the MVLWB draft Water Licence are required.	Noted. Precise timing and associated mitigations should be provided in the WTP Design Plan(s).

		of effluent discharge into Yellowknife Bay (instead of Baker Creek) in a way that fish will not be stranded in Baker Creek (e.g., not in summer/fall).		
9	Schedule 1, Condition 2 (f)	<p>Comment It is unclear if the Board is requesting the Proponent to clarify DFO's engagement during the Fisheries Act Authorization process, or engagement with DFO during the Aquatic Engagement Group, prior to entering the Fisheries Act Authorization process, or both.</p> <p>Recommendation DFO recommends the Board to clarify whether it is requiring the Proponent to provide clarification on DFO's engagement during the Fisheries Act Authorization process, or engagement with DFO during the Aquatic Engagement Group, prior to entering the Fisheries Act Authorization process, or both.</p>	Apr 16: The GMRP supports the request for clarification.	This should include any and all engagement GMRP is part of to support the development of its Fisheries Authorization(s).
10	Schedule 4, Condition 9 (h)iii (Use of Explosives - best practices)	<p>Comment (doc) The use of explosives in aquatic environments can cause harm to fish by rupturing the swim bladder and/or damaging other internal organs, and damaging incubating eggs. It could also result in physical and/or chemical alterations to fish habitat.</p> <p>Recommendation If explosives are used in or near water, the Proponent should follow the Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (Wright and Hopky, 1998) The Proponent should use a blasting threshold limit of 50</p>	Apr 16: The GMRP acknowledges this recommendation and appreciates the reference to the 2005 paper.	Commitments to recommendations should be reflected in appropriate site-wide management and monitoring plans (blasting in the Borrow and Explosives Management and Monitoring Plan).

		kPa for instantaneous pressure change in order to appropriately mitigate effects of blasting on fish as recommended in Cott and Hanna (2005)* *Cott P and Hanna B. 2005. Monitoring Explosive-based Winter Seismic Exploration in Waterbodies, NWT 2000-2002. Pages 473-490. In: Proceedings of the Offshore Oil and Gas Environmental Effects Monitoring Workshop: Approaches and Technologies. Battelle Press. Columbus. 601 p + index.		
Giant Mine Oversight Board: GMOB Giant Mine Oversight Board				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General Comment	Comment In some instances, GMOB identifies support for a specific clause or requirement. This approach is taken for clauses or requirements with linkages to recommendations made by GMOB through the licencing process, and does not indicate a general lack of support for clauses or requirements that are not specifically singled out. Recommendation No specific recommendation.	Apr 16: No response required.	N/A
2	General Comment: QRA	Comment We note there are a number of requirements in the Schedules, including those related to the Annual Report, Engagement Plan, Closure and Reclamation Plan, Design Plans and selected Site Wide Management and Monitoring Plans that refer to the Quantitative Risk Assessment and require incorporation of the QRA results. GMOB supports these requirements.	Apr 16: The GMRP has proposed edits to when the QRA is incorporated, please refer to GMRP comments on the specific schedules.	Noted. Any changes or responses can be found with associated GMRP comments.

		Recommendation No specific recommendation.		
3	Definitions: Active Remediation and Adaptive Management; Existing Condition	<p>Comment The MVLWB has provided definitions to describe the first two phases of remediation at the Giant Mine. Phase 2 is defined as "when Construction commences on the first Engineered Component(s). The Active Remediation and Adaptive Management phase lasts until all Closure Activities are complete". The MVLWB should also clearly identify the point at which all Closure Activities are complete. This could be tied to submission of the Final Closure and Reclamation Report.</p> <p>Recommendation GMOB recommends the MVLWB identify the point when they will consider Closure Activities complete.</p>	Apr 16: The GMRP supports this recommendation. The GMRP would define Closure Activities to be completed upon submission of the Final Closure and Reclamation Report.	This is provided for in the updated definition of Phase 2. The Final Closure and Reclamation Report will bring all the Reclamation Completion Reports together in one final report that should demonstrate how the whole site has been successfully remediated (under Phase 2). This report will signal the end of 'active remediation'.
4	Part D, Clause 4: Post-Closure Monitoring and Maintenance Plan	<p>Comment This clause requires submission of a Table of Contents or Draft Schedule for the Post-Closure Monitoring and Maintenance Plan within one-year of completing all Design Plans. GMOB understands that, per the current schedule, this will occur in approximately 2024. GMOB supports this timing.</p> <p>Recommendation No specific recommendation.</p>	Apr 16: No response required.	Noted.
5	Part E, Clause 14:	<p>Comment This clause reads: "Once approved, the management and monitoring details submitted in the Design Plans or Construction Plans are to be incorporated." The "or" statement should likely be an "and" statement.</p> <p>Recommendation GMOB recommends the Board</p>	Apr 16: Please see the GMRP comments on this clause of the draft licence. The monitoring in Design Plans is generally for the post-closure of a Project Component, not site-wide and as such is more relevant to the Post-Closure	According to comments made during this review, Board staff have removed the reference to Construction Plans from this condition. Board staff note that Board staff recommend that the Construction Plans not be for Board approval.

		review this clause and update as appropriate.	Monitoring and Maintenance Plans. The GMRP recommends the following revision to Part E, Item 14: "Once approved, the management and monitoring details submitted in the Design Plans are to be incorporated into the applicable existing Site-Wide Management and Monitoring Plans or the Post-Closure Monitoring and Maintenance Plan, where appropriate and relevant. Updated Plans are to be submitted to the Board." The GMRP does not agree with updating the Closure and Reclamation Plan with monitoring details provided in either Design Plans or Construction Plans.	
6	Part E, Clause 11 and 14: Construction Plans and Board Approval	Comment The Construction Plans are not for Board approval. However, Clause 14 requires that any updates to management and monitoring details from the Construction Plan be incorporated into the Site Wide Management and Monitoring Plans and the Closure and Reclamation Plan. This may result in updates being made to the Site Wide Management and Monitoring Plans and the Closure and Reclamation Plan without Board approval. This requirement is analogous to Clauses D.5 and D.8. Clause D.5 requires submission of a Closure and Reclamation Completion Report (not for approval) but requires that	Apr 16: The GMRP has recommended changes to the draft Water Licence that render this comment moot.	o change required. Board staff note that GMRP has indicated that the Site-Wide Management and Monitoring Plans will outline monitoring practices relevant to the Construction Plans. Board staff also note the REVISIONS condition in Part B ensures that any revisions to plans are approved by the Board.

		<p>any changes to monitoring contained within this report require Board approval. The approved updates to monitoring are then incorporated into the Site Wide Monitoring and Management Plans and the CRP per Clause D.8. Clause E.11 should be amended to require Board approval for any updates to monitoring described in the Construction Plan before these updates are incorporated into the Site Wide Monitoring and Management Plans or the Closure and Reclamation Plan.</p> <p>Recommendation GMOB recommends the Board review Clauses E.11 and E.14 and update as required.</p>		
7	<p>Part F, Clauses 13 and 15: Submission of a Borrow Materials and Explosives Management and Monitoring Plan and an Arsenic Trioxide Frozen Shell Management and Monitoring Plan.</p>	<p>Comment These clauses require submission of the Borrow Materials and Explosives and an Arsenic Trioxide Frozen Shell Management and Monitoring Plan 120 days before commencement of Phase 2. This is longer than the 90 days required for the remainder of the Management and Monitoring Plans. GMOB supports the earlier submission dates for these two plans as it will facilitate a longer review period.</p> <p>Recommendation No specific recommendation.</p>	<p>Apr 16: The GMRP does not support the requirement that these plans be submitted 120 days prior to commencement. Please see the GMRP comments on the MVLWB Draft Water Licence. Part F, Clause 13 and 15.</p>	<p>Board staff note that the Board will make a decision regarding the re-submission timing requirement for the Borrow Materials and Explosives Management and Monitoring Plan.</p>
8	<p>Part G, Clause 4: Spill Notification</p>	<p>Comment This Clause outlines the notifications that are required in the event of a spill. GMOB notes that, per the Environmental Agreement, GMOB is also to be provided "without unreasonable delay" with a</p>	<p>Apr 16: The GMRP supports this recommendation. The requirement to notify GMOB is in the Environmental Agreement. No change to the MVLWB Draft</p>	<p>Board staff agree; this suggestion is in line with that recommended to the City in response to its desire to be notified. These agreements should be reflected in the Plan and</p>

		<p>report of any spill, accident or significant malfunction. GMOB does not feel that this requirement needs to be reflected as a Water Licence condition, but it should be reflected in the updated Spill Contingency Plan.</p> <p>Recommendation GMOB recommends that the requirement to notify GMRP in the event of a spill event should be reflected in the updated Spill Contingency Plan.</p>	Water Licence is required.	not through Licence conditions.
9	Schedule 1, Condition 13 e): Engagement Plan activities - Annual Report	<p>Comment Reporting requirements related to the Engagement Plan include providing a description of engagement planned for the forthcoming year associated with activities external to the Water Licence such as the The Human Health and Ecological Risk Assessment; Health Effects Monitoring Program; Stress Study; Socio-Economic Strategy; Perpetual Care Plan; Long-Term Funding Plan; and Quantitative Risk Assessment. These are important initiatives for the effective overall management of the Project, and GMRP supports including information on these activities in a centralized location such as the Water Licence Annual Report.</p> <p>Recommendation No specific recommendation.</p>	<p>Apr 16: The GMRP agrees to providing a report on engagement activities in the Annual Water Licence Report but disagrees with the Water Licence stipulating engagement on initiatives for which the GMRP does not plan on continuing to engage upon i.e. HHERA and QRA. The GMRP does not support a requirement to report on a "Long-Term Funding Plan" as there is no requirement or intent to develop such a plan. This will make the Annual Report more cumbersome and unnecessarily so.</p>	Any edits made by Board staff to the associated schedule based on GMRP comments will be addressed in response to GMRP's direct comments.
10	Schedule 1, Condition 13 d): Electronic SNP Data	<p>Comment SNP data is to be provided to the MVLWB in an electronic format such as Excel. Making raw monitoring data publicly available will be useful in the event that reviewers need to conduct an</p>	<p>Apr 16: The GMRP acknowledges this comment and agrees.</p>	N/A

		independent review of results. GMOB supports this requirement. Recommendation No specific recommendation.		
11	Schedule 2, Condition 2 b) Closure and Reclamation Reports - field decisions and deviation from approved final designs.	Comment This clause requires the proponent to document field decisions that resulted in deviation from the approved final design and any other data used to support these decisions, as applicable. GMOB agrees that there should be some flexibility to modify designs in the field. Since the final designs are approved by the Board, data provided to support the field modifications should include confirmation that the modified design will, at minimum, achieve the same performance as the original approved design. Recommendation GMOB recommends that the rationale provided to support field modifications should be include confirmation that the modifications will, at minimum, achieve the performance of the original design.	Apr 16: The GMRP would accept the following change to Schedule 2, Condition 2 b) "Documentation of field decisions that resulted in deviation from the approved final design and any other data used to support these decisions, including confirmation that the design intent has been met, as applicable".	See response to Board staff analysis GMRP comment ID-137 for a discussion of updates made to this schedule item.
12	Schedule 3, Condition 1 c): Design Plan - engagement activities.	Comment GMOB notes that this clause includes providing a description of the Independent Peer Review Panel's opinion regarding the closure approach. GMOB believes this requirement will assist review of the Design Plan by parties and supports this requirement. Recommendation No specific recommendation.	Apr 16: The GMRP disagrees with Schedule 3. Condition 1 c) and has provided a rationale for removal in the GMRP's comments on the MVLWB Draft Water Licence.	Board Staff analysis found under GMRP comments.
13	Schedule 3, Condition 2, 8a):	Comment The wording in this clause is confusing "...extent of differential settling of the Tailings cover that would	Apr 16: The GMRP has recommended improved wording in GMRP's response to the	Yes - this was a typo. Board staff have updated the Draft Water Licence accordingly.

