



GIANT MINE OVERSIGHT BOARD 5-YEAR REVIEW OF THE GIANT MINE REMEDIATION PROJECT ENVIRONMENTAL AGREEMENT

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EXECUTIVE SUMMARY

A study was conducted to evaluate the effectiveness of the Giant Mine Oversight Board (GMOB or Board) in achieving its responsibilities under the Environmental Agreement (the Agreement) over the past five-year period. This report documents the findings from this study.

The mandate of the Board is as follows:

- Monitor and report on the Giant Mine Remediation Project.
- Review, report, and make recommendations on the Project's programs, research, and annual reports, etc.
- Conduct communications activities with the public and Parties to the Agreement.
- Research a permanent solution to the arsenic trioxide stored underground at the site.
- Report to the public through GMOB public meetings, reports and annual reports.

The following was completed to understand GMOB's effectiveness in achieving their responsibilities.

- A review of pertinent GMOB materials produced for, or by, GMOB, including a detailed assessment of GMOB activities completed over the past 5 years.
- Public questionnaire.
- Questionnaire to each of the Parties to the Agreement.
- Interviews with each of the Parties to the Agreement.
- Workshop with each of the Parties to the Agreement to present preliminary findings and seek additional information.

The authors conclude that GMOB is successfully fulfilling its mandate. An overall summary of the evaluation for each GMOB mandate is provided in the following table. Some suggestions for improvements are noted.

GMOB RESPONSIBILITIES	EVALUATION	COMMENT
Report Review and Recommendations	Satisfied with some modifications	Continue to view the Project through a number of lenses, including engineering, socio-economic, and cultural. Develop a 'dashboard' or some other tracking tool so that the fate of each annual recommendation may be easily followed. Consider ways to provide its collective input on an on-going basis.
Management of Baker Creek	Satisfied	Continue involvement with review of remediation phase plans.
Research Program for a Permanent Solution to Arsenic	Satisfied but not well publicized	Publicize actions to develop a permanent solution to the arsenic trioxide dust stored underground at the Giant Mine.
Promoting Public Awareness	Satisfied with some room for improvement	Continue to improve communication efforts with the public.

GMOB RESPONSIBILITIES	EVALUATION	COMMENT
Public Source of Records	Underway - Work in progress	Develop an overall vision for the public repository of records and to consider implementing an 'everything Giant' approach.
Providing Reports to Co-Proponents and Public	Satisfied	Continue provision of reports.
Annual Report and Public Meeting	Satisfied with some improvements to public meeting	Public meeting could be improved with more plain language material and less presentations/more interaction.
Participation in the Agreement	All Parties are actively involved but usually within their own sphere of influence	GMOB, the Co-Proponents and the Parties should consider ways in which they can increase their collaboration in dealing with <i>all</i> aspects of the legacy of the Giant Mine.

The following are recommendations that address the key areas that were identified during the evaluation process.

Recommendation 1

That GMOB continue to view the Project through several lenses, including engineering, socio-economic, and cultural.

GMOB stated in its 2018 Annual Report, that it tries to look at the Project through all these lenses because of concern that 'all the various views, perspectives and goals, are not being understood or appreciated by all those involved' and that by taking a broad approach it hopes that better integration can be achieved. This seems to be a significant contribution that is consistent with the general provisions of the Environmental Agreement and should be continued. The Project and the broader issues with respect to communications, socio-economic and cultural factors are very complex and GMOB is the organization best able to provide an overview.

Recommendation 2

GMOB should develop a 'dashboard' or some other tracking tool so that the fate of each annual recommendation may be easily followed.

The analysis of GMOB's recommendations discussed in Section 5.1 and Appendix D of this report was conducted to develop a sense of the progress of recommendations but was challenged by the fact that GMOB does not routinely express whether recommendations have been dealt with adequately or not. The GMOB 2019 Annual Report was more explicit in that it identified new and updated recommendations. GMOB should continue with this approach and develop a tracking system so that progress on all recommendations can be clearly followed. This system will provide a clear indication of what GMOB considers important and what the response has been and give the public insight regarding progress on different topic areas.

Recommendation 3

GMOB should consider ways to provide its collective input on an on-going basis.

GMOB members participate in many meetings, committees etc. and individual Directors are always willing to provide their professional input. It is recognized that the Board expresses its collective stance through comments on specific initiatives such as reports, interventions with the Water Board etc. but the position of the Board on the overall Project is mainly expressed in the Annual Report and at the semi-annual and annual meeting. Given the expertise within the Board and the close familiarity with the entire Project, efforts should be made to discuss Board positions and opinions on an on-going basis. This will provide the Co-Proponents and Parties with opportunities to discuss, clarify and more readily respond to GMOB's input. Such dialogue could also provide information that might modify/clarify GMOB's position.

Recommendation 4

GMOB needs to publicize its actions to develop a permanent solution to the arsenic trioxide dust stored underground at the Giant Mine.

The research program was developed in accordance with the direction laid out in the Environmental Agreement. Projects currently being executed by TERRE-NET will better characterize the chemical composition of the dust and will evaluate the viability of some of the most promising technologies identified in the 2017 State of Knowledge Report. A peer review panel has been recently formed to review unsolicited research proposals. This panel should also be used to review progress by TERRE-NET; further consideration could be given to ensure the panel has the appropriate background to best understand the on-going research. There is a lack of understanding, from some Parties and the public, regarding the work underway and progress being made, and better publicity is in order. This should include the use of plain language descriptions that are easily understood by the public.

Recommendation 5

GMOB should continue to improve its communication efforts with the public.

Public awareness of GMOB and its activities is generally very good, but improvements can always be made. The office, website and annual meetings are very effective. Efforts should continue to involve schools and to promote an open and transparent environment. More plain language materials and different formats (less presentation and more discussion) can improve the already well-attended public meetings. Consideration should be given to greater use of radio as well as to social media. As the Project enters the remediation phase and there is a concurrent increase in activities there may be a need for GMOB to host public meetings more frequently to address issues that are of current public interest or concern.

Recommendation 6

GMOB needs to develop an overall vision for the public repository of records.

The Library is a 'work in progress' and contains many useful items but it is not complete. It is not clear what GMOB's vision is for addressing its mandate to create a public repository of records. It is understood that the Agreement states that such a repository should include what GMOB 'considers relevant to its responsibilities' but it can be argued that the repository should be comprehensive. The Project and associated activities are very complex, and it is difficult for the uninitiated to develop an understanding of why the problems arose, what is being done about them and the lessons learned to prevent them happening again. Given GMOB's unique position in having an overview of all the related activities, consideration could be given to a central repository for this information or links to where additional information is available. Valuable research is often conducted in the Yellowknife area with respect to arsenic but there is little coordinated effort to identify and resolve information gaps. The Co-Proponents face restrictions on their ability to post reports, studies and plans but they could be hosted on the GMOB Library site. It is recognized that this approach could consume limited resources but there are benefits to the Co-Proponents and the Parties. Economies could be realized by providing a comprehensive description of the various components on the GMOB Library and creating links to other organizations with a clear understanding of where they fit in the overall program. Similarly, there could be coordination with the GNWT Legacy Contaminants Committee with the Perpetual Care Plan being developed by the Co-Proponents.

Recommendation 7

It is recommended that GMOB, the Co-Proponents and the Parties consider ways in which they can increase their collaboration in dealing with *all* aspects of the legacy of the Giant Mine.

As noted above, GMOB is in the ideal position to view all aspects of the Project as the Co-Proponents and the Parties have their individual responsibilities and perspectives. There would be an advantage to increase their collective collaboration towards making the Project and other activities that deal with the Giant Mine legacy successful. This could include developing a coordinated, overall strategy to plan and execute all the work to be done. Such an approach is also consistent with Article 2.1(c) of the Agreement which indicates that one of the purposes of the Agreement is to 'facilitate collaboration among the Parties'. Part of this collaboration would be for each organization to review their responsibilities under the Agreement including Article 2.2(a)(ii) which says that all intend to achieve or support 'the economy, way of life and well-being of the aboriginal peoples of Canada in the vicinity of Yellowknife, and of other residents of Yellowknife, the Northwest Territories and Canada'.

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DOCUMENT REVISION HISTORY

Version	Issuing Company	Date Issued	Revision Notes
V0	ARKTIS Solutions Inc.	January 29, 2021	Draft for review
V1	ARKTIS Solutions Inc.	February 11, 2021	Final. Address editorial review comments.

ACRONYMS

AANDC – Aboriginal and Northern Development Canada
Agreement – Giant Mine Remediation Project Environmental Agreement
CFG – Communicating with Future Generations
CIRNAC – Crown Indigenous Relations and Northern Affairs Canada
DIAND – Department of Indian Affairs and Northern Development
EA – Environmental Assessment
INAC – Indian and Northern Affairs Canada
GoC- Government of Canada
GMAC – Giant Mine Advisory Committee
GMOB – Giant Mine Oversight Board
GMRP – Giant Mine Remediation Project
GMWG – Giant Mine Working Group
GNWT – Government of the Northwest Territories
NSMA – North Slave Metis Alliance
MVLWB – Mackenzie Valley Land and Water Board
MVRMA - Mackenzie Valley Resource Management Act
Review Board – Mackenzie Valley Environmental Impact Review Board
PSPC – Public Services and Procurement Canada
YKDFN - Yellowknives Dene First Nation



NOTICE TO READER

This document was completed under contract by ARKTIS Solutions Inc. for the Giant Mine Oversight Board between October 2020 and February 2021. The information contained within this document is provided for information purposes only. Reasonable efforts have been made to ensure the accuracy and completeness of the information contained in this document. For more information on this report, please contact:

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1.0 INTRODUCTION

The Giant Mine Oversight Board (GMOB or Board) was established as a condition of the Giant Mine Remediation Project Environmental Agreement (Agreement). The Environmental Agreement is an agreement between Canada and the Government of the Northwest Territories (GNWT), Yellowknives Dene First Nation (YKDFN), City of Yellowknife, Alternatives North, and the North Slave Métis Alliance (NSMA).

The Board is an independent entity administered by a six-member Board of Directors. The mandate of the Board is as follows:

- Monitor and report on the Giant Mine Remediation Project.
- Review, report, and make recommendations on the Project's programs, research, and annual reports, etc.
- Conduct communications activities with the public and Parties to the Agreement.
- Research a permanent solution to the arsenic trioxide stored underground at the site.
- Report to the public through GMOB public meetings, reports and annual reports.

The objectives of this study were to evaluate and prepare a report on the effectiveness of the Board in achieving its responsibilities under the Environmental Agreement (the Agreement) over the past five-year period. ARKTIS Solutions Inc. (ARKTIS) was selected by a sub-committee of the Parties to complete this work. GMOB administered the contract. ARKTIS sub-contracted select services from Dillon Consulting Inc. (Dillon) and two independent experts to complete this project.

The Review Team and their roles in this project as follows:

- Dr. Ken Reimer – lead evaluator
- Dr. Jamie Van Gulck, P.Eng. (ARKTIS) – project manager and support to lead evaluator
- Mr. Chris Van Dyke (Dillon) – facilitation and engagement lead
- Dr. Ron Wallace – expert oversight and review
- Mr. Shane Camirand (ARKTIS) – support to lead evaluator

This report is organized as follows:

- Section 2 outlines the methodology applied to achieve the objectives.
- Section 3 provides an overview of the Giant Mine and GMOB.
- Section 4 documents the activities completed by GMOB from 2015 to 2020.
- Section 5 summarizes the assessment of GMOB's effectiveness in fulfilling its mandate.
- Section 6 provides recommendations from this study.
- Section 7 contains the administrative closing components for this report.

2.0 METHODOLOGY

To complete the 5-year review, the Review Team reviewed pertinent available materials produced for or by GMOB and conducted a series of engagement activities with key stakeholders and the public.

2.1 MATERIAL REVIEW

The Review Team conducted a thorough review of materials made available on the [GMOB website](#) in the Research and Documents sections. This included reports, minutes, and correspondence between GMOB and other parties, as well as annual financial statements as of January 1, 2021. Additional materials obtained from GMOB and available on-line were also reviewed, including:

- Giant Mine Remediation Project Environmental Agreement
- GMOB Activity Reports
- Research documents
- Mackenzie Valley Land and Water Board - relevant materials
- Mackenzie Valley Environmental Impact Review Board – relevant materials
- GMOB Meeting Evaluation Reports
- GMOB 2020-2021 Work Plan
- Various online materials:
 - [Crown-Indigenous Relations and Northern Affairs Canada: Giant Mine Remediation Project](#)
 - [Government of Northwest Territories: Giant Mine Remediation Project](#)
 - [City of Yellowknife: Giant Mine Socioeconomic Action Plan](#)
 - [Yellowknives Dene First Nation](#)
 - [North Slave Metis Alliance](#)
 - [Alternatives North](#)
 - [TERRE-NET](#)
 - [Yellowknife Heath Effects Monitoring Program](#)

2.2 ENGAGEMENT

The Review Team took a three-pronged approach to engagement: beginning with a questionnaire provided to stakeholders to complete, then following up with an interview with each of the stakeholders, and finally a workshop with the Board and stakeholders to explain our findings and seek additional input. Recognizing the Board's public-facing role, an online public survey was also prepared.

The list of stakeholders contacted for this project was set out in the Terms of Reference, and the Review Team adhered to this list. This includes the Board itself, the Mackenzie Valley Land and Water Board (MVLWB), and the parties to the Environmental Agreement: Yellowknives Dene First Nation (YKDFN), North Slave Metis Alliance (NSMA), the City of Yellowknife, Alternatives North, the Government of the Northwest Territories (GNWT), and the Government of Canada. Specific individuals to be contacted were listed for each organization and again, the Review Team kept to this list.

2.2.1 Questionnaires

The first aspect of the engagement process was the development of a questionnaire to be shared with stakeholders. The questionnaire was divided into 3 sections: a general section, a section focused on GMOB's mandate, and a section related to GMOB's principles. Finally, several classification questions were included. For GMOB Board members and staff, the questionnaire was adjusted slightly to remove questions that would not be relevant to them (for example, "How familiar are you with the Giant Mine Oversight Board?"). Questionnaires were distributed to stakeholders in Word format, with a 2-week timeline for return. Responses were then added to a response matrix for ease of comparison. The questionnaire and a summary of the results are provided in Appendix A.

2.2.2 Interviews

As questionnaires were received, the Review Team was able to key into certain areas for further exploration with GMOB and stakeholders. This analysis was used to develop a list of questions to guide follow-up interviews with the parties. These questions were separated into several themes, covering public awareness and visibility, GMOB's meetings, GMOB Library, technical expertise, mandate effectiveness and scope, communication, socio-economic matters, social licence, the research program, the Environmental Agreement, and general topics. While a standard list of questions was used for all interviews, often there was a free-flowing conversation that drifted away from the set list of questions. Additionally, certain questions were asked of specific stakeholders because of their questionnaire responses.

Interviews were held between December 4th and December 15th. Interviews were held in a variety of forms, from in-person to Google Meet video calls, to phone calls. While the Review Team anticipated one-on-one interviews beforehand, it turned out that several parties preferred meeting as a group, resulting in a smaller number of interviews overall than initially contemplated. As examples, the interview with GMOB itself included all 6 Board members, 1 staff and a contractor. In a similar fashion, the interview with Alternatives North included all 3 interviewees identified together. On the other hand, owing to their schedule and location, the Government of Canada interviewees had separate calls. Interviews were held with all stakeholders who completed questionnaires, except for the Mackenzie Valley Land and Water Board (MVLWB), which indicated following the questionnaire that they did not believe an interview with them would provide much value.

Each stakeholder interviewee was provided with an interview waiver form beforehand and was advised of how the interview would be used. While going through the list of questions, the interviewer took thorough notes. In the case of GMOB (due to the size of the group), the interview was recorded to ensure accuracy. After the interview, the notes were cleaned up and provided to the interviewee(s) to ensure the notes were accurate and nothing was misquoted.

2.2.3 Public Survey

Parallel to the stakeholder questionnaire and interviews, an online public survey using the Google Forms platform was developed. This survey included approximately 20 questions, focused mostly on public awareness of GMOB, rather than the more technical aspects of the questions posed to stakeholders. As discussed during the initial project kick-off calls, the link to the survey was shared with 3 parties determined to have a strong reach into the community: the Yellowknives Dene First Nation (YKDFN), the North Slave Metis Alliance (NSMA), and Alternatives North. The public survey and a summary of the results are provided in Appendix B.

The identified contact(s) for each of these organizations then distributed the link through various methods including Facebook, mailing lists, and emails. When the survey closed, 23 responses were received. As part of the survey, respondents were asked if they would like to be contacted for a short follow-up interview. Two respondents indicated that they would be willing to be interviewed but one was available for an interview.

In addition to direct questions for members of the public, the questionnaires and interviews covered topics of perceived public awareness of GMOB. This was particularly helpful with organizations such as YKDFN and NSMA, where the interviewees had a good sense of their respective membership's awareness of the Board and its activities.

2.2.4 Workshop

On January 22, 2021, a workshop was held using the Zoom platform, to bring together GMOB and the Parties to discuss the initial findings of the project, focusing on "what we heard" from the engagement process, and "what we learned" from the review of relevant documents. Prior to the workshop, an agenda and a presentation were developed, and these were shared with workshop participants along with a summary of GMOB's 2016 Workshop, and the What We Heard report prepared following this project's questionnaires, interviews and public survey. Appendix C contains the What We Heard report.



The workshop was well-attended. Representatives from all Parties were present, as well as the majority of GMOB members and this project's team members, for a total of 22 participants. Main areas of discussion included the GMOB Library and what the parties and GMOB envision it to be, GMOB's role around public awareness of the project and communications, socio-economic and off-site matters, and the roles that all Parties play in the Agreement. A key takeaway from the workshop was the positive perception that both Indigenous organizations have of GMOB, and the belief that the Board's existence has helped them to participate more fully in the project. Appendix C contains the workshop presentation and materials provided to participants in advanced of the workshop.

3.0 GIANT MINE OVERVIEW

Gold was first discovered in the Yellowknife, Northwest Territories area, in the late 1890s but, due to the lack of accessibility, nothing was done until 1935 when claims were staked on the Back Bay of Great Slave Lake. The discovery of the main gold deposit is often attributed to C.J. Baker and H. Muir, but the Yellowknives Dene First Nation's history describes that a large gold-bearing rock was traded to a prospector by an elder who had found it when harvesting berries. The Tlicho, Akaitcho, and Métis have traditionally used the area around Yellowknife for traveling, camping, and harvesting; early records refer to a semi-permanent fishing camp located across Yellowknife Bay, in the area now known as Dettah.

Mining activity was interrupted by World War II but, after the war, production began in earnest. The first gold brick was poured by Giant Yellowknife Mines, Ltd. on 3 June 1948. Different companies owned the mine over the ensuing years: Giant Yellowknife Mines, Ltd., a division of Falconbridge (1948-1986); Pamour (1986-1990); and Royal Oak Mines (1990 – 1999). When Royal Oak went into receivership, the Government of Canada assumed ownership. It sold the mine to Miramar Mining Corporation (1999-2004) but the government retained environmental liabilities. When Miramar ended its obligations in 2005, the Giant Mine officially became an abandoned mine site. The Government of Canada is now the caretaker.

The Giant Mine site is located north of Yellowknife, but within the City boundary. It is 1.5 kilometers from the community of Ndilo and nine kilometers from the community of Dettah. The Giant Mine operated for over 50 years and produced seven million ounces of gold but it also left a legacy of contamination. Arsenic, as arsenopyrite, is often found in association with gold ore and the gold extraction process typically involves the heating of the ore to high temperatures. An arsenic-rich emission occurs and, in the early days, much of this was released into the area around the site. More sophisticated procedures were ultimately installed which trapped much of this emission and around 237,000 tonnes of the resulting toxic arsenic trioxide dust was stored underground. The site was also contaminated with approximately 13.5 million tonnes of contaminated tailings spread over 95 hectares together with the abandoned infrastructure.

The Giant Mine site is subject to the jurisdictional authority of both the territorial and federal governments. On 15 March 2005, a 'Cooperation Agreement Respecting the Giant Mine Remediation Project' (the Project) was established. This indicated that the Co-Proponents, the Government of Canada (GoC) and the Government of the Northwest Territories (GNWT) would jointly implement a care and maintenance plan for the site that protects human health, public safety and the environment. The department within the federal government that has this responsibility has had various names over the years: DIAND – Department of Indian Affairs and Northern Development; AANDC – Aboriginal and Northern Development Canada; INAC – Indian and Northern Affairs Canada; and CIRNAC – Crown Indigenous Relations and Northern Affairs Canada. These acronyms appear in documentation over the years, but in this report, the current name – CIRNAC – is used except when quoting directly from other documents.

In 2015, the Cooperation Agreement was renewed; it also outlines the financial responsibilities for care and maintenance as well as surface remediation. CIRNAC is responsible for the management of the arsenic trioxide stored underground. The resulting Giant Mine Remediation Project Team involves staff from CIRNAC, GNWT, and Public Services and Procurement Canada (PSPC). The remediation project (referred to in this report as the Project) is restricted to everything within the boundaries of the lease in place during the operation of the mine as well as two impacted areas outside of it (see Figure 1). These include the former Giant Mine townsite and an area of historic tailings deposition along the shore of North Yellowknife Bay (Back Bay). Contamination outside the Project boundaries is not within the scope of the Cooperation Agreement and is the responsibility of the GNWT.

3.1 PERTINENT REGULATORY HISTORY

On 19 October 2007, CIRNAC (then AANDC) applied for a Type A Water License to the Mackenzie Valley Land and Water Board (MVLWB). After a preliminary screening and on 21 February 2008, the MVLWB determined that the proposed remediation project (the Project) would not have a significant adverse effect on the environment or be a cause for concern. However, the City of Yellowknife referred the application to environmental assessment on 31 March 2008 due to potential adverse effects within municipal boundaries. On 7 April 2008, the Mackenzie Valley Environmental Impact Review Board (the Review Board) undertook the environmental assessment.

After several years of detailed technical review, public meetings and submissions from intervenors, the Review Board released its decision (published on 20 June 2013) – ‘Report of Environmental Assessment and Reasons for Decision Giant Mine Remediation Project’ (GMRP). The Review Board found that ‘...the Remediation Project is likely to cause significant adverse impacts on the environment, including cumulative impacts arising from the potential effects of the Project in combination with the effects of previous activities’¹.

The Review Board proposed a series of measures that it felt would mitigate adverse impacts and would help address the concerns of the public and surrounding communities. The Minister of DIAND (now CIRNAC) approved the Environmental Assessment report on 11 August 2014 including modified measures. A total of 26 measures and 12 suggestions resulted from the environmental assessment process. Among these measures were actions to negotiate a legally binding environmental agreement with various representative organizations and create an independent oversight body for the Giant Mine Remediation Project. Two of these are:

Measure 7: The Developer will negotiate a legally binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate 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 the environmental agreement of the Giant Oversight Working group. This Oversight Body will be in place before major Project activities begin on site and will exist for the life of the Project. The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the oversight body.

Measure 8: The activities of the oversight body will include:

- 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’.

The creation of an oversight body was in response to many factors. During the environmental assessment process, the Review Board heard concerns from the public regarding a lack of trust in the government (i.e., CIRNAC and GNWT) as a Developer. In part, these were due to the multiple roles that the Government of Canada had to play: developer, inspector, enforcer, Responsible Minister, among others. Although the Review Board acknowledged that the Developer had introduced several improvements to the Project during the environmental assessment process, there was a ‘...deep and pervasive resentment of the Giant Mine and the resulting environmental, social and cultural legacy’².

The Yellowknives Dene First Nation (YKDFN) described ‘...their lack of confidence in government based on past experiences with the federal government and the Giant Mine’. They indicated that the ‘...only way forward is to develop a mechanism that creates confidence in the proponent’s plans. An independent environmental oversight body is the right tool for this job’³. The Yellowknives Dene were also critical of the

¹ Report of Environmental Assessment and Reasons for Decision: Giant Mine Remediation Project (EA0809-001) issued 20 June 2013 pg.1; referred to hereafter as the EA.

² EA: pg. 82

³ EA: pg. 82

Developer's engagement efforts, saying 'for far too long, this endeavour has been one-sided, with the proponent dictating to YKDFN and other Parties why the project is good for the people and the land without listening to very real concerns or addressing our needs'⁴. The North Slave Metis Alliance (NSMA) also cited concerns about inadequate consultation.

The City of Yellowknife told the Review Board that the September 2012 public hearing was... "the first time... there was authentic engagement with the public in terms of the socioeconomic interests and impacts, and particularly in the community of Dettah..."⁵ The City concluded that AANDC had not demonstrated authentic public engagement or a proper planning process on the real issues regarding the community interests.

Alternatives North, which describes itself as the NWT's unofficial opposition, 'takes a grassroots approach to democratic change.' In the public hearings, Alternative North stressed the lack of a social license for the Project. It defined social license as "existing when a project has the ongoing approval within the local community and other stakeholders, ongoing approval or broad social acceptance and, most frequently, as ongoing acceptance"⁶. In the opinion of Alternatives North, the Project had none of these.

In addition, there were very specific concerns with respect to the arsenic trioxide stored underground. The Developer had proposed a frozen block approach whereby thermosyphons would be used to freeze the substrate underground for perpetuity. Several submissions pointed out that arsenic is an element that will not 'go away'. For example, the Yellowknives Dene did not view this plan as remediation, just a long-term management plan. The Review Board recognized that this approach was the best available with current technologies but that new approaches that might be found in the future should not be eliminated. Thus, Measure 19, Reversibility, indicates that '...the Developer will not adopt any method of freezing that significantly reduces opportunities for future arsenic removal or other remediation by future technologies'⁷. To facilitate active study of emerging technologies that could result in a more permanent solution to the underground arsenic trioxide, Measure 3 directs the Developer to fund research as '... advised by stakeholders and potentially affected Parties through the Oversight Body'⁸. Details of these arrangements were to be negotiated as part of the environmental agreement.

Since 2014, the Co-Proponents have continued care and maintenance activities at the site and worked to fulfill the 26 Measures presented in the environmental assessment so that the licensing process could resume. On 1 April 2019, the GMRP submitted a post-environmental assessment information package for the Water License, as well as an Application for a Land Use Permit. Over the next year, there were numerous technical and public meetings, submissions from numerous interveners, and a detailed review by the MVLWB. On 18 September 2020, the Giant Mine Remediation Project was notified that the licenses had been granted for a period of twenty years. This means that the project can now initiate remediation activities but must first submit Management and Monitoring Plans to the MVLWB before work can begin.

3.2 THE GIANT MINE REMEDIATION PROJECT ENVIRONMENTAL AGREEMENT (THE AGREEMENT)

The environmental assessment called for in Measure 7 was signed by the GoC, GNWT, NSMA, YKDNF, The City of Yellowknife and Alternatives North on 9 June 2015. The purposes of the Agreement, as described in Article 2.1, are to:

- provide for the establishment, roles and funding of an independent Oversight Body for the Project, and establish or give effect to the rights and responsibilities of the Parties relating to the independent Oversight Body;
- support the development of a coordinated approach to the implementation of the Mackenzie Valley Resource Management Act (MVRMA) Measures, the Co-Proponents Commitments and the

⁴ EA: pg. 28

⁵ EA: pg. 29

⁶ EA: pg. 82

⁷ EA: pg. 160

⁸ EA: pg. 189

MVRMA Suggestions;

- facilitate collaboration among the Parties; and,
- build public confidence in the Project and enhanced transparency and accountability in relation to the Project.

Article 2.2 describes the Objectives of the Agreement. It calls for *all* Parties to achieve or support several objectives. These include, among others, ensuring that the remediation of the Giant Mine site is done in a manner that eliminates, or substantially mitigates, environmental risks at the site while protecting the surrounding ecosystem. It also calls for the protection of the 'economy, way of life and well-being of the Aboriginal peoples of Canada in the vicinity of Yellowknife, and of other residents or Yellowknife, the Northwest Territories and Canada'. Article 2.2 also calls for 'effective communication with future generations about the Project'.

The Roles of the Parties are laid out in Article 2.3 of the Agreement. It is made clear that the Co-Proponents 'are responsible for and maintain full control and authority for the management of the Project'. Apart from the oversight body, the roles of other Parties are less well-defined in that 'other Parties may participate in the implementation of the Agreement...'

The Agreement describes the role, mandate, and reporting responsibilities of the independent Oversight Body in several different sections. The responsibilities are quite broad and include: promoting public awareness and engagement; managing a research program; providing independent advice to the Co-Proponents, regulatory authorities, the Parties and to whomever else they consider appropriate; monitoring/reporting on the Project's plans (short-, medium- and long-term), incorporation of Traditional Knowledge, mitigation of impact on the environment etc.

The Agreement also calls for the Oversight Body to monitor and report on the implementation of this Agreement as well as Measure 8 or any other Measure. Other responsibilities of the Oversight Body include: promoting awareness of itself, providing information to anyone which it deems appropriate and establishing a public repository of records that it considers relevant.

While the Oversight Body has a responsibility to review and make recommendations on the Co-Proponents annual report, as well as the other areas noted above, the Co-Proponents are only obligated to respond to these comments, not to action them. Thus, the Oversight Body is not empowered to require change, they are committed to making suggestions.

Article 9.2 of the Agreement states that, "The Parties may at any time consider jointly whether: (a) the requirements for the annual report and the Status of the Environment Report; (b) the composition, bylaws or operations of the Oversight Body; or (c) any other elements of this Agreement, including the term of this Agreement should be changed, with a view to ensuring the prudent management of public resources while maintaining the purposes, objectives and principles stated in Article 2 of this Agreement."

Article 9.3 of the Agreement states that "The Parties shall consider jointly the matters referred to in Article 9.2 five years after the Effective Date. Thereafter, the Parties shall do so every ten years."