		necessitate the liner to the degree...". Should the clause read "...extent of differential settling of the Tailings cover that would affect the liner to the degree..."? Recommendation GMOB recommends the MVLWB review the wording of this clause prior to finalizing the licence.	MVLWB's draft Water Licence.	
14	Schedule 3, Condition 3 b): Construction Plans - engagement and the construction schedule.	Comment GMOB supports the requirement to include a description of any engagement activities undertaken to inform the Construction schedule. Recommendation No specific recommendation.	Apr 16: No response is required.	Noted.
15	Schedule 4, Condition 1 3): Waste Management and Monitoring Plan	Comment GMOB supports the requirement to update the Waste Management and Monitoring Plan to reflect the commitment to document the type, quantity, location, and placement of arsenic-impacted materials in Chamber 15 or B1 pit. However, GMOB continues to maintain that the Waste Management and Monitoring Plan should include an analysis regarding the removal of placed materials. This opinion is described more fully in GMOB's closing arguments. Recommendation GMOB recommends that an analysis regarding how removal of placed materials will be achieved should be conducted should be required under the Waste Management and Monitoring Plan. The actual analysis should be included within the Reclamation Completion Report for this activity.	Apr 16: The GMRP does not support this recommendation. Removal of the material is not within the scope of activities for which the GMRP is requesting a Water Licence.	Board staff note that a Board decision is required.

16	Schedule 4, Condition 2 v: Constructed Wetlands	<p>Comment This section describes requirements for reporting on the design and operation of constructed wetlands. While not mentioned explicitly, the potential need for and frequency of dredging and the expected quality and disposal location for any dredged sediments should be included with the long term maintenance information.</p> <p>Recommendation GMOB recommends that the frequency of dredging and quality and disposal locations of any dredged sediments be discussed as part of the long term maintenance for constructed wetlands.</p>	<p>Apr 16: The GMRP submits that these are maintenance details and would be included as part of the Design Plan and therefore no specific item is required. The GMRP has recommended that the section related to potential wetlands be removed from Schedule 4, Condition 2.</p>	<p>Board staff have moved the requirements for the constructed wetlands to the Board Directives for the Design Plans for Constructed wetlands. Board staff have included the following wording in response to GMOB's comment: "A description of the process and facilities intended for the purposes of maintaining the constructed wetlands in the long-term, including the frequency of dredging, and the quality and disposal location of any dredged sediment".</p>
17	Schedule 4, Condition 8 a ii) Tailings Management and Monitoring Plan - typo	<p>Comment Typo - Tailings Contaminant Areas should read Tailings Containment Areas.</p> <p>Recommendation Review and update prior to finalizing the licence.</p>	<p>Apr 16: The GMRP agrees with the edit.</p>	<p>Board staff have updated the Draft Water Licence accordingly.</p>
18	Schedule 4, Condition 8 e i): Typo	<p>Comment .and rationale for monioring for of the Foreshore. should be .and rational for monitoring of the Foreshore...</p> <p>Recommendation Review and update prior to finalizing the licence.</p>	<p>Apr 16: The GMRP agrees with the edit to "monitoring".</p>	<p>Board staff have updated the Draft Water Licence accordingly.</p>
19	Schedule 4, Condition 9 c) Communication of material volume.	<p>Comment This clause recommends developing visuals to illustrate the impact of borrow on the final landscape and methods of communicating material volume more effectively for engagemnet sessions. GMOB supports efforts to enhance communication and understanding around the potential impacts of remediation activities.</p>	<p>Apr 16: This requirement is not appropriate for the management plan. The engagement on borrow sources and volumes is complete. As committed to in the Water Licence process, the GMRP provided excellent visuals at the engagement session. The GMRP has committed to engaging</p>	<p>Board staff have edited the requirement to refer only to providing a visual in the borrow Materials and Explosives Management and Monitoring Plan.</p>

		Recommendation No specific recommendation.	on possible re-vegetation initiatives that could impact the final site appearance. The results of this engagement will be presented in the Design Plan. The GMRP recommends that Schedule 4, Condition 9 c) be removed.	
20	Schedule 4, Condition 9 h) Explosives Best Management Practices.	Comment in the Oct 10, 2019 IR responses, the GMRP Team provided an assessment of the achievability of predicted nitrate and total ammonia concentrations. This analysis showed that the GMRP would need to maintain low wastage rates and powder factors to ensure that nitrate and ammonia concentrations remained low; the GMRP response indicated that details would be provided in the Borrow and Explosives Management and Monitoring Plan. These considerations are not explicitly in the list of requirements detailed in h iii), but could be included under the category of "other applicable best management practices", of "minimization of nitrogen residues". Recommendation GMRP recommends that best practices relating to maintaining low wastage rates and powder factors be included within the Borrow and Explosives Management and Monitoring Plan.	Apr 16: The Borrow and Explosives MMP will contain a discussion on the selection of explosive product, reducing wastage rates (reducing explosives coming inadvertently into contact with surface water) and powder factor. As part of the mitigation measures for controlling ammonium nitrate loading in water, the Borrow and Explosive MMP will discuss mitigation measures such as adjusting the powder factor.	Board staff have added a requirement to the best management practices section of the Borrow Materials and Explosives Management and Monitoring Plan for "Maintaining low wastage rates and powder factors".
21	Schedule 4, Condition 9 i) Typo	Comment This clause reads: "Giant Mine Remediation Project Closure and Reclamation Plan or Design Plan or applicable Design Plan(s);". The double	Apr 16: The GMRP agrees and suggests Schedule 4, Condition 9 (i)(i) read "Description of methods of Reclamation for coarse	Board staff have edited the clause as appropriate, and moved the requirement to the Board Directive for the Borrow/Quarry Sources Design Plan.

		reference to Design Plans does not seem correct and should be reviewed. Recommendation Review the requirement and update, if required, prior to finalizing the licence.	and fine borrow sources including linkages to the Giant Mine Remediation Project Closure and Reclamation Plan or applicable Design Plan(s); and"	
22	SNP 43-1 and 43-1a	Comment Acute toxicity testing is required 10 days before commencing discharge from the Polishing Pond (43-1) and 7 days before commencing discharge from the WTP (43-1a). GMOB is uncertain why there would be two different time requirements. Given that it takes some time to complete the acute toxicity tests, the longer (10 day) time frame may be appropriate for both locations. Recommendation GMOB recommends the sample timing is reviewed and updated for consistency, as appropriate.	Apr 16: The GMRP supports this recommendation for the 10 day time frame for both SNP 43-1 and SNP 43-1A	Board staff have updated the Draft Water Licence accordingly.
23	SNP 43-1 and 43-1a	Comment For 43-1 sublethal toxicity testing is required for P. subcapitata, L. minor, C. dubia and P. promelas; for 43-1a sublethal toxicity testing is required for P. subcapitata, L. minor, C. dubia or P. promelas. GMOB is not certain why the requirements would be different, and expects that the "and" operator would be appropriate. Recommendation GMOB recommends the sublethal toxicity testing requirements be reviewed and updated as appropriate.	Apr 16: The GMRP proposed this deliberately to align with the requirements of the MDMER, which allows for a reduction to testing only the most sensitive species after 3 years of monitoring. This applies to a continuous discharge at the WTP, rather than a seasonal discharge for the ETP.	Board staff agree with GMOB and have updated the Draft Water Licence accordingly.
24	SNP 43-5 and 43-11: Radium	Comment Analytical requirements at SNP 43-11 in Baker Creek upstream of SNP	Apr 16: The GMRP proposed Ra-226 monitoring to align with	Board staff agree with GMRP. Ra-226 is included

	226 during discharge.	<p>43-1 includes Radium-226 analysis during discharge. Radium-226 is not required at SNP 43-5 at any time. In order to conduct the analysis on Radium-226 concentrations in Baker Creek (i.e. upstream, in effluent and then downstream to identify effects of effluent) the Board should consider whether Radium-226 should be included for analysis at 43-5 during discharge. Note, GMOB has previously provided an opinion to the Board regarding the necessity of including Radium-226 analysis in the water licence.</p> <p>Recommendation GMOB recommends the Board review the locations where Radium-226 analysis is required.</p>	<p>requirements under the MDMER, which requires Ra-226 to be monitored in the effluent (SNP 43-1), at an upstream location (SNP 43-11) and at an exposure location (Baker Creek Exposure Point). These stations will be used to complete the upstream/downstream comparison; therefore Ra-226 is not required at SNP 43-5.</p>	<p>in monitoring parameters at SNP 43-11 and 43-1.</p>
25	SNP 43-34 to 43-44: Contact Water sampling frequency.	<p>Comment The SNP includes these stations as future contact water monitoring stations. The sampling frequency is identified as being "weekly during freshet". GMOB agrees that this will be an important time to collect samples at these locations. However, GMOB notes that recent research has suggested an increase in Autumn rainfall in the North Slave region (NWT Environmental Research Bulletin, 2016 Volume 1, Issue 7: Changing hydrology in Baker Creek). This might mean that runoff will be generated from these contact water locations in the fall as well as the spring. The Water Licence should not limit sampling to only the</p>	<p>Apr 16: The GMRP does not support the revisions GMOB proposed to this condition. Fall sampling is logistically challenging to meet appropriate sampling procedures and volumes. The GMRP has attempted to mobilize and sample in previous fall precipitation events without success.</p>	<p>Board staff note that reviewers may provide further comment on SNP locations Design Plans are submitted for Board approval.</p>

		spring freshet, and should include wording to include contact water sampling during the fall as well. Recommendation GMOB recommends the sampling frequency for contact water stations be altered to include collecting samples during the fall if run-off is present.		
INAC - NWT Inspectors: Tim Morton				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Draft Land Use Permit - Scope	Comment The Inspector wants to ensure that the Permittee has considered and included all activities that can reasonably be expected. This statement is only being made to help avoid future regulatory issues and the potential for future out of scope work. Recommendation The Permittee should ensure that all work is included in the application and the scope.	Apr 16: Please refer to GMRP comments for this condition on the draft Land Use Permit.	The scope of the authorizations is intended to cover all activities applied for and screened.
2	Draft Land Use Permit - Condition #2	Comment The Inspector recommends putting a time frame of at least 48 hours prior to the commencement of drilling. This condition as worded could conceivably allow the Permittee to submit the locations and map immediately before the activity commences. Recommendation Add the wording "at least 48 hours prior to the commencement of drilling"; to the condition.	Apr 16: The GMRP has no concerns with the suggested revision.	Board staff have updated the Draft Permit to include the requirement for a minimum of 48-hour notification in the condition to add clarity.
3	Draft Land Use Permit - Condition #8	Comment Please ensure that the 10 meter right-of-way is sufficient as there will be multiple heavy haul trucks moving material and other equipment around site and there would be a potential	Apr 16: The GMRP has made a recommendation on the width of right of ways. Please refer to GMRP comments on	See Board Staff Analysis to GMRP comment ID: 17.

		for safety concerns. This consideration will help avoid future modification requests. Recommendation Reconsider the proposed maximum right-of-way as outlined in the condition.	MVLWB Draft Land Use Permit.	
4	Draft Land Use Permit - Condition #76	Comment The Inspector recommends that personal vehicles be exempt from this condition as this would be unreasonable for the Permittee to comply with. The Inspector understands that discretion that can be used however the land use permit should reflect this exemption to firm up the enforceability of the permit. Recommendation Reword this condition to reflect the above request.	Apr 16: The GMRP supports this recommendation and made a similar recommendation for this condition. Please refer to GMRP comments on MVLWB Draft Land Use Permit.	Exemption of personal vehicles for employees, visitors or contactors can be made explicit in the associated Reasons for Decision document.
5	Draft Water License - Scope	Comment Similar to the comment on the scope of the land use permit, the Inspector recommends strongly that the Licensee ensures that all of the proposed activities are included in the scope of the license. Recommendation Review the scope so future amendments are not required.	Apr 16: Please refer to GMRP comments for this condition on the draft Water Licence.	The scope of the authorizations is intended to cover all activities applied for and screened.
6	Draft Water License - Part C: Condition #2	Comment The Inspector requires that the Licensee send the water sampling results to the inspector for approval prior to the use of the wastewater for dust suppression. Recommendation Reword the condition to include the above request.	Apr 16: The GMRP has recommended revised wording for Part C, Condition 2 related to the use of Wastewater for dust suppression. The GMRP supports the Inspector's recommendation insofar as it aligns with the revised wording. The GMRP agrees to send water sampling results for wastewater used as dust	Requirement to provide results of water quality to the Board and Inspector for confirmation included in condition. This wording reflects that found in Part F. The associated Reasons for Decision document clarifies that this confirmation is a form of approval required by the Inspector.

			suppression to the Inspector, except for that used within Tailings Containment Areas or for paste backfill operations (please refer to GMRP comments on the MVLWB Draft Licence).	
7	Draft Water License - Part F: Condition #26 & #27	<p>Comment The Inspector recommends using the criteria listed within the Metal and Diamond Mining Effluent Regulations where applicable for the discharge from SNP 43-1. The total petroleum hydrocarbons should be less than 2 mg/L (non-detectable).</p> <p>Recommendation These criteria would be inline with other legislative and water license criteria in the Northwest Territories.</p>	<p>Apr 16: The GMRP does not support this condition, nor new EQC for TPH. The GMRP has developed site-specific EQC in-line with other licences in the NWT and rationale is provided in the EQC report (Table 5-13).</p>	Board staff note that a Board decision is required to determine EQC in condition 26 and 27.

INAC - Yellowknife: Dinah Elliott

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Water Licence page 60/61 Annex A: Surveillance Network Program	<p>Comment There is a reference to Standard Methods for the Examination of Water and Wastewater; but there is no reference provided.</p> <p>Recommendation It is recommended that a reference to this standard be provided.</p>	<p>Apr 16: The GMRP prefers the draft condition as written, which includes reference to the 'current edition' to ensure the Project is using the most up-to-date methods as procedures evolve and improve over time. Should a reference be included, the GMRP recommends language referring to the 'current edition' remain.</p>	Board staff specified that the document is by the American Public Health Association. Board staff agree with GMRP and indicated 'current at the time of analysis' in the condition.

North Slave Metis Alliance: Jess Hurtubise

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Part B, Item 3 & 4	<p>Comment NSMA supports these items. They ensure rights holders will be</p>	<p>Apr 16: No response required.</p>	N/A

		involved participants throughout the water licence. They also create assurance that accountability is held for source and use of TK. Recommendation No recommendation.		
2	Part C, Item 6	Comment NSMA is concerned about the final location of freshwater intake in Yellowknife Bay for the Water Supply Facilities. We expect to be engaged on this topic. Recommendation NSMA requests engagement on the location of the water intake in Yellowknife Bay for the Water Supply Facilities.	Apr 16: The GMRP has proposed the location of the new freshwater intake in the CRP; it is near the new WTP outfall. The GMRP is pleased to discuss the specifics of the design with the NMSA as part of the Aquatic Engagement process.	Noted.
3	Part D, Item 2 & 3	Comment NSMA supports these items. We support the requirement that the proponent must update the Closure and Reclamation Plan once the Water Licence is issued. An updated copy of the Closure and Reclamation Plan (post-licence issuance and annually) will greatly improve the review process in streamlining location of information. Recommendation No recommendation.	Apr 16: The GMRP has recommended revised wording for these items in order to streamline and improve the review process. Please refer to GMRP comments on the MVLWB Draft Water Licence.	Difference of opinion noted. Board decision required.
4	Part H, Item 6	Comment NSMA supports this item. As stated in our Intervention, NSMA is very concerned about effective monitoring of Yellowknife Bay. We expect sufficient data to be collected (determined through robust statistical design) to detect change in water quality. We look forward to providing input to the Plume Delineation Study Design followed by review of this document.	Apr 16: The GMRP has proposes changes to Part H, item 6 such that the clause will be under the contents of the AEMP Design Plan. The GMRP is pleased to discuss monitoring plans and the plume delineation study through engagement on the AEMP Design Plan.	Noted. See Board staff analysis to GMRP comment ID 112, 114, and 115.

		Recommendation No recommendation.		
5	Schedule 1, Condition 1, Item 3, b)	<p>Comment In order to be comprehensive, this component should include additional committees and working groups relating to the Giant Mine Remediation Project activities.</p> <p>Recommendation The following should be clearly listed to this summary of engagement activities: - Risk Communication - Giant Mine Working Group - Aquatic Advisory Committee - Rights Holders Engagement</p>	<p>Apr 16: The GMRP considers this comment to be in reference to Schedule 1, Condition 1, Item 3 e). The condition as currently worded provides updates on any engagement conducted during the calendar year based on the Engagement Plan. Any reference to specific committees should not form part of the licence as they may change over time. Current and new committees will be reflected in the annual Engagement Plan updates.</p>	Board staff agree with GMRP. Initiatives are identified in Schedule 1, Condition 1, 3), but specific groups are to be identified in the Engagement Plan with will be subject to review and approval.
6	Schedule 1, Condition 2, Item e)	<p>Comment During the 2019 borrow engagement session with the GMRP, NSMA members brought up their desire to discuss selective revegetation initiatives on site, for health of the ecosystem and in erosion prevention. Membership understands that a number of risks arise depending on extent of revegetation, notably safety concerns (uptake of contaminants to vegetation, then consumption by residents) and in preventing dispersal of contamination. However, members do see the advantage of selective revegetation and wish to have a dedicated conversation on this topic. Since the GMRP has identified that revegetation initiatives will be for stabilization and prevention</p>	<p>Apr 16: The GMRP supports this recommendation</p>	Board staff have included a Post-closure site appearance to the list in draft Schedule.

		<p>of erosion in key areas on site (GMRP Response to NSMA Intervention 9 - December 2019), NSMA expects engagement and participation in planning of revegetation initiatives through the water licence, notably as a mitigation method to erosion.</p> <p>Recommendation Include a sixth item: Final appearance of site and possible revegetation initiatives.</p>		
7	Schedule 1, Condition 2, Item g)	<p>Comment NSMA supports this item. NSMA looks forward to the engagement and planning of the Community-Based Monitoring Program.</p> <p>Recommendation No recommendation.</p>	Apr 16: The GMRP acknowledges this comment.	Noted.
8	Schedule 1, Condition 2, Item h)	<p>Comment In order to be comprehensive, this component should include additional committees and working groups relating to the Giant Mine Remediation Project activities.</p> <p>Recommendation The following should be clearly listed to this summary of engagement activities: - Risk Communication - Giant Mine Working Group - Aquatic Advisory Committee - Rights Holders Engagement</p>	Apr 16: The GMRP does not agree that these committees should be listed specifically in the licence as they may change over time. Current and new committees will be reflected in the annual Engagement Plan updates as required by the MVLWB's Engagement Guidelines.	Board staff agree with GMRP. Initiatives identified but specific groups are to be identified in the Engagement Plan and will be subject to review and approval.
9	Schedule 2, Condition 1, Item a)	<p>Comment NSMA supports this item. Updating the climate assumptions to +7.3°C (MAAT), +9.0°C (winter 120yr increase) and +5.5°C (summer increase) represents more precautionary thresholds for climate change assumptions.</p> <p>Recommendation No recommendation.</p>	Apr 16: Please see the GMRP's comments on Schedule 2, Condition 1 a) regarding the length of climate model.	Noted. GMRP edit does not impact the intent of this requirement.

10	Schedule 2, Condition 3, Item b)	<p>Comment As stated in our Closing Arguments, remediation of all offsite contaminated areas may be out of scope of this licence, but NSMA is of the view that monitoring them, especially for land use on and around them, is necessary under this licence. Since the HHERA assumed use of the area as 2 days per week for 10 weeks of the year, we have to also assume that any activities exceeding this exposure could pose a risk. If a component of the GMRP is to evaluate the success of remediation efforts, we believe it possible to do so by monitoring land use activities offsite to ensure the public has understood the risks of these areas. We recommend that the Board include a monitoring program of land use activities offsite, as an evaluation tool for risk communication to the public.</p> <p>Recommendation This item should contain a stipulation to presents results on monitoring land use activities offsite to 1) update human health and safety and 2) determine performance of risk communication efforts.</p>	<p>Apr 16: The GMRP does not agree with this recommendation and is not planning to undertake monitoring of off-site land-use activities. This monitoring is beyond the scope of the GMRP and the application submitted to the MVLWB and would not be appropriate. As stated during the Public Hearing, the GMRP will continue to work with the GNWT to improve risk communication efforts and has recognized it is sensible to work with our partners to align efforts for onsite and off-site where possible.</p>	Board staff note that monitoring offsite is not included in the scope of MV2007L8-0031.
11	Schedule 4, Condition 4, Items a) and b)	<p>Comment NSMA supports this item. NSMA expects to see detailed descriptions of erosion mitigation efforts on site, including where and how the use of re-vegetation will be applied.</p> <p>Recommendation No recommendation.</p>	<p>Apr 16: No response required. The GMRP notes that it has made a recommendation for Schedule 4, Condition 4, Item a) iv in its comments on the MVLWB Draft Licence.</p>	See Board staff analysis to GMRP comment ID: 172.
12	Schedule 4, Condition 9, Item e)	<p>Comment NSMA supports this item. NSMA is please to see the emphasis on multiple criteria for determination of</p>	<p>Apr 16: Please see the GMRP's comments on Schedule 4, Condition 9, Item e).</p>	This item requires GMRP to provide: A rationale supporting the choice in borrow sources including

		source and type of borrow material. Recommendation No recommendation.		aesthetics, health and safety, cultural significance, and environmental considerations including source quantity and quality. GMRP have stated that this information will be provided in the Design Plans for each borrow source. Board staff agree that the specifics of each location can be provided for in the Design Plans, but discussion of the overarching considerations should be included in the Site-Wide Plan.
13	Schedule 4, Condition 10, Item g)	Comment NSMA supports this item. This section addresses NSMA Intervention 6 - concerns over lack of detail on adaptive management timeframes and processes for measurement and modelled temperature difference of the frozen shell. Recommendation No recommendation.	Apr 16: No response required.	Noted.
14	Schedule 6, Condition 1, Item e)	Comment NSMA supports this item. As mentioned above, we expect robust statistical designs in the AEMP and support components of the water licence that will allow for review of the sampling plan. Recommendation No recommendation.	Apr 16: Please see the GMRP's comments on Schedule 6, Condition 1, Item e) iii.	See Board staff analysis to GMRP comment ID: 199.
15	Schedule 6, Condition 1, Item h)	Comment NSMA supports this item. Incorporation of TK in the AEMP will be essential in ensuring traditional practices are kept in the forefront of aquatic wildlife and water protection. Recommendation No recommendation.	Apr 16: No response required.	Noted.