The implementation of Articles 9.2 and 9.3 are the focus of this report.

3.3 GIANT MINE OVERSIGHT BOARD (GMOB)

This section of the report describes the formation of the Oversight Body (GMOB) called for in the Agreement as well as the Vision, Mandate and Principles that GMOB has adopted.

3.3.1 Establishment

In July 2015, soon after the Agreement was signed, an Interim Implementation Committee was formed. It was comprised of representatives of the Parties to the Agreement. A Secretariat to this Committee was established within the Department of Environment and Natural Resources, Environment Division, GNWT. By 27 July 2015, this body had arranged for the incorporation of the Giant Mine Oversight Body Society, commonly referred to as GMOB or the Board.

Each of the Parties to the Agreement appointed a Director to provide the Board with a wide range of expertise. It was clearly understood that the Directors would act independently and not in the interests of the appointing body. The Directors were confirmed by October 2015 and a Board Orientation meeting was held 20 - 22 October 2015. Todd Slack acted as Interim Chair as Dr. Kathy Racher did not officially join the group until the new year.

The Directors selected by the various appointing bodies were:

- Dr. Kathy Racher – YKDFN
- Dr. Stephan Gabos – NSMA (replaced in 2016 by Dr. Ken Froese)
- David Livingstone – Alternatives North
- Tony Brown – City of Yellowknife
- Ken Hall – GNWT
- Ginger Stones – Government of Canada (replaced in 2019 by Mark Palmer)

The Directors have a wide variety of backgrounds including environmental stewardship, hazardous substances/contaminated sites, civil engineering, environmental sciences and aquatic monitoring, environmental health and risk assessments, and remediation of contaminated sites. The Board has indicated that when it is faced with an issue that is not covered by its own expertise, it seeks support through contracted consultants.

By the time the Board had released its first annual report – called an Establishment Report – covering the period July 2015 to 31 December 2016, it had set up an office in downtown Yellowknife, developed administrative policies and procedures and launched its website. It also hired an Executive Director, Ben Nind, and an office administrator but the latter position is currently vacant.

3.3.2 Vision, Mandate, and Principles

GMOB had also developed vision and mission Statements and interpreted its mandate in the context of the Agreement, as described below.

Vision

The remediation of the Giant Mine site, including the subsurface, is carried out in a manner that is environmentally sound, socially responsible and culturally appropriate.

Mission

GMOB independently monitors, promotes, advises and broadly advocates the responsible management of the remediation of the Giant Mine site. It also manages a research program focused on finding a permanent resolution for the management and disposal of the arsenic trioxide stored underground at the Giant Mine site.

Mandate

The Agreement requires that GMOB:

- review and make recommendations regarding the annual report from the Co-Proponents, the Status of the Environment report and the 20-year Independent Project Review report
- participate in and provide advice regarding the process followed by the Co-Proponents for assessing options for the management of Baker Creek;
- manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the Giant Mine;
- promote public awareness of itself, the Agreement and GMOB's roles under the Agreement;
- establish a publicly accessible repository of records that it considers relevant to its responsibilities;
- provide all its reports and evaluations to the Parties to the Agreement and make them available to

- the public; and,
- issue a report and hold a public meeting annually.

Principles

In addition to the mandate, GMOB has also adopted several Principles to guide its work. Not all of these are explicitly stated in the Agreement, but they are consistent with both the Agreement as well as the background information described in the Environmental Assessment.

- Trust – evidence and confidence that the agencies and individuals involved in the remediation process are doing what they committed to do and are ensuring the safety of the people and the land.
- Transparency – governments and decision makers are open and accountable for processes and decision-making.
- Communication and Engagement – meaningful dialogue and the legitimate exchange of knowledge and ideas takes place, rather than a one-way information flow that has historically characterized government-community communications and engagement activities.
- Reconciliation – the decisions and actions of past governments and corporate interests are acknowledged, and an apology is made for the impacts that these decisions and actions have had on the YKDFN and NSMA memberships and the people of the Yellowknife/Great Slave Lake region in general.
- Social License – credibility established between and among the Project core partners that lead to a view that the process is legitimate and results in trust and community support.
- Culture – the role and importance of tradition and culture are understood along with how the different technical and technical approaches to remediation can honour traditions and provide opportunities to rebuild and strengthen social capital.
- Knowledge (Western scientific and Indigenous/ Traditional Knowledge) – notwithstanding past efforts, that serious effort is made to view the Project from both Western and Indigenous perspectives and accord equal value to each.
- Community – the Giant Mine Remediation Project process is used to strengthen human communities and make them fundamentally better.

4.0 GMOB ACTIVITIES 2015-2020

This section provides an overview of the work that GMOB has been engaged in during the first five years of its mandate. More details are provided in later sections of this report dealing with individual mandate items.

4.1 WORKSHOP

GMOB held an internal workshop on September 14 - 15, 2016 in Ottawa, Ontario to determine the best way forward as a group. During this workshop, GMOB members considered the roles of GMOB as set out in Section 2.3 of the Agreement. The conclusions provide some insight into the way in which they have undertaken their mandate. The workshop outcomes are provided as an appendix to the Establishment Report and are briefly summarized here under each of the main parts of GMOB mandate:

- Promote public awareness of the Project, disseminate information about the Project, and promote public engagement in processes related to the Project.
 - GMOB has a role to communicate its understanding and views on the Project but that it is the Co-Proponents responsibility to reassure or convince the public that the site is safe.
 - GMOB's mandate requires that it be an objective observer and come to its own, independent, conclusions.
 - Directors and staff are technical reviewers and advisors but are not technical 'doers'.
 - GMOB should encourage the Co-Proponents to engage with the public in a meaningful way, but not to 'push a vested interest or view'.
 - GMOB will produce its own materials and make them available to the public in a variety of ways; it is not a distribution center for the Co-Proponents or the other Parties.
- Provide independent advice to the Co-Proponents on the management of the Project as GMOB considers appropriate.
 - a central role of GMOB is to review and provide constructive criticism of the information that is provided to it.
 - greatest contribution is to encourage the Project Team to 'think outside the box' by providing independent advice.
 - sharing information amongst GMOB members is critical as is respectful dialogue amongst all stakeholders.
- Provide independent advice on the monitoring and management of the Project to regulatory authorities, the Parties, the public and to whomever else GMOB considers appropriate
 - the annual report should incorporate advice, observations and recommendations for regulatory bodies and other agencies, including federal agencies.
 - GMOB does not represent or speak for the Parties.

4.2 WEBSITE, OFFICE AND LIBRARY

The GMOB website was launched in December 2016 and is very comprehensive. It provides background regarding the project and the Board: history, water license, Environmental Agreement, identifies the members of the Board (with bios), and describes the mandate and principles noted above. In addition, it describes the Giant Mine Remediation Project, relevant committees and the research program. It includes drone footage of the Giant Mine site. The 'Documents' section includes a list of all reports produced by GMOB, as well as relevant correspondence/documents from the various Parties. Financial statements are available as are the minutes of GMOB meetings. A calendar identifies the activities of the Board and other relevant items.

The office is in a prominent location at 5014 Franklin Ave., Yellowknife, Northwest Territories. It is normally open to the public but, during the current COVID-19 situation, an appointment is required. There are maps, displays and models available and these are often visited by residents, visitors, delegates and educational groups.

The Library is an on-line resource that is accessed via the GMOB website. Additional details regarding this public repository are described in Section 5.5.

4.3 MEETINGS

GMOB members participate in numerous meetings (both mandated and non-mandated) with the Co-Proponents, the Parties, other technical agencies, and the public. Some of these are mandated under the Agreement and the Societies Act as noted in Table 1.

Table 1. Summary of mandated meetings that GMOB participates in.

Typical Timeframe	Participants	Mandated Requirements	Frequency
Spring	GMOB and Parties	Agreement: 9.1	Biannual
Spring	GMOB and Public	Agreement: 5.5	Annual
Fall	Annual General Meeting	Societies Act of NWT	Annual
Fall	Co-Proponents	Agreement: 3.4 d	Annual
Fall	GMOB and the Parties	Agreement: 9.1	Biannual

GMOB also ‘observes’ the work of several additional committees. A brief description from the website indicates that these include, or have included, the following:

Giant Mine Working Group (GMWG) – This group was formed in 2013, meets monthly, and includes many stakeholders from government and Indigenous groups. It provides a forum for parties to discuss and make recommendations on technical, operational, and project activities related to the GMRP.

YK Health Effects Monitoring Program - One of the Measures put forward by the Mackenzie Valley Environmental Impact Review Board was to design and implement a Health Effects Monitoring Program in Ndilo, Dettah and Yellowknife. The program is designed to ensure that the remediation project does not have a negative impact on people’s health. This is being done by establishing arsenic exposure amongst residents prior to, and during, remediation activities. The study is led by Dr. Laurie Chan, University of Ottawa with advice from various agencies including health government health departments, indigenous groups and GMOB.

Giant Mine Advisory Committee (GMAC) – This committee is coordinated by the YKDFN and is designed to provide the Project Team with Traditional Knowledge input and feedback on the remediation design.

Communicating with Future Generations (CFG) – This group no longer meets but was designed to develop strategies for communicating with future generations about the management needs of the site.

In addition to the committees noted above, a review of GMOB Activity and Annual Reports indicates that GMOB Directors and staff attend numerous additional technical, public information and other sessions throughout each year. A total of 33 meetings were described in the 2016 Establishment Report. Not all the subsequent annual reports provide a summary of meetings attended by GMOB personnel but in an Activity Report summarizing work over the period 16 January 2020 – 27 August 2020 there was participation in over 80 meetings. A member attending a meeting provides a record to other GMOB Directors so that all are kept informed of what was discussed.

4.4 BUDGET

Article 11 of the Agreement proscribes that the Co-proponents shall provide funding for the Oversight Body. Section 11.2 allocated \$650,000 in constant 2015 dollars for the operations budget, to be adjusted each year according to the Consumer Price Index. An additional \$175,000 was assigned for the research budget for each of the fiscal years from 2016 through 2019. Thereafter, it was to rise to \$250,000 (all in constant 2015 dollars). The funding mechanism has changed over the years from a contribution agreement to a grant, but it now allows for unspent funds to be carried over to the next fiscal year. Any surpluses generated in the operating fund are to be transferred to the research program.

For the financial year 2020 – 2021 GMOB budget is \$972,385 allocated as follows:

- Core Operations Budget: \$702,553 (72% of the total budget)
- Research Program Budget: \$269,832 (28% of the total budget)

The annual audited financial statements are available on the website as are a listing of Vendor costs exceeding \$5,000.

4.5 RESEARCH PROGRAM

The Agreement directs GMOB to undertake a research program to seek a permanent solution to the arsenic trioxide stored underground. This work is underway; details are provided in Section 5.3.

5.0 GMOB MANDATE ASSESSMENT

5.1 REPORT REVIEW AND RECOMMENDATIONS

In accordance with its mandate, and with the authority of its role established in the Agreement, each year GMOB issues, as part of its Annual Report, a series of recommendations directed to the Project Team and/or the Co-Proponents.

5.1.1 Relevant Provisions of the Environmental Agreement

- Article 2.3(b)(ii) requires GMOB to 'provide such independent advice to the Co-Proponents on the management of the Project as the Oversight Body considers appropriate'.
- Article 3.1 (c) includes as part of GMOB Mandate to review and may make recommendations concerning the Co-Proponents' annual report...".
- Article 3.4 (d) includes as part of GMOB mandate to 'issue an annual report each year, including a summary of the matters referred to in 3.4 (a) that may be applicable in that year'.

5.1.2 What We Reviewed

- GMOB Annual Reports, 2016 through 2019, inclusive.

5.1.3 Summary

To examine whether and to what extent GMOB has met its mandate with respect to this requirement, it is possible, though not particularly useful, to simply note that GMOB has done so by virtue of publishing annual reports each year since 2016 that contain recommendations. However, the 5-year Review warrants a more thorough examination of the themes, topics and specific recommendations that GMOB has made in that time. Where the Parties respond to GMOB recommendations, and as the topics and issues evolve over time, a dialogue develops; examining it is important in exploring the relationship between the Board and the Parties.

In the 2015-16 Establishment Report, GMOB issued recommendations across 12 topics. In subsequent Annual Reports, recommendations were also organized into 3 broader themes:

- Project Impacts on Community Opportunities and Wellness
- Project Management and Planning
- Environment and Health

For the purpose of this review, the recommendations made in 2015-16 have been categorized by the Review Team into these themes as well.

Since 2015-16, GMOB has issued a total of 44 recommendations, as summarized in Table 2. Of these, 22 were related to one or more previous recommendations. Put another way, 22 of the 36 recommendations issued after 2016 (61%) were repeated, updated from, or linked to previous recommendations.

- 11 recommendations linked to one previous year
- 6 recommendations linked to two previous years
- 5 recommendations linked to three previous years

Table 2: Yearly summary of GMOB recommendations by theme.

Year	Project Impacts on Community Opportunities and Wellness	Project Management and Planning	Environment and Health	Total
2015-16*	5	5	2	12
2017	4 (4)	5 (2)	3 (2)	12 (8)
2018	5 (4)	3 (2)	3 (3)	11 (8)
2019	4 (4)	2 (1)	3 (1)	9 (6)
Total	18 (11)	15 (5)	11 (6)	44 (22)

* Theming done independently as part of this review

Numbers in brackets represent number of recommendations linked to a previous year

GMOB recommendations are based on “the various meetings and discussions the GMOB has had with the remediation team and the Parties to the Agreement; materials directly provided by the Project Team; observations at various committee and public meetings and analysis of materials presented; and...community concerns...”⁹

The recommendations made by GMOB have been categorized in this review into 20 distinct topics, though there inevitably is some overlap. To get a sense of the progress of the recommendations, each topic was assigned a status based on a review of the Annual Reports, as follows.

- **Active** - those recommendations that were made in 2019 and for which a response has not been received from the Project Team or otherwise acknowledged.
- **Active/Ongoing** - those recommendations made in 2019 that have also been made in previous years, and for which there is limited evidence that they have been addressed to GMOB satisfaction.
- **Closed** - those recommendations for which responses have been received by the Project Team, and/or where GMOB has indicated in the annual reports that satisfactory progress has been made at least for the time being.
- **Abandoned** - where a recommendation has been made and an unsatisfactory response has been received, but GMOB elects not to pursue the recommendation further.

The review is challenged by the fact that GMOB does not expressly indicate where recommendations have been sufficiently addressed by the Co-Proponents or Project Team. It is generally presumed that where recommendations from one year do not appear in future years, that GMOB considered the recommendation addressed by the Party or Parties it was directed to, unless indicated otherwise. The details of this analysis can be found as Appendix D. Table 3, section 5.15 summarizes the results.

5.1.4 What We Heard

Participants in the engagement program generally felt that GMOB was fulfilling its mandate but some had divergent views regarding the breadth of GMOB recommendations. Some felt that there was too much emphasis on socio-economic issues than environmental ones and wondered whether GMOB’s mandate included such considerations. Similarly, the inclusion of recommendations with respect to off-site contamination was criticized by some, arguing that the Project had well-defined boundaries. Others felt that it was not very useful if GMOB made recommendations to Parties that fell outside of their individual responsibilities. In response, GMOB pointed out that the Agreement, particularly Article 2.2, called for all signatories to take a broader approach, pointing out, for example, that the arsenic contamination does not stop at the Project boundary and that the remediation activities have a broader impact on the surrounding community. Arsenic contamination is one example of noted offsite initiative taken by Project, others include socio-economic planning, health and stress studies, air monitoring, water management for Back Bay, Yellowknife Bay and the upstream flow from Baker Creek. When all were asked if modifications to the Environmental Agreement or GMOB mandate were needed the response was a resounding no.

⁹ 2015-16 GMOB Establishment Report, pg. 14

5.1.5 Discussion

Examining the recommendations made by GMOB between 2016 and 2019 clearly demonstrates that this element of the mandate is taken very seriously.

Effective recommendations require a thorough assessment of the related issue and knowledge of related activities and best practices. They clearly identify the actors involved in the intervention, provide a rationale linked to a mandate, and offer detailed instructions for addressing it. GMOB’s recommendations, and the accompanying discussion and context provided in GMOB Annual Reports provide this for the most part. The analysis presented in Appendix D provides the basis for Table 3.

Table 3: GMOB recommendation status by topic.

Theme	Topic	Status
Project Impacts on Community Opportunities and Wellness	Health and Community Well-Being	Closed
	Traditional Knowledge	Closed
	Communication and Engagement	Closed
	City of Yellowknife Involvement	Active/Ongoing
	Reconciliation and Legacy Issues	Active/Ongoing
	Resources and Capacity	Active/Ongoing
	Socio-Economic Issues	Active/Ongoing
Project Management and Planning	Project Planning	Active/Ongoing
	Performance Measurement	Active/Ongoing
	Remediation Planning and Activities	Active/Ongoing
	Project Delivery Model	Active/Ongoing
	Main Construction Manager	Closed
	Independent Peer Review Panel Confirmation	Closed
	Regulatory Process	Abandoned
	Long-Term Funding	Active
Environment and Health	Environmental Management System	Closed
	Off-site Contamination	Active/Ongoing
	Understanding Arsenic Risks	Closed
	Land Use Planning	Active
	Greenhouse Gas Emissions	Active

Of the twenty topics for which GMOB made recommendations, less than half (seven) appear to be closed. Again, it is challenging to determine whether and to what extent GMOB is fully satisfied with how each associated recommendation has been addressed, or whether there has been a conscious decision not to pursue certain recommendations past 2018 to focus on certain GMOB priorities that have remained unresolved over multiple years.

To date, just one recommendation is considered as having been Abandoned by GMOB. This is the recommendation pertaining to a short-term water license for the Giant Mine site to cover activities including routine effluent discharge into Baker Creek. Following CIRNAC’s determination that it did not require an interim license prior to the approval of the full remediation licence, GMOB stated that no further recommendations would be made on the topic.

Recommendations made by GMOB in nine topic areas are considered Active/Ongoing, meaning that they have been repeated in 2019 in some fashion, and it appears GMOB has not received a satisfactory response from the Project Team or another Party. Overall, project planning, delivery and a connection of the various activities form one group of such recommendations. Others call for action that are, or may be

considered by some, to be beyond the mandate of GMOB under the Agreement, or outside the direct purview of the Giant Mine Remediation Project.

While GMOB is confident in making recommendations that align with the broader purpose, objectives, roles and principles of the Agreement (i.e., Article 2), where they extend beyond the Project, or where responsibility of the Project Team and/or Co-Proponents to act on these recommendations is not clear or is subject to debate, they appear more likely to remain unresolved for greater periods of time. As a result, GMOB is challenged in this area of its mandate by having limited authority to compel action related to its recommendations.

It is noted that satisfaction with how recommendations are addressed is only one aspect of assessing effectiveness in achieving this element of the GMOB mandate. GMOB may feel that despite having certain issues remain unresolved year-over-year, repeating recommendations and providing observations and feedback accomplishes an important public communications function by keeping certain issues that are ancillary to the Project (e.g., off-site contamination) and others that are indirectly related to the Project (e.g., reconciliation) in the forefront of the public discourse.

In assessing the efficacy of GMOB in executing on this aspect of its mandates, the Parties have several considerations, some pursuant to Article 9.2 of Agreement. These may include:

- Amending the Agreement to directly capture issues such as Socio-Economic benefits planning, project management, resources and funding, and off-site contamination outside the lease area.
- Amending the mandate of GMOB to clarify or increase authority with respect to recommendations.
- Developing a tool with which GMOB can formally track progress in addressing recommendations made over time.

It became apparent during the engagement process that there was no interest in revisiting the Agreement nor GMOB's mandate. GMOB is an organization that is in a position to provide a broad overview of the project. It is clear that they have taken that role seriously and stated, in the 2018 Annual Report, that they believe that the Giant Mine Project needs to be viewed through many lenses including engineering, socio-economic and cultural. GMOB is a group that can provide this perspective and it seems consistent with both the mandate as well as the broader provisions of the Agreement. This approach is also consistent with the desire to consider issues outside of the Remediation Project boundaries and to encourage all Parties to take a broader view of the work to be done.

5.2 MANAGEMENT OF BAKER CREEK

In accordance with its mandate, and with the authority of its role established in the Agreement, GMOB has a responsibility to participate in, and provide advice regarding, the process followed by the Project Team to assess the options for the management of Baker Creek.

5.2.1 Relevant Provisions of the Environmental Agreement

- Article 2.3(b)(ii) of the Agreement requires GMOB to 'provide such independent advice to the Co-Proponents on the management of the Project as the Oversight Body considers appropriate'.
- Article 3.1(d) of the Agreement instructs GMOB to 'participate in and advise on the Co-Proponents' process to assess options for the management of Baker Creek, as required by MVRMA Measure 11'.
- MVRMA Measure 11 states: 'Within five years of receiving its water license, the Developer will divert 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'.
- MVRMA Measure 12 deals with water quality issues: 'To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the former channel of Baker Creek, the Developer will ensure that water quality at the outlet of Baker creek channel will meet site-specific water quality objectives based on the CCME Guidance on the Site-Specific Application of Water Quality Guidelines in Canada'.

5.2.2 What We Reviewed

- Report on the Environmental Assessment and Reasons for Decision: Giant Mine Remediation Project (EA0809-001) issued 20 June 2013
- Reasons for Decision. Water Licence and Land Use Permit Application: File Numbers MV2007L8-0031 and MV2019X0007. Submitted by the Department of Crown-Indigenous Relations and Northern Affairs Canada - Giant Mine Remediation Project (CIRNAC-GMRP) Project, Giant Mine Site, Yellowknife, NT. Decision date: 28 July 2020
- Reasons for Decision: Water License Application – GMOB Motion to the Board, File Number MV2007L8-0031, 20 September 2018.
- MVLWB: Issuance of Type A Water License MV2007L8-0031 to Crown-Indigenous Relations and Northern Affairs Canada Giant Mine Remediation Project, Yellowknife NT, 18 September 2020
- GMOB Annual Reports, 2016 through 2019, inclusive
- GMOB Comments on Giant Mine Draft Closure and Reclamation Plan 28 October 2018
- GMOB to MVLWB: Final Intervention Water License Giant Mine Remediation Project, 7 November 2019
- GMRT Response to GMOB Establishment Report, 15 May 2017
- GMOB Correspondence to MVLWB re: Interim Water License Giant Mine, 24 May 2018

5.2.3 Summary

Baker Creek passes through the center of the Giant Mine Site draining a total area of 140 square km. It has mean annual flow of approximately 7 million m³ but this can vary dramatically, especially during the spring freshet when water flow can increase 32-fold within a month. The water and sediments are highly contaminated with arsenic and, during high water flows, contaminated sediments can be carried into Yellowknife Bay. Water overflow has the potential to affect some of the adjacent pits which are hydraulically connected to the underground chambers that contain arsenic trioxide. During the original Environmental Assessment, evidence was given that characterized Baker Creek as 'one of the greatest risks at the mine'¹⁰.

The Project originally proposed to reengineer the creek to mitigate the risks of flooding and to reduce the contaminants entering Yellowknife Bay. The Review Board disagreed and decided that the creek posed unacceptable risks. They therefore recommended that creek diversion needed to be considered.

Initial rehabilitation plans were to improve fish habitat, but the Review Board felt that it was not wise to attract fish to the contaminated site particularly as these fish would mix with other fish in Yellowknife Bay and that such habitat considerations were best applied elsewhere at the site.

Measure 11 directs that options for the diversion of Baker Creek to be done in consultation with GMOB, the regulatory authorities and the public and that options be evaluated based on the ability to: '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 mine site or tailings runoff'¹¹.

In 2016, the Project Team had initiated a process to re-evaluate options for Baker Creek and GMOB contributed to the planning process. The following year, the Baker Creek Options report was released. In the same year, GMOB participated in a Baker Creek engineering meeting, Working Group meetings and reviewed the Options report. In 2018, GMOB reviewed and commented on the draft GMRP Closure and Reclamation Plan, a portion of which was devoted to Baker Creek. GMOB noted, amongst other issues, that the re-naturalization of Baker Creek is an issue that has yet to be resolved given that YKDFN wants no actions that would attract fish or other species to the Baker Creek watershed, something that may not be consistent with the Federal Fisheries Act. In 2019 and 2020, GMOB reviewed and commented on the Baker Creek remediation plans through the land permit and water licensing process of the MVLWB. Now

¹⁰ EA: section 9.1, pg. 116

¹¹ Water License, 2020, pg. 119

that the project is entering the remediation phase, GMOB will be able to review detailed plans for the eventual solution to the Baker Creek issue.

On a related point, GMOB noted in the 2016 Establishment Report and 2017 Annual Report that the Project has discharged effluent into Baker Creek without a license for more than a decade. The Project Team responded that section 89 of the Mackenzie Valley Resource Management Act allows them to discharge treated effluent to Baker Creek as an interim measure as there is no viable alternative. On 24 May 2018, GMOB submitted a motion to the MVLWB asking that the Project be ordered to apply for an interim water license to regulate its discharges. In response, CIRNAC and the MVLWB reviewed the need for an interim license and decided that the federal government could not be forced to get a license.

5.2.4 What We Heard

Baker Creek was addressed in the questionnaires distributed to GMOB and to the Parties, and the following is noted.

On a scale of 1 (lowest) to 5 (highest), how would you assess the Giant Mine Oversight Board's involvement in the assessment of options for the management of Baker Creek?

The replies from GMOB ranged from 4 to 5 with an average score of 4.3 whereas there was a wider range of responses amongst the Parties (3 – 5) and a somewhat lower average of 3.75. One of the Parties made the comment: 'GMOB is consistently present and contributing, while remaining at arm's length and permitting input from the parties to remain the driving force'.

The public was not asked specifically about Baker Creek but more generally about their familiarity with the GMOB mandate, so it is not possible to gauge their specific reaction to this issue.

Participants in the workshop confirmed that Baker Creek is being dealt with successfully by GMOB.

5.2.5 Discussion

GMOB seems to be adequately addressing this mandate issue. They were scored quite well by the Parties and have engaged at all points where it appears possible to do so. Equally important is that they will be involved in the review of the Project's plans as the work moves into the remediation phase.

5.3 RESEARCH PROGRAM FOR A PERMANENT SOLUTION TO ARSENIC

GMOB has a responsibility to manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the Giant Mine.

5.3.1 Relevant Provisions of the Environmental Agreement

- Article 2.3(b)(iv) describes one role of GMOB is to 'manage the program for research toward a permanent solution for dealing with arsenic at the Giant Mine site as set out in Article 7 ('Active Research Toward a Permanent Solution for Arsenic') and section 8.2 ('Research Results').
- Article 3.1(b)(iv) indicates that GMOB may compile and analyze relevant data to make recommendations concerning "active research toward a permanent solution for dealing with arsenic at the Giant Mine site.
- Article 7.1 instructs GMOB to ensure that: '(a) reports on relevant emerging technologies are produced, research priorities are identified; (b) research funding is administered; (c) results of research are made public; and (d) the results of each cycle are applied to the next cycle of the steps described in sections 7.1(a) through 7.1(d).'
- Article 7.2 specifies that engagement be a key part of the research program and GMOB shall: '(a) encourage public awareness of its work; and (b) create opportunities for interested persons, including the Parties, to participate as the Oversight Body considers meaningful and appropriate'.

- Article 7.3 states that ‘in conducting all of its activities described in sections 7.1 (“Research Program”), the Oversight Body shall make best use of existing research institutions and programs’.
- Article 7.4: ‘The Parties have developed implementation guidelines to give initial guidance to the Oversight Body as it plans the activities described in section 7.1 (“Research Cycle”). The implementation guidelines are attached to this Agreement as Schedule A. These guidelines were prepared to facilitate discussion and planning, and subject to section 7.2 (“Engagement”) the Oversight Body may revise the implementation approach as it considers appropriate’.
- Article 8.2 deals with Research Results and directs the Oversight Body to ensure that: ‘(a) it provides the results of the research conducted under section 7.1 (“Research Program”) to the independent review process that must occur every 20 years commencing after the beginning of Project implementation, which independent review process is described in MVRMA Measure 2; and (b) if the research conducted under section 7.1 identifies better technological options for a permanent solution to the arsenic at the Giant Mine site between the 20-year review cycles, the Oversight Body shall report publicly on the research’.
- Article 11 describes funding for the Oversight Body and specifies the amount to be dedicated to research. This information was provided above in the Budget section 3.4 of this report.
- Schedule A, which is referred to in Article 7.4, lays out some key steps for the implementation of the research program. It instructs GMOB to undertake a multi-year planning approach and that one of its first actions is to commission a State of Knowledge (SOK) report which is to be made public. Views heard about the SOK report during a public engagement exercise are to be considered in planning the next steps in the research program.

5.3.2 What We Reviewed

- GMOB Annual Reports 2016 through 2019, inclusive
- Giant Mine State of Knowledge Review: Dust Management Strategies prepared for GMOB by Arcadis, August 2017
- GMOB State of Knowledge (SOK) Presentation, 11 October 2017: What We Heard
- Response to State of Knowledge Report prepared by SRK Consultants on behalf of Indigenous and Northern Affairs Canada, 5 February 2018
- GMOB Workshop Designing an Active Research Program for Managing Arsenic Trioxide Summary Report, 29 January 2018
- Master Research Agreement between GMOB and the University of Waterloo, dated 3 May 2019
- Individual Schedules to the Master Research Agreement for the administration of the project and the four individual research projects including workplan and budget.
- TERRE-NET Year 1 Progress Report to GMOB: Remediation Strategies for the Long-term Management of Arsenic-trioxide bearing Roaster Wastes at the Giant Mine, Northwest Territories, June 2019.