16	Schedule 6, Condition 3	<p>Comment NSMA expects a comprehensive summary report of intervenor recommendations through the AEMP design process.</p> <p>Recommendation The Aquatic Effects Annual Report (referred to in Part H condition 3) should also include: - A review of the recommendations provided by the Aquatics Advisory Committee and identification of those implemented versus not.</p>	<p>Apr 16: The AEMP Annual Report is to report the results of monitoring and would not be the appropriate place to document this kind of information. The GMRP would support an item in Schedule 6, Condition 1 (The AEMP Design Plan) similar to (h) that requires a summary of engagement undertaken on the Design Plan. The GMRP does not support a requirement for a concordance table or a stand-alone report based on engagement completed. The Aquatics Advisory Committee will comprise many parties, who may often provide conflicting points of view or recommendations.</p>	Board staff agree with GMRP that including an item in Schedule 6, Condition 1 about engagement could address NSMA's concern. Board staff have included engagement into the requirement for Schedule 6, Condition 1, h).
17	Schedule 6, Condition 3, item h)	<p>Comment NSMA support this item. Incorporation of TK in the AEMP will be essential in ensuring traditional practices are kept in the forefront of aquatic wildlife and water protection.</p> <p>Recommendation No recommendation.</p>	<p>Apr 16: No response required.</p>	Noted.
18	Schedule 6, Condition 4	<p>Comment NSMA expects a comprehensive summary report of intervenor recommendations through the AEMP design process.</p> <p>Recommendation The Aquatic Effects Re-evaluation report (referred to in Part H) should also include: 1) A summary of themes of priorities and concerns of the AEMP brought forward by</p>	<p>Apr 16: The GMRP agrees that engagement input on the contents of the Re-evaluation Report is important and will be discussed in the Aquatic Engagement process. However, the GMRP does not agree that there should be a Water Licence condition</p>	See Board staff analysis to NSMA comment ID: 16.

		the Aquatics Advisory Committee; 2) Identification of themes most commonly implemented to the AEMP.	specifying this, other than to include a summary of engagement undertaken on the Design Plan (see response to NSMA comment 16). Some parties may provide feedback in multiple ways, not just through this Aquatics Engagement process.	
Slater Environmental Consulting: Bill Slater				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Draft Water Licence, Part D, Clause 4.	Comment The draft clause requires submission of a Table of Content OR a Draft Schedule for the Post-Closure Monitoring and Maintenance Plan. It seems like the submission should include both a Table of Contents AND a schedule for monitoring. Recommendation Revise the clause to require submission of both a Table of Contents and a Draft Schedule.	Apr 16: Please see GMRP comment on Part D, Condition 4.	Board staff have updated the Draft Water Licence according to Slater's review comment.
2	Draft Water Licence, Part E, Clause 7	Comment As worded, the clause provides geochemical constraints for all construction material. It is possible that geochemical criteria could be less restrictive for some materials - e.g., materials used to fill some pits. Does the clause envision that the Borrow Materials and Explosive Management and Monitoring Plan could establish different criteria for different purposes, or is a single criterion envisioned? Recommendation Ensure that the clause provides flexibility to establish	Apr 16: The GMRP acknowledges this recommendation and agrees. The GMRP has proposed a revised condition in its comments on the MVLWB Draft Water Licence which aligns with this recommendation.	The condition refers explicitly to the Borrow and Explosives Management and Monitoring Plan which provides the Project flexibility to define the quality ranges acceptable for various activities.

		different geochemical criteria for construction materials, depending on their proposed use.		
3	Draft Water Licence, Part F, Clause 20	<p>Comment The draft clause requires completion of a Dam Safety Review in accordance with the Dam Safety Guidelines. The Dam Safety Guidelines require periodic Dam Safety Reviews, with the time between reviews dependent on the dam classification. It would be beneficial to clarify that there may be more than one review required.</p> <p>Recommendation Revise the clause to require completion of Dam Safety Reviews (plural) in accordance with the Dam Safety Guidelines.</p>	Apr 16: The GMRP supports this recommendation.	Board staff have updated the Draft Water Licence accordingly.
4	Draft Water Licence, Part F, Clauses 28 and 29	<p>Comment The draft clauses require a period of five days between submission of data that confirms water quality is suitable for discharge, and initiation of discharge - for both the Effluent Treatment Plant and the Water Treatment Plant. If the data confirm that water quality meets the effluent quality criteria and that the effluent is non-toxic, it is unclear what benefit arises from a delay in discharge. The requirement to submit the data should remain, but removal of the 5-day delay would reduce costs associated with periods of treating while recirculating.</p> <p>Recommendation Revise the clauses to require submission of data confirming that water quality is suitable for discharge, but remove the 5-day delay before discharge may begin.</p>	Apr 16: The GMRP supports this recommendation.	Board staff note that this condition was drafted based on the Board's recently approved Standard Water Licence Conditions. The intent of the condition is to confirm that any applicable EQC can be met before the Licensee initiates or resumes Discharge - its a check so the Inspector and Board (and reviewers, because it will be posted on the Public Registry) have the opportunity to review the data as well as the Project team prior to discharge.

5	Draft Water Licence, Part F, Clause 30	<p>Comment The draft clause refers to conditions of clear non-compliance, where water quality does not meet effluent quality criteria or is toxic. As currently worded, the clause appears to suggest some flexibility in responses: ".recirculate, reevaluate, store or cease discharge." Cessation of discharge should not be optional in the case of non-compliance. That should be the first action, using whatever methods are needed. Wording about options should not be included in the licence as discharge of water that does not meet the criteria is simply prohibited.</p> <p>Recommendation The clause should be revised to require notification of the Board and reporting about what actions the proponent is taking.</p>	<p>Apr 16: Recirculation, reevaluation and storing water are all actions that would occur after discharge has ceased. The GMRP would support the wording as provided in the MVLWB's Draft Standard Water Licence conditions.</p>	Board staff agree and have updated the Draft Water Licence. Part F, condition 30 a) is now "Cease the Discharge".
6	Draft Water Licence, Schedule 4, Condition 8	<p>Comment The requirement to describe maintenance and contingency activities (f) does not specifically address the Foreshore Tailings. Because of the dynamic nature of the lakeshore environment, the performance of the Foreshore Tailings area has significant uncertainty.</p> <p>Recommendation The condition should be revised to specifically require description of maintenance and contingency measures (risks, thresholds, responses, etc.) for the Foreshore Tailings.</p>	<p>Apr 16: The GMRP does not consider a revision to the wording necessary as there is Closure Criteria specific to the Foreshore Tailings area and (f) is worded such that the item would apply to the Foreshore Tailings area just as it would to the other TCAs.</p>	The intention is for (f) to apply to all Tailings in the Project area.
Yellowknives Dene First Nation: William Lines				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis

1	Community Benefits Agreement	<p>Comment The GMRP consistently refers to its annual contribution agreement with the YKDFN to address issues of capacity building. This is insufficient. We require a community benefits agreement to properly identify and address specific requirements for capacity building. Our initial review of the draft licence conditions suggests that the planning, delivering, and reporting aspects of the Project will be so complex, that we do not see how the YKDFN will have meaningful participation in the Project in the absence of a benefits agreement.</p> <p>Recommendation The YKDFN requests that the negotiation of a community benefits agreement, based upon recognition of our underlying rights and the ongoing and new impacts to those rights, is a condition of the licence.</p>	<p>Apr 16: CIRNAC has indicated that it is open to discussing what other items could be included in the Contribution Agreement between the YKDFN and CIRNAC. The GMRP does not consider a Water Licence condition appropriate or necessary.</p>	<p>Board staff note that this recommendation cannot be addressed in the WL or LUP.</p>
2	Stress Study Application	<p>Comment We appreciate that, in response to our intervention, the GMRP has taken steps to recommence the Stress Study using a method more acceptable to us. But in our view, all of the value of the Study results lies in their application, not merely in their availability, and we expect the perspectives, conclusions, and outcomes of the study to inform the Board licencing decision. The YKDFN appreciates the manner in which the Board has, in its draft conditions, positioned the results of the Stress Study in terms of communication (Schedule 1,</p>	<p>Apr 16: The GMRP submits that the Stress Study will not result in changes to the Design Plans, please refer to the GMRP comments on Schedule 3, Condition 1 (d) the MVLWB Draft Water Licence. The GMRP has indicated that the Stress Study could result in updates to the site-wide management and monitoring plans and results will be incorporated in the Engagement Plan as appropriate.</p>	<p>It is hard to know how and where these Studies can and will influence the Project. How the results of the Stress Study may influence the Project are required through the Engagement Plan. If it becomes apparent that the results can be used in other ways, it should be discussed at the time with the Project and the Board.</p>

		<p>Condition 1: Annual Water Licence Report; Schedule 1, Condition 2: Board Directives for the Revised Engagement Plan) and in project design (Schedule 3, Condition 1: Design Plans).</p> <p>Recommendation We request that the Board direct the GMRP to commit to using the results of the Stress Study wherever possible and appropriate to identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.</p>		
3	Licence Term	<p>Comment The ramifications of granting the GMRP twenty continuous years of licencing will be felt well beyond this process, and will almost certainly be most deleterious to the concerns and interests of the YKDFN. Given the Projects past track record of action before engagement; we must stress the importance of providing us with a "check in" that only a limited licence would provide.</p> <p>Recommendation The YKDFN believes that the water licence term must be limited to five years. We simply cannot support the precedent that an extended-term licence would set for any future mining projects the Board will assess.</p>	<p>Apr 16: Please see the GMRP's closing argument regarding Water Licence term. The GMRP cannot support this recommendation and maintains that a 20-year term is appropriate. The GMRP is not a mining project. The Water Licence and the Environmental Agreement provide many different opportunities to "check in" on the Project. The resources required to complete a Water Licence process and the uncertainty that a new Water Licence would introduce in the early years of remediation would severely impede the progress of the remediation. Finally, the GMRP disagrees with the characterization that</p>	<p>Board staff note that a Board Decision regarding the Water Licence term is required.</p>