5.3.3 Summary

The first research activity of GMOB was in the summer of 2016 when they posted a request for proposals for a ‘State of Knowledge Review and Assessment on Arsenic Trioxide Remediation Methods Report’. There were three inquiries about this RFP and one respondent. A contract was awarded to Arcadis Canada Inc. The report – ‘Giant Mine State of Knowledge Review: Arsenic Dust Management Strategies’ was published in August 2017. Plain language summaries were also produced for the general public.

This State of Knowledge report assesses technologies that could be used to manage the dust. This included potential ways to either manage the arsenic trioxide where it is now or remove the dust from underground, stabilize/process it and then store the resulting product of this stabilization. Arcadis concluded that there had been significant technical improvements since a 2002 assessment of management options. The highest scoring methods were:

- frozen block in place (currently selected);
- vitrification (encasing with glass) with mining, gold processing and storage of the vitrified product;
- cement stabilization/cement paste with mining and storage; and,
- mineral precipitation with mining and storage.

It was further concluded that additional research would be needed before any of the alternatives to the frozen block technology could be considered further.

GMOB held a public meeting on 11 October 2017 to discuss these results. There were several questions regarding the technologies and comments that the public was not involved in the development of the scoring criteria – a repeat of the previous exercise in 2002. The Project Team had their technical advisor, SRK Consultants, review the State of Knowledge report and in February 2018, they concluded that the report 'does a good job of presenting background and assessing the current state of alternatives. It is perhaps too optimistic about mining methods, and insufficiently critical of vendor claims that ex-situ treatment processes have been adequately tested and demonstrated elsewhere'¹².

A research workshop – 'the Giant Mine Oversight Board (GMOB) Workshop: Designing an Active Research Program for Managing Arsenic Trioxide' was held on 19 – 20 October 2017 in Ottawa. The workshop brought together representatives from the Canadian Mining Association, Vice-Presidents from universities and some active academic researchers to discuss possible ways forward to advance research to manage the arsenic trioxide dust. Various suggestions were made, including the recommendation to work with a network of researchers studying similar topics.

In 2018 GMOB met with representatives of TERRE-NET, a network that brings together 15 researchers from seven different Canadian universities. TERRE-NET stands for 'Toward Environmentally Responsible Resource Extraction Network' and is supported by the Natural Sciences and Engineering Research Council (NSERC), the main research funding body for Canadian universities. The networks program is designed to fund large-scale, multidisciplinary research projects in certain research areas that require a network involving collaboration between academic researchers and Canadian-based organizations.

GMOB hosted a workshop 19 – 20 March 2018 in Yellowknife with TERRE-NET researchers and also attended TERRE-NET's Annual General Meeting in Ottawa, 26-27 June 2018 along with representatives from YKDFN and NSMA. Subsequently, GMOB contracted TERRE-NET to undertake a formal document review, the results of which were presented at a GMOB Research Workshop in Edmonton 2- 4 October 2018. In May 2019, GMOB signed a four-year Master Research Agreement with TERRE-NET (through the University of Waterloo) to undertake four research initiatives. The projects were amongst those that were given a top score in the 2017 Arcadis report.

Research Project 1: Examination of Arsenic Trioxide Composition and Solubility

Previous studies had indicated that the composition of the dust was quite variable, and this might influence its ability to dissolve. The other research projects funded under this agreement require the arsenic trioxide to be dissolved before further treatment. Thus, it is necessary to more completely characterize the nature of the dust stored underground. This project is being led by researchers at the University of Saskatchewan and Queen's University and is of two years duration with a total budget of \$228,045.

Research Project 2: Changing Arsenic Trioxide to Arsenic Trisulfide

The substitution of oxygen by sulfur produces a chemical that dissolves less in water and therefore is more easily stored and less toxic. This is a three-year project being conducted by researchers at the University of Ottawa with an overall budget of \$150,500.

¹² SRK Response to GMOB SOK Review: Arsenic Dust, pg. 1

Research Project 3: Stabilization of Arsenic Trioxide Dust in a Cemented Paste Backfill

Paste backfill is a proven technology and successful incorporation of the arsenic trioxide into this material can make it more stable and prevent further release of arsenic in groundwater. This work is being carried out by researchers at the University of Alberta and the Université du Québec en Abitibi-Témiscamingue. The program is planned for three years at a total cost of \$150,305.

Research Project 4: Leaching Behavior and Geochemical Stability of Vitrified Arsenical Glass

This project is to determine how stable the arsenic trioxide is when the dust is transformed into a type of glass (i.e., vitrified). This type of research has received a lot of attention in recent years so it will be interesting to see how the dust from the Giant Mine behaves. Researchers at the University of Waterloo are conducting this research over a three-year period with a budget of \$270,400.

The University of Waterloo, which manages TERRE-NET, is charging an administrative fee of \$132,481 over the course of the program. This is a total financial commitment of \$931,731. For every dollar contributed by eligible industry or government partners, up to three dollars can be requested from NSERC. It is our understanding that applications for this type of leveraging are being made but have been unsuccessful to date. NSERC is not allowed to match funds with a federal agency but GMOB is an independent body. It is anticipated that there will be greater flexibility with reapplication.

It is typical in academia for intellectual property arising from research to belong to the researchers, usually with some portion of the ownership also accruing to the university, but GMOB has secured a 'non-royalty bearing, fully paid up, license that can use the Project Intellectual Property to implement a solution to the arsenic trioxide waste located in the Giant Mine¹³'.

In June 2020, a Year One Progress Report was submitted by TERRE-NET. Although some progress has been made, the pandemic has slowed work considerably as most campuses have restricted access to laboratories.

GMOB has also received six unsolicited proposals for research activities and has recently appointed an independent peer review panel of academics to review these. The Panel members were selected based on recommendations from the national research community; they also had to be independent of TERRE-NET. They are all academic researchers with geology, mining or engineering expertise. They include: Dirk Van Zyl, recently retired from the University of British Columbia, Ward Wilson, University of Alberta, Bruno Bussiere, UQAT-Polytechnique Rouyn-Noranda and Mostafa Fayek, University of Manitoba. The GMOB Research Program Expert Panel held its first orientation meeting on 3 December 2020.

5.3.4 What We Heard

The questionnaire addressed the following questions with respondents answering yes or no:

Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?

If you answered yes to the previous question, are you aware of any of the following four research projects underway?

- Examination of Arsenic trioxide dust composition and solubility
- Sulfidation of Arsenic trioxides to form low solubility Arsenic trisulphide
- Stabilization of Arsenic trioxide dust in cemented paste backfill
- Geochemical and leaching characterization of vitrified arsenical glass

¹³ Master Research Agreement between the University of Waterloo and GMOB, dated 3 May 2019, Article 8.7

In almost all cases, representatives of the Parties answered yes. One respondent was not familiar with all of the projects.

The Board's research program was a frequent subject of conversation in the interviews: from public knowledge of this aspect of the Board, to the research budget, and the focus of the research. It was generally felt that while the public may know that research is a part of the Board's role, there was not much knowledge of the actual research projects beyond people who are involved in the Project. It was felt that more communication around the research and TERRE-NET's role would be useful. There was also a consensus among workshop participants that more publicity is needed for the research program.

Most interviewees felt that the research budget was generally adequate, with some hoping for more, some believing there was too much budget, and some simply surprised that they were able to get such funds to begin with. There was some confusion as to how the research budget had been allocated and what the progress to date was. Regardless, there was a sense that the Board could increase its research budget by leveraging the funds it has through research networks, with TERRE-NET being an example of this. In its interviews, GMOB indicated that they have been working toward this, and are hopeful of more success in the future.

One interviewee suggested that the Board is taking the wrong focus with its research program, noting that the current solution for the arsenic trioxide of keeping it frozen in perpetuity is the best solution at this time. They believe that rather than looking at other 'solutions' that keep the arsenic on the site, research should be focused on removal of the material from the site, noting this would be a real benefit to the local community for a billion-dollar project.

5.3.5 Discussion

To implement the research program GMOB followed the implementation plan described in Schedule 2 of the Agreement quite closely. They arranged for a State of Knowledge Report within the first year of operation and as soon as this report was available, a public meeting was held to consider the results. Shortly after, GMOB arranged a meeting with industry and academic experts to decide how best to proceed and ultimately selected TERRE-NET to conduct the research. This is certainly consistent with Article 7.3 that indicates that they should make best use of existing institutions and programs. The research got underway in May 2019 after a lengthy delay in arranging the resulting contract. This delay proved valuable as GMOB was able to secure a paid-up license to use any resulting intellectual property at the Giant Mine site. Progress has been, understandingly, delayed because of the COVID-19 pandemic but a review of the One-Year Progress Report indicates that all of the 'pieces' are in place and some key work has been initiated.

GMOB has been careful to allocate its operations and research budget in approximately the same proportions as proscribed by the Agreement. There is not a surplus of money with which to invest in worthy unsolicited proposals for additional research, but an independent peer review committee of experts is now in place to at least evaluate any submissions. Attempts to leverage GMOB's investment using TERRE-NET have thus far been unsuccessful but further efforts are underway.

The research program is described on the GMOB website but many, but not all, of those who were interviewed felt that they did not have a very good understanding of the program and efforts should be made to make the research program more visible. This will be easier to do once there are some results to discuss but providing information, in plain language, regarding the goals of each of the projects could be pursued.

5.4 PROMOTING PUBLIC AWARENESS

In accordance with its mandate, and with the authority of its role established in the Agreement, GMOB has undertaken several activities to promote public awareness of itself, the Environmental Agreement and the Board's roles under the Agreement.

5.4.1 Relevant Provisions of the Environmental Agreement

- Article 2.3(b)(i) addresses the requirement for the Oversight Body to ‘promote public awareness of the Project, disseminate information about the Project, and promote public engagement in processes related to the Project’.
- Article 3.3(c)(i) is more specifically focused on the Oversight Body, that shall ‘promote public awareness of itself, this Agreement, and its roles under this Agreement’.

5.4.2 What We Reviewed

- GMOB Annual Reports 2016 – 2019, inclusive
- The Giant Mine Oversight Board Annual General Meeting, November 9, 2016 Report of Activities - July 27, 2015 (GMOBS Society Incorporation) to November 9, 2016
- The Giant Mine Oversight Board Semi-Annual Meeting of the Parties Report of Activities – November 9, 2016 - to May 17, 2017
- The Giant Mine Oversight Board Semi-Annual Meeting of the Parties Report of Activities: May 17, 2017 to November 17, 2017
- The Giant Mine Oversight Board Semi-Annual Meeting of the Parties Report of Activities: November 17, 2017 – May 15, 2018
- The Giant Mine Oversight Board Annual General Meeting Report of Activities: November 17, 2017 – November 15, 2018
- The Giant Mine Oversight Board Semi-Annual Meeting Report of Activities: November 15, 2018 – May 01, 2019
- The Giant Mine Oversight Board Annual General Meeting Report of Activities: November 15, 2018 – December 13, 2019
- The Giant Mine Oversight Board Semi-Annual Meeting Report of Activities: January 16, 2020 – August 27, 2020

5.4.3 Summary

GMOB was very quick in establishing an office in a prominent location in Yellowknife and has equipped it with displays and models that assist in explaining the issues found at the Giant Mine site. The office is open to the public (in the absence of COVID-19 restrictions). It is still accessible during the pandemic but only by appointment. It is a frequent host to school groups.

The website is very comprehensive. It provides a background for the creation of GMOB and introduces the Board’s Directors and staff. There is information about the Giant Mine site, including annual drone footage. Correspondence, reviews and GMOB reports are available for each year and a calendar indicates the activities that GMOB is engaged in.

GMOB also participates in several different types of meetings. Some of these are mandated by the Agreement and include two meetings with the Parties per annum as well as one with the Co-Proponents, the public and the Annual General Meeting. GMOB members also attend numerous () additional meetings (e.g., more than 80 meetings in some years) dealing with a variety of subjects: technical issues, health and research etc. The Annual Report documents the work done each year in a very comprehensive manner but does not list the individual meetings that Board members participate in. A detailed listing of these can be found in Activity Reports documenting work every six months, but these are not available on the website.

Public awareness is also promoted by means of presentations and interviews. The success of all these actions is best judged by the information that was compiled as a result of the engagement activities conducted as part of this evaluation.

5.4.4 What We Heard

The questionnaire began by asking the Parties how familiar respondents are with GMOB on a scale of 1 to 5, and unsurprisingly, all but 2 respondents answered with a 5, with the other 2 respondents answering a 4. In a similar vein, every respondent indicated that they had had some interaction with a member of GMOB over the last 12 months.

The questionnaire also sought to get respondents' opinions on GMOB's visibility in the community. Out of 5, respondents on average gave the Board 3.7, suggesting that there is a feeling that GMOB is indeed visible in the community, but could perhaps be more so. Board members responded with a similar but slightly higher average rating of 4.25. All respondents answered "Yes" to whether they felt that community members were aware of GMOB. Suggestions to increase visibility in the community included continuing to take advantage of platforms such as Cabin Radio (a recent Facebook Live event was a positive), podcasts, and social media. As well, one respondent suggested additional signage or even a sandwich board to draw the public into the storefront (after COVID-19). Some respondents did indicate that while the Board is visible, the broader public is not as aware of GMOB's responsibility for research into a permanent solution to the arsenic trioxide dust, so more focus in this area would be helpful.

Respondents were asked how they assessed GMOB's performance on some specific mandate items, as outlined in Table 4.

Table 4. Response to GMOB's performance regarding public awareness and public accessibility.

Topic	Average rating out of 5 (stakeholders)	Average rating out of 5 (GMOB)
Promoting Public Awareness	3.3	4.4
Accessibility to the Public	3.5	4.6

From Table 4, the general feeling from stakeholders is that the Board could improve in public awareness and accessibility, though one respondent was happy to point out that their child had recently visited the GMOB office as part of a school trip. Interestingly, there is a significant discrepancy between GMOB's assessment of itself, and stakeholders' assessment of GMOB.

Half of respondents could recall seeing an advertisement or notice for either the release of the Annual Report or the Annual General Meeting outside their work environment, however many respondents did note that the Annual General Meeting tends to be well-attended compared to most meetings in Yellowknife.

Interviewees expanded on their questionnaire responses by offering suggestions for how the Board could improve public awareness and its visibility on the community. The discussions resulted in a range of suggestions, while several interviewees also noted the recent Cabin Radio live question and answer session as an example of the Board improving in this regard. One interviewee stated GMOB was the most visible of the many boards in the Northwest Territories. Many also mentioned the storefront as a positive when it comes to visibility. Suggestions for further improvements included holding an Annual General Meeting in Dettah (it was noted that this was in the works prior to COVID-19), improving signage at the office (including language making it clearer that GMOB is an independent oversight body), and expanding the use of social media and podcasts (noting there is some great expertise on the Board, who could speak to a specific topic). Some interviewees noted that GMOB may be well-positioned to take on more of an official communications role for the Project as a whole, noting its increased visibility in the community in comparison to the Project Team, but also recognizing that additional funding would be required if GMOB were to assume this role. One interviewee pointed out that they would like to see more information about how GMOB spends funds on communication, and what its priorities are in this regard. The Board itself noted that COVID-19 has forced it to look at new communication methods, with some success seen thus far.

Much of the information noted above was echoed at the workshop. Continuation of the school outreach program and support to students preparing materials for science fairs was encouraged. There was considerable discussion regarding the use of social media which has not been used very much by GMOB

to date. Ads posted on Facebook were successful, but it was noted that greater use of social media was very time consuming. The YKDFN felt GMOB was well known to its constituents due to a successful collaboration with students in its training programs. There was a general agreement that communication is an on-going activity and improvements need to be a continual focus.

As noted earlier, an online survey aimed at the public was also conducted, using Google Forms. The following is an outline of some of the key findings from this survey, which had a focus on GMOB's visibility in the community and public awareness of GMOB's activities. Most respondents indicated they were at least somewhat familiar with GMOB (Figure 2).

How familiar would you say you are with the Giant Mine Oversight Board?

23 responses

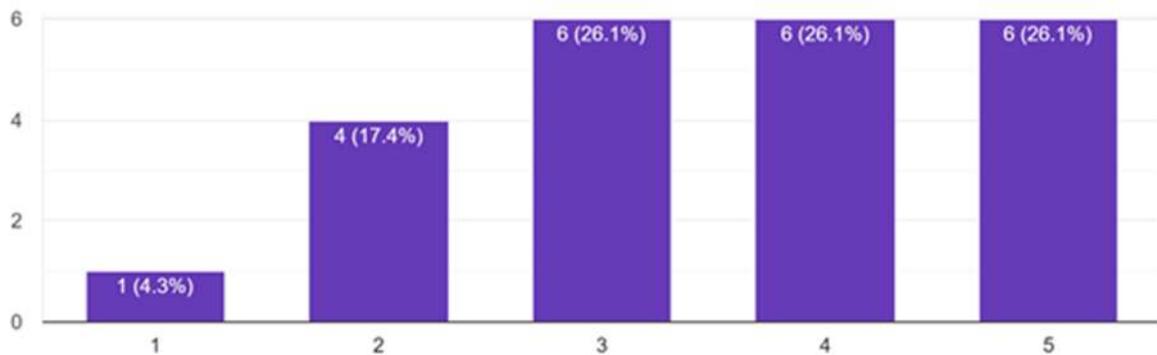


Figure 2. Survey response regarding public familiarity with GMOB.

The survey moved on to questions on where respondents could remember seeing mention of GMOB, with results shown in Figure 3. Specific forms of media were then explored, and all respondents who answered “Yes” to the question above indicated that they had heard mention of GMOB on the radio (including web-based radio such as Cabin Radio), followed by newspapers and posters around the community at slightly lower levels. Less than half of respondents could remember seeing a post related to GMOB on Facebook, and even fewer on other social media platforms. Finally, one respondent could remember seeing GMOB mentioned on television.

In the past 12 months, can you recall seeing mention of the Giant Mine Oversight Board - including advertisements - in any form of media?

23 responses

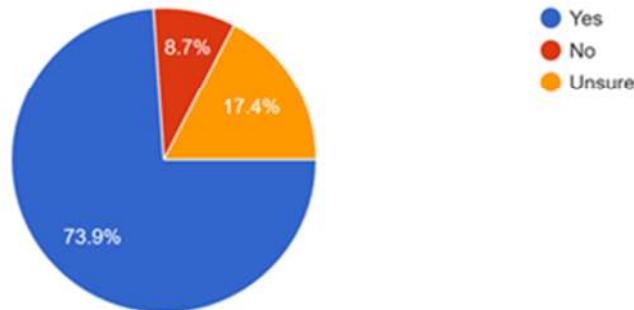


Figure 3. Survey response regarding GMOB public awareness.

Continuing on the topic of visibility, all but two respondents noted they were aware of the storefront office, and more than 75% had actually visited the office (see Figure 4).

Have you ever visited or considered visiting the office?

21 responses



Figure 4. Survey responses regarding visiting GMOB's office.

Generally, respondents believed that GMOB was visible in the community, with almost three quarters of respondents rating the Board's visibility level at a 4 or 5 (highest), however, half of respondents felt that other people in their community were aware of the Board (with a significant number "unsure" of the level of awareness). Suggestions provided for improving awareness included the use of social media, newsletters to "provide a counter balance to the Remediation Project's newsletters," a sandwich board out front of the office after COVID-19, and asking the YKDFN for permission to post updates on their Facebook page.

The questions then moved more toward the Board's mandate and activities. Respondents generally indicated they were familiar with the Remediation Project, and a similar number indicated familiarity with the Board's mandate. Eighty-seven percent of respondents also noted that they were aware of GMOB's

role in research towards a permanent solution to the arsenic trioxide on the site and 70% of that group were familiar with any of the research projects currently underway.

More than two-thirds of respondents indicated that they had attended at least one of the Board's public meetings, and the majority were pleased with the effectiveness of these meetings (see Figure 5).

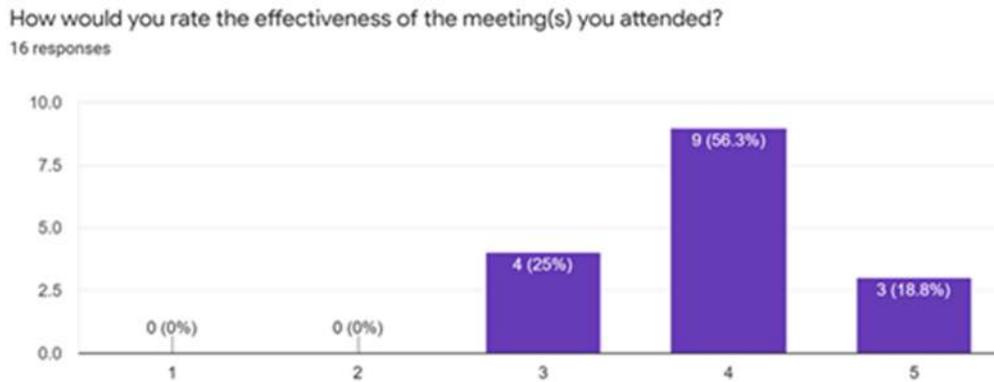


Figure 5. Survey responses regarding effectiveness of GMOB meetings.

Suggestions offered to improve the meetings included the incorporation of more visual tools such as maps, more accessible discussion rather than formal presentations, using YKDFN platforms to advertise the meetings in advance, and doing more to show the difference between GMOB and the Remediation Project.

On the subject of communication with the community as a whole, respondents tended to believe GMOB was doing a good job, with some improvement warranted (see Figure 6). It should be noted that a small number of respondents did however, have a fairly poor view of the Board's communication effectiveness. Suggestions to improve this aspect reiterated the use of social media, particularly the YKDFN's platforms, publishing a newsletter, hosting events (post-COVID-19) at the storefront, using less "dry" language, and presentations to schools.

How would you rate the Board's effectiveness at communicating and engaging with the community at large?

23 responses

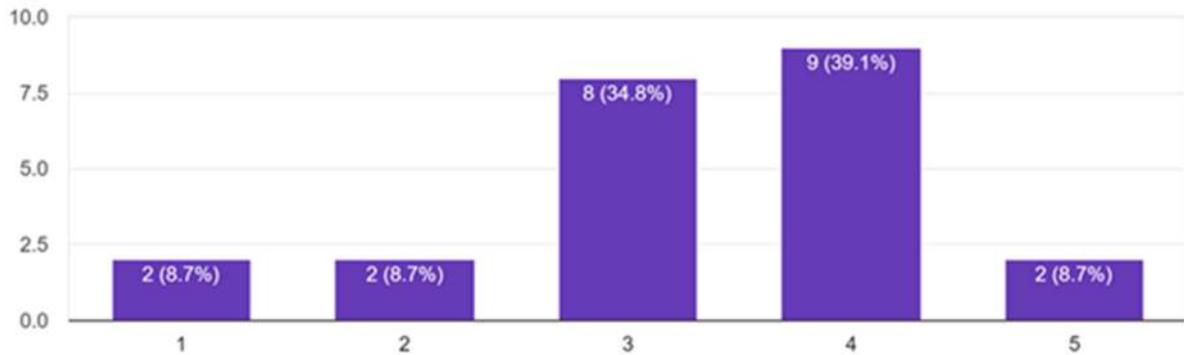


Figure 6. Survey responses regarding GMOB's effectiveness at communicating and engaging with the community at large.

5.4.5 Discussion

It is certain that stakeholders with a specific interest in the Project are very aware of the existence and role of GMOB. There is great visibility due to the many, and diverse, meetings that GMOB members attend. It was noted that GMOB meetings are very well-attended but that a greater visibility amongst the public could be achieved by holding meetings in Dettah. A greater diversity of people might attend meetings if they are better advertised. Several suggestions included: more radio interviews, greater use of social media and newsletters. The GMOB office received a great deal of praise from respondents as did the willingness of the Executive Director to be available and to host school groups and, in the absence of COVID-19, people 'off the street'. Public awareness is very good but there is always room for improvement.

5.5 PUBLIC REPOSITORY OF RECORDS

The Agreement mandates GMOB to create a public repository of information relevant to its responsibilities.

5.5.1 Relevant Provisions of the Environmental Agreement

- Article 3.3(c)(ii) specifically directs the Oversight Body to: 'establish a publicly accessible repository of records that it considers relevant to its responsibilities'.
- Two other articles indicate that the Oversight Body should be a source of information –
 - Article 3.3(c)(iii) which indicates that the Oversight Body is to 'provide information to the Co-Proponents, the other Parties, the public or any other appropriate person on matters relevant to its responsibilities when and in the manner it considers appropriate'.
 - Article 2.3(b)(i) addresses the need to disseminate information about the Project, i.e., to 'promote public awareness of the Project, disseminate information about the Project, and promote public engagement in processes related to the Project'.

5.5.2 What We Reviewed

- The GMOB Library (<https://gmob.ca/gmob-library/>).

5.5.3 Summary

A screen capture of the Library website is depicted in Figure 7.

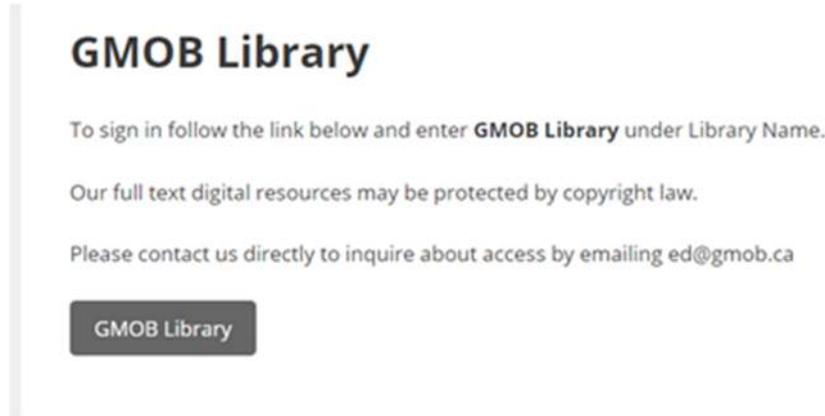


Figure 7. GMOB Library on-line access.

Clicking on the GMOB Library link brings up another page which has a space called 'Library Name' as well as one for Password which turns out not to be needed. It does say 'optional' next to the password window, but it could be confusing to a first-time user.

The Library currently contains 265 unique items, but it is our understanding that there are many hundreds more that have not been included yet. Documents protected by copyright are also listed and are available in hard copy at the GMOB office but there is no 'physical library' per se. Thus, the library is primarily accessible to those members of the public that have on-line capability.

The topics included in the library are quite varied and range from arsenic chemistry, Traditional Knowledge, reconciliation, and local history among many others. Exploratory searches revealed that there are a limited number of titles that are available online. Some provided a link to a Google Books description of a publication that is available in the marketplace. There is no catalogue but there is a search function. Searching titles like 'arsenic chemistry' or 'arsenic toxicity' indicates that the entries are not comprehensive and not always very recent. There are some documents, such as non-peer reviewed reports, that would be otherwise difficult to find but it is unlikely that these include all the work that has taken place in the Yellowknife area. The GMOB Executive Director indicated that some documents which are currently being sorted are records from the period when the Giant Mine was operational.

Surprisingly, the GMOB Library does not contain Project documents or reports. Thus, it does not provide a 'one-stop' source of material related to the technical aspects of the Project.

5.5.4 What We Heard

The questionnaire addressed the public repository with the following questions:

Do you know how to access the public repository of relevant records that the Board keeps?

Have you ever accessed the GMOB Library?

If you answered yes, approximately how many times over the past 12 months have you accessed it?

One aspect of the Board's mandate is to "establish a publicly accessible repository of records that it considers relevant to its responsibilities". In a perfect world, what would such a publicly accessible repository of records look like to you?

Almost a third of representatives of the Parties indicated they did not know how to access this repository, and a further forty percent respondents indicated that while they were aware of the GMOB Library, they had never accessed it.

Follow-up interviews confirmed the results from the questionnaires. The GMOB Library was a positive by most interviewees, though some were not aware or had only recently become aware of it. The online format had general support, although several interviewees suggested a physical aspect would be helpful as well. However, it is acknowledged that a small physical library is available in the GMOB office. A few also thought it would be helpful to have an idea of GMOB's vision for the Library and policies for document selection, suggesting this would help avoid duplication of efforts with certain aspects of the Project team that relate to records. The apparently password-protected nature of the Library in its current form was noted as a deterrent to some, with one interviewee noting that it was enough to make them look elsewhere for the information.

13% of respondents to the public survey indicated that they had ever accessed the GMOB Library (see Figure 8), though those that had accessed it appeared to be frequent users (one noting they had used it approximately 30 times in the past twelve months).

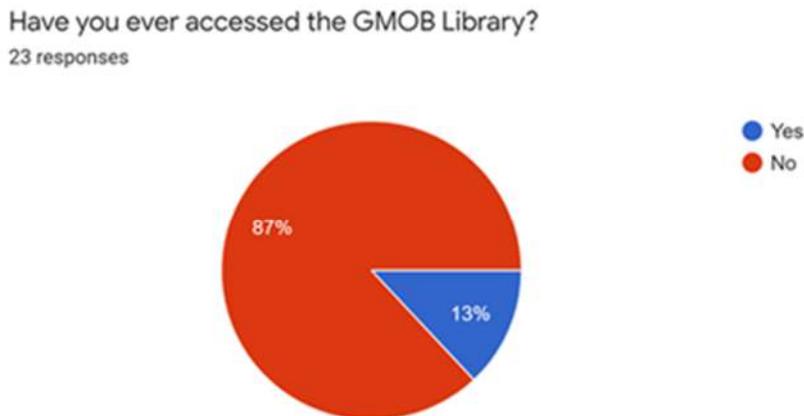


Figure 8. Survey response regarding public access to GMOB Library.

There was a lengthy discussion regarding the public repository of records during the workshop. It was noted that it is difficult to find something unless you know what you are looking for and a cataloguing system would be desirable. There was broad support for the idea that the library should be more comprehensive. It was noted that such a repository would provide future generations with an understanding of how the Giant Mine problem was created, what is being done about it and how a comparable situation can be avoided in

the future. It was also recognized that this would take either a reallocation of limited resources or additional funding. The development of a long-term vision for the repository was highlighted and it should be developed in concert with the requirements of the Giant Mine Remediation Project Perpetual Care Plan which also has to archive materials.

5.5.5 Discussion

Article 3.3(c)(ii) does give the Board considerable latitude in that the repository should contain material that the Board considers relevant to its responsibilities, but Article 2.3(b)(i) is more specific in that it asks the Board to be proactive in providing information about the Project; it can be considered that this also applies to the Library.

The GMOB Library is the least developed of the Board's mandate issues. Currently, the Library contains a diverse list of materials, none of which are very comprehensive. The physical library is limited to copywrite materials and large documents; however, it is not a complete physical library and there is a reliance on the online system for electronic versions. The lack of Project reports and materials limits the Library to be a one-stop approach to finding 'all things Giant'; however, there is merit in GMOB's approach of not duplicating content that is otherwise available on a separate public registry (e.g., MVLWB public registry). Further, including documentation from the Project Team on the GMOB Library may be challenging to implement and has potential to create confusion regarding GMOB's role with the Giant mine compared to the Project Team. It is laudable, however, that the GMOB Library has, and, we understand, will add, historical materials and records dating from the time of the Mine's operations; such material would otherwise be lost forever.

Most people are unaware of the existence of the Library and, even if they do know of it, they do not use it. There are exceptions, as some respondents used the Library on a frequent basis. Once the holdings and organization have improved, it will be worthwhile advertising its existence.

5.6 PROVIDING REPORTS TO CO-PROponents AND PUBLIC

The Agreement obligates GMOB to provide its reports/evaluations to the Co-Proponents and to make them public.

5.6.1 Relevant Provisions of the Environmental Agreement

- Article 3.4(b) states 'the Oversight Body shall provide all of its reports and evaluations to the Co-Proponents and shall make them available to the public'.

5.6.2 What We Reviewed

- GMOB Annual Reports 2016 - 2019, inclusive
- The Giant Mine Oversight Board Semi-Annual Meeting of the Parties Report of Activities for each of the years 2016 - 2020

5.6.3 Summary

GMOB appears to view this element of its mandate as being met by virtue of reports, meeting minutes and financial statements being sent electronically to the Parties and being published on its website. In the mandate self-assessment that is included in GMOB Annual Reports beginning in 2017, GMOB indicates that this requirement is either completed or considered continuing.

5.6.4 What We Heard

Through the engagement work completed by the Review Team, the Parties were asked whether, to the best of their knowledge, they have been provided with all GMOB reports and evaluations related to the Project. One respondent out of ten answered no to this question, though no additional feedback was given (e.g., what material was not received). The successful provision of reports was confirmed during the workshop.

5.6.5 Discussion

This part of the mandate is being adequately addressed.

5.7 ANNUAL REPORT AND PUBLIC MEETING

The Agreement requires GMOB to provide a yearly reporting of its activities and to hold a public meeting.

5.7.1 Relevant Provisions of the Environmental Agreement

- Article 3.4(c) requires that GMOB issue an annual report each year, including a summary of its activities, evaluations, advice or other matters relevant to its responsibilities.
- Article 3.4 (d) requires GMOB to host a public annual meeting each year for the first five years of its operations. The Co-Proponents are to participate in this meeting as well.

5.7.2 What We Reviewed

- GMOB Annual Reports 2016 - 2019, inclusive
- The Giant Mine Oversight Board Annual General Meeting Report of Activities for each of the years 2016 to 2019

5.7.3 Summary

GMOB has issued Annual Reports and held a public meeting each year, per its mandate. Further, in the mandate self-assessment that is included in GMOB Annual Reports beginning in 2017, GMOB indicates that this requirement is completed each year.

However, it is important to note that GMOB elected to combine 2015 and 2016 and hold one Annual General Meeting as well as issue what it termed an Establishment Report for the 18-month period from incorporation in July 2015 through the end of 2016, noting that the activities undertaken during this period focused primarily on establishing the Board's operations. Table 5 provides a summary of Annual General Meeting and Annual Report dates for the 5-Year period under review.

Table 5. Summary of GMOB annual meetings and report dates.

Year	Annual General Meeting	Annual Report
2015-16	November 9, 2016	April 11, 2017
2017	November 17, 2017	April 23, 2018
2018	November 15, 2018	April 23, 2019
2019	January 16, 2020	May 19, 2020

5.7.4 What We Heard

Results from the engagement activities (interviews, questionnaire) indicate that roughly half of respondents could recall seeing any public notices of advertisements for GMOB Annual Report or annual public meeting outside of their work environment. That noted, participants were all familiar with the GMOB Annual Reports, and many indicated being regular attendees as the annual meetings. It was noted that the GMOB meetings are amongst the most well-attended in Yellowknife.

Respondents were asked to rate the effectiveness of the annual meetings and gave an average rating of 3.5 out of 5. It was noted by several respondents that the meetings can tend to drift into discussions of the Project itself, with questions directed to the Project Team itself. Other comments included providing materials to better explain the relationships between GMOB and the Parties, and to make the technical aspects of the discussions easier to understand for the layperson. These points were endorsed by participants in the workshop.

5.7.5 Discussion

GMOB is successfully addressing this part of its mandate but it would be helpful to consider some modifications to the format of the public meeting.

5.8 GMOB PRINCIPLES

GMOB has adopted several Principles to guide its work. These are: trust, transparency, communication and engagement, reconciliation, social license, culture, knowledge (western scientific and traditional knowledge), and community. These were described in Section 3.3.2 and are evaluated here.

Relevant Provisions of the Environmental Agreement

Some of the Principles are explicitly stated in the Agreement but many are implicit and arise from concerns expressed during the environmental assessment process.

- Article 2.2(a)(ii) indicates that an objective of the Agreement is achieve or support ‘the economy, way of life and well-being of the aboriginal peoples of Canada, in the vicinity of Yellowknife, and of other residents of Yellowknife, the Northwest Territories and Canada’.
- Article 2.2(e) asks all Parties to participate in ‘effective communication with future generations about the Project’.
- Article 3.1(b)(ii) asks the Oversight Body to review ‘the Projects integration of Traditional Knowledge into its Environmental Programs and Plans’.
- Article 7.2(a) mandates the Oversight Body to ‘encourage public awareness of its work’.

What We Reviewed

- Annual Reports 2016 – 2019, inclusive
- Report on the Environmental Assessment and Reasons for Decision: Giant Mine Remediation Project (EA0809-001) issued 20 June 2013
- Giant Mine Remediation Project Environmental Agreement, dated 9 June 2015

Summary

The GMOB recommendations made in its first report, the 2016 Establishment Report, included topics that arise directly from the Principles. These include: that communications be given a high priority; that the Federal Government respond to requests for an apology; that all governments work together to deal with off-site contamination; and that a framework for socio-economic assessment be developed. All of these recommendations were pursued in the following years; often with several updated or repeated requests. The main insight as to how GMOB is working within the framework of its adopted Principles comes from the engagement process conducted in this study.

What We Heard

One section of the questionnaire distributed to GMOB members and stakeholders dealt with the principles that GMOB has adopted in fulfilling its mandate. Table 6 summarizes the rated questions, with further discussion following.

Table 6. Principles adopted by GMOB in fulfilling its mandate and survey responses.

Topic	Average Rating out of 5 (stakeholders)	Average Rating out of 5 (GMOB)
Trustworthiness	4.2	4.9
Transparency	4.0	4.8
Communication with the community	3.6	4.1

This data shows that in general, respondents believe the Board to be trustworthy and transparent, although one respondent did identify a perception that some Board members seem to undermine the Project by advocating on behalf of certain Parties over others. The majority of respondents did believe that the existence of GMOB does improve transparency for the Project as a whole, although some respondents did disagree. This data also supports the notion that while GMOB’s communication has been good, there is some room for improvement, with most respondents answering “somewhat” to whether or not the Board helps facilitate communication among the parties in general. Respondents did believe that overall, communication between the parties is working.

The questionnaire also touched on topics such as reconciliation, social license, traditional knowledge, the local culture, and improving the community. Respondents were hesitant to state that GMOB’s actions have helped support reconciliation, with two responding “Yes” to this question, and the majority answering “somewhat”. In general, respondents’ views were more positive in the other areas, and they particularly recognized the Board’s desire to improve the local community.

There was clarification on the reconciliation issue during the workshop during which participants noted that this is only a question that the Indigenous members can respond to. Representatives from both the YKDFN and the NSMA confirmed that they felt that the Board had promoted reconciliation.

On the topic of the Board’s mandate, interviewees overall believed GMOB is fulfilling its mandate at this stage. One interviewee noted that the environmental part of its mandate was somewhat deficient, with there being more of a focus on socio-economic issues despite this, in some interviewee’s views, being outside of the mandate. Off-site impacts were cited as the main area missing from GMOB’s mandate by several interviewees, while others believed that off-site matters should not be formally in the mandate and indicated that GMOB does provide recommendations in this area anyway. It is acknowledged that select interview comments may not be either factually correct or lack context to further understand why the comment was provided. Thus, the interview comments alone were not relied upon to develop recommendations for this review.

Interviewees were asked if they thought GMOB could take more of a leadership role, and generally the sense was that the current situation is working well. Some interviewees did believe that the Board could be more actively involved, taking advantage of its expertise, and particularly when a long-term solution to the arsenic trioxide is being discussed, as they are directly involved with the research program.

Most interviewees believed the Board had a strong level of technical expertise across a range of subject matters. It was often pointed out that this was deliberate and was an indication of the Parties working together when selecting appointees. Areas mentioned where expertise was either lacking or could be improved included fisheries, complex project management, communications and socioeconomics, although some did not believe that this was really a responsibility of the Board. One interviewee noted that consideration of land use on the site has not really been included in the Board’s recommendations thus far, though this has improved recently. This interviewee did note that it is probably too late to be looking at this now, and this topic should have been raised sooner. The authors note that Section 9.2 of the Agreement provides an avenue for Parties to change the Agreement or GMOB.

Communications were a key focus during the workshop and many agreed that this was an on-going task.

The public survey focused more on the Board's mandate and activities than on technical details. Respondents generally indicated they were familiar with the Remediation Project, and a similar number indicated familiarity with the Board's mandate. Other questions dealt with topics built around the Board's principles, such as the promotion of reconciliation, incorporation of the local culture, the Project's social license, the use of Traditional Knowledge, and the desire to improve the community. Responses tended to have similar results as the questions asked of the stakeholders in the questionnaire, with most having a positive view of the Board's actions, particularly in regards to the desire to improve the local community, and social license in the Project (Figure 9 and Figure 10).

Do you believe that the Board's activities and recommendations reflect a desire to improve the community?
23 responses

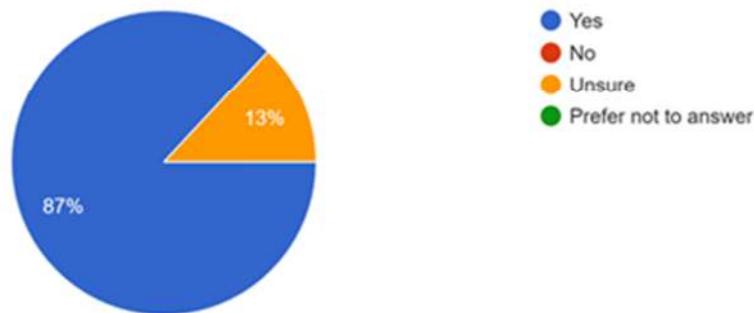


Figure 9. Survey response regarding GMOB's desire to improve the community.

In your opinion, have the activities of the Board contributed to a feeling of social license (public trust in the legitimacy of the Remediation Project... Giant Mine Remediation Project in the community?
23 responses

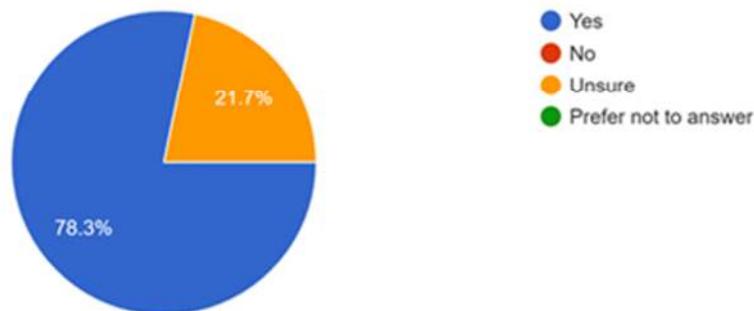


Figure 10. Survey response regarding GMOB's efforts to promote public trust in the Project

On the other hand, respondents were less certain about the Board's role in promotion of reconciliation (see Figure 11), and in encouraging the use of Traditional Knowledge in addition to Western knowledge in the Project (see Figure 12). However, it should be noted that few respondents flat out disagreed that GMOB was contributing in either of these areas.

Discussion

There is an overall sense that GMOB has embraced the Principles that it has adopted. There will continue to be a continued requirement to improve and expand communications and engagement.

From your perspective, do you believe that the Board's actions have helped promote reconciliation?

23 responses



Figure 11. Survey response whether GMOB's actions helped promote reconciliation.

From what you have seen, has the Giant Mine Oversight Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Giant Mine Remediation Project?

23 responses



Figure 12. Survey response whether GMOB has encouraged use of traditional knowledge and western knowledge in relation to the Remediation Project.

5.9 PARTIES ROLE IN THE ENVIRONMENTAL AGREEMENT

Thus far, this report has focused on GMOB's effectiveness but the co-signatories to the Environmental Agreement also have a role to play.

5.9.1 Relevant Provisions of the Environmental Agreement

- Giant Mine Remediation Project Environmental Agreement, 9 June 2015
- Specifically,
- Article 2.1 lists the purposes of the Agreement including: 2.1(b) which calls for it to 'support the development of a coordinated approach to the implementation of the MVRMA Measures...'
- Article 2.1(c) calls for the Agreement to 'facilitate collaboration among the Parties'.
- Article 2.2 describes the Objectives of the Agreement.
- Article 2.3 describes the Roles of the Parties under the Agreement with specific direction to the Co-Proponents and the Oversight Body whereas 2.3(c) indicates that the other Parties may participate in the implementation of the Agreement...'
- Several articles specifically define the role of the Co-Proponents including: Article 2.3(a) which states that they are 'responsible for and maintain full control and authority for the management of the Project'; Articles 4, 5, 6 dealing with Environmental Programs and Plans, Annual Reporting, Status of the Environment Reporting respectively.
- Article 10.1 describes how the Oversight Body Society is to be incorporated with specific direction given in Schedule B.
- Article 10.3 states that 'each Party to this Agreement except the Oversight Body is entitled to appoint a director of the Oversight Body...'
- Article 9.1(a) states that '...twice each year the Parties shall meet to discuss this Agreement and its implementation'.

5.9.2 What We Reviewed

- Reasons for Decision: Water License and Land Use Permit: File Numbers MV2007L8-0031 and MV2019X007. 28 July 2020 and Parties Interventions linked therein
- GMOB Annual Reports 2016 – 2019, inclusive
- City of Yellowknife Response to the 2019 GMOB Annual Report, 29 May 2020
- GMOB Response to City of Yellowknife Comments on 2019 Annual Report, 10 June 2020
- Websites: Yellowknives Dene First Nation; North Slave Metis Alliance; Alternatives North; City of Yellowknife

5.9.3 Summary

The signatories to the Environmental Agreement are assigned roles with various degrees of specificity. The obligations of the Oversight Body and the Co-Proponents are quite extensive and detailed, but the other Parties have obligations as well. Surprisingly, Article 2.3(c) uses the word '*may*' in that 'the other Parties may participate in the implementation of the Agreement as provided for in the Agreement.

The roles of some of the Parties, namely Alternatives North, YKDFN, NSMA and the City of Yellowknife are less proscribed, but the Agreement does infer a responsibility to 'support the development of a coordinated approach to the implementation of the MVEIRB Measures' and to 'facilitate collaboration among the Parties. All Parties had roles in the initial establishment of what is now called the Giant Mine Oversight Board and each have nominated Directors to the Board with a coordinated approach to ensure broad expertise. As well, Article 2.2 addresses the Agreement's objectives with respect to environment, risk reduction, an integrated approach etc. More broadly, Article 2.2(a)(ii) addresses the need to protect 'the economy, way of life and well-being of the aboriginal peoples of Canada, in the vicinity of Yellowknife, and of other residents of Yellowknife, the Northwest Territories and Canada'.

As called for in the Agreement all Parties participate in two meetings each year to consider a wide-ranging series of issues as laid out in Article 9.1(b). The Parties are also members of other committees related to the Project (such as the Giant Mine Advisory Committee) or to the implementation of other MVRMA Measures (e.g., YK Health Effects Monitoring Program). They are also involved in work related to socio-economic development as well as issues specific to their own constituents. The Parties have also participated in events such as the MVWLB water licensing process, each making their own interventions.

GMOB has criticized the participation of some Parties. An example are three recommendations from the 2019 Annual Report which addressed efforts to engage in aspects of the Project that affect the residents of Yellowknife, cooperation in addressing off-site contamination issues and the development of a land use plan. The City of Yellowknife responded with a desire that GMOB ‘...not inadvertently advocate for the City to accept obligations beyond its mandate’. GMOB responded with clarifications indicating that although the City of Yellowknife is not a Project Proponent, it does have a responsibility to make its residents aware of the Project’s implications and that all Parties have a role in ensuring public confidence and safety as well as in determining the future land-use of the site. This broader ‘lens’ is consistent with GMOB’s approach.

5.9.4 What We Heard

During the interviews, the Parties expressed general satisfaction with the contributions of the other Parties. Some noted that the City of Yellowknife had not participated as fully as it might although it was acknowledged that this had improved recently as result of the City’s representative involved in the regard. One interviewee noted that non-Indigenous City residents should not have to go to the Indigenous governments for Project information because they were not getting that information from the municipality. Some thought the GNWT was playing too small a role, often deferring to the federal government. This was contradicted during the workshop where it was pointed out that the GNWT is now more fully engaged as a Co-Proponent. Most interviewees thought that the Parties generally contribute to the Project to the best of its ability. This was reinforced during the workshop where each Party highlighted some of their actions directed towards ensuring the Project and GMOB’s role was a success. The YKDFN have been particularly active, hosting dozens of community meetings, participating in committees etc. NSMA has found that funding assistance has greatly improved continuity and their ability to contribute. Other Parties were similarly satisfied with their participation, but some made the point that they were constrained by their particular responsibilities.

5.9.5 Discussion

There is no question that all the Parties are engaged in the Project with some having a greater involvement than others. In the 2019 Annual Report, GMOB pointed out that ‘working relationships among Project Team members, the Parties and GMOB continue to improve. We are all committed to site remediation that protects the environment and residents, though our expectations about how and when this happens may vary’. There could be even greater success if the Co-Proponents and the Parties looked beyond their organizational responsibilities and worked more collaboratively. For example, it seems overly restrictive to isolate off-site contamination discussions from the remediation Project even though it is understood that different organizations may have to take the lead.

6.0 RECOMMENDATIONS

The creation of the Giant Mine Oversight Board was a result of the environmental assessment process and was a consequence of many factors. As noted in 3.1 of this report, these included a lack of trust in government and a '...deep and pervasive resentment of the Giant Mine and the resulting environmental, social and cultural legacy.'¹⁴ In particular, the Yellowknives Dene First Nation and the North Slave Métis Association both underlined the lack of consultation and a lack of confidence in the Project. The information reviewed, and heard, during this evaluation process suggests that the situation has undergone significant improvement over the last five years due to the efforts of the Co-Proponents, the Parties and GMOB. During the workshop, representatives of both the YKDFN and NSMA expressed appreciation for GMOB and indicated that they 'would not be where we are today' without the Oversight Board, which may be considered a very positive affirmation of the GMOB mission. It is not surprising, however, that there is always more that can be done.

From the analysis described throughout this report, it is the Review Team's opinion that GMOB is successfully fulfilling its mandate in many areas including: action on Baker Creek; provision of reports and evaluations to the Co-Proponents, the Parties and the public; annual reporting and public meetings (see Table 7 for a summary). Some suggestions for improvement are noted in the Discussion sections of this report (throughout Section 5.0). The following are recommendations that address the key areas that were identified during the evaluation process.

Recommendation 1

That GMOB continue to view the Project through several lenses, including engineering, socio-economic, and cultural.

GMOB stated in its 2018 Annual Report, that it tries to look at the Project through all these lenses because of concern that 'all the various views, perspectives and goals, are not being understood or appreciated by all those involved' and that by taking a broad approach it hopes that better integration can be achieved. This seems to be a significant contribution that is consistent with the general provisions of the Environmental Agreement and should be continued. The Project and the broader issues with respect to communications, socio-economic and cultural factors are very complex and GMOB is the organization best able to provide an overview.

Recommendation 2

GMOB should develop a 'dashboard' or some other tracking tool so that the fate of each annual recommendation may be easily followed.

The analysis of GMOB's recommendations discussed in Section 5.1 and Appendix D of this report was conducted to develop a sense of the progress of recommendations but was challenged by the fact that GMOB does not routinely express whether recommendations have been dealt with adequately or not. The GMOB 2019 Annual Report was more explicit in that it identified new and updated recommendations. GMOB should continue with this approach and develop a tracking system so that progress on all recommendations can be clearly followed. This system will provide a clear indication of what GMOB considers important and what the response has been and give the public insight regarding progress on different topic areas.

¹⁴ EA: pg. 82

Recommendation 3

GMOB should consider ways to provide its collective input on an on-going basis.

GMOB members participate in many meetings, committees etc. and individual Directors are always willing to provide their professional input. It is recognized that the Board expresses its collective stance through comments on specific initiatives such as reports, interventions with the Water Board etc. but the position of the Board on the overall Project is mainly expressed in the Annual Report and at the semi-annual and annual meeting. Given the expertise within the Board and the close familiarity with the entire Project, efforts should be made to discuss Board positions and opinions on an on-going basis. This will provide the Co-Proponents and Parties with opportunities to discuss, clarify and more readily respond to GMOB's input. Such dialogue could also provide information that might modify/clarify GMOB's position.

Recommendation 4

GMOB needs to publicize its actions to develop a permanent solution to the arsenic trioxide dust stored underground at the Giant Mine.

The research program was developed in accordance with the direction laid out in the Environmental Agreement. Projects currently being executed by TERRE-NET will better characterize the chemical composition of the dust and will evaluate the viability of some of the most promising technologies identified in the 2017 State of Knowledge Report. A peer review panel has been recently formed to review unsolicited research proposals. This panel should also be used to review progress by TERRE-NET; further consideration could be given to ensure the panel has the appropriate background to best understand the on-going research. There is a lack of understanding, from some Parties and the public regarding the work underway and progress being made, and better publicity is in order. This should include the use of plain language descriptions that are easily understood by the public.

Recommendation 5

GMOB should continue to improve its communication efforts with the public.

Public awareness of GMOB and its activities is generally very good, but improvements can always be made. The office, website and annual meetings are very effective. Efforts should continue to involve schools and to promote an open and transparent environment. More plain language materials and different formats (less presentation and more discussion) can improve the already well-attended public meetings. Consideration should be given to greater use of radio as well as to social media. As the Project enters the remediation phase and there is a concurrent increase in activities there may be a need for GMOB to host public meetings more frequently to address issues that are of current public interest or concern.

Recommendation 6

GMOB needs to develop an overall vision for the public repository of records.

The Library is a 'work in progress' and contains many useful items but it is not complete. It is not clear what GMOB's vision is for addressing its mandate to create a public repository of records. It is understood that the Agreement states that such a repository should include what GMOB 'considers relevant to its responsibilities' but it can be argued that the repository should be comprehensive. The Project and associated activities are very complex, and it is difficult for the uninitiated to develop an understanding of why the problems arose, what is being done about them and the lessons learned to prevent them happening again. Given GMOB's unique position in having an overview of all the related activities, consideration could be given to a central repository for this information or links to where additional information is available.. Valuable research is often conducted in the Yellowknife area with respect to arsenic but there is little coordinated effort to identify and resolve information gaps. The Co-Proponents face restrictions on their ability to post reports, studies and plans but they could be hosted on the GMOB Library site. It is recognized that this approach could consume limited resources but there are benefits to the Co-Proponents and the Parties. Economies could be realized by providing a comprehensive description of the various components on the GMOB Library and creating links to other organizations with a clear understanding of where they fit in the overall program. Similarly, there could be coordination with the GNWT Legacy Contaminants Committee with the Perpetual Care Plan being developed by the Co-Proponents.

Recommendation 7

It is recommended that GMOB, the Co-Proponents and the Parties consider ways in which they can increase their collaboration in dealing with *all* aspects of the legacy of the Giant Mine.

As noted above, GMOB is in the ideal position to view all aspects of the Project as the Co-Proponents and the Parties have their individual responsibilities and perspectives. There would be an advantage to increase their collective collaboration towards making the Project and other activities that deal with the Giant Mine legacy successful. This could include developing a coordinated, overall strategy to plan and execute all the work to be done. Such an approach is also consistent with Article 2.1(c) of the Agreement which indicates that one of the purposes of the Agreement is to ‘facilitate collaboration among the Parties’. Part of this collaboration would be for each organization to review their responsibilities under the Agreement including Article 2.2(a)(ii) which says that all intend to achieve or support ‘the economy, way of life and well-being of the aboriginal peoples of Canada in the vicinity of Yellowknife, and of other residents of Yellowknife, the Northwest Territories and Canada’.

Table 7. Outcomes from the evaluation.

GMOB RESPONSIBILITIES	EVALUATION	COMMENT
Report Review and Recommendations	Satisfied with some modifications	Continue to view the Project through a number of lenses, including engineering, socio-economic, and cultural. Develop a ‘dashboard’ or some other tracking tool so that the fate of each annual recommendation may be easily followed. Consider ways to provide its collective input on an on-going basis.
Management of Baker Creek	Satisfied	Continue involvement with review of remediation phase plans.
Research Program for a Permanent Solution to Arsenic	Satisfied but not well publicized	Publicize actions to develop a permanent solution to the arsenic trioxide dust stored underground at the Giant Mine.
Promoting Public Awareness	Satisfied with some room for improvement	Continue to improve communication efforts with the public.
Public Source of Records	Underway - Work in progress	Develop an overall vision for the public repository of records and to consider implementing an ‘everything Giant’ approach.
Providing Reports to Co-Proponents and Public	Satisfied	Continue provision of reports.
Annual Report and Public Meeting	Satisfied with some improvements to public meeting	Public meeting could be improved with more plain language material and less presentations/more interaction.



GMOB RESPONSIBILITIES	EVALUATION	COMMENT
Participation in the Agreement	All Parties are actively involved but usually within their own sphere of influence	GMOB, the Co-Proponents and the Parties should consider ways in which they can increase collaboration in dealing with <i>all</i> aspects of the legacy of the Giant Mine.

7.0 CLOSING

This report has been prepared exclusively for the use of the Giant Mine Oversight Board for the specific application described within this report. The report was developed arms-length from the Board, which was not involved in selecting the contractor and simply administered the contract. Otherwise, it engaged with the contractor in the same manner as the Parties, other agencies and the public. The details provided in this report are for general information purposes only. The information and recommendations contained in this report should not be used for any other purpose, at another location, or by any other parties. Any use of, or reliance on this report by any third party is at that party's sole risk. ARKTIS assumes no responsibility for inappropriate use of the contents of this report, and disclaims all liability arising from negligence or otherwise.

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APPENDIX A – QUESTIONNAIRE AND SUMMARY OF RESULTS



Five-year Review of the Giant Mine Remediation Project Environmental Agreement Questionnaire

This questionnaire has been developed to help inform a review of the Giant Mine Oversight Board's (the Board's) operations at the 5-year point since its inception under the Giant Mine Remediation Project Environmental Agreement (the Agreement). You are receiving this questionnaire as you have been identified as a key member of one of the Parties involved in the Giant Mine Remediation Project (the Project). Please consider the questions and answer them as honestly as possible. Your identity will remain confidential.

Once you have completed the questionnaire, please save the document and return it by email to Chris Van Dyke with Dillon Consulting, at cvandyke@dillon.ca. If you have any questions as you're working through the questionnaire, feel free to contact Chris by email or phone at (867) 444-8374.

The first set of questions is general in nature, with later questions focused more closely on the Board's activities.

1: General Questions

1. How familiar are you with the Giant Mine Oversight Board? (On a scale of 1 to 5, with 1 being not at all familiar and 5 being very familiar)

1 2 3 4 5

2. As an employee of a Party to the Giant Mine Remediation Project Environmental Agreement, have you been in touch with a board member or a staff member of the Giant Mine Oversight Board in the past 12 months?

Yes No

3. In your opinion, how visible in your community is the Giant Mine Oversight Board? (on a scale of 1 to 5, with 1 being not at all visible, and 5 being very visible)

1 2 3 4 5

- a. Do you get the sense that people in your community are aware of the Board?

Yes No



4. Please provide any suggestions you may have on how to increase the Board's visibility in the community.

5. A key aspect of the Board is its independence from the Parties. The following questions relate to this.

a. On a scale of 1 (least) to 5 (most), how independent do you perceive the Board to be?

1	2	3	4	5
<input type="checkbox"/>				

b. On a scale of 1 (least) to 5 (most), how independent do you believe the public perceives the Board to be?

1	2	3	4	5
<input type="checkbox"/>				

6. Are you familiar with who the members of the Board are, and who the Board's staff members are?

Yes | No | Somewhat

7. Thinking of the Board's Directors and staff, do you feel that the Board has the proper skills to effectively perform its duties?