			<p>the Project has a track-record of action before engagement. Since the Environmental Assessment process the GMRP has concentrated considerable effort on improving its engagement with rights and stakeholders as demonstrated through the Engagement Log and Engagement Plan. The GMRP routinely updates the Working Group of activities, designs and studies and frequently asks for input and guidance.</p>	
4	Land Use Permit Conditions - Plan Submission Timelines and Notification	<p>Comment YKDFN appreciates the conditions described in Draft Conditions Annexed to and Forming Part of Land Use Permit # MV2019X0007 related to location (#1 to #8); time (#9 to #11) although we note that there is no requirements around notification to YKDFN; Methods & Techniques (#13 to #33); Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land (#35 to #45); Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material (#46 to #51). We note that the timelines for submission of the various management and monitoring plans leaves little time for proper review of these plans. The YKDFN fears that, in the absence of a significant benefits agreement, this is a recipe for a process that will not meaningfully include us.</p> <p>Recommendation The YKDFN</p>	<p>Apr 16: Design Plans will be submitted to the Board as the remediation and design advances. The proposed timeline will allow the project to mitigate potential delays to our schedule. Design concepts have been presented in the CRP and the GMRP has presented those design concepts through community meetings and other engagement activities. Engagement around design concepts is complete with the exception of Baker Creek and in-water work in Yellowknife Bay, for which the GMRP has already planned specific engagement sessions and which are required in Schedule 1, Condition 2.</p>	<p>Conditions #9 to #11 are standard conditions used by the Board. Notification to Parties, if agreed to, should be reflected in the Engagement Plan, and can be discussed during the pre-engagement and Public Review on that document. Notifications of all submissions posted to the Registry can be requested through the Board's website. The Annual Water Licence Report in the draft WL includes a requirement for GMRP to submit a general and Project Component-specific updated Project schedule including an outline of engineering work and Closure Activities planned for the upcoming year with estimated timelines for upcoming Design Plans, so reviewers will be able to better anticipate Design Plan submissions for the upcoming year.</p>

		urges the Board to require submission of the Design Plan earlier in the process. As noted above, there will be significant challenges to communication around design concepts.		
5	Land Use Permit Conditions - Lack of Detail	Comment We find the conditions related to Wildlife and Fish Habitat (26(1) (h), Storage, Handling, and Disposal of Refuse or Sewage (26(1)(l)), Restoration of Lands (26(1)(o)) lack detail and depth. YKDFN has frequently stated that there was a lack of detail in the application, and that GMRP was being allowed to advance the Project without sufficient detail, or with essential details delayed pending their inclusion into one or another construction, environmental, or management plans. The YKDFN appreciates the attention to detail in some of the draft conditions, but in other areas the Board has merely directed GMRP to adhere to its own future plans. The YKDFN appreciates some of the draft conditions described in 26(1) (o) Restoration of Lands, such as the timeline and process for submission of the GMRP Closure and Reclamation Plan, the requirement for yearly updates, the submission of final reports, and performance assessment reports. The YKDFN is disappointed that its authority in various areas has not been recognized by the Board. With regard to 26(1)(j) Protection of Historical, Archaeological, and Burial	Apr 16: The GMRP leaves this to the discretion of the Board.	Board staff note that the LUP was developed using the Board's Standard Land Use Permit Conditions Template. Board staff have updated the condition Site Discovery and Notification to include a requirement for GMRP to notify any affected Aboriginal community and organizations.

		<p>Sites, for example, Yellowknives Dene is not included in the communications for chance find procedures described by the Board.</p> <p>Recommendation The reporting conditions described by the Board (61, 62) should include the YKDFN.</p>		
6	Water Licence Conditions - Part B Conditions 3-4: Traditional Knowledge Integration	<p>Comment The YKDFN appreciates conditions 3. and 4. Regarding Traditional Knowledge, but believes that they do not go far enough in ensuring the knowledge and interests of the YKDFN are incorporated into the Project.</p> <p>Recommendation The YKDFN suggests that since its definition of what constitutes Traditional Knowledge will differ from the Board's, Condition #4 should require the Proponent to report on its integration of Traditional Knowledge across its activities, not only on recommendations. Given the scope of the monitoring program, this will result in a deeper integration. The YKDFN Fully expects its knowledge to be integrated across the spectrum of activities required under the licence.</p>	<p>Apr 16: In conducting its activities under this Licence, the GMRP will make every reasonable effort to consider and incorporate Traditional Knowledge that is made available, where feasible. The GMRP finds the wording as provided by the MVLWB helpful as it provides some specificity. The GMRP does not support revisions to the draft condition.</p>	<p>These are new standard conditions. A discussion of how engagement influences almost every report and plan required by the Licence is also in place. All of these will be submitted for review.</p>
7	Water Licence Conditions - Part B Conditions 21-22: Engagement Plan	<p>Comment The YKDFN expects to be fully consulted on all the management plans required under the licence, and to have review of and input into reports required under the licence. Draft conditions 21 and 22. address the conditions for the preparation and submission of an</p>	<p>Apr 16: The GMRP has committed to pre-engagement on the next version of the management and monitoring plans to provide rightsholders and stakeholders more time to review and comment outside of the Water Licence specified</p>	<p>Concern noted. No changes required.</p>

		Engagement Plan. As noted with regard to the Land Use Plan licence draft conditions, these timelines are tight. Recommendation The YKDFN stand in a nation-to-nation relationship with Canada regarding the Project and the consultation and relationship required of the Proponent cannot be contained within the Engagement Plan.	time periods. The GMRP does not consider a revision to the Draft Water Licence to be necessary.	
8	Water Licence Conditions - Part D Closure and Reclamation: Coordination and Communications	Comment The YKDFN appreciates many of the draft conditions described in Part D: Closure and Reclamation, subject to our oft-stated concerns that there is a lack of detail in the application and too much is left to the future. The YKDFN appreciates the direction given by the Board in Schedule 2, condition 1: Board Directives for the Giant Mine Remediation Project Closure and Reclamation Plan. The YKDFN notes that the draft conditions related to submission of the GMRP Closure and Reclamation Plan, when combined with the timelines associated with the other management and monitoring plans, as well as the assessment reports, is complex and will require significant coordination with YKDFN for their input. Recommendation As a condition, YKDFN Requests that the Proponent be tasked with creating a shared commitment tracking support tool.	Apr 16: The GMRP does not believe the Water Licence should require such a tool, however the GMRP is open to continuing discussions about this recommendation through the Working Group.	Schedules for anticipated submissions and activities should be provided through each Annual Report.
9	Water Licence Conditions - Part E Construction:	Comment The YKDFN appreciates the draft conditions of Part E: Construction.	Apr 16: The GMRP does not support a requirement that technical plans and	Board staff note that no changes to Licence are warranted. Parties can engage the proponent or

	Plain Language Communications	Recommendation The YKDFN requests that significant provision is made by the Proponent to provide plain language communication of the content of the specific technical plans and reports, such as the geotechnical inspection reports, borrow materials and explosives management and monitoring plans, etc. in its communications, engagement, and consultation.	reports all be accompanied by plain language summaries. The GMRP will present plain language communication of the progress of the remediation and the management and monitoring of the site through its annual public forums and through other engagement venues as outlined in the Engagement Plan. In accordance with the MVLWB guidance, the GMRP will include a plain language summary for its site-wide management plans and AEMP.	Board staff at any time to seek clarity. All Plans will be submitted for review. Opportunities for clarification do not end with the Board's authorizations.
10	Water Licence Conditions - Part H AEMP: Collaboration Needs	Comment Draft guidance to the Proponent for the design and implementation of an Aquatic Effects Monitoring Program is described in Part H. The YKDFN appreciates the guidance given to the Proponent in accordance with the MVLWB/GNWT existing Guidelines for AEMPs. The YKDFN appreciates the additional directives for the Proponent provided in Schedules 6 Conditions 1 and 2. YKDFN notes again that the timelines for the preparation will be demanding, and meaningful participation of the YKDFN in these management of our resources is not yet viable under the current social and economic benefits regime. Recommendation The YKDFN expects significant contribution and	Apr 16: The GMRP is committed to continuing to work with the YKDFN through the Working Group, Giant Mine Advisory Committee and the Aquatics Advisory Committee.	Board staff note that an additional engagement requirement has been added to Schedule 6, Condition 1, h) for the AEMP Design Plan. Please see Board staff analysis to NSMA comment ID: 16.

		collaboration with the Proponent on the Aquatic Effects Monitoring Program Design Plan, and the Aquatic effects Baseline Report for Yellowknife Bay. The YKDFN requests that the Board give more explicit direction to the Proponent regarding consultation and collaboration with them on the creation of the baseline report and monitoring design. In the light of our rights to manage and safeguard resources within our territory, we feel that the conditions around Traditional Knowledge do not go far enough toward providing the Proponent with clear expectations about collaboration. The Proponent should have to report on this within the GMRP Closure and Reclamation Plan progress updates described in Schedule 1. 1., and other scheduled update reports.		
11	Water Licence Conditions - Community Based Monitoring	<p>Comment The YKDFN appreciates the Boards recognition of the role that Community Based Monitoring (CBM) has to play in monitoring the conditions of the water licence and ensuring the Project can be done safely. We note that the Board has referenced the CBM program and its relationship to the other aspects of monitoring at several places in the draft licence conditions.</p> <p>Recommendation The YKDFN reminds the Board that the purpose of community based monitoring is to provide an indigenous oversight to the Project, informed by</p>	Apr 16: The GMRP supports Community Based Monitoring and looks forward to future discussions on the topic.	Noted. No changes recommended.

		meaningful participation and Traditional Knowledge, not just employment in conventional monitoring.		
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Review Comment Table

Board:	MVLWB
Review Item:	Giant Mine Remediation Project - Response to Board Information Requests (MV2007L8-0031 and MV2019X0007)
File(s):	MV2007L8-0031 MV2019X0007
Proponent:	DIAND - GIANT
Document(s):	Board-Issued Information Requests (240.45 KB) GMRP Responses to Board-Issued Information Requests (289.68 KB)
Item For Review Distributed On:	May 26 at 13:17 Distribution List
Reviewer Comments Due By:	June 10, 2020
Proponent Responses Due By:	June 18, 2020
Item Description:	<p>On May 15, 2020, the MVLWB issued a series of Information Requests to the Giant Mine Remediation Project Team regarding some comments and recommendations made during the public review of the proposed draft Water Licence conditions for MV2007L8-0007 and draft Land Use Permit conditions for MV2019X0007. The Giant Mine Remediation Project submitted its responses to the Board on May 25, 2020.</p> <p>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. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.</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:	Heather Scott 867-766-7463 Kim Murray (867) 766-7458 Shannon Allerston 867-766-7465 Tyree Mullaney 867-766-7464

Comment Summary

DIAND - GIANT (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General File	Comment (doc) Cover letter Recommendation		Noted.

City of Yellowknife: Kerry Penney

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	General File	Comment (doc) City of Yellowknife letter re: GMRP response to IR requests Recommendation		
2	IR 1	Comment Both submissions from the independent reviewers (GMOB and Bill Slater) noted the need for engineered structures to include Borrow Pits. This is something that City concurs with based on the intent and purposes of the closure plan. Secondly, it is consistent with the City's interpretation of the project commitments of the past, including discussions around this definition during the technical proceedings. Recommendation Include Borrow Pits as and Engineered Structure	June 18: Please refer to the response to GMOB #1.	See Board staff analysis to GMOB-1.
3	IR 2	Comment The City has a residual concern regarding the limited application of water quality criteria from the site. Given that the runoff from the site will pass through: o Uncertain and varied levels of contamination, up to 3000 parts per million o The uncertain area that this runoff criteria will apply The City is not certain that the overall quality of runoff will result in an improvement to the receiving environment. Recommendation Rather than relying on the receiving environment's ability to absorb the contamination, better source control would	June 18: The statement that the GMRP is relying on the receiving environment to absorb contamination is not factual. The GMRP is committed to collecting contact water for treatment and cleaning up areas of waste, and installing a new water treatment plant to improve runoff and overall water quality from the project. This is outlined in Section 4 of the EQC Report. The GMRP has clearly stated in the Water MMP, during the water license technical sessions and in	Noted.

		result increase the ability of the project to meet their promises.	IRs that these runoff criteria will apply to the runoff from the TCAs, pit covers, the landfill and South Pond.	
Environment and Climate Change Canada: Russell Wykes				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Information Request #2	<p>Comment Environment and Climate Change Canada (ECCC) has reviewed the information requests and responses between the Mackenzie Valley Land and Water Board (MVLWB) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) dated May 15, 2020 and May 25, 2020, respectively. ECCC does not object to the terminology proposed by CIRNAC (Information Request 2, Table 2) for water management purposes. However, it should be noted that runoff from engineered structures is still considered effluent under the Metal and Diamond Mine Effluent Regulations (MDMER) until such time that the mine attains “Recognised Closed Mine” status.</p> <p>Recommendation N/A</p>	June 18: Acknowledged, thank-you.	Noted.
Fisheries and Oceans Canada: Tatiana Leclerc-Beaulieu				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Giant Mine Remediation Project - Response to Board Information Requests (MV2007L8-	<p>Comment DFO has reviewed the document in accordance with our mandate and we have no comments at this time.</p> <p>Recommendation DFO has no recommendations at this time.</p>	June 18: No response required	Noted.