Yes | No | Somewhat | Prefer not to answer

a. If you answered 'no' or 'somewhat', what skills or technical knowledge do you think the Board is currently lacking?



b. Please indicate if you think the Board includes members with sufficient technical expertise in each of the following areas:

- i. Ecological Health Risk Assessment: Yes | No | Somewhat
- ii. Human Health Risk Assessment: Yes | No | Somewhat
- iii. Communication of Risks: Yes | No | Somewhat
- iv. Project Management: Yes | No | Somewhat

8. Overall, in your opinion is the Giant Mine Oversight Board fulfilling the role that you believe it should?

Yes No

a. If you answered no, please indicate how you believe the Board could better fulfill its role as you see it.

The next set of questions relates to the mandate of the Giant Mine Oversight Board, as established by the Environmental Agreement. The mandate can be seen in the image below.

2: Mandate Questions

1. On a scale of 1 (lowest) to 5 (highest), how familiar would you say you are with the mandate of the Giant Mine Oversight Board?

1 2 3 4 5

Mandate

The Environmental Agreement requires that the Oversight Board:

- review and make recommendations regarding the annual report from Indigenous and Northern Affairs Canada (INAC) and the Government of the Northwest Territories (GNWT), the Status of the Environment report and the 20-year Independent Project Review report;
- participate in and provide advice regarding the process followed by the GNWT and INAC for assessing options for the management of Baker Creek;
- manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the Giant Mine;
- promote public awareness of itself, the Environmental Agreement and the Board's roles under the Agreement;
- establish a publicly accessible repository of records that it considers relevant to its responsibilities;
- provide all its reports and evaluations to the Parties to the Environmental Agreement and make them available to the public; and
- issue a report and hold a public meeting annually.



2. In general, do you believe that the Giant Mine Oversight Board is meeting its mandate up to this point in the remediation project?

Yes | No | Somewhat | Prefer not to answer

3. On a scale of 1 (lowest) to 5 (highest), how effective do you think the Giant Mine Oversight Board has been at reviewing and providing recommendations based on the project's reports?

1 2 3 4 5

4. On a scale of 1 (lowest) to 5 (highest), how would you assess the Giant Mine Oversight Board's involvement in the assessment of options for the management of Baker Creek?

1 2 3 4 5

5. Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?

Yes No

6. If you answered yes to the previous question, are you aware of any of the following 4 research projects underway?

a. Examination of Arsenic trioxide dust composition and solubility

Yes | No

b. Sulfidation of Arsenic trioxides to form low solubility Arsenic trisulphide

Yes | No

c. Stabilization of Arsenic trioxide dust in cemented paste backfill

Yes | No

d. Geochemical and leaching characterization of vitrified arsenical glass

Yes | No

7. A key component of the Board's mandate is to promote public awareness of itself and the Agreement.



a. On a scale of 1 (least) to 5 (most), how would you rate the Board's work on promoting public awareness?

1	2	3	4	5
<input type="checkbox"/>				

b. On a scale of 1 (least) to 5 (most), how accessible to community members would you say the Board is?

1	2	3	4	5
<input type="checkbox"/>				

8. Do you have any suggestions on how the Board could improve public awareness of its role? If so, please provide any suggestions in the space below.

9. Do you know how to access the public repository of relevant records that the Board keeps?

Yes No

10. Have you ever accessed the [GMOB Library](#)?

Yes No

a. If you answered yes, approximately how many times over the past 12 months have you accessed it?

11. One aspect of the Board's mandate is to "establish a publicly accessible repository of records that it considers relevant to its responsibilities". In a perfect world, what would such a publicly accessible repository of records look like to you?



12. In your role with one of the Parties, to the best of your knowledge have you been provided with all of the Giant Mine Oversight Board's reports and evaluations related to the Project?

Yes No

13. Have you read any of the Board's Annual Reports?

Yes No

14. Have you attended any of the Board's annual public meetings?

Yes No

a. If yes, how would you rate the effectiveness of the meeting(s)? (on a scale of 1 (not at all effective) to 5 (very effective))

1	2	3	4	5
<input type="checkbox"/>				

b. Do you have any suggestions to improve the Board's public meetings?

15. Outside of your work environment, can you recall seeing any public notices or advertisements for either the Board's Annual Report or the Board's annual public meeting?

Yes No

16. Can you identify one (or more) areas where you see the Giant Mine Oversight Board has been effective in meeting its mandate, and why you feel this way?



17. Can you identify one (or more) areas where you feel the Giant Mine Oversight Board has not met the intent of the Environmental Agreement, and why you feel this way?

18. Thinking back to the overall mandate of the Board, are there any changes you would make to the mandate?

a. Do you feel that the mandate is too broad or too narrow? Please comment below.

The next set of questions deals specifically with the Giant Mine Oversight Board's 8 Principles that guide its work, and how well the Board is following each of those principles.

3: Principle Questions

1. How trustworthy is the Giant Mine Oversight Board in your opinion? (on a scale of 1 to 5, with 1 being not at all trustworthy and 5 being very trustworthy). Please expand on your response in the space below.

1	2	3	4	5
<input type="checkbox"/>				



2. How transparent would you say the Board is in your opinion? (on a scale of 1 to 5, with 1 being not at all transparent and 5 being very transparent). Please expand on your response in the space below.

1	2	3	4	5
<input type="checkbox"/>				

a. Do you believe that the Giant Mine Oversight Board helps improve transparency for the Project as a whole?

Yes | No | Somewhat | Prefer not to answer

3. How would you rate the Board's effectiveness at communicating and engaging with the community? (on a scale of 1 to 5, with 1 being not at all effective, and 5 being very effective)

1	2	3	4	5
<input type="checkbox"/>				

4. Do you believe that the Board helps facilitate communication between the different Parties?

Yes | No | Somewhat | Prefer not to answer

a. On a scale of 1 (lowest) to 5 (highest), how would you rate communication between the Parties to the Agreement in general?

1	2	3	4	5
<input type="checkbox"/>				

5. Do you have any suggestions on how the Board's communication and engagement with the local community could be improved?

6. Do you believe that the Board's actions have helped promote reconciliation?

Yes | No | Somewhat | Prefer not to answer

7. In your opinion, have the activities of the Board contributed to a feeling of social license (or public trust in the legitimacy of the Project and the Parties) for the Project in your community?

Yes | No | Somewhat | Prefer not to answer

8. In your view, has the local culture been a consideration in the Board's activities and its recommendations around the Project?

Yes | No | Somewhat | Prefer not to answer

9. From what you have seen, has the Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Project?

Yes | No | Somewhat | Prefer not to answer

10. Do you believe that the Board's activities and recommendations reflect a desire to improve the community?

Yes | No | Somewhat | Prefer not to answer

The final questions are for statistical purposes only. Your identity will remain confidential.

1. Please indicate the name of your organization:

2. Approximately how many years have you been involved in the Giant Mine Remediation Project with your organization?

3. How many years have you lived in the Yellowknife area?

4. Do you have any other comments you would like to add about the Board or the Environmental Agreement in general?

Question:	How familiar are you with the Giant Mine Oversight Board? (On a scale of 1 to 5, with 1 being not at all familiar and 5 being very familiar)	As an employee of a Party to the Giant Mine Remediation Project Environmental Agreement, have you been in touch with a board member or a staff member of the Giant Mine Oversight Board in the past 12 months?	In your opinion, how visible in your community is the Giant Mine Oversight Board? (on a scale of 1 to 5, with 1 being not at all visible, and 5 being very visible)
		5 Yes	4
		5 Yes	4
		5 Yes	4
		5 Yes	3
		5 Yes	4
		4 Yes	
		4 Yes	3
		5 Yes	3.5
		5 Yes	5
		5 Yes	3

Do you get the sense that people in your community are aware of the Board?	Please provide any suggestions you may have on how to increase the Board's visibility in the community.	On a scale of 1 (least) to 5 (most), how independent do you perceive the Board to be?	On a scale of 1 (least) to 5 (most), how independent do you believe the public perceives the Board to be?
Yes	<i>I feel that the board is technically visible as they have a storefront on the main street. I believe that the people who might be interested in the project are aware of the Board, and those that want to visit the office or speak with the Board are able to do so.</i>	3	5
Yes	<i>Radio might be a wise place to focus these efforts, at least during the pandemic. Perhaps the considerable expertise the board contains could be brought to Cabin Radio, CBC North, and other Northern radio stations occasionally to bring brief regular updates on the board's work to a wider audience listening in their homes.</i>	5	<i>We're reluctant to offer a ranking on this as it asks what we think to be other parties' views. Better to ask them directly. Members of the public who are familiar with the board's work to date should have a good idea of its effective independence, but we lack sufficient information to assess the likely opinions of the larger fraction of the public who remain largely unaware of this work. This may be further complicated by increasing cynicism with and misinformation about authorities and institutions in general.</i>
Yes		3	2
Yes		5	4
Yes	<i>I think that the Board could do a better job of communicating that part of their mandate is to conduct the research for a permanent solution to the arsenic trioxide at Site. I think they do a good job at ensuring the Board is visible, however, I don't think many community members are aware of the mandate to conduct research.</i>	5	3
		4	
Yes	<i>Overall, we believe that most [of our organization's] members are aware of the Giant Mine Oversight Body, and [our] staff and the Board of Directors are very familiar with GMOB. However, we also think GMOB sometimes gets lumped into or confused with the broader Giant Mine Remediation Project – this is perhaps due to the nature of the regulatory process, having the "Project" (CIRNAC), the "Board" (an acronym sometimes used to refer to GMOB and other times to the Mackenzie Valley Land and Water Board), and then residents and community members providing input to the Giant Mine remediation. Members who know about Giant but aren't regularly part of the review of the whole process sometimes forget about GMOB and its role. [Our organization] very much likes that GMOB has an office that members and residents can visit to ask questions about Giant. We believe visibility of this office could perhaps be improved. Some simple additions could be a "Come on In!" sign outside on the sidewalk, to draw attention to pedestrians. Of course, this could only be implemented post-COVID, noting the closure of the office to the general public. Given that GMOB only has one full time staff (Ben Nind), we think adding one employee, perhaps part-time, to help with communications and media promotion would be beneficial in promoting GMOB to Yellowknife residents.</i>	5	4
Yes	Potentially a greater use of social media platforms such as Twitter, Facebook, etc. Podcasts might be useful	2	4
Yes		5	4
Yes		5	4

Are you familiar with who the members of the Board are, and who the Board's staff members are?	Thinking of the Board's Directors and staff, do you feel that the Board has the proper skills to effectively perform its duties?	If you answered 'no' or 'somewhat', what skills or technical knowledge do you think the Board is currently lacking?	a. Please indicate if you think the Board includes members with sufficient technical expertise in each of the following areas:	Ecological Health Risk Assessment	Human Health Risk Assessment	Communication of Risks
Yes	Yes			Yes	Yes	Yes
Yes	Yes			Yes	Yes	Yes
Yes	Somewhat	<i>I don't think the Board office staff have the technical knowledge to adequately address the public questions</i>		Yes	Yes	Somewhat
Yes	Somewhat	<i>Fisheries</i>		Yes	Yes	Somewhat
Yes	Yes			Yes	Yes	Yes
Yes	Yes			Yes	Yes	
Yes	Yes			Yes	Yes	Yes
Yes	Somewhat	<i>Understanding integrated construction management and complex system optimization techniques in order to appropriately provide any level of meaningful oversight on the development and sequencing of all remedial works.</i>		Yes	Yes	Somewhat
Yes	No			Yes	Yes	Somewhat
Yes	Yes					

Project Management	Overall, in your opinion is the Giant Mine Oversight Board fulfilling the role that you believe it should?	If you answered no, please indicate how you believe the Board could better fulfill its role as you see it.	On a scale of 1 (lowest) to 5 (highest), how familiar would you say you are with the mandate of the Giant Mine Oversight Board?	In general, do you believe that the Giant Mine Oversight Board is meeting its mandate up to this point in the remediation project?
Yes	Yes			5 Somewhat
Yes	Yes			5 Yes
Yes	Yes			5 Somewhat
	Yes			5 Somewhat
Yes	Yes			4 Yes
Yes	Yes			4 Yes
Yes	Yes			4 Yes
Somewhat	Yes			5 Yes
Yes	Yes			4 Yes
				5 Yes

On a scale of 1 (lowest) to 5 (highest), how effective do you think the Giant Mine Oversight Board has been at reviewing and providing recommendations based on the project's reports?	On a scale of 1 (lowest) to 5 (highest), how would you assess the Giant Mine Oversight Board's involvement in the assessment of options for the management of Baker Creek?	Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?	If you answered yes to the previous question, are you aware of any of the following 4 research projects underway?	Examination of Arsenic trioxide dust composition and solubility
4	5	Yes		Yes
5	<i>3 - GMOB is consistently present and contributing, while remaining at arm's length and permitting input from the parties to remain the driving force.</i>	Yes		Yes
4		4		Yes
4		3		Yes
4		4		Yes
		Yes		Yes
5		4		Yes
3		3		Yes
5		4		Yes
3		3		Yes

Sulfidation of Arsenic trioxides to form low solubility Arsenic trisulphide	Stabilization of Arsenic trioxide dust in cemented paste backfill	Geochemical and leaching characterization of vitrified arsenical glass	On a scale of 1 (least) to 5 (most), how would you rate the Board's work on promoting public awareness?	On a scale of 1 (least) to 5 (most), how accessible to community members would you say the Board is?	Do you have any suggestions on how the Board could improve public awareness of its role? If so, please provide any suggestions in the space below.
Yes	Yes	Yes	3	4	
Yes	Yes	Yes	4	4	<p><i>4 - We find the members of the board very open and generally to be good communicators, and feel confident that they would be responsive to members of the public whenever approached. The closure of the storefront during the Covid crisis currently reduces the avenues available for the public to approach them, however, so a three may better represent that reduced access in this assessment at this time.</i></p> <p><i>As previously suggested, perhaps some presence on radio might help to expand local awareness beyond what is otherwise currently possible, to offset the reduction in available public engagement efforts.</i></p>
No	No	Yes	3	3	
Yes	Yes	Yes	4	3	<p><i>Paraphrase: consider the effectiveness of communications thus far and what could be improved. Consider making effective communication a budget target and reporting on that.</i></p>
Yes	Yes	Yes	3	3	<p><i>I think one of the big gaps with the Board is communicating that part of their mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide. I think the Board could also do a better at using plain language approaches to sharing information on the Board's role (e.g., infographics).</i></p>
	Yes				
Yes	Yes	Yes	3	3	<p><i>[Our organization] has always found GMOB Directors and Staff to be extremely approachable and helpful when support is needed on the Giant Mine file. It is unclear at this time if public awareness and outreach has been successful though. This may be due to the messaging itself or simply (low/poor) reception by the public. In other words, [our members are] aware of GMOB's engagement with Yellowknife residents to inform them (usually through radio, newspaper, and on their website) of upcoming GMOB semi-annual and annual gatherings; any Giant Mine regulatory hearings; or updates to the project itself. But, in the last two years or so, we have not observed any community members attend semi or annual meetings and have heard a few people mention not being aware of the GMOB office.</i></p>
Yes	Yes	Yes	2	4	<p><i>See answer above in 1.4</i></p>
Yes	Yes	Yes	4	4	<p><i>Not sure if I can answer this one. I think the fact that it is on main street helps but I am not sure whether there are requests from the public for GMOB to do presentations or other things that GMOB may or may not be able to do.</i></p> <p><i>My son's class visited the GMOB office a few weeks ago and he came home and said that he learned so much about Giant Mine. This is great! Perhaps this could be something that GMOB focusses on in terms of public awareness – get into the schools more. Maybe GMOB is already doing this?</i></p>
Yes	Yes	Yes	3	4	<p><i>Public awareness is tricky, in theory the Board is doing what they can to be visible in the community with their well attended public meetings, and storefront, however perhaps there could be more regular newsletters, or social media posts about the role and availability of staff etc.</i></p>

Do you know how to access the public repository of relevant records that the Board keeps?	Have you ever accessed the GMOB Library?	If you answered yes, approximately how many times over the past 12 months have you accessed it?	One aspect of the Board's mandate is to "establish a publicly accessible repository of records that it considers relevant to its responsibilities". In a perfect world, what would such a publicly accessible repository of records look like to you?	In your role with one of the Parties, to the best of your knowledge have you been provided with all of the Giant Mine Oversight Board's reports and evaluations related to the Project?
Yes	Yes	once	<i>The current library configuration seems difficult to navigate unless you know exactly what you're looking for to do a search. In a perfect world I'd like to see something that was indexed, possibly with the ability to filter by subject, year, etc or separated into folders such as Project documents, historical documents, news articles, third party studies, etc.</i>	Yes
Yes	Yes	12 times	<i>Easy to search on-line registry with links to all the documents, such as there is now. No comment on the method of organization. Such a library should include general interest and safety related plans and documents, a backup compilation of all relevant technical information, and a comprehensive historical archive. Physical records should be duplicated in easily searchable electronic formats, and best practices for effective preservation of physical documents should be observed. Ideally, duplicates of primary documents should also be available for scholastic use within Yellowknife and other NWT communities, to help improve awareness and also ensure that any harm to the primary archive could not result in a total loss of the materials within. In a perfect world, this repository of records would reside in a splendid well constructed building which served as a safe community meeting space and also produced enough renewable power to provide for the needs of the project and surrounding community.</i>	Yes
Yes	No		<i>All records related to Giant Mine that are available not just the ones related to Oversight.</i>	Yes
Yes	Yes			Yes
Yes	No			Yes
No	No		<i>An easily accessed, indexed and searchable online registry that doesn't require a login or password.</i>	No
Yes	No		<i>Current [organization] staff were not aware of the GMOB library until very recently (~2 months). It was upon reviewing the GMOB website for general information that they discovered the library itself. We note that the library is password protected, which can be obtained upon request to the Executive Director. We do question the necessity of a password, wondering whether or not this deters the general public from reviewing documents in the library, but not having looked at the documents themselves, we assume the password was setup due to the sensitivity of some documents or for access monitoring purposes.</i>	Yes
No	No		<i>Both an online registry and hard copy library in their storefront office in YK</i>	Yes
No	No		<i>There is a lot of information available about Giant Mine. It would be great if there was a <u>central</u> repository for all things Giant Mine. I am not sure if this is possible because I recognize that there is a lot of information everywhere but not necessarily in one place. Ideally, everything would be electronic and people could access the information from anywhere.</i>	Yes
Yes	No		<i>Having not gone to look how it is currently set up online access is great...and opportunity for community members to be able to walk in and leave with a report if so desired.</i>	Yes

Have you read any of the Board's Annual Reports?	Have you attended any of the Board's annual public meetings?	If yes, how would you rate the effectiveness of the meeting(s)? (on a scale of 1 (not at all effective) to 5 (very effective))	Do you have any suggestions to improve the Board's public meetings?	Outside of your work environment, can you recall seeing any public notices or advertisements for either the Board's Annual Report or the Board's annual public meeting?
Yes	Yes	3		No
Yes	Yes	5		Yes
Yes	Yes	3	<i>They (GMOB) need to make it clear that the public meetings are not Project meetings. Or find a way to involve the Project team into their meetings. [The Project team] are often put on the spot at these meetings and find it quite awkward.</i>	Yes
Yes	Yes	4	<i>Paraphrase: more visual handouts explaining the work done and where budget is allocated; consider conversations around what was discussed at the last AGM, major achievements and where budget was allocated and spent; more information on Terre-net.</i>	Yes
Yes	Yes	3	<i>One of the biggest challenges with these meetings is communicating to the public that GMOB is an independent body and not part of the Project Team. A lot of the comments that GMOB has received in the past at these meetings are questions that are more directed at the Project Team (i.e., the public often assumes that GMOB is the Project Team). I think that there could be more attention on the fact that the Board is an independent entity and not part of the formal Giant Mine Team (i.e., Government of Canada and GNWT).</i>	No
Yes	No			Yes
Yes	Yes	5	<i>We are unsure if the public is restricted to participating through conference line only, rather than in person. Is so, once COVID restrictions are lifted, it may be worth considering changing this practice to make the public meetings more inviting to Yellowknife residents. The public meetings are always very well organized but some of the material can be quite technical so attendance in person may be easier/more enriching than trying to follow along on the telephone.</i>	No
Yes	Yes	2	<i>It felt like most of the annual public meetings that I have attended that the Board relies mainly on each of the other parties to the Environmental Agreement to do most of the talking and feels that it is mainly a platform for updates versus the Board providing the necessary level of detail on what they are up to and the status of each file they are working on.</i>	No
Yes	Yes	4		Yes
Yes	Yes	3	<i>There is still a lot of confusion in the community about the status of the Project in general, but also the role of GMOB and that GMOB does not make decisions about the progress of the Project, nor are they representatives of the project. Clear mandate description in the advertisements of public meetings, and in the introduction of the meetings. They are doing a good job with the recommendations report they provide annually, and being technically sound in meetings in answering project specific questions, however perhaps there is a more clear relationship between project staff and GMOB somehow. Infographic, photos of reps etc?</i>	No

Can you identify one (or more) areas where you see the Giant Mine Oversight Board has been effective in meeting its mandate, and why you feel this way?	Can you identify one (or more) areas where you feel the Giant Mine Oversight Board has not met the intent of the Environmental Agreement, and why you feel this way?	Thinking back to the overall mandate of the Board, are there any changes you would make to the mandate?
<p>GMOB has reviewed many project documents and provided comment on them; they participate in a number of committees with the project, and they have continued to move forward with the research into a permanent solution to the arsenic trioxide dust.</p>	<p>I feel the board is potentially overreaching in their involvement and recommendations on the socioeconomic side of things. The Giant Mine remediation project is first and foremost there to clean up the site and try to leave it in a vastly improved condition. The oversight board was created to help provide some public confidence that the remediation was being done responsibly. The mandate as laid out in the environmental agreement is primarily relating to environmental and engineering aspects of the work.</p>	
<p>Compilation of historical information on Giant. Investigations of novel options to make the arsenic trioxide safer, so less toxic. In addition to direct involvement by board members, GMOB has also contributed positively towards the preparedness of the parties to participate meaningfully in the process by holding information sessions on the water licence process</p>	<p>No. Where GMOB's responsibilities under the Environmental Agreement include tasks like overseeing research on better long-term arsenic management solutions, these are long term obligations which have only just begun to be met.</p>	<p>Other than to recommend more money for research, much more money, no because research money is not a mandate issue.</p>
<p>The office on Franklin Avenue is a great success.</p>	<p>There was a vision that GMOB would be a repository of all things Giant and I am not sure that has happened. GMOB should be the oversight on the project yet all proponent continue to want their own independent advisors.</p>	<p>The board continues to get involved in the socio-ec aspect of the project and I don't feel that this is part of their mandate. Maybe this should be clear, one way or the other.</p>
<p>Paraphrase: In general the Board is doing a fine job. Just recently began considering land use constraints into their work, which is good to see although would have been valuable earlier on. Recently hired someone with fisheries expertise which had long been an identified gap (DFO is not providing any advice publicly).</p>	<p>Paraphrase: At times, GMOB can take a standoffish approach to their role within the Agreement - in some way seeing their role as above the other parties, and would serve its role better to help improve work taking place rather than just being critical. Ideally, its regulatory documents would be provided sooner than the deadline, to be more helpful to the other parties. Finally, taking on more of their own administrative duties would ease burden on other parties.</p>	<p>No. I think it's a very good agreement.</p>
	<p>Establish a publicly accessible repository of records that it considers relevant to its responsibilities. I'm not sure that the Board is entirely meeting this mandate item. I know that they are doing work on this subject, but it would be valuable for the Board to provide some additional details on the process for how they are developing a repository of records. I would recommend that the Board works on communicating why they are doing this, how long will this repository exist for, how are we ensuring that this isn't duplicating work elsewhere, how are records being selected for this repository, etc.</p>	
<p>They have initiated work to consider possible alternatives for permanently addressing the arsenic trioxide contamination. While it doesn't seem to be a direct mandate item, GMOB was an active intervener in the water licensing proceeding of the MVLWB and that was beneficial to the Board's outcome.</p>		
<p>GMOB has been extremely effective in providing concise and digestible reports summarizing their recommendations on GMRP files. In particular, their report on the recommendations to the Water Licence and their presentation to the Mackenzie Valley Land and Water Board during the Water Licence Public Hearing (January 2020) was beneficial to [our organization's] Environmental Staff in understanding the key issues and areas of concern for the project, which in turn helped us with our own intervention. GMOB has also gone the extra mile in supporting the Parties of the Environmental Agreement through informal regulatory process "101" sessions. GMOB has offered and held a number of these gathering for any interested members, on a range of topics, including: Water Licence process; developing an intervention; reviewing historical documentation, like the Human Health and Ecological Risk Assessment. These sessions were held at the GMOB office and often lead to interesting and collaborative discussions between Parties. We also believe that when possible, GMOB staff and Directors do successfully address public questions in regards to the GMRP. One instance in particular was when one [of our] staff brought visiting family to the GMOB office, to describe a little bit about their work. GMOB staff (Ben) was welcoming, patient, and very eager to describe the Giant Mine site (using the helpful model of the underground), history, and current work (notably, the arsenic storage research).</p>	<p>As mentioned above, I think communication for public awareness requires more attention moving forward.</p>	<p>We currently do not have any recommendations or changes to the mandate.</p>
<p>I think they have been meeting the majority of their mandate to date.</p>	<p>They were very slow at getting the research program up and running looking into alternative permanent solutions to remediate the arsenic trioxide dust. It is good to see that it is somewhat on track now, however I feel that they are focusing on the wrong priority, which should be how to extract the dust versus in-situ treatment that will be extremely hard to do.</p>	<p>I have no issues with the mandate.</p>
<p>1. Research into the long term solution for arsenic trioxide 2. Producing its annual report 3. Participation in the regulatory process</p>	<p>I have to be honest, I didn't know that GMOB has a public repository of relevant records on Giant Mine. I usually go to the Mackenzie Valley Land and Water Board for the information or I get it from the Project Team. Perhaps this needs to be made more public that such a repository exists.</p>	
<p>Arsenic Trioxide alternative research. GMOB has done a lot of research on administering an effective, fiscal, and proactive way to manage research underway or 'commissioned' on arsenic treatment. It has taken a while to get set up but the structure seems sound, and hopeful.</p>	<p>Nothing specifically NOT being met, however again the fine balance of independence and the benefit of input, and community communications and comms. I think there is an opportunity for GMOB to assist as much as possible to communicate the status of the project technically, but on a social science scale as well. We have heard them say that it's the Project's job, and while I agree, I believe there are more ways to create linkages to that information, but other provide technically sound information direct form the Board, as the public trusts the organization.</p>	<p>The Board is to provide review and recommendations to the Project's Annual Rpeort, however direct review is not occurring in the recent years, as the Boards review is an overall general project review. I think there is value in evaluating the value and benefit of the Project's annual report, and how key aspects of that report could be further communicated to the public, or improved upon.</p>

Do you feel that the mandate is too broad or too narrow? Please comment below.	How trustworthy is the Giant Mine Oversight Board in your opinion? (on a scale of 1 to 5, with 1 being not at all trustworthy and 5 being very trustworthy). Please expand on your response in the space below.	How transparent would you say the Board is in your opinion? (on a scale of 1 to 5, with 1 being not at all transparent and 5 being very transparent). Please expand on your response in the space below.
<i>I think that perhaps the Board interprets its mandate very broadly, but I don't have any specific recommendations on how to adjust this. Section 3.1 (a) is pretty specific aside from 3.1 (a) (v).</i>	4	4
<i>The Board operates with fearless autonomy, beholden to no party. Members and staff act with discretion and speak with authority when called upon. Whether the Board always operates within its mandate is moot in our view. The Board addresses matters of concern regarding Giant. That's the job.</i>	5	5
See above	3 - I don't feel that all members are open and transparent and some even go so far as to undermine the project.	3
	4	3
	5	5
	5	5
<i>We believe the mandate currently provides sufficient direction for GMOB, without being limiting in scope.</i>	5	5
<i>I think it currently strikes the right balance of oversight on the project. I think some further clarity on how granular the oversight should be needs to be looked at and defined. How granular should they be looking into project budgets, scope, and schedule is a consistent debate....project feels high level review is sufficient in meeting their mandate.</i>	3	3
	5	4
<i>The Plan review section of the Agreement could use some further clarity and how it links to the water license requirements. The workload on the Project and stakeholders is larger, so streamlining, and strategizing information in various review processes is important to examine.</i>	3 - The Board consists of local members, and members known and trusted in the community to the most part. There is a general understanding from the public that this is an oversight board, and therefore with it's responsibility it naturally ensures a basic level of trust. However as mentioned before the opportunity for the Project to discuss issues with Board prior to formal submissions would be suggested, in order that information is exchanged or improved upon prior to misinformation, skewed perspective isn't communicated publically if not required or to Project senior staff, when issues could be resolved at a working level.	3

Do you believe that the Giant Mine Oversight Board helps improve transparency for the Project as a whole?	How would you rate the Board's effectiveness at communicating and engaging with the community? (on a scale of 1 to 5, with 1 being not at all effective, and 5 being very effective)	Do you believe that the Board helps facilitate communication between the different Parties?	On a scale of 1 (lowest) to 5 (highest), how would you rate communication between the Parties to the Agreement in general?	Do you have any suggestions on how the Board's communication and engagement with the local community could be improved?
Somewhat	4	Somewhat	3	<i>My current perception is that the Board largely relies on traffic to come into their storefront office to engage, and otherwise the Public meeting once a year. I feel like there may be a greater opportunity for the board to fulfill its role of promoting public awareness of the project through other means.</i>
<i>Yes - Because we receive excellent responses to any inquiries or issues raised, we may have a more positive view of the Board's responsiveness than others, but we have no sense that anyone has not been satisfied with their treatment by the Board. The Board's contribution to "transparency for the Project as a whole" is significant, but the Project management team (the two governments) deserve considerable credit as well. We have found them very helpful and note that, except for a brief period under a previous federal government when officials were not allowed to speak, they are very forthcoming with information that we've found completely timely, reliable and candid. Very helpful.</i>	5	Yes	<i>4 - Note: this is not a question about the Board, so the answer is not about the Board.</i>	<i>As written earlier, consider radio.</i>
No	2	No	5	
Yes	3	Somewhat	5	
Somewhat	3	Somewhat	4	<i>Increase use of plain language materials</i>
Yes	4	Yes	4	<i>Please refer to our suggestions in section 1 of this questionnaire.</i>
No	3	Somewhat	4	<i>Publish a monthly or quarterly newsletter or update briefing.</i>
Yes	4	Yes	4	
Yes	4	Somewhat	4	<i>Similar to the previous comment on newsletters etc</i>

Do you believe that the Board's actions have helped promote reconciliation?	In your opinion, have the activities of the Board contributed to a feeling of social license (or public trust in the legitimacy of the Project and the Parties) for the Project in your community?	In your view, has the local culture been a consideration in the Board's activities and its recommendations around the Project?	From what you have seen, has the Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Project?	Do you believe that the Board's activities and recommendations reflect a desire to improve the community?
Somewhat	Somewhat	Yes	Yes	Yes
Yes	Yes	<p><i>Yes. This issue is much broader than just the Board, and should include the Project proponents as well. Regardless of our view, the only important answers to this question come from YKDFN and NSMA.</i></p>	<p><i>Yes. As noted in remarks to question 8: This issue is much broader than just the Board, and should include the Project proponents as well. Regardless of our view, the only important answers to this question come from YKDFN and NSMA.</i></p>	<p><i>Prefer not to answer - The Board's responsibility is not "to improve the community". The effective work of the Board may contribute to this goal.</i></p>
No	Yes	Somewhat	Somewhat	Somewhat
Somewhat	Somewhat	No	Yes	Somewhat
Somewhat	Yes	Yes	Somewhat	Yes
Somewhat	Yes	Yes	Yes	Yes
No	Somewhat	Somewhat	Somewhat	Yes
Yes	Yes	Yes	Yes	Yes
Somewhat	Somewhat	Yes.	Somewhat	Yes

Do you have any other comments you would like to add about the Board or the Environmental Agreement in general?

We tend to see Giant with some apprehension as we are familiar with the history and current situation, plus the reality that the goal is stabilization and site safety, not cleanup. Barring introduction of technologies to make the arsenic safe, the danger remains forever. Arsenic has no half-life. The public largely does not think about Giant. At the risk of over-generalizing, those whose time in Yellowknife includes the period when the mine was active, including the strike and murder of the mine replacement workers, would prefer to forget this period. Many of the miners directly involved have left town or passed away. Those who have arrived since have no first-hand recollections, so reasonably presume that things are ok. [Our organization] is grateful for the Board's ongoing efforts and contribution to the Giant Mine remediation process. We hope to see the Project meet the Environmental Agreement as comprehensively as possible, considering the full intent of its suggestions to be as intrinsic to our collective success as meeting the required measures.

Paraphrase: They've done well with the reporting but there's room for improvement in the actual project work.

Overall [our organization] has greatly benefited from the implementation of the Giant Mine Oversight Board and we look forward to the results of this review to help guide them in their future work.



Five-year Review of the Giant Mine Remediation Project Environmental Agreement Questionnaire

This questionnaire has been developed to help inform a review of the Giant Mine Oversight Board's (the Board's) operations at the 5-year point since its inception under the Giant Mine Remediation Project Environmental Agreement (the Agreement). As either a Board member or staff member of the Board, you are receiving this questionnaire to provide input on the Board's role in the Giant Mine Remediation Project (the Project) over the last five years. Please consider the questions and answer them as honestly as possible. Your identity will remain confidential.

Once you have completed the questionnaire, please save the document and return it by email to Chris Van Dyke with Dillon Consulting, at cvandyke@dillon.ca. If you have any questions as you're working through the questionnaire, feel free to contact Chris by email or phone at (867) 444-8374.

The first set of questions is general in nature, with later questions focused more closely on the Board's activities.

1: General Questions

1. As a Board member or staff member of the Giant Mine Oversight Board, have you been in touch with a staff member of another Party to the Giant Mine Remediation Project Environmental Agreement in the past 12 months?

Yes No

2. In your opinion, how visible in your community is the Giant Mine Oversight Board? (on a scale of 1 to 5, with 1 being not at all visible, and 5 being very visible)

1 2 3 4 5

- a. Do you get the sense that people in your community are aware of the Board?

Yes No

3. Please provide any suggestions you may have on how to increase the Board's visibility in the community.



4. A key aspect of the Board is its independence from the Parties. The following questions relate to this.

a. On a scale of 1 (least) to 5 (most), how independent do you believe the Board to be?

1	2	3	4	5
<input type="checkbox"/>				

b. On a scale of 1 (least) to 5 (most), how independent do you believe the public perceives the Board to be?

1	2	3	4	5
<input type="checkbox"/>				

5. Thinking of your fellow Board members and staff, do you feel that the Board has the proper skills to effectively perform its duties at this time?

Yes | No | Somewhat | Prefer not to answer

a. If you answered 'no' or 'somewhat', what skills or technical knowledge do you think the Board is currently lacking?

b. Please indicate if you think the Board includes members with sufficient technical expertise in each of the following areas:

- i. Ecological Health Risk Assessment: Yes | No | Somewhat
- ii. Human Health Risk Assessment: Yes | No | Somewhat
- iii. Communication of Risks: Yes | No | Somewhat
- iv. Project Management: Yes | No | Somewhat

6. Overall, in your opinion is the Giant Mine Oversight Board fulfilling the role that you believe it should?

Yes No

- a. If you answered no, please indicate how you believe the Board could better fulfill its role as you see it.

The next set of questions relates to the mandate of the Giant Mine Oversight Board, as established by the Environmental Agreement. The mandate can be seen in the image below.

2: Mandate Questions

1. On a scale of 1 (lowest) to 5 (highest), how familiar would you say you are with the mandate of the Giant Mine Oversight Board?

1 2 3 4 5

Mandate

The Environmental Agreement requires that the Oversight Board:

- review and make recommendations regarding the annual report from Indigenous and Northern Affairs Canada (INAC) and the Government of the Northwest Territories (GNWT), the Status of the Environment report and the 20-year Independent Project Review report;
- participate in and provide advice regarding the process followed by the GNWT and INAC for assessing options for the management of Baker Creek;
- manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the Giant Mine;
- promote public awareness of itself, the Environmental Agreement and the Board's roles under the Agreement;
- establish a publicly accessible repository of records that it considers relevant to its responsibilities;
- provide all its reports and evaluations to the Parties to the Environmental Agreement and make them available to the public; and
- issue a report and hold a public meeting annually.

2. In general, do you believe that the Giant Mine Oversight Board is meeting its mandate up to this point in the remediation project?

Yes | No | Somewhat | Prefer not to answer

3. On a scale of 1 (lowest) to 5 (highest), how effective do you think the Giant Mine Oversight Board has been at reviewing and providing recommendations based on the project's reports?

1 2 3 4 5



4. On a scale of 1 (lowest) to 5 (highest), how would you assess the Giant Mine Oversight Board's involvement in the assessment of options for the management of Baker Creek?

1 2 3 4 5

5. Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?

Yes No

6. If you answered yes to the previous question, are you aware of any of the following 4 research projects underway?

a. Examination of Arsenic trioxide dust composition and solubility

Yes | No

b. Sulfidation of Arsenic trioxides to form low solubility Arsenic trisulphide

Yes | No

c. Stabilization of Arsenic trioxide dust in cemented paste backfill

Yes | No

d. Geochemical and leaching characterization of vitrified arsenical glass

Yes | No

7. A key component of the Board's mandate is to promote public awareness of itself and the Agreement.

a. On a scale of 1 (least) to 5 (most), how would you rate the Board's work on promoting public awareness?

1 2 3 4 5

b. On a scale of 1 (least) to 5 (most), how accessible to community members would you say the Board is?

1 2 3 4 5



8. Do you have any suggestions on how the Board could improve public awareness of its role? If so, please provide any suggestions in the space below.

9. In general, do you believe the public is aware of how to access the public repository of relevant records that the Board keeps?

Yes No

10. Have you ever directed anyone to the [GMOB Library](#)?

Yes No

11. One aspect of the Board's mandate is to "establish a publicly accessible repository of records that it considers relevant to its responsibilities". In a perfect world, what would such a publicly accessible repository of records look like to you?

12. In your role with the Board, to the best of your knowledge have all of the Giant Mine Oversight Board's reports and evaluations related to the Project been provided to all Parties?

Yes No

13. Have you attended any of the Board's annual public meetings?

Yes No

a. If yes, in your opinion how would you rate the effectiveness of the meeting(s)?
(on a scale of 1 (not at all effective) to 5 (very effective))

1	2	3	4	5
<input type="checkbox"/>				

- b. Do you have any suggestions to improve the Board's public meetings?
14. Outside of your work environment, can you recall seeing any public notices or advertisements for either the Board's Annual Report or the Board's annual public meeting?
- Yes No
15. Can you identify one (or more) areas where you see the Giant Mine Oversight Board has been effective in meeting its mandate, and why you feel this way?
16. Can you identify one (or more) areas where you feel the Giant Mine Oversight Board has not met the intent of the Environmental Agreement, and why you feel this way?
17. Thinking back to the overall mandate of the Board, are there any changes you would suggest making to the mandate?
- a. Do you feel that the mandate is too broad or too narrow? Please comment below.

The next set of questions deals specifically with the Giant Mine Oversight Board's 8 Principles that guide its work, and how well the Board is following each of those principles.

3: Principle Questions

1. How trustworthy is the Giant Mine Oversight Board in your opinion? (on a scale of 1 to 5, with 1 being not at all trustworthy and 5 being very trustworthy). Please expand on your response in the space below.

1 2 3 4 5

2. How transparent would you say the Board is, in your opinion? (on a scale of 1 to 5, with 1 being not at all transparent and 5 being very transparent). Please expand on your response in the space below.

1 2 3 4 5

- a. Do you believe that the Giant Mine Oversight Board helps improve transparency for the Project as a whole?

Yes | No | Somewhat | Prefer not to answer

3. How would you rate the Board's effectiveness at communicating and engaging with the community? (on a scale of 1 to 5, with 1 being not at all effective, and 5 being very effective)

1 2 3 4 5

4. Do you believe that the Board helps facilitate communication between the different Parties?

Yes | No | Somewhat | Prefer not to answer

- a. On a scale of 1 (lowest) to 5 (highest), how would you rate communication between the Parties to the Agreement in general?

1 2 3 4 5

5. Do you have any suggestions on how the Board's communication and engagement with the local community could be improved?

6. Do you believe that the Board's actions have helped promote reconciliation?

Yes | No | Somewhat | Prefer not to answer

7. In your opinion, have the activities of the Board contributed to a feeling of social license (or public trust in the legitimacy of the Project and the Parties) for the Project in your community?

Yes | No | Somewhat | Prefer not to answer

8. In your view, has the local culture been a consideration in the Board's activities and its recommendations around the Project?

Yes | No | Somewhat | Prefer not to answer

9. From what you have seen, has the Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Project?

Yes | No | Somewhat | Prefer not to answer

10. Do you believe that the Board's activities and recommendations reflect a desire to improve the community?

Yes | No | Somewhat | Prefer not to answer

The final questions are for statistical purposes only. Your identity will remain confidential.

1. Please indicate the name of your organization:
2. Approximately how many years have you been involved in the Giant Mine Remediation Project with your organization?
3. How many years have you lived in the Yellowknife area?
4. Do you have any other comments you would like to add about the Board or the Environmental Agreement in general?

Question:	1. As a Board member or staff member of the Giant Mine Oversight Board, have you been in touch with a staff member of another party to the Giant Mine Remediation Project Environmental Agreement in the past 12 months?	2. In your opinion, how visible in your community is the Giant Mine Oversight Board? (on a scale of 1 to 5, with 1 being not at all visible, and 5 being very visible)	2-a. Do you get the sense that people in your community are aware of the Board?
	Yes	5	Yes
	Yes	4	Yes
	Yes	5	Yes
Additional Comments Provided:			<i>Many are aware, but many are not. This is a consequence of busy lives, priorities, etc. Those that are interested in Giant are very aware.</i>

3. Please provide any suggestions you may have on how to increase the Board's visibility in the community.	4-a. On a scale of 1 (least) to 5 (most), how independent do you perceive the Board to be?	4-b. On a scale of 1 (least) to 5 (most), how independent do you believe the public perceives the Board to be?	5. Thinking of your fellow Board Members and staff, do you feel that the Board has the proper skills to effectively perform its duties?
<i>Nothing specific given the current Covid restrictions</i>	5	5	5 Yes
<i>Newspaper, radio, schools, community meetings (in the time of COVID-19, not easy)</i>	5	5	5 Yes
<i>Public communications for the Board is constantly evolving. Currently the Board has a storefront which was always open to the public where the public may now, under pandemic conditions, make an appointment to tour the office displays and ask questions about the work of the Board and that of the Project. The digital presence is to the information needs of the website (documents and digital material), radio communications (interviews and updates to supplement public meetings) and digital advertising (this is targeted to the local websites with the most public traffic).</i>	5	4	4 Yes
<i>The current approach appears to be generally appropriate. However, additional use of on-line videos, social media, etc. could reach a broader audience. Consideration could also be given to outreach that focuses on education (e.g., plain language workshops on arsenic, health risks, etc.)</i>	5	4	4 Yes
	4	4	4 Yes
	5	4	4 Yes
<i>It will be difficult during Covid-19. Most organizations are looking at any and every option to communicate with the public during the current situation. At this point we need to focus our efforts on those most impacted.</i>	5	4	4 Yes
<i>Facebook? not a subscriber but seems to be a popular comm tool Cabin Radio – popular because they are on top of things in YK</i>	5	5	5 Yes
		<i>This matter needs constant reinforcement with the public for, in the beginning, there was confusion with the public thinking that GMOB was a government office and responsible for all of the work at the mine site. Educating the public will be ongoing. GMOB has run a number of advertising campaigns reinforcing the "independent" message.</i>	

6. Overall, in your opinion is the Giant Mine Oversight Board fulfilling the role that you believe it should?	6-a. If you answered no, please indicate how you believe the Board could better fulfill its role as you see it.	1. On a scale of 1 (lowest) to 5 (highest), how familiar would you say you are with the mandate of the Giant Mine Oversight Board?	2. In general, do you believe that the Giant Mine Oversight Board is meeting its mandate up to this point in the remediation project?	3. On a scale of 1 (lowest) to 5 (highest), how effective do you think the Giant Mine Oversight Board has been at reviewing and providing recommendations based on the project's reports?
Yes			4 Yes	5
Yes			5 Yes	5
Yes			5 Yes	5
Yes			5 Yes	4
Yes			5 Yes	4
Yes			5 Yes	4
Yes			5 Yes	5
Yes			5 Yes	5
		<p><i>What about our roles as defined in section 2.3 of the EA? They are slightly different than the mandate here. For example, "provide such independent advice to the Co-Proponents on the management of the Project as the Oversight Body considers appropriate" Also, what about Article 3? "monitoring and reporting" on a series of things including Co-Proponent's engagement, environmental aspects of the project,</i></p>		

4. On a scale of 1 (lowest) to 5 (highest), how would you assess the Giant Mine Oversight Board's involvement in the assessment of options for the management of Baker Creek?	5. Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?	6. If you answered yes to the previous question, are you aware of any of the following 4 research projects underway?	6-a. Examination of Arsenic trioxide dust composition and solubility	6-b. Sulfidation of Arsenic trioxides to form low solubility Arsenic trisulphide
	Yes		Yes	Yes
5	Yes		Yes	Yes
	5		Yes	Yes
	4		Yes	Yes
	4		Yes	Yes
	4		Yes	Yes
	4		Yes	Yes
	5		Yes	Yes
Cannot comment - prior to my involvement with GMOB.				

6-c. Stabilization of Arsenic trioxide dust in cemented paste backfill	6-d. Geochemical and leaching characterization of vitrified arsenical glass	7-a. On a scale of 1 (least) to 5 (most), how would you rate the Board's work on promoting public awareness?	7-b. On a scale of 1 (least) to 5 (most), how accessible to community members would you say the Board is?	8. Do you have any suggestions on how the Board could improve public awareness of its role? If so, please provide any suggestions in the space below.
Yes	Yes	5	5	
Yes	Yes	4	5	<i>See answer above</i>
Yes	Yes	5	5	
Yes	Yes	4	4	<i>See answer to General Question #3. In addition, GMOB should consider implementing any recommendations from the parties to the environmental agreement.</i>
Yes	Yes	4	4	<i>Flyers in mailboxes – hopefully plain language</i>
Yes	Yes	5	5	
Yes	Yes	4	4	<i>No suggestions at this time.</i>
Yes	Yes	4	5	<i>same as question 3 in part 1: Facebook? not a subscriber but seems to be a popular comm tool Cabin Radio – popular because they are on top of things in YK</i>

9. In general, do you believe the public is aware of how to access the public repository of relevant records that the Board keeps?	10. Have you ever directed anyone to the GMOB Library?	11. One aspect of the Board's mandate is to "establish a publicly accessible repository of records that it considers relevant to its responsibilities". In a perfect world, what would such a publicly accessible repository of records look like to you?	12. In your role with the Board, to the best of your knowledge have all of the Giant Mine Oversight Board's reports and evaluations related to the Project been provided to all Parties?
Yes	No	<i>An easily searchable on-line repository where documents can be accessed directly.</i>	Yes
No	Yes	<i>As it does now, moreorless. Always room to improve.</i>	Yes
Yes	Yes	<i>This would be both an online and in-house library of resources covering legacyregulatory, issues and operation documents of Giant Mine (government, company and private sources), history of the area to give the mine development context, community development documents, local traditional knowledge and historical documents from the local indigenous perspective.</i>	Yes
No	Yes	<i>It would be an on-line searchable database.</i>	Yes
Yes	Yes	<i>I think it is good so far</i>	Yes
No	Yes	<i>In a perfect world, it would be both an electronic and physical library space that anyone can visit. An electronic database is fundamental, however, a physical space where maps, models, and stories can be viewed or heard would also be valuable. I don't know what this looks like –perhaps eventually a dedicated space at the Prince of Whales Northern Heritage Ctr.</i>	Yes
No	No	<i>Based on other repositories I have accessed I believe this as good but should be modified based on public input.</i>	Yes
No	Yes	<i>the same as is currently envisioned</i>	Yes

13. Have you attended any of the Board's annual public meetings?	13-a. If yes, how would you rate the effectiveness of the meeting(s)? (on a scale of 1 (not at all effective) to 5 (very effective))	14. Outside of your work environment, can you recall seeing any public notices or advertisements for either the Board's Annual Report or the Board's annual public meeting?
Yes		5 Yes
Yes		4 Yes
Yes		4 Yes
Yes		4 Yes
Yes		Yes
Yes		4 Yes
No		No
Yes		4 Yes

<p>15. Can you identify one (or more) areas where you see the Giant Mine Oversight Board has been effective in meeting its mandate, and why you feel this way?</p>	<p>16. Can you identify one (or more) areas where you feel the Giant Mine Oversight Board has not met the intent of the Environmental Agreement, and why you feel this way?</p>
<p><i>GMOB maintains a website that contains links to a number of reports and documents relevant to the remediation project, including the GMRP annual reports and follow up from recommendations made regarding these reports. GMOB has initiated the research program regarding a permanent management strategy for the underground arsenic – both treatment and access.</i></p>	
<p>See above</p>	<p>See above</p>
<p><i>The Board and staff have worked very hard at setting the foundation for the Board operations and its public relations. The Board and staff are always open to constructive suggestions to make their operations and communications more effective.</i></p>	<p>No</p>
<p><i>As described elsewhere in this survey.</i></p>	<p><i>GMOB has had limited success in its efforts to influence the technical design of the Giant Mine Remediation Plan. While GMOB has brought forward important evidence for consideration during decision-making processes, we generally do not make firm technical recommendations. Instead, GMOB has assumed that the Project Team and regulatory authorities (typically the MVLWB) would make the most appropriate decisions after considering all applicable evidence. As a result, there are situations where final decisions are not necessarily consistent with decisions that would be made by GMOB if it were a decision-making authority. For clarity, this does not necessarily represent a situation where GMOB has failed to meet the intent of the Environmental Agreement. However, it is possible that GMOB would be more effective in influencing technical aspects of the Remediation Project if it provided firm recommendations.</i></p>
<p><i>Research program is good. Oversight is good – we participate in a lot of things so we “see” things. Public awareness efforts are sound. Recommendations have caused changes in the Project Team approaches and actions – but I don’t know if we always explain ourselves well enough. I also don’t always feel we understand enough of what is going on to make the best recommendations. Then again, it is hard to know everything!</i></p>	<p><i>Possibly the “make recommendations concerning the Co-Proponents annual report” – then again, I don’t know what is truly expected of us in that regard. Turns out the annual report is not that useful.</i></p>
<p><i>I have seen Facebook ads and have heard radio ads and interviews. I think more radio is effective in this community. Being a relative newcomer to Yk, I’m still not “in the loop” for most news things. It seems there is an underlying communication network that exists among lifelong Yellowknifers – one that remains elusive to me. Ben Nind seems to be effective in engaging this network.</i></p>	
<p><i>During interviews with the media.</i></p>	<p>No.</p>
<p><i>While there is always some room for improvement I feel the Board and staff have been effective in meeting our mandate.</i></p>	

<p>17. Thinking back to the overall mandate of the Board, are there any changes you would make to the mandate?</p>	<p>17-a. Do you feel that the mandate is too broad or too narrow? Please comment below.</p>	<p>1. How trustworthy is the Giant Mine Oversight Board in your opinion? (on a scale of 1 to 5, with 1 being not at all trustworthy and 5 being very trustworthy). Please expand on your response in the space below.</p>
		<p>5</p>
<p><i>Perhaps consider off-site arsenic contamination issues related to Giant, rather than just the immediate lease area.</i></p>	<p>See above</p>	<p>5</p>
	<p><i>Some adjustments can be made in the future</i></p>	<p>5</p>
<p><i>A key challenge I see is that GNWT has elected to not participate as an intervenor in GMRPregulatory processes. That decision was taken by the GNWT to avoid potential conflicts associated with being a co-proponent. Normally, the GNWT typically plays a significant technical and regulatory role when reviewing mining proposals, closure projects, etc. In many instances, the majority of technical expertise originates from GNWT staff. In the case of the GMRP, the GNWT has indicated their technical and regulatory staff review key submittals of the Project Team but their input is not "out in the open" for all parties (including the MVLWB) to consider. This situation has created a regulatory and expertise gap that was not envisaged when the Environmental Agreement was developed. Some parties have informally suggested or implied that GMOB should fill the gap created by the GNWT's decision. However, GMOB lacks the resources and mandate to fill that gap.</i></p>	<p><i>The only significant concern I have regarding the scope of the mandate is that it does not include "off-site" impacts that originated from the historic operation of the Giant Mine. For example, the GMRP made the decision to not include off-site impacts of aerial deposition to arsenic soils and, in general, also excludes impacts to Yellowknife Bay. Since the GMRP is not proposing to do anything to address those off-site impacts, the Environmental Agreement (and GMOB) have no jurisdiction in that regard. Although some actions are being taken to pursue those impacts through other channels, limiting the spatial scope of the mandate to the mine site instead of the area of impact is not justified.</i></p>	<p>5</p>
<p><i>See above re: annual report</i></p>		<p>4</p>
<p><i>Some interpretations of the Board's mandate to communicate seem to imply that it is also responsible for communication of the Project activities and progress. I think we have mostly corrected that assumption, but it has been an issue that perhaps could have been avoided by different wording in the mandate.</i></p>		<p>5</p>
		<p>5</p>
<p><i>In spite of this being a "Giant" project, the regional contamination issue is not going away and could be included</i></p>	<p>See above</p>	<p>5</p>

2. How transparent would you say the Board is in your opinion? (on a scale of 1 to 5, with 1 being not at all transparent and 5 being very transparent). Please expand on your response in the space below.	2-a. Do you believe that the Giant Mine Oversight Board helps improve transparency for the Project as a whole?	3. How would you rate the Board's effectiveness at communicating and engaging with the community? (on a scale of 1 to 5, with 1 being not at all effective, and 5 being very effective)	4. Do you believe that the Board helps facilitate communication between the different Parties?	4-a. On a scale of 1 (lowest) to 5 (highest), how would you rate communication between the Parties to the Agreement in general?
	5 Yes		4 Yes	4
	5 Yes		4 Yes	4
	5 Yes		4 Yes	5
	4 Yes		4 Yes	4
	4 Yes		3 Somewhat	4
	5 Yes		4 Yes	4
	5 Yes		4 Yes	5
	5 Yes		5 Yes	5

5. Do you have any suggestions on how the Board's communication and engagement with the local community could be improved?	6. Do you believe that the Board's actions have helped promote reconciliation?	7. In your opinion, have the activities of the Board contributed to a feeling of social license (or public trust in the legitimacy of the Project and the Parties) for the Project in your community?	8. In your view, has the local culture been a consideration in the Board's activities and its recommendations around the Project?	9. From what you have seen, has the Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Project?
	Yes	Yes	Yes	Yes
See above	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
See prior responses.	Somewhat	Somewhat	Yes	Yes
More plain language documents or flyers.	Yes	Somewhat	Yes	Somewhat
Perhaps more radio ads and interviews – these seem to be effective in this community. CKLB might be beneficial to increase communication in Indigenous language.	Yes	Yes	Yes	Yes
I think that when we determine what the new norm is after covid-19 we will need to adapt our existing strategies.	Yes	Yes	Yes	Yes
see part 1	Yes	Yes	Yes	Yes

10. Do you believe that the Board's activities and recommendations reflect a desire to improve the community?	4. Do you have any other comments you would like to add about the Board or the Environmental Agreement in general?
Yes	
Yes	No
Yes	<i>There are a number of points that can be addressed in the Board interview.</i>
Yes	<i>For discussion during interviews.</i>
Yes	<i>Article 4.1 – Environmental Programs and Plans. I have never been sure about this section or what we, GMOB, were supposed to do about it. Article 4.5(a) mentions that we should “from time to time” conduct an evaluation of the Environmental Programs and Plans. At this stage, we are regularly conducting reviews of plans that are distributed to the Parties both within the water licensing process and sometimes outside of it (e.g., HHERA). Is that what is expected? Suggest these sections get revised with the water licence in mind. Article 4.2 – Perpetual Care – maybe revise and add details based on more recent discussions on it. Article 4.4 – Annual Forecast – I don’t know that this has been done officially at any time (although we get updates through semi-annual meetings). Maybe this should be changed to reflect GMOB’s request for a long-term plan with milestones and performance indicators instead. Article 5 – Co-Proponents’ Annual Reporting. Consider how this could be integrated into the water licence requirement for Annual Reporting – no need for more than one document!</i>
Yes	
Yes	<i>I am impressed with its operation and positive impacts on the project.</i>
Yes	<i>I feel the Board and staff are very sincere about the work they do. I think the Agreement and Board contribute to the public’s and in particular, the Parties’ confidence in the project. Acknowledging the past and future cost of the project, I believe a substantial increase in the current research budget would dramatically improve the chances for success in the quest for a permanent solution.</i>



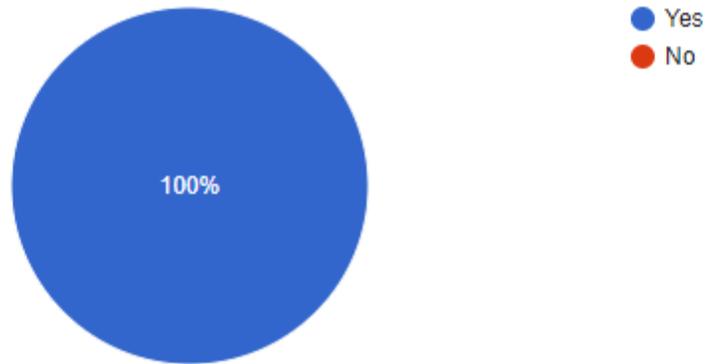
APPENDIX B – PUBLIC SURVEY AND SUMMARY OF RESULTS

Giant Mine Oversight Board 5-year Review – Public Survey Results

This is a summary of responses received to the public survey presented as part of the Final Report of the GMOB 5-year review. This survey used the Google Forms platform, and the visuals below are sourced directly from the platform.

Have you ever heard of the Giant Mine Oversight Board?

23 responses



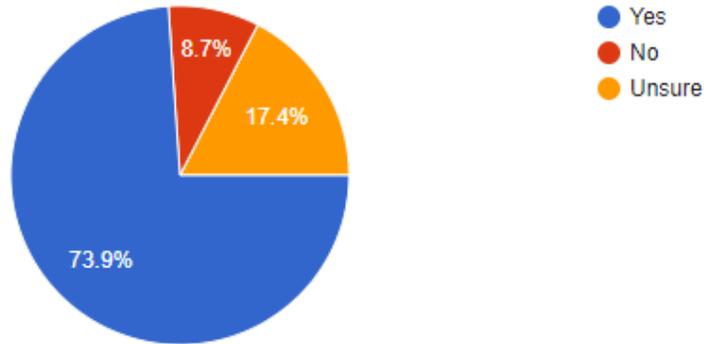
How familiar would you say you are with the Giant Mine Oversight Board?