	0031 and MV2019X0007)			
Giant Mine Oversight Board: GMOB Giant Mine Oversight Board				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	IR Response 1	<p>Comment The GMRP Team has provided a list of Engineered Structures for the Giant Mine Remediation. GMOB notes that the list does not include the Borrow Pits. GMOB recognizes that the location of the Borrow Pits has not been finalized, but expects that any on-site sources should be included in this list.</p> <p>Recommendation GMOB recommends the Board and GMRP consider whether on-site Borrow Pits should be included within the list of engineered structures.</p>	<p>June 18: The GMRP reviewed whether or not Borrow areas should be defined as Engineered Structures as per the MVLWB standard Water License terms. The GMRPs position is that borrow areas are not Engineered Structures and should not be included in the list. This is for two reasons: a) MVLWB standard terms and conditions and b) requirements of Engineered Structures under Part E and F,17 of the draft licence whereby an engineered structure will require additional inspections and plans. Rationale: a) Borrow areas are not used to manage or retain water or waste which is the definition of Engineered Structures as defined in the MVLWB standard conditions. Therefore they should not be included as an Engineered Structure. b) Borrow areas are already well regulated under separate territorial legislation which will require a borrow Pit Development Plan under the Quarry Permit. Additionally the GMRP has already committed to</p>	<p>Board staff note that the term “Engineered Structure” is used to trigger the submission of Construction Plans, and it is Board staff’s understanding that Construction Plans would be submitted for Borrow Pits (e.g. see the presentation for the MVLWB Technical Session 2, page 11 that indicates that “each design plan will have one or more construction plan submissions”).</p> <p>Regarding requirements of Engineered Structures under Part F, condition 17: Board staff have added “at a frequency outlined in approved applicable Design Plans and/or Site Wide Management and Monitoring Plans. Consequently, if GMRP does not believe inspections outlined in this condition is relevant to Borrow Pit, that can be explained in the Design Plan or Borrow and Explosives Management and Monitoring Plan, as applicable.</p>

			<p>Borrow Design Plans and the Borrow and Explosives Management Plan under the Water Licence. It is the GMRP's opinion that substantial regulatory oversight is already present for the borrow areas through the Water Licence (e.g. Design Plans, Management Plans) and related relevant conditions in the Land Use Permit as well as the Quarry Permits. Additional approvals and plans required for Engineered Structures under the Water Licence will result in confusion as to jurisdiction, timing of approvals and the precedent of the various plans. The GMRP also understands that other recent Water Licences that included borrow and quarry areas did not require borrow and quarry areas to be engineered structures in their Water Licences.</p>	
2	IR Response 2	<p>Comment In response to the Board questions regarding the GMRP's definition of Contact Water, the GMRP has proposed modifications to several Water Licence definitions and clauses. GMOB will address each of the proposed changes individually.</p> <p>Recommendation None</p>	<p>June 18: No response required</p>	Noted.
3	IR Response 2 - Contact Water Definition	<p>Comment GMRP has proposed to remove "from Engineered Structures" from</p>	<p>June 18: No response required</p>	Noted.

		<p>the definition the definition of Contact Water. Runoff or seepage is considered contact if it has come into contact with waste or wastewater within the Developed Areas (as defined in the CRP). GMOB notes that this definition of Contact Water is broad, and expects it will adequately include the intended waters.</p> <p>Recommendation None</p>		
4	IR Response 2 - Part F, 16	<p>Comment The GMRP Team is proposing to modify this clause to change the phrase "Discharge Criteria for Contact Water" to "Surface Water Runoff Criteria". GMOB does not have a concern with this change.</p> <p>Recommendation None</p>	June 18: No response required	Noted.
5	IR Responses 2 - Part F, 33 and 34.	<p>Comment The modification to this clause proposed by the GMRP appears to include removal of the reference to the specific SNP locations. Proposed wording in F, 34 references the SNP locations then references the SNP locations in F, 33. GMOB is not certain whether the removal of the SNP stations was intended or accidental.</p> <p>Recommendation GMOB recommends that, if the removal was intentional, the GMRP Team should provide the rationale for removing the specific SNP references.</p>	June 18: Yes, the removal of these SNP stations from the main body of the Water Licence was intentional. The GMRP would prefer that the SNP station names remain within the Annex of the Water Licence, rather than a condition or clause in the main body of the Water Licence. This would allow flexibility for adjustments to station names, UTM's, and frequencies as remediation progresses.	Noted. Board staff have updated the Draft Water Licence to remove reference to the specific SNP stations for Licence flexibility.
6	IR Response 2 - Part F, 34	<p>Comment The proposed modification to this clause includes changing the phrase "Discharge Criteria for Contact Water" to "Surface Water Runoff Criteria". GMOB does not have a concern with</p>	June 18: No response required	Noted. Board staff updated the Draft Water Licence accordingly.

		this proposed change. Recommendation None		
7	IR Response 2 - Schedule 1, Condition 1 2. E) iii	<p>Comment The modifications the GMRP is proposing for this clause remove the requirement to compare runoff quantity and quality against expectations, and replace it with a requirement to only compare the quality against surface runoff criteria. GMOB notes that comparing the volumes and quality against expected values will provide additional insight into whether the remediated tailings facilities are meeting design predictions, and will assist with evaluating remediation success for these components as well as contaminant loadings from the site.</p> <p>Recommendation GMOB recommends that this clause could be modified to adopt the Surface Water Runoff Criteria wording, but should retain the intent of comparing the runoff results (quantity and quality) against predictions.</p>	<p>June 18: No, The GMRP does not support a condition to report comparisons of water quality off of TCA covers to water quality model predictions in the annual Water Licence Report. The GMRP will compare monitoring data against surface runoff criteria, volumes released if the surface runoff criteria were met, and any action level exceedances, and follow-up response plans if required.</p>	<p>Board staff note that this requirement was moved to Schedule 1, Condition 2 b) xv. (Annual Reporting requirement for the Water Management and Monitoring Plan instead of the Tailings Management and Monitoring Plan) according to GMRP's comments on the Draft Water Licence.</p> <p>Board staff note that Schedule 4, Condition 2 a) iv. e. i. in the Draft Water Licence would require GMRP to identify and evaluate the Surface Runoff Criteria (parameters and concentrations) in alignment with the Board's <i>Water and Effluent Quality Management Policy</i>. Board staff presume that predictions referred to by GMOB in this review comment would have to be considered by GMRP while developing Surface Runoff Criteria that is in line with the Board's Effluent Policy. Therefore, Board staff do not believe that annual reporting should include a comparison of Runoff and Seepage results to quantity and quality against</p>

				<p>predictions. However, to address GMOB's comment re: quantity, and capture GMRP's commitment to report on volumes released if the surface runoff criteria were met, Board staff have added "volume of Seepage and Runoff that has met Surface Runoff Criteria and been released to the Receiving Environment" to the requirements of Schedule 1, Condition 2 b) xv. (Annual Reporting requirement for the Water Management and Monitoring Plan.</p>
8	Schedule 4, Condition 2, Item a) iv. e.	<p>Comment The GMRP proposes to change the name of the Contact Water Management and Monitoring Plan to the Contact Water Transition Plan, as well as adopting the term "runoff quality criteria". GMOB has no concerns with adopting the "runoff quality criteria" phrase. GMOB does not see a strong basis for changing the name of the Contact Water Management and Monitoring Plan to the Contact Water Transition Plan. GMOB agrees that one outcome of the remediation will be that surface water runoff quality improves to the point that it will no longer need to be collected and treated, and that there should be a process for confirming this. However, this is the final step in the surface water management</p>	<p>June 18: The GMRP proposes a) there is no standalone plan, but rather be a sub-section of the Water MMP b) contact water management during remediation is and will be described in the Water MMP c) the transition from contact water to non-contact water and what water will be captured will be outlined at a high level in the next version Water MMP, with more specifics on the transition to be provided in a future version of the Water MMP to be submitted later in remediation.</p>	<p>Board staff agree with GMRP that the information about Contact Water will not be a stand-alone document, but rather contained within the Water Management and Monitoring Plan, and therefore the name of the plan would not be searchable on the MVLWB Public Registry.</p> <p>Board staff do not think the name of this information (either Contact Water management and monitoring plan or Contact Water transition plan) will impact the information in the Water Management and</p>

		<p>process, and the original title may more accurately reflect the contents of the plan.</p> <p>Recommendation GMOB recommends the Board consider whether the proposed name change accurately reflects the contents of the Contact Water Management and Monitoring Plan. This should consider the scenario where an interested party is searching the public registry for information on how surface water on the site is managed.</p>		Monitoring Plan on this topic.
9	IR 3 - Closure and Reclamation Completion Reports for parts of Project Components	<p>Comment The GMRP is proposing that separate Closure and Reclamation Completion Reports be submitted for "parts" of larger Project Components. The GMRP suggests that this will allow for more timely review, e.g. for individual pits. GMOB agrees that there may be some benefits to proceeding in this manner. However, there should be prior agreement on how each component will be broken down into sub-parts. This proposed breakdown could be included within the Design Plan. There should also be a mechanism for tying all the individual parts together when remediation of the final piece of the Project Component is finalized.</p> <p>Recommendation GMOB recommends that, should the Board adopt this suggestion, that the individual parts of the larger components should be identified within the</p>	<p>June 18: It will not be feasible at the time of the Design Plans to identify fully how the component will be divided up for procurement/remediation. The GMRP has revised the previous proposal to report on completed closure activities 'in parts'. The GMRP will communicate updates to reviewers and affected parties on the progress of remediation through the Annual Water Licence report. Once remediation of a project component is complete, the Final Reclamation Completion Report will be provided to the MVLWB. Please also refer to the response to MVLWB #11.</p>	See Board staff analysis to MVLWB-11.