23 responses



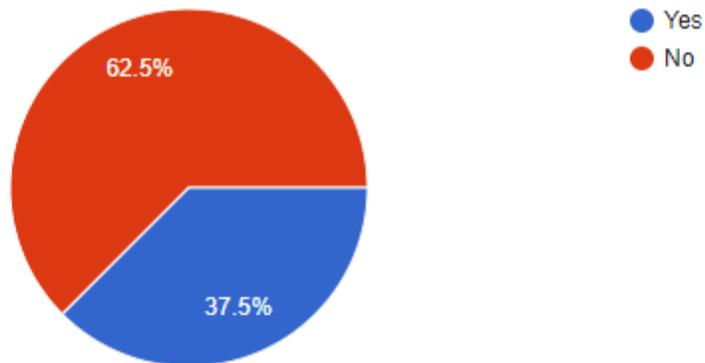
In the past 12 months, can you recall seeing mention of the Giant Mine Oversight Board - including advertisements - in any form of media?

23 responses



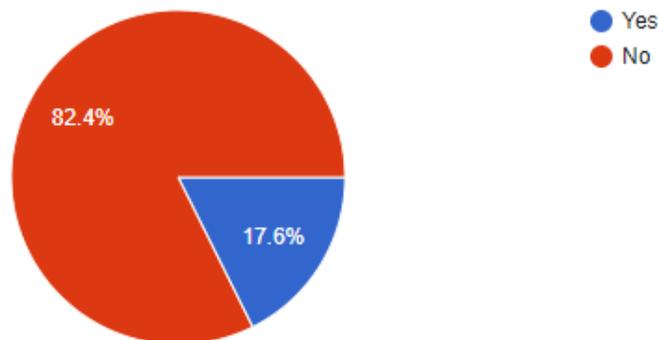
Do you recall seeing mention of the Giant Mine Oversight Board on Facebook?

16 responses



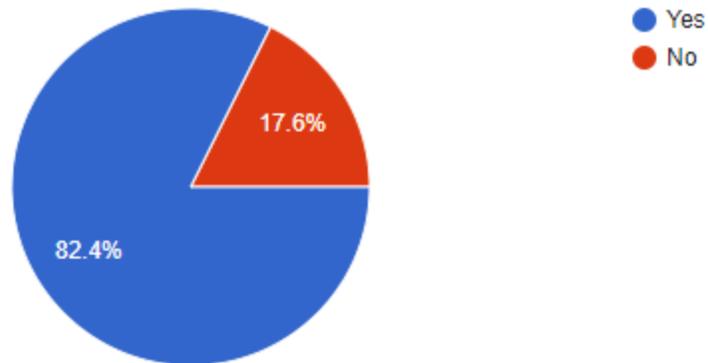
Do you recall seeing mention of the Giant Mine Oversight Board on any other social media platform?

17 responses



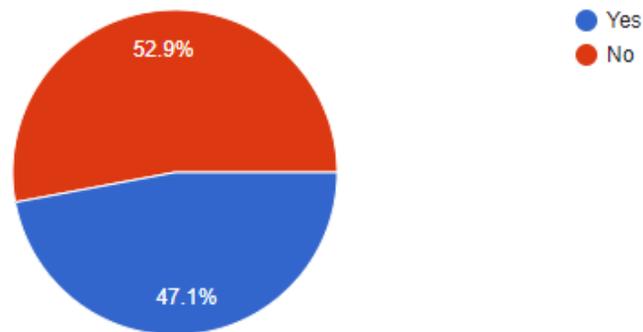
Do you recall seeing mention of the Giant Mine Oversight Board in a newspaper?

17 responses



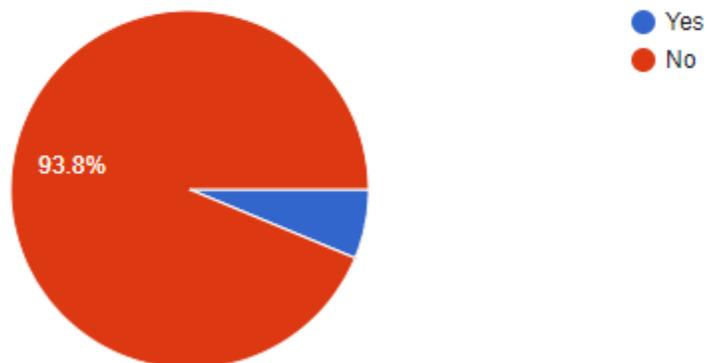
Do you recall seeing mention of the Giant Mine Oversight Board on a poster in a public space around the community?

17 responses



Do you recall seeing mention of the Giant Mine Oversight Board on television?

16 responses



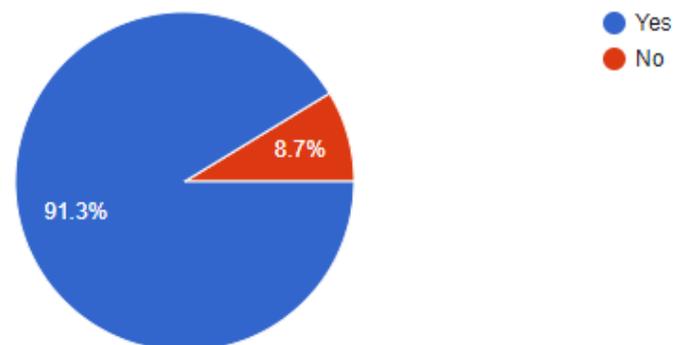
Do you recall hearing mention of the Giant Mine Oversight Board on the radio (including web-based radio, for example Cabin Radio)?

17 responses



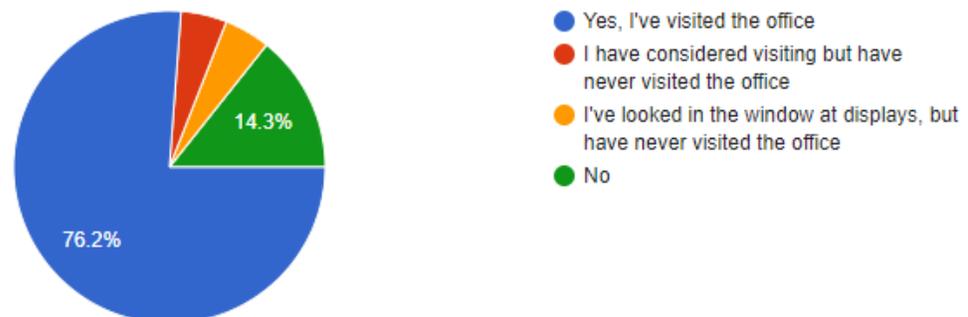
Were you aware that the Giant Mine Oversight Board has a storefront office on Franklin Avenue (next to A1 Financial & Loans)?

23 responses



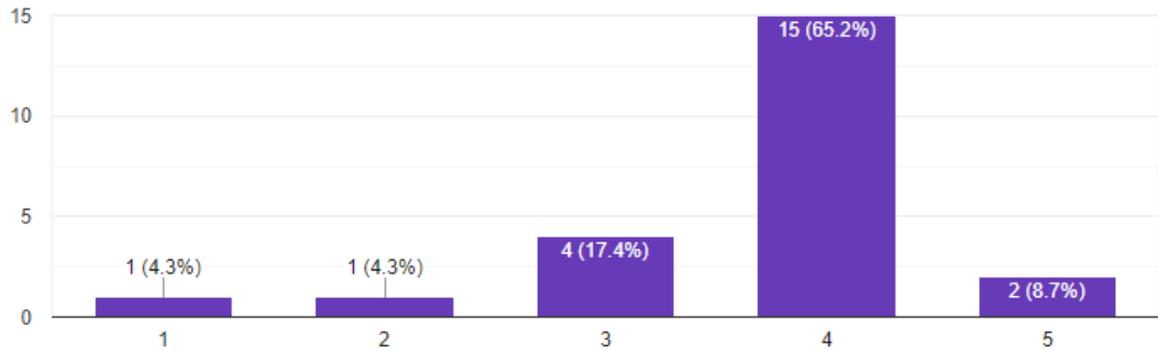
Have you ever visited or considered visiting the office?

21 responses



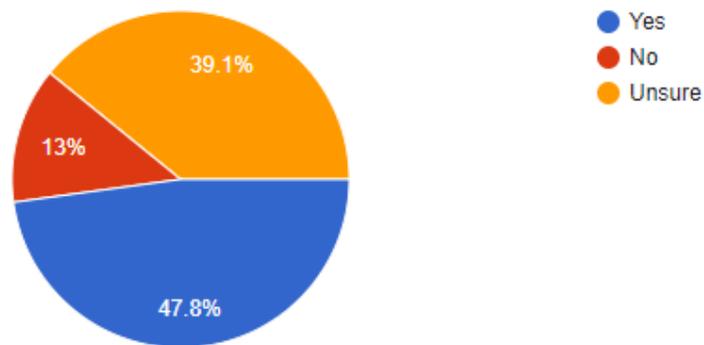
In your opinion, how visible in your community is the Giant Mine Oversight Board? (on a scale of 1 to 5, with 1 being not at all visible, and 5 being very visible)

23 responses



Do you have the sense that in general, other people in your community are aware of the Giant Mine Oversight Board?

23 responses



Do you have any suggestions on how to increase the Board's visibility in the community? If so, please enter your suggestion(s) below.

10 responses

Host events or do more public-facing work, such as the interview that was done with Cabin Radio. Have a consistent social media presence.

Social media advertising campaign

More media coverage of issues. Comments on announcements by government and contractors.

Could there be some type of event that goes over the Board's role? Or put a sign out front of the Board's location that invites people (maybe once Covid isn't an issue?).

Continue to do public meetings

Regular newsletters as a counter balance to the Remediation Project newsletters; regular media releases.

participation in spring trade fair, unless they already do this.

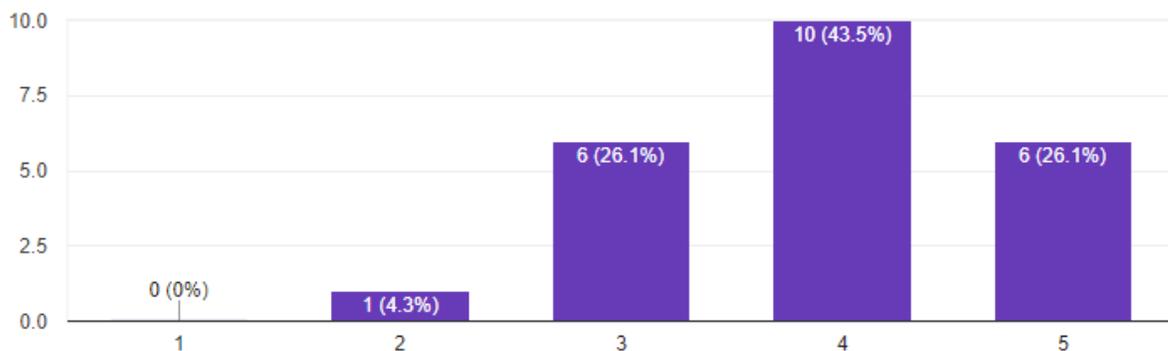
Is GMOB on Facebook or Twitter? If on Facebook, some targeted ads could go a long way to increase awareness

Ask Yellowknives Dene First Nation if they will allow GMOB to post notifications on their Facebook, webpage, and notification boards, as well as their newsletters.

Working with schools to give presentations to the youth about the board and its role when it comes to Giant Mine.

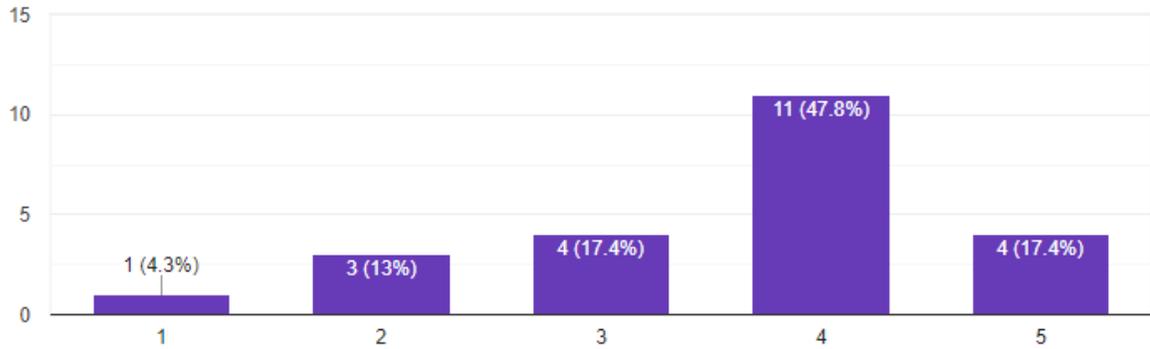
On a scale of 1 to 5, how familiar would you say you are with the Giant Mine Remediation Project?

23 responses



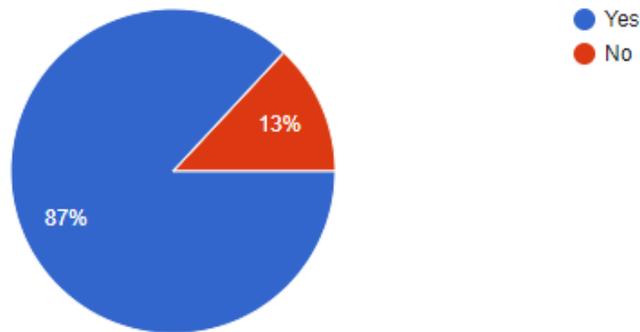
On a scale of 1 to 5, how familiar would you say you are with the mandate of the Giant Mine Oversight Board?

23 responses



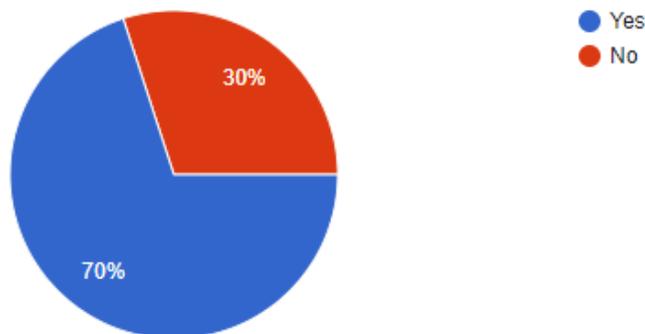
Were you aware that one part of the Giant Mine Oversight Board's mandate is to conduct research on finding a permanent solution for dealing with the arsenic trioxide at Giant Mine?

23 responses



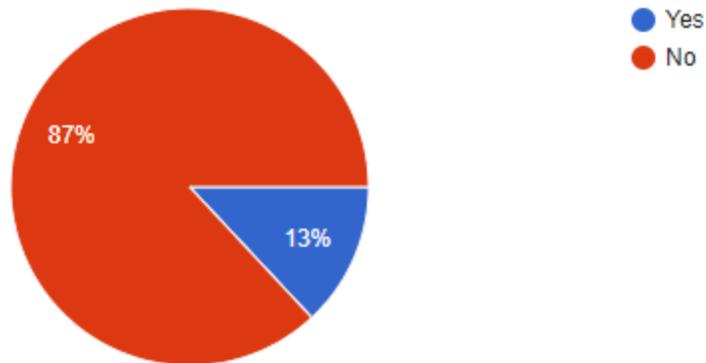
Are you familiar with any of the Giant Mine Oversight Board's research programs currently underway looking for a permanent solution for dealing with arsenic trioxide at Giant Mine?

20 responses



Have you ever accessed the GMOB Library?

23 responses



Approximately how many times over the past 12 months have you accessed the GMOB Library?

3 responses

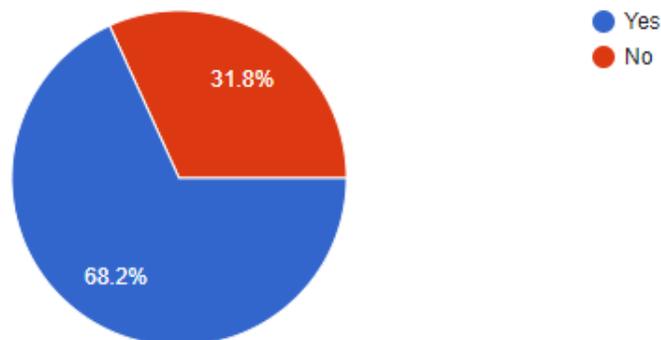
10+

4

I will say 30 but don't remember exactly

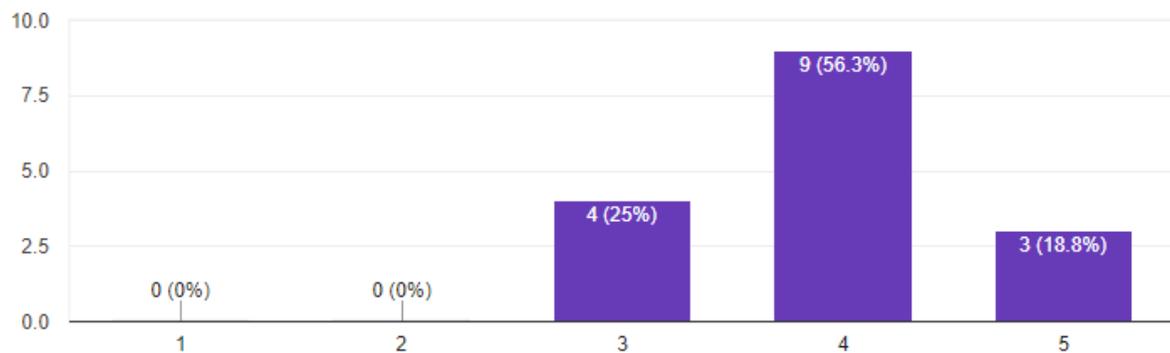
Have you attended any of the Board's annual public meetings?

22 responses



How would you rate the effectiveness of the meeting(s) you attended?

16 responses



Do you have any suggestions to improve the Board's public meetings?

6 responses

The GMRP and GMOB often get conflated. Showing how they differ would make it easier for participants.

Fewer formal presentations by government folks. More accessible discussion about remediation and what it means to residents, eg. jobs, access to land around YK, health, safety, spending in the community, etc.

more maps

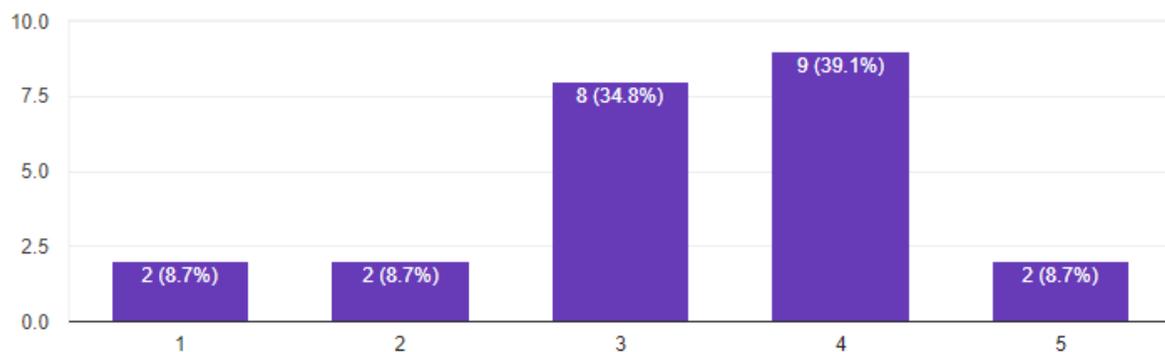
Have more

Would suggest twice annual meetings.

please post board meetings on YKDFN's facebook, webpage, notification boards, newsletters.

How would you rate the Board's effectiveness at communicating and engaging with the community at large?

23 responses



Do you have any suggestions on how the Board's communication and engagement with the local community could be improved?

9 responses

The storefront is great! A push to advertise it (host events?) and having more of an online (social media) presence would be ideal.

If the language used was less dry it might be more engaging to a broader range of people.

social media campaign that directs people to media explaining what the GMOB is and what it's mandate is.

Probably not aware of everything it does now. Look for ways the project impacts individuals and capitalize on that.

Maybe through school presentations, a couple public events per year, advertise on cabin radio? I was a student the past three years and not in Yk over the winter which may explain why I'm unfamiliar with the Board.

Have a regular newsletter like the Remediation Team

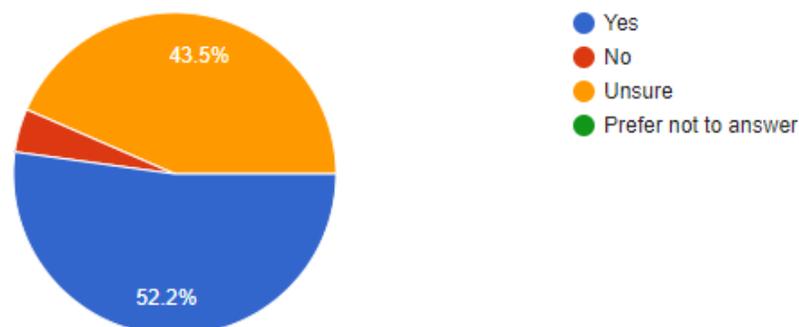
Regular communications is critical.

Facebook, twitter ... but also local radio. I remember some excellent interviews that GMOB chair gave

post this question to YKDFN thru their facebook page, webpage, newsletter and notification board.

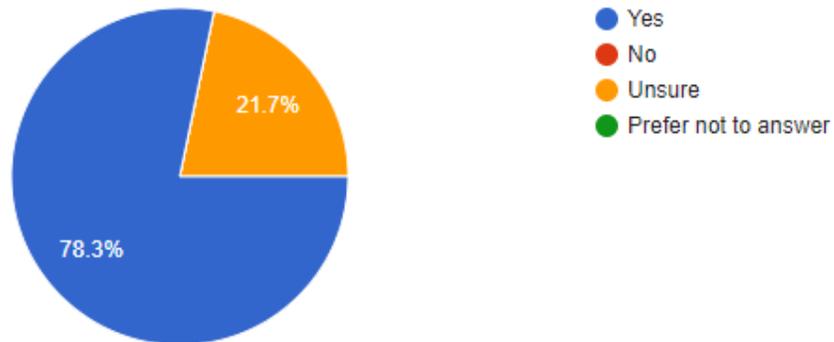
From your perspective, do you believe that the Board's actions have helped promote reconciliation?

23 responses



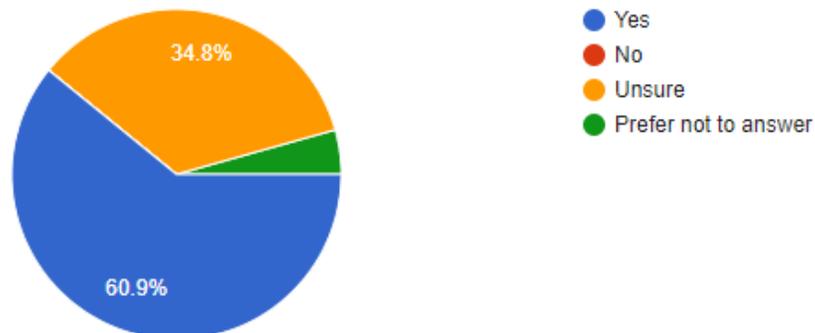
In your opinion, have the activities of the Board contributed to a feeling of social license (public trust in the legitimacy of the Remediation Project and the Parties involved) for the Giant Mine Remediation Project in the community?

23 responses



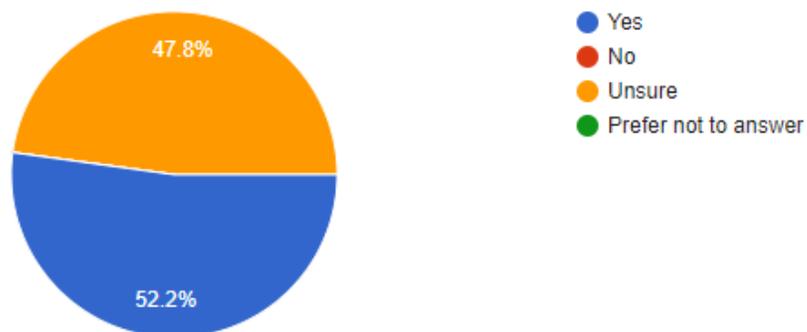
In your view, has the local culture been a consideration in the Board's activities and its recommendations around the Giant Mine Remediation Project?

23 responses



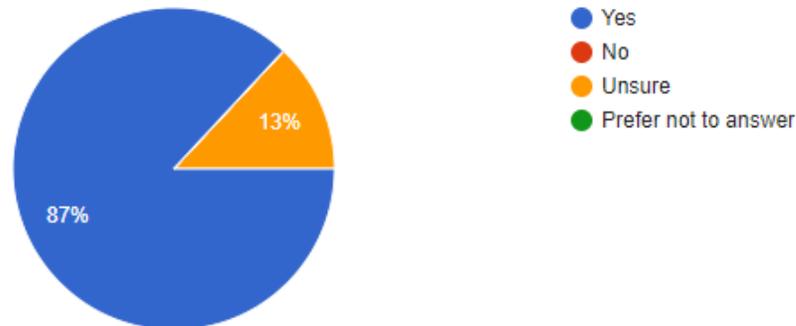
From what you have seen, has the Giant Mine Oversight Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Giant Mine Remediation Project?

23 responses



Do you believe that the Board's activities and recommendations reflect a desire to improve the community?

23 responses



Do you have any additional comments to add regarding the Giant Mine Oversight Board or the Giant Mine Remediation Project Environmental Agreement?

11 responses

This project has been going on for some time and will last... forever. I suspect many in the public have just accepted it as being part of the community and as a result have tuned out, to some extent. If this is so, GMOB needs to provide sufficient information to keep people's trust that the project is heading in a positive direction. Discussing the project yesterday, I found myself wondering how much economic value YKDFN is getting. Call it reconciliation, call it anything, GMOB needs to make sure the massive project is a solid, and publicly recognized, business development and skills training opportunity for YKDFN. Many years ago we recognized that the rebuilding of highway 3 was a great mine trading project: drilling, blasting, hauling, etc. Many people took skills developed acquired on that project to the mines. If the Giant project doesn't propel many local people into the labour force it will fail.

I'm not on Facebook and don't watch much TV

My spouse is directly involved in this work, so I am more aware than most.

I think they've done an excellent job given the short time since their inception and have made a significant impact on the Project and it's stake holders/rights holders

become more visible

cont'd...

...cont'd

It's been important to have this group consistently note need to compensate YKDFN, and identify issues such as potential competition of the project for construction fill and need for project to benefit community through jobs and training.

Since doing this survey I'm pretty interested in learning more! I wish Covid wasn't a thing because some type of lunch hour learning event or public gathering to learn more would be cool. Zoom could work too

I am grateful for the fine work being done by the Giant Mine Oversight Board.

The local community needs to be regularly reminded of both and called upon to be active in both.

Keep trying to expand scope to cover contaminated land outside the boundaries. Remember that this is NOT a "remediation" - it is "infinitely long term care & maintenance"! Keep up the good work!

There is not enough dollars given to GMOB to have an effective research program delivery to find an acceptable solution for the arsenic trioxide storage. The GMOB Agreement needs to be reviewed & re-negotiated to include more dollars for research. GMOB should communicate to the Yellowknife population and YKDFN that Canada/GNWT does not give enough dollars to support an effective research program, and that the general public and YKDFN should assist in pushing Canada to accept that there is not enough funding for GMOB to conduct a healthy research program.



APPENDIX C – WORKSHOP PRESENTATION AND SUPPORTING DOCUMENTATION



MEMORANDUM

File:	2021-GMOB
To:	Parties to the Giant Mine Oversight Board Environmental Agreement
Subject:	January 22, 2021 Workshop Package – 5 Year Review of the Environmental Agreement
Author:	Jamie Van Gulck, Ph.D., P.Eng.
Page Total:	1 plus 3 annexes
Date:	January 20, 2021

ARKTIS Solutions Inc. (ARKTIS) provides this Memorandum to the Parties to the Giant Mine Oversight Board that contains relevant materials that will be discussed during the January 22, 2021 workshop.

The following information is provided:

- Annex 1 – January 22, 2021 Workshop Presentation
- Annex 2 – 2016 GMOB Workshop on Mandate Results (from 2016 Establishment Report)
- Annex 3 – December 24, 2020 Interim Report – What We Heard: A Summary of Engagement

Should you have any questions about the contents herein, please contact Jamie Van Gulck at 867.446.4129x18 or vangulck@arktissolutions.com.



Annex 1 – January 22, 2021 Workshop Presentation

GIANT MINE OVERSIGHT BOARD

5-YEAR REVIEW OF THE GIANT MINE REMEDIATION PROJECT ENVIRONMENTAL AGREEMENT

Date : January 22, 2021 – 1:00 PM – 4:30 PM (MST)

Presentation to: Parties to the GMOB Environmental Agreement

Client: Giant Mine Oversight Board



VIRTUAL CONNECTIVITY INSTRUCTIONS

ZOOM MEETING LINK:

<https://us02web.zoom.us/j/87168228571?pwd=U0s5U2tZWDFzbFAxcGVqTWJkYmhVUT09>

CALL IN BY PHONE:

+1 778 907 2071

Meeting ID: 871 6822 8571 | Passcode: 753034

HOUSEKEEPING

- ❖ Please mute your microphone when listening, by clicking the microphone on your screen
- ❖ Ensure your name is correct (and organization would also be helpful)
 - ❖ This can be changed by clicking the 3 dots in the top right corner of your video and selecting Rename, or through the Participants screen
- ❖ You are encouraged to submit any questions or comments through the Chat function at the bottom of your screen
 - ❖ Please note a copy of the chat will be saved after this meeting

AGENDA

- Introduction and overview of project
- Overview of materials reviewed and engagement completed
- GMOB mandate review
 - What we reviewed, what we heard
- Conclusions
 - What we heard today and next steps
- 15 minute break mid afternoon
- We encourage discussions throughout the workshop. Please stop us at anytime to provide comment or ask questions.

PROJECT GOAL

- To evaluate the effectiveness of GMOB in achieving its responsibilities under the Environmental Agreement (EA) over the past 5 years.
- Review team:
 - Ken Reimer, Ph.D. – Lead evaluator
 - Jamie Van Gulck, Ph.D., P.Eng. – Project manager and support to lead evaluator
 - Chris Van Dyke, B.A. – Engagement and facilitation lead
 - Ron Wallace, Ph.D.- Senior oversight and advisory
 - Shane Camirand, M.A. – Support to lead evaluator



Photo credit: Wikimedia commons

WORKSHOP PARTICIPANTS

- Giant Mine Oversight Board (GMOB or "Board")
- Yellowknives Dene First Nation (YKDFN)
- North Slave Métis Alliance (NSMA)
- Alternatives North (AN)
- City of Yellowknife (CoY)
- Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)
- Government of the Northwest Territories (GNWT)



Photo credit: Mark Jacques, The Narwhal

WORKSHOP OBJECTIVES

- To evaluate the effectiveness of GMOB in achieving its responsibilities under the Environmental Agreement (EA) over the past 5 years.
- This workshop brings together the parties to the EA to:
 - Provide a status update on the analysis completed
 - Present the preliminary findings
 - Facilitate discussions regarding the effectiveness of GMOB in achieving its responsibilities
 - Inform the final written report

PROJECT SCHEDULE

- Start of contract – Oct 29
- Engagement – completed Dec 24
 - Questionnaire and interviews with parties to the EA and public
 - Report of initial discussions / interview results (Dec 24)
- Workshop - completed Jan 22
 - Preparation and completion
- Draft written report – Jan 29 (1 week after workshop)
- Final written report (end of contract) – 1 week after receipt of review comments

GMOB REQUIREMENTS FROM EA

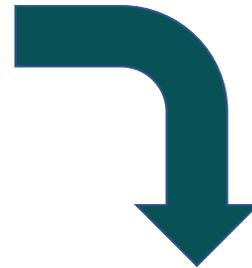
- Review and make recommendations regarding the annual report from the Co-Proponents, the Status of the Environment report and the 20-year Independent Project Review report
- Participate in and provide advice regarding the process followed by the Co-Proponents for assessing options for the management of Baker Creek
- Manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the Giant Mine
- Promote public awareness of itself, the Agreement and the GMOB's roles under the Agreement
- Establish a publicly accessible repository of records that it considers relevant to its responsibilities
- Provide all its reports and evaluations to the Parties to the Agreement and make them available to the public
- Issue a report and hold a public meeting annually

MATERIALS REVIEWED

- Documents available from GMOB website within the “Research and Documents” section.
 - Various reports, minutes and correspondences between parties to the EA
 - Financial statements
 - GMOB activity reports
 - GMOB meeting evaluation reports
 - GMOB 2020-2021 work plan
- Various documents obtained from GMOB or relevant on-line sources
 - Giant Mine Remediation Project Environmental Agreement
 - Research documents
 - Various items from MVLWB and MVEIRB registries
 - Various items from other websites such as:
 - CIRNAC - Giant Mine Remediation Project
 - GNWT – Giant Mine Remediation Project
 - CoY – Giant Mine Socioeconomic Action Plan
 - TERRE-NET
 - Yellowknife Health Effects Monitoring Program

ENGAGEMENT AND RESULTS

- Questionnaires
- Online Public Survey
- Interviews with Parties to the EA
- Interviews with GMOB



Results compiled into a "What We Heard" report
(provided with workshop materials)

QUESTIONNAIRE

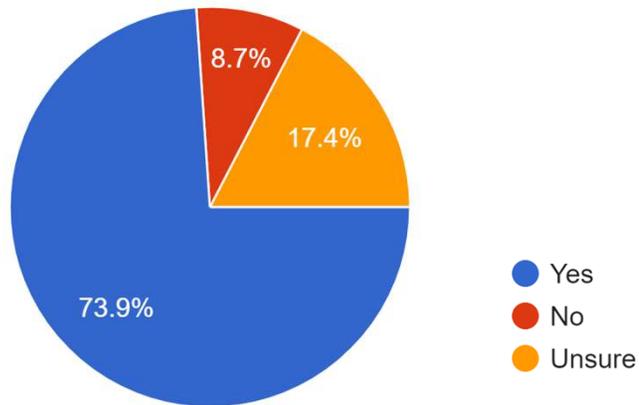
- Approximately 35 questions, sent to each of the Parties to the EA, and GMOB members themselves
 - Divided into sections around the following themes:
 - General / Awareness of the Board
 - The Board's Mandate
 - The Board's Guiding Principles
 - Classification questions
 - Some parties completed one questionnaire per their group, while others had individuals each complete one
 - Results were compiled into a comparison matrix, which will form an appendix to the final report

ONLINE PUBLIC SURVEY

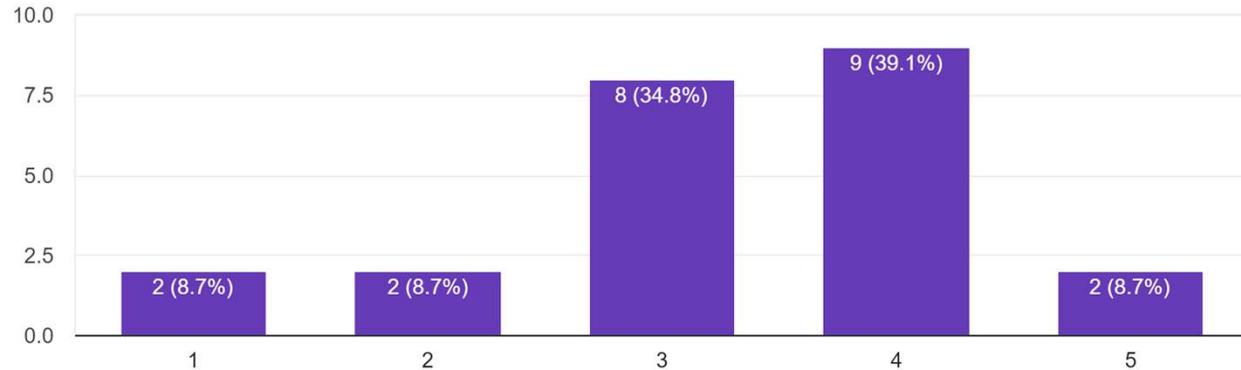
- Google Forms platform
- Approximately 20 questions, geared toward public awareness of GMOB
- Shared to a wider audience by Alternatives North, NSMA and YKDFN (thank you!) that received roughly 25 respondents
- General sense was that people in the community are aware of GMOB, but more could be done around social media and drawing people in to the storefront (post-COVID)
 - Having a sidewalk sandwich board was a particularly frequent suggestion

ONLINE PUBLIC SURVEY – CONT'D

In the past 12 months, can you recall seeing mention of the GMOB – including advertisements – in any form of media?
(23 responses)



How would you rate the GMOB's effectiveness at communicating and engaging with the community at large?
(23 responses)



INTERVIEWS WITH PARTIES TO THE EA

- Following receipt and analysis of the questionnaires, interviews were arranged between December 4th and 15th
- Conducted in person, by video call, or by phone with representatives from all parties
- Followed a similar format of questions as the questionnaire, but more in depth; discussion often focused on different aspects depending on the party
- Interviewer took detailed notes, and shared them back with the interviewees to confirm accuracy

INTERVIEWS WITH GMOB

- As part of the Interviews, the project team had two virtual meetings with GMOB, with most or all of the Board members in attendance
- The first meeting served to follow up on the Board members' questionnaires
- The second meeting was an opportunity for the project team to ask specific questions of the Board, that had arisen either during our review of GMOB's documents, or in the other interviews

MANAGEMENT OF BAKER CREEK

Article 3.1(d) GMOB to “participate in and advise on the Co-Proponents’ process to assess options for the management of Baker Creek...”

- From 2016 – 2018 GMOB involved in the development and review of the Baker Creek Options report
- In 2019 and 2020 GMOB reviewed and commented on the Baker Creek remediation plans through the land use permit and water licensing process of the MVLWB
- Now that the project is entering the remediation phase, GMOB will be able to review detailed plans for the eventual solution to the Baker Creek issue
- Questionnaire asked: how would you assess the Giant Mine Oversight Board’s involvement in the assessment of options for the management of Baker Creek?
 - Replies: GMOB ranged from 4- 5 with avg. = **4.3** and Parties: 3 – 5 with avg. = **3.75** (out of 5)
 - One of the Parties made the comment: ‘GMOB is consistently present and contributing, while remaining at arm’s length and permitting input from the parties to remain the driving force’

***Issue seems to be adequately dealt with
at the present time***

PROVISION OF REPORTS

GMOB is to provide all its reports and evaluations to the Parties to the Agreement and make them available to the public

- GMOB makes its reports, meeting minutes and financial statements available on its website.
- Parties were asked if they have been provided with all reports and evaluations
 - Only one respondent (out of ten) said 'no' to this item and no details were given as to what was not received

Issue appears to be adequately addressed

ANNUAL REPORT AND PUBLIC MEETING

GMOB is mandated to issue a report and hold a public meeting annually

- GMOB has issued Annual Reports and held public meetings each year. They also include a self-assessment that is included in the Annual Reports (beginning in 2017).
 - The 2015/2016 Annual General Meeting was combined but annual meetings have been held ever since
- The engagement activities conducted by this evaluation found that all participants were familiar with the GMOB Annual Reports and many had regularly attended the annual meetings.
 - Most had not seen advertisements outside of their work environment
 - It was noted that GMOB meetings are amongst the best-attended in Yellowknife
 - Meeting effectiveness was given avg. of 3.5/5. Suggested that plain language materials and visuals would be an asset
 - Meeting often turns to the Project itself rather than GMOB activities, but many understood that to be a natural occurrence. There was some thought that GMOB could handle this better when it does occur

GMOB actions appear to be satisfactory with some improvements needed to the format for the annual meeting

PUBLIC REPOSITORY OF RECORDS

GMOB is mandated to establish a publicly accessible repository of records that it considers relevant to its responsibilities

- GMOB has created an on-line searchable database that currently lists 265 items:
 - Covers a wide variety of topics ranging from arsenic chemistry, traditional knowledge, reconciliation, local history amongst others
 - Also has a number of historical documents linked to the operational period of the Giant Mine
 - Does *not* contain technical reports for the Project
 - Reports and scientific publications re: arsenic in the area are incomplete
- There is little awareness of the Library:
 - 1/3 of Parties were not aware of how to access and further 40%, while aware, had not accessed it; only 13% of the public had ever accessed the Library
- Several respondents felt that the Library should include a physical component and that it should contain 'all things Giant'
- Multiple respondents noted that the password-protected nature of the Library can be a deterrent, and others would like to better understand GMOB's vision for the Library

Library needs further development. Might be useful to produce a clear vision of what it is to become. Consideration should be given to making it 'all things Giant'

RESEARCH PROGRAM

GMOB is to manage a research program focused on finding a permanent solution for dealing with arsenic trioxide stored underground at the mine

- Environmental Agreement has several Articles dealing with the research program and included a Schedule with recommendations to get things started
- GMOB followed Agreement and schedule quite closely -
 - 2016: Commissioned a State of Knowledge (SOK) review for arsenic trioxide dust
 - 2017: SOK published and public meeting held to discuss it
 - 2017: Held workshop to: Design an Active Research Program for Managing Arsenic Trioxide
 - Industry and academic representative's provided input and recommended a network approach
 - 2018: Met with TERRE-NET on several occasions to discuss possibilities of research
 - 2019: Signed a four-year research agreement with TERRE-NET
- TERRE-NET is a research network that brings together 15 researchers from seven different universities

RESEARCH PROJECTS

- Four research projects are funded by the arrangement with TERRE-NET.
 - Project 1. Examining the actual composition of the arsenic trioxide dust. Various impurities (such as antimony replacing arsenic to some degree) can affect the application of other technologies
 - Project 2. Evaluating ways to make the arsenic more insoluble so that it cannot leach as easily
 - Project 3. Examining ways to stabilize the arsenic in a cement matrix
 - Project 4. Seeks to encapsulate the arsenic in a glass material
- The total four-year investment in these projects is about \$900,000
 - Networks like TERRE-NET can often leverage funds; such attempts have been unsuccessful but are continuing
- GMOB has secured access to the intellectual property of the research so that it can be used, without cost, for any permanent solutions at the Giant Mine site
- June 2020: TERRE-NET submitted a one-year progress report but results were delayed by the pandemic

RESEARCH

- In December 2020, GMOB set up an independent peer review committee to evaluate unsolicited proposals that they receive for research projects
- Engagement work indicated that:
 - Parties to the EA and the public were aware that GMOB had a mandate to conduct research to find a permanent solution for the arsenic trioxide but many were not familiar with the details of the work being done
 - At least one respondent believed the research projects were focused in the wrong area, and should be looking at removal from the site
 - General opinion, both from parties and from the public, that the research program was not well publicized
 - Opinions varied regarding the budget: surprise that there was any at all to insufficient
 - For FY 2020/21 the GMOB budget allocation is: Operations - \$702,553; Research - \$269,832 (approx. the same proportions as set out in the Agreement)

The research program is underway and has, in accordance with the EA, made use of 'existing institutions'.

The program is not well-publicized and this should be addressed. Plain language summaries with pictorial representations could be made available on the website and in the office.

PUBLIC AWARENESS

GMOB is mandated to promote public awareness of itself, the Agreement and the GMOB's roles under the Agreement

- To fulfill this mandate issue, GMOB has:
 - An office in a prominent location in Yellowknife with maps, displays etc.
 - Many of those surveyed considered the office to be an important, and successful accomplishment
 - Some suggested additional signage and sandwich board to invite people in (post-COVID)
 - Website with comprehensive material (background, documents, calendar etc.)
 - Attended numerous, and varied meetings, related to the Project, health and community issues and used radio and other communication approaches
- Survey respondents answered the following questions regarding GMOB's:
 - Promoting public awareness: Parties – 3.2 GMOB – 4.4 (out of 5)
 - Accessibility to public: Parties – 3.5 GMOB – 4.6 (out of 5)
- Half of Parties had seen advertisements or notice for the Annual Report or Annual General meeting outside of work environment

PUBLIC AWARENESS

- Those members of the public who responded to the survey were quite familiar with GMOB, most had visited the office and recall seeing some media announcements of meetings
 - Considered that GMOB is well-known to some, but not to others
- Public survey respondents had seen or heard mention of GMOB most frequently on the radio (100%), followed by newspaper (82%), poster (47%), Facebook (38%), other social media (18%) and finally television (6%)
- Recommendations to improve awareness included:
 - Holding an Annual General Meeting in Dettah to improve access to the community
 - More interviews on Cabin Radio and increased use of social media and podcasts
 - Newsletters and flyers with plain language explanations

Overall, public awareness is very good but there is some room for improvement

GMOB REPORT REVIEW & RECOMMENDATIONS

- Each year GMOB makes several recommendations to various Parties
- In the Establishment Report (2015-2016): 12 recommendations across 12 topics
- Subsequent Reports used three broader themes:
 - Project Impacts on Community Opportunities and Wellness
 - Project Management and Planning
 - Environment and Health



Photo credit: CIRNAC

RECOMMENDATIONS SUMMARY BY THEME

- Recommendations for each year listed under themes
- First number = recommendations made that year
- Number in parentheses = number of recommendations repeated, updated from or linked to previous recommendation

Year	Project Impacts on Community Opportunities and Wellness	Project Management and Planning	Environment and Health	Total
2015-16*	5	5	2	12
2017	4 (4)	5 (2)	3 (2)	12 (8)
2018	5 (4)	3 (2)	3 (3)	11 (8)
2019	4 (4)	2 (1)	3 (1)	9 (6)
Total	18 (11)	15 (5)	11 (6)	44 (22)

- GMOB has issued **44** recommendations; 22 of which were related to one or more previous recommendations

REPEATED RECOMMENDATIONS

From 2019 Annual Report: Project Impacts on Community Opportunities & Wellness

1. Appoint a Special Envoy to Lead Socio-Economic Aspects of the Project
 - New, but related to continuing concerns re: socio-economic issues
2. Give each Party the Needed Resources
3. Increase City Involvement
4. Reconciliation and Legacy Issues

} Updated

Thus, 4 recommendations; 4 linked to previous theme = 4(4)

Of the 22 recommendations that were linked to a previous recommendation:

- 11 recommendations were linked to one previous year
- 6 recommendations linked to two previous years
- 5 recommendations linked to three previous years

STATUS OF RECOMMENDATIONS

Theme	Topic	Inferred Status*
Project Impacts on Community Opportunities and Wellness	Health and Community Well-Being	Closed
	Traditional Knowledge	Closed
	Communication and Engagement	Closed
	City of Yellowknife Involvement	Active/Ongoing
	Reconciliation and Legacy Issues	Active/Ongoing
	Resources and Capacity	Active/Ongoing
	Socio-Economic Issues	Active/Ongoing

* This table is for illustrative purposes only as we cannot determine what GMOB is ‘thinking’.

We believe that GMOB should create a ‘dashboard’ indicating the status of their recommendations.

Inferred Status was defined by the Review Team as follows:

- **Active:** 2019 GMOB recommendation which a response has not been received from the Project Team or otherwise acknowledged.
- **Active/Ongoing:** 2019 GMOB recommendation that have also been made in previous years, and for which there is no evidence that they have been addressed to GMOB satisfaction.
- **Closed:** GMOB recommendations for which responses have been received by the Project Team, and/or where GMOB has indicated in the annual reports that satisfactory progress has been made.
- **Abandoned:** GMOB recommendation has been made and an unsatisfactory response has been received, but GMOB elects not to pursue the recommendation further.

SOME TOPICS THAT ARE ON-GOING

- Some of the continuing themes include:
 - Reconciliation
 - Resources and capacity
 - Project planning; performance measurement; project delivery model
 - City of Yellowknife engagement and communication with residents
 - Socio-economic issues
 - Off-site contamination
- Some of these are *clearly* within the GMOB mandate (e.g., project planning), others are not (e.g., off-site contamination), and some seem to align within the broader purpose, objectives, roles and principles of the EA (i.e., Article 2) such as socio-economic issues

Photo credit: University of Ottawa



ENVIRONMENTAL AGREEMENT

- Article 4.5(c): authorizes The Oversight Body to conduct an evaluation of the Environmental Plans and Programs. ‘Following such an evaluation, the Oversight Body shall provide the Co-Proponents a written report of its evaluation....’ ‘This report shall be made available to the public’.
 - The Co-Proponents must reply, with justification, but are not obligated to take GMOB’s advice
- Subjects such as socio-economic issues are not explicitly part of GMOB’s mandate, but Article 2.2 emphasized protection of the ‘economy, way of life and well-being of the aboriginal peoples of Canada in the vicinity of Yellowknife, the Northwest Territories and Canada’
- In its 2018 Annual Report, GMOB indicated that it tries to view the Project through a number of lenses: **engineering, socio-economic and cultural**

If there is a desire to add more force and/or clarity to the recommendations, changes to the Environmental Agreement will be required. Surveys indicated that there was little interest in modifying the Agreement

GENERAL MANDATE QUESTIONS

Expertise:

- GMOB members have quite broad expertise and contract others for specific issues
 - Some Parties believed that the Board was lacking background in some areas, e.g., fisheries

Fulfillment of Mandate:

- Overall, Parties were satisfied that GMOB was fulfilling its mandate
- Research program was slow getting started but underway now
- Seems to be more focus on socio-economic issues than environmental
- Some representatives of the Parties suggested that GMOB could take on a more formal communications role for the Project

Changes to Mandate:

- Fairly unanimous that no changes were necessary at this time
- Off-site impacts were identified as possible addition but not believed this would happen

GMOB PRINCIPLES

GMOB has adopted several principles for achieving mandate

Questionnaire addressed to Parties –

Topic	Average Rating out of 5 (stakeholders)	Average Rating out of 5 (GMOB)
Trustworthiness	4.2	4.9
Transparency	4	4.8
Communication with the community	3.6	4.1

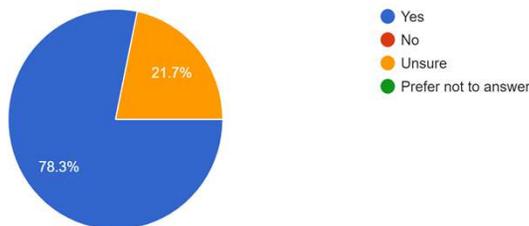
- In general, Board is considered to be trustworthy and transparent, but at least one respondent identified a perception that some Board members undermine the Project
- Some interviewees noted a lack of transparency within the Board and at least one felt that the Board advocated on behalf of certain Parties over others

GMOB PRINCIPLES- CONT'D

- Promotion of reconciliation, social license, traditional knowledge: two of the Parties responded 'yes'; majority said 'somewhat'
 - Most respondents had the sense that GMOB supported these areas, but believed that YKDFN and NSMA's opinions were what really mattered
- Public survey also addressed several of the Principles:
 - Most (>75%) felt that GMOB's activities reflected a desire to improve the community and contributed to a feeling of social legitimacy of the Project
 - Fewer (approx. 52%) believed that the Board's actions helped promote reconciliation or encouraged the used of traditional knowledge

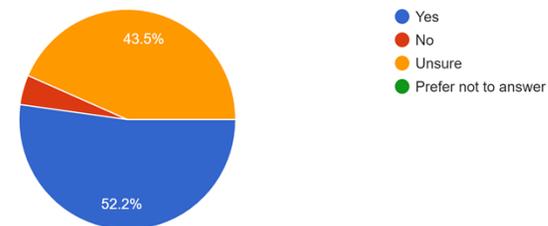
In your opinion, have the activities of the Board contributed to a feeling of social license (public trust in the legitimacy of the Remediation Project... Giant Mine Remediation Project in the community?)

23 responses



From your perspective, do you believe that the Board's actions have helped promote reconciliation?

23 responses



GMOB WORKSHOP (Sep 2016)

GMOB held an internal workshop to provide insight as to how they were going to undertake their mandate

Key Conclusions:

- Has a role to communicate its understanding and views on the Project but the Co-Proponents have the responsibility to reassure the public that the site is safe
- Encourage Co-Proponents to engage the public in a meaningful way
- Be an objective observer and come to independent conclusions
- Are technical reviewers and advisors but are not technical 'doers'. Provide constructive criticism of information
- Greatest contribution is to encourage the Co-Proponents to 'think outside the box'
- Promote respectful dialogue amongst all stakeholders
- Does not represent or speak for the Parties

Any changes?

ROLE OF ALL PARTIES

All Parties have obligations under the Agreement including supporting the development of a coordinated approach to the implementation of the Measures and facilitating collaboration among the Parties

All Parties have participated in the establishment of GMOB, appointments of Directors, participation in various meetings and committees and individual interventions in the water licensing process.

During interviews, views ranged from:

- General satisfaction with the roles of the Parties
- Concern that some had, in the past, not participated fully (the City) or were playing too small of a role (GNWT)
- Hope that there could be a more collaborative, team, approach

How do Parties see their role under the Agreement and what is the best way to make the Project a success?

ADDITIONAL IDEAS/THOUGHTS?

Draft written report is due Friday, 29 Jan 2021

If you have any additional comments that you would like to make, please do so by Tuesday, 26 Jan

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Annex 2 – 2016 GMOB Workshop on Mandate Results (from 2016 Establishment Report)

From: 2016 GMOB Establishment Report: July 2015 – December 2016.

Giant Mine Oversight Board Workshop Report

The GMOB held a facilitated workshop on September 14 - 15, 2016 in Ottawa, ON. The primary goals of the workshop were to:

- Continue to build a collective GMOB understanding and consistent approach to meeting its mandate.
- Better understand the expectations and priorities of the GMOB itself, and compare these to the expectations of the signatories to the Agreement.
- Better understand the financial and human resource realities of the GMOB.
- Make decisions on the GMOB priorities using the above information and decisions.
- Apply the collective GMOB understanding and priorities to creating tangible deliverables.

One of the major results of the Workshop was a better understanding of the four roles of GMOB that are set out in Article 2.3 of the Agreement. Each of the roles, summarized below, are in reference to the GMOB's expectations and priorities as discussed during the Workshop.

i. Promote public awareness of the Project, disseminate information about the Project, and promote public engagement in processes related to the Project

One of the 'core roles' of the GMOB is to ensure that the remediation Project is as effective as possible. It is essential that the GMOB understand the Project and its various components, and that it communicate its understanding, its observations and its research findings. While the GMOB has a mandate to promote public awareness, it should not be expected to directly reassure or convince the public that the site is safe - that is the Co-Proponent's primary responsibility.

The GMOB's mandate requires that it be an objective observer. It is not responsible for Project management. Rather, the GMOB will draw on its expertise in evaluating Project information to come to its own independent conclusions. For example, completed health studies provided to the GMOB will be reviewed and evaluated, and responses provided based on the information presented. In effect, the directors and staff of the GMOB are technical advisors and technical reviewers that provide feedback, but are not technical "doers." The GMOB does however, have a very hands-on management role with respect to its research mandate.

The GMOB members agree that they need to clearly define their role with respect to engagement. For example, the role of GMOB is not to promote the Co-Proponents or the Project, nor to push a vested interest or view. It is important that the GMOB encourage the Co-Proponents to engage in a meaningful way with the public and provide advice on how to do so.

One form of engagement is the dissemination of information, be it at the GMOB (storefront) office, working group meetings, or community sessions. The GMOB will produce and distribute its own materials; it will not act as a distribution office for the material of the Co-Proponents or other Parties. The GMOB office will provide general information pertaining to the Project and can point visitors to sources of additional Project information. In summary, the GMOB:

- will produce and disseminate its own GMOB materials
- is not a distribution office for the Co-Proponents or the Parties
- will point people to the Co-Proponent/Project Team for additional Project information
- will complete its own communication strategy.

It is important to know how to respond to Project-specific questions when engaging with the public (e.g., 'here is our understanding, but here is the responsible proponent authority who can speak with you on this particular topic'). Being transparent with the Co-Proponents, the Parties and the public in terms of what the GMOB is (and is not) doing is central to the GMOB's mandate. GMOB is not in partnership with the Co-Proponents or the Project Team.

ii. Provide independent advice to the Co-Proponents on the management of the Project as the GMOB considers appropriate

A central role of the GMOB is to provide constructive criticism of the information provided to it and challenge that information. Perhaps the greatest value the Board can provide is to encourage the Co-Proponents and Project Team to 'think outside the box' by providing an independent perspective.

Mechanisms for providing advice to the Co-Proponents include working group meetings, advisory committee meetings, and a review of the Co-Proponent's Annual Report, the GMOB's annual report, and public meetings. It is also through these mechanisms that the Board will be receiving other reports and information.

Sharing and communicating advice within the GMOB is equally important. Respectful and open dialogue between the Board, the Co-Proponents, and other technical experts is essential. When one member of the Board speaks with and/or provides advice to other Parties, this should be communicated to all board members and staff. One director stated: "No one should be surprised by the advice presented in the GMOB annual report." Consistency and sound communications are key. In this context, the GMOB members engaging with others (be it asking questions or providing advice) will provide a brief overview to inform other GMOB members. This can be coordinated through the GMOB staff.

The GMOB must determine and communicate its

expectations for transparency within the GMOB and with the Co-Proponents and other Parties. The GMOB could use the working group meetings as a communication tool to provide advice and/or express GMOB concerns and/or questions. The GMOB's annual report presents another opportunity to address outstanding issues and recommendations.

iii. Provide independent advice on the monitoring and management of the Project to regulatory authorities, the Parties, the public and to whomever else the GMOB considers appropriate

The GMOB's annual report should incorporate advice, observations and recommendations for regulatory bodies and other agencies, including federal agencies. The discussion concerning advice to the Parties also focused on what the Board is not.

- The GMOB is not the Parties replacement, nor does it represent the Parties.
- The Parties should not anticipate that the GMOB will undertake the Parties roles or speak for them.

iv. Manage the program for research toward a permanent solution for dealing with arsenic at the Giant Mine site as set out in the Agreement Article 7 ("Active Research Toward a Permanent Solution for Arsenic") and section 8.2 ("Research Results").

One of the first actions for the Board is a state of the knowledge review. The review will be useful for the Board as it prioritizes future research actions for subsequent fiscal years.



Annex 3 – December 24, 2020 Interim Report – What We Heard: A Summary of Engagement

Interim Report

What We Heard: a summary of engagement

Giant Mine Oversight Board 5-year Review

ARKTIS Solutions Inc. and Dillon Consulting Limited

December 24, 2020

Introduction

This report is a summary of the initial engagement phase of ARKTIS Solutions Inc. (ARKTIS) and Dillon Consulting Limited (Dillon)'s project associated with the 5-year review of the Giant Mine Oversight Board (GMOB) Environmental Agreement. The purpose of this project is to evaluate the effectiveness of GMOB and, more broadly, the Giant Mine Remediation Project Environmental Agreement which created it, at the 5-year point of their existence.

In combination with a review of GMOB's annual reports, meeting minutes and other documentation, engaging with the parties to the Environmental Agreement, and others who are familiar with GMOB, is a main component of the project. This report will begin by describing the engagement methods selected and the stakeholders we connected with, followed by a summary of the key themes that came out of the questionnaires, a public survey and a number of interviews.

This report serves as an interim stage of completion document for the overall project. Any conclusions and opinions summarized in this report are to be considered preliminary in nature for the overall project and are subject to change based on additional information that is concurrently being evaluated and assessed.

Methods

The project team has taken