		Design Plans along with a mechanism for bringing together all the pieces together when overall remediation of the Project Component is complete.		
10	IR 4 - Post-closure Monitoring and Maintenance Plan	<p>Comment Instead of a Table of Contents for a Post-Closure Monitoring and Maintenance Plan, for approval, the GMRP is proposing to submit a compilation of monitoring included in the Design Plans, and provide this as an Interim Post-Closure Monitoring and Maintenance Plan. This interim plan would not be for approval, as it would be comprised of information that had previously been approved as part of other submissions. GMOB's intervention included a recommendation that a Table of Contents for a Post-Closure Monitoring and Maintenance Plan be provided for approval. GMOB believes that it will take time to develop a robust and effective plan, and work should begin soon. However, GMOB recognizes that the Post-Closure Monitoring and Maintenance Plan will be informed by the results of adaptive management and monitoring conducted during Phase 2 (per the description in the CRP) as well as work on the Perpetual Care plan and that none of this information is yet available. Without that information, it is difficult for the Board to draft a schedule outlining what the content of the Post-Closure Monitoring and Maintenance Plan;</p>	<p>June 18: The GMRP proposed this concept in an effort to address the MVLWB's Draft Water Licence Part D condition 8, which appears to try to provide a place where revisions to monitoring and maintenance proposed in the Design Plans could be captured. The GMRP recognizes that the proposed solution likely introduces more complications and confusion than it was intended to resolve and therefore agrees that for the purposes of this Water Licence a Table of Contents is most appropriate.</p>	<p>Board staff understand GMRP's response to GMOB's comment. Board staff note that Part D, condition 8 has been removed from the Draft Water Licence. Board staff have retained the Post-Closure Monitoring and Maintenance Plan – Table of Contents condition in Part D.</p>

		<p>without that schedule, parties aren't able to comment on what the content of that Plan should be. GMOB's proposal for submitting a Table of Contents, for approval, was intended as a mechanism to allow parties to provide input on the contents and direction of the plan in order to improve the overall efficiency of plan development and approval process. The GMRP's current proposal would provide a plan that does not benefit from information gained during Phase 2 and adaptive management. However, GMOB notes that this information could be incorporated through updates when the interim plan is finalized. More importantly, not having the plan for approval means that parties will not have input into the contents and direction of the plan. GMOB views that the Post-Closure Monitoring and Maintenance Plan will be a significant document for future management of the site, and that it will be important to provide parties with an opportunity to ensure their concerns are addressed. GMOB does not oppose the GMRP submitting an interim plan that includes monitoring elements from the Design Plans, but is concerned that the submission should also include a mechanism for parties to provide input on what should be included in a final plan.</p> <p>Recommendation GMOB is</p>		
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		not certain there is a need for an interim plan; however, if an Interim Post-Closure Monitoring and Maintenance Plan is accepted by the Board, we recommend that there should be a mechanism for parties to provide input regarding what will be included in a final Post-Closure Monitoring and Maintenance Plan. GMOB agrees that the Perpetual Care Plan is meant only to inform Post-Closure Monitoring and Maintenance, and does not expect that the Perpetual Care Plan would be approved by the MVWLB.		
MVLWB: Shannon Allerston				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Proposed Engineered Structures for GMRP and contact water	<p>Comment GMRP proposes a list of Engineered Structures for GMRP on page 1 of the IR Response. Later in the IR response (page 2) it indicates that "there are Engineered Structures outside of the Developed Areas (for example, a water crossing for Baker Creek)".</p> <p>Recommendation Can the GMRP list the Engineered Structures outside the Developed Areas that GMRP are proposing? How will the Surface Runoff from these areas be managed or monitored under the Site-Wide Management and Monitoring Plans?</p>	<p>June 18: Engineered structures outside of the Developed Areas include culverts, bridges, Baker Creek channel itself, foreshore tailings cover, and the WTP outfall. The GMRP has proposed extensive monitoring in Baker Creek and Yellowknife Bay. Surface runoff monitoring post-remediation would not be relevant to submerged outfall, foreshore cover, or runoff off bridge/culvert structures. Construction monitoring details related to the installation of the above-mentioned structures will be provided in Construction Plans and the appropriate site-wide management and</p>	Noted.

			monitoring plans that apply during the construction activities (e.g., sediment and erosion control).	
2	Definition of Contact Water and Developed Areas	<p>Comment GMRP have re-defined Contact Water to limit it to water encountering Waste or Wastewater from within the Developed Areas. Board staff note that if the Board accepts GMRP's proposed definition, it will be important to clearly define the Developed Areas in the WL, as opposed to referencing the CRP, for clarity. The Closure and Reclamation Plan defines the Developed Areas as: "Developed Areas were developed to support mining operations (i.e., mill/roaster area, tailings retreatment plant, Townsite/Marina, roadway network, and various laydown and material storage areas). These areas were constructed primarily with mineralized granular material and, as a result, soil conditions typically consist of contaminated granular fill, underlain by natural fine-grained soil, and bedrock." GMRP have also identified at least one Engineered Structure that will not be within that Developed Areas. Board staff have several questions on this re-definition.</p> <p>Recommendation Can GMRP propose a definition for Developed Areas that could potentially be used in the WL?</p>	<p>June 18: The GMRP recommends that the Water Licence does not include a definition for Developed Areas. Developed areas are described in the Water MMP and the CRP, where context, figures, sampling requirements, and application are all provided. The GMRP understands that Developed Areas will be used in the definition of contact water. The method for managing contact water in that context will be provided in the Water MMP; thus, a separate definition is not required. The GMRP submits that Condition F, 32, already enforces the need for contact water and seepage to be managed through the Water MMP.</p>	Board staff believe that a definition of Developed Areas is necessary for the Water Licence, and have included a definition in the Draft Water Licence based on evidence filed with the Board for the proceeding.

3	Definition of Contact Water and Developed Areas	<p>Comment See above.</p> <p>Recommendation Can GMRP provide an map image with the Developed Areas from the Closure and Reclamation Plan and the runoff catchment areas from the Water Management and Monitoring Plan overlain to demonstrate the extent of waters being captured in the Developed Areas? This image could potentially be referred to in the Contact Water definition.</p>	<p>June 18: The GMRP does not support that the definition of contact water needs a figure or map within the body of the Water Licence. This information is outlined and illustrated in detail in the Water Management and Monitoring Plan the WMMP per Schedule 4 of the Post-EA Package. There are extensive figures and discussion of systems for management of contact water, piping, conveyance systems, and sumps. Refer to WMMP Figures 4.1-1 to 4.1-4 that provide detail on which watersheds are managed. The GMRP understands there will be pre-engagement and detailed review process for water management which will involve further discussion and understanding of the content and objectives of the water management framework and how that will evolve through existing conditions, early remediation, late remediation and into post-closure. The changes associated with progressing water management and when certain terms apply, is better suited to the Water MMP review/approval than simply including a clause in the licence. Therefore, GMRP recommends that the specificity of the</p>	<p>Noted. Board staff have not included reference to a figure in the Draft Water Licence.</p>
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			water management system remain within the Water Management and Monitoring Plan, rather than in the definitions of the Water Licence.	
4	Definition of Contact Water and Developed Areas	<p>Comment See above.</p> <p>Recommendation If the definition of Contact Water refers to Waste and Wastewater, will all non-managed waters in that area meet the Surface Runoff Criteria? Board staff note that this can only be accomplished, as identified by GMRP, to the 'extent practical.' Board staff understood that the majority of water would be managed in this area, but not everything.</p>	<p>June 18: No, the surface runoff criteria are intended for post-remediation for a subset of structures for runoff that is no longer considered contact water (i.e., no longer in contact with waste). It is not practicable to collect and monitor all runoff on-site, so there may be some areas where water contacts unremediated soil. However, that water is anticipated to be small in volume and diffuse - surface runoff criteria would not apply to these areas. As well, water from upland non-contact watersheds that enters the site and has to be diverted around site features will also not be subject to surface runoff criteria.</p>	Clarification noted.
5	Contact Water definition and Runoff	<p>Comment In the WL Runoff is defined as "the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land". If used to define Contact Water, Board staff understand that there will be three types of Runoff: 1. Runoff that has encountered Wastewater and/or Waste in the Developed Areas and is managed and monitored as</p>	<p>June 18: Yes, in broad terms, those three categories correctly describe runoff from the Site and surrounding area. The GMRP consider #1 to be contact water that will be collected and treated to the extent practicable. #2 is surface runoff from a subset of engineered structures that after remediation will be released to the</p>	Clarification noted.

		<p>per the Water Managemet and Monitoring Plan (i.e. Contact Water); 2. Runoff in the Developed Areas that has met Surface Runoff Criteria and is released to the Receiving Environment; 3.Surface Runoff outside of the Developed Areas.</p> <p>Recommendation GMRP to clarify if Board staff's understanding is correct re: Runoff across the site.</p>	<p>receiving environment provided it meets the surface runoff criteria. Finally, #3 is regional runoff, some of which will be directed around critical infrastructure on-site (e.g., pits) and will be routed to the receiving environment. Water management for various types of water on-site during the stages of remediation are discussed in the Water MMP.</p>	
6	Contact Water definition and Part F, condition 16	<p>Comment Based on GMRP's proposed Contact Water definition and change to Part F, condition 16 (without reference to specific structures) it is unclear to Board staff which Water from the Developed Areas will be tested and collected if Surface Runoff Criteria is not met. Also, does GMRP mean any Contact Water as the definition of Contact Water includes Seepage.</p> <p>Recommendation Can the GMRP to clarify which Water will be tested for Surface Runoff Criteria and collected, as applicable, as per Part F, condition 16? If not able to identify specific locations at this time, what will be the mechanism for proposing monitoring locations post-issuance?</p>	<p>June 18: Runoff from covered tailings ponds, closed pits capped with engineered covers, the landfill, and reclaimed tailings ponds (e.g., South Pond) will be tested and compared to the Surface Runoff Criteria. Draft monitoring stations have been identified in the SNP (Annex of the Water Licence), which are repeated with sampling details in the SOP and QAQC Plan and cross-referenced in the Water Management and Monitoring Plan. It is the GMRP's understanding that the SNP Annex can be changed without a Water Licence amendment. The list of runoff stations will be revisited through future updates of the Water Management and Monitoring Plan and SOP and QAQC Plan, and any updates reviewed and</p>	<p>Board staff note that Part F, condition 16 b) was updated in the Draft Water Licence to read "Any Contact Water from the facility to the Receiving Environment that does not meet the Surface Runoff Criteria, as specified in the Water Management and Monitoring Plan shall be collected and returned for treatment". Board staff did not believe including "Seepage" was necessary, because the definition of Contact Water includes Seepage.</p>

			approved through those documents would then be subsequently incorporated into the Annex.	
7	Contact Water definition and Part F, condition 34	<p>Comment For Part F, condition 34 GMRP referenced the SNP stations identified in Part F, 33. However, Board staff note that GMRP's April 16 comment ID-108 on the Draft Land Use Permit and Draft Water Licence Conditions GMRP recommends that the SNP stations referenced in condition 33 be removed to allow for WL flexibility.</p> <p>Recommendation GMRP to clarify if they still recommend removing the SNP stations referenced in Part F, condition 33. If GMRP still recommends the SNP stations be removed, can the GMRP provide updated proposed wording for Part F, condition 34?</p>	<p>June 18: The GMRP proposes the following wording: "A minimum of five days prior to commencing post-remediation release of surface runoff to the Receiving Environment at the runoff locations outlined in the Surveillance Network Program, the Licensee shall submit the runoff Water quality data to the Board and an Inspector to confirm surface Runoff Criteria, as specified in the Water Management and Monitoring Plan, can be met."</p>	Board staff have updated the Draft Water Licence accordingly.
8	Part F, condition 16, and condition 32.	<p>Comment In Part F, condition 16, b, and condition 32 refer to "Seepage or Contact Water". Board staff note that the definition of Contact Water includes Seepage.</p> <p>Recommendation Can Part F, condition 16, b and condition 32 refer to just "Contact Water"?</p>	<p>June 18: Yes, the GMRP agrees that Part F, condition 16, b and condition 32 can refer to just "Contact Water"</p>	Noted. Board staff have updated the Draft Water Licence accordingly.
9	Definition of Surface Runoff Criteria	<p>Comment Board staff note that it may be appropriate to define Surface Runoff Criteria in the WL.</p> <p>Recommendation Can GMRP propose a definition for Surface Runoff Criteria for possible use in the WL?</p>	<p>June 18: The GMRP would prefer not to have a definition in the Water Licence and have all the information on locations, quality, protocols in the Water Management and Monitoring Plan. Water quality criteria used to</p>	Board staff believe that a definition of Surface Runoff Criteria is necessary for the Water Licence, and have included a definition in the Draft Water Licence based on evidence filed

			determine if runoff from designated areas as identified in the Water Management and Monitoring Plan can be allowed to drain freely to Baker Creek or Yellowknife Bay. Please also refer to the response to MVLWB #2 and #3.	with the Board for the proceeding.
10	Scope of Licence and Post-Closure	Comment Board staff note that there is quite a bit of evidence on the record in support of a shorter term of Licence than that proposed by the GMRP. In response to some of the concerns identified by parties, Board staff asked about limiting the scope of the Licence to Phases 1 and 2 of the Project (as defined in the Updated Project Description) during the Public Hearing. GMRP did not note any major concerns with the idea of limiting the scope of the WL at that time. If the Board decides to limit the scope of the Licence in this way, it could have implications on the appropriateness of reviewing and potentially approving a (Interim) Post-Closure Monitoring and Maintenance Plan (since Post-Closure would not be within the scope of the Licence in this scenario). Board staff suggest that if updates or changes to monitoring from that approved in Design Plans are appropriate in the Post-Construction/Adaptive Management Phase of the Project, they could be proposed through updates to	June 18: The GMRP agrees that it is appropriate to use Site-wide Management and Monitoring Plans as a mechanism to update or make changes to monitoring in relation to completion of a closure activity and resulting monitoring. It is anticipated that once monitoring is approved under a Design Plan that this information will be updated in the next revision to the Site-wide Management and Monitoring Plans.	Noted.

		<p>the Site-Wide Management and Monitoring Plans and presented to reviewers and the Board for approval. Draft condition Part E, condition 14 (Update Plans) of the Licence would require GMRP to update the Site-Wide Management and Monitoring Plan to reflect monitoring approved in the Design Plans, so details of Component-specific monitoring should be included, and therefore able to be updated whenever necessary (as provided in Part B, conditions 9 and 10).</p> <p>Recommendation Can GMRP comment on the process proposed above in the event the Board decides to limit the scope of the Licence to Phases 1 and 2 only?</p>		
11	Closure and Reclamation Completion Reports	<p>Comment In its comments on the Draft Licence and the IR responses regarding the submission of Closure and Reclamation Completion Reports, GMRP suggested that due to the duration of remediation of a given Project Component, the GMRP would like to maintain the flexibility to submit Closure and Reclamation Completion Reports as portions of each component is completed. Board staff understand why GMRP are making this recommendation but are concerned about the volume of reports this could generate and the complications that could arise for all parties in identifying how many 'parts' or reports make up the story of the whole component.</p>	<p>June 18: The GMRP would accept this suggestion and report on milestones for closure in the Water License annual report. Please note, the GMRP will also have other mechanisms for communication with parties outside of the Water License process: annual community meetings, monthly meetings with a Working Group, annual reporting to the Giant Mine Oversight Board, the Project Website, and community newsletters.</p>	<p>Board staff note that the requirement in the Draft Water Licence that reads “d) A summary of adaptive management actions taken for completed portions of Project Components” will address the commitment made by GMRP to report on milestones for closure in the Water Licence annual report.</p>

		<p>Since the 'parts' or 'portions' of each component are hard to predict or define, Board staff suggest that these updates could be best provided each year in the Water Licence Annual Report, and suggest that the Closure and Reclamation Completion Reports be reserved to address the completion of all construction associated with each Project Component covered under each Design Plan. This way, there is a 1:1 ratio to the Design Plans/Completion Plans that can be directly linked to one another, and a method of providing Project updates to reviewers as construction milestones are met during the life of the Licence.</p> <p>Recommendation Can GMRP comment on the process proposed above for keeping parties informed on the progress of remediation for the life of the Licence?</p>		
North Slave Metis Alliance: Jess Hurtubise				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
3	General File	<p>Comment (doc) NSMA supports Slater Environmental's comments and recommendations to the GMRP's Reponse to Information Request. We are attaching his Memorandum to our submission, for the record.</p> <p>Recommendation</p>		Noted.
2	Table 2 - Schedule 4, Condition 2, Item a) iv. E.	<p>Comment For the sake of clarity and specificity, the GMRP has proposed changing the title of the Contact Water</p>	<p>June 18: The GMRP would accept this recommendation if this was the MVLWB's</p>	See Board staff analyst GMOB-8.

		<p>Management Plan to the new name "Contact Water Transition Plan". Although we appreciate the GMRP's attempt to clarify the title to better describe its contents, we believe the new proposed title does not bring enough additional detail to make it worth changing. With so many plans and documents relating to the remediation of the Giant site, consistency in this case should be kept.</p> <p>Recommendation To ensure consistency and clarity, we recommend that the title of the Contact Water Management Plan remain as is and that the Board consider requiring a specific section in the plan detailing the transition process between contact water and non-contact water.</p>	<p>preference. The Contact Water Management Plan is not intended to be a stand-alone plan, but rather a section within the Water MMP as described in the response to GMOB #8.</p>	
Slater Environmental Consulting: Bill Slater				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Comments from Technical Advisor for Giant Mine Working Group	<p>Comment Bill Slater of Slater Environmental Consulting is the technical advisor for the Giant Mine Working Group. The comments provided by Slater Environmental Consulting are being submitted after being shared for review and comment by the Giant Mine Working Group. Several members of the Working Group provided feedback and recommended that the comments be submitted for consideration by the Land and Water Board.</p> <p>Recommendation None.</p>	<p>June 18: No response required</p>	Noted.

2	Request No. 1 re: Engineered Structures	<p>Comment As requested, the GMRP Response provides a list of "Engineered Structures." The GMRP proposes that a construction plan be associated with each engineered structure. Construction and use of borrow areas require many of the same management activities that are associated with other engineered structures, and which are to be described in construction plans (Schedule 3, Condition 3 of the draft water licence). For example, construction plans are to address construction schedules, characteristics of materials, operational requirements, monitoring and mitigation, and quality control. All of these may be relevant for borrow pits.</p> <p>Recommendation The list of engineered structures should include Borrow Pits.</p>	<p>June 18: Please refer to the response to GMOB #1.</p>	<p>See Board staff analysis to GMOB-1.</p>
3	Request No. 2 re: Definition of Contact Water	<p>Comment In responding to the Board's question No. 2 about the definition of Contact Water, the GMRP proposes several changes to the definition and also to water licence conditions beyond the definition (Tables 2 and 3 of the GMRP Response). These changes include instances where references to Discharge Criteria are changed to references to Surface Runoff Criteria. As rationale, the GMRP Response states that runoff from some Engineered Structures would "no longer be considered Contact Water"</p>	<p>June 18: The GMRP does not support a Water Licence clause because the GMRP is already mandated to manage contact water through the Water MMP per Condition F, 32. The Water Management and Monitoring Plan outlines how the surface runoff criteria apply and where. A separate clause is not required. The evidence the GMRP filed with the MVLWB including the Water MMP and the Closure criteria are explicit that the surface</p>	<p>Noted. Board staff do not believe an additional condition is required, and note that the conditions in which the proposed Surface Runoff Criteria will apply will be discussed in the Board's Reasons for Decision following Board decision on the Water Licence.</p>

		<p>and it would "not be appropriate to accept the language 'Discharge criteria for Contact Water.'" The GMRP proposal appears to make a distinction between areas where Contact Water would have enforceable water quality criteria, and those where runoff would be subject to monitoring and management under the Water Monitoring and Management Plan, but not subject to enforceable criteria. This concept of applying surface runoff criteria to water from certain areas after completion of remediation (and based on some as yet undefined program for testing/confirmation) was presented in the application and discussed at the July 2019 technical session. Continued in next cell.</p> <p>Recommendation The final water licence should clarify the limited conditions in which the proposed Surface Runoff Criteria can apply. The proposed Surface Runoff Criteria and associated management under the Water Monitoring and Management Plan should only apply in circumstances when all of the following conditions:</p> <ul style="list-style-type: none"> - During the post-remediation phase, - For surface runoff only, - From remediated areas designed and constructed with surface materials that are not expected to contribute unacceptable loading of contaminants, and 	<p>runoff criteria are meant to cover a subset of runoff from specific engineered structures after remediation. The GMRP thinks specificity in the Water MMP, which is for approval, is sufficient to prevent misinterpretation of the application of the criteria to items such as seepage waters during remediation.</p>	
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		- After completion of testing that confirms stable, suitable runoff water quality.		
4	None	<p>Comment However, the licence changes proposed in the GMRP Response potentially expand the scope of application of the proposed Surface Runoff Criteria in two significant ways. First, the proposed revisions do not make it clear that Surface Runoff Criteria could only be applied in the post-remediation phase for an engineered structure, and only once testing has been completed to confirm that the post-remediation runoff criteria are appropriate. For example, the proposed revision of Part F, 16 in the licence appears to indicate that Surface Runoff Criteria can be applied in existing conditions to determine whether water from disturbed areas (e.g., tailings) requires treatment. This application is likely not the intent, and it would not be appropriate for existing site conditions. Until remediation is complete, runoff and seepage from disturbed areas should be collected and treated unless it meets the effluent quality criteria. Continued in next cell.</p> <p>Recommendation None</p>	June 18: No response required	Noted. The applicability of Surface Runoff Criteria to post-remediation will be clarified in the Board's Reasons for Decision following a Board Decision on the Water Licence.
5	None	<p>Comment Second, the proposed revisions (combinations of definitions and conditions) appear to apply the proposed Surface Runoff Criteria to seepage as well as runoff. Even in the</p>	June 18: No response required	Board staff note that the definition of Seepage is included in the definition of Contact Water; as such it would be monitored and managed similar to

		<p>post-remediation conditions, seepage from disturbed areas could have very different characteristics than surface runoff. For example, surface runoff from tailings covers would likely only contact cover materials. On the other hand, seepage may have direct contact with underlying tailings materials. Discussions during the application process did not consider application of Surface Runoff Criteria for seepage water. Seepage water from disturbed areas should continue to be subject to effluent discharge criteria even after remediation is complete.</p> <p>Recommendation None</p>		<p>surface Runoff. If Seepage does not meet the Surface Runoff Criteria following remediation, it would have to be collected and treated.</p> <p>Board staff have added "Seepage" throughout the Draft Water Licence to clarify that Surface Runoff Criteria would also apply to Seepage.</p>
6	Request No. 4 re: Post-Closure Monitoring and Maintenance	<p>Comment The GMRP Response confirms the GMRP's proposal to submit a compiled Post-Closure Monitoring and Maintenance Plan, as initially described in the GMRP's April 2020 comments on the draft water licence. The proposal builds on the proposed condition in the draft water licence for submission of a table of contents for the plan. Having a compiled Post-Closure Monitoring and Maintenance Plan submitted during the term of the licence is a positive step. It will provide more clarity about the scope of post-closure monitoring and maintenance activities, including post-closure monitoring and maintenance activities that will likely begin for some components during the term of the licence.</p>	<p>June 18: Based on comments from the MVLWB, the GMRP understands that this suggestion caused unintended complications. The GMRP defers to the MVLWB and accepts that the submittal of the Table of Contents for the Post Closure Monitoring and Maintenance Plan is appropriate.</p>	<p>See Board staff Analysis to GMOB-10.</p>

		<p>Nonetheless, there would still be benefit in retaining a condition that requires earlier submission and approval of a Table of Contents for the Post-Closure Monitoring and Maintenance Plan. This initial step would provide an opportunity for interested parties to provide input about the scope of the plan.</p> <p>Recommendation The water licence should include requirements for two submissions related to post-closure monitoring and maintenance: 1) a Table of Contents and Schedule, for approval, and 2) a compiled draft Post-Closure Monitoring and Maintenance Plan.</p>		
7	None	<p>Comment None</p> <p>Recommendation ·</p>	June 18: No response required.	N/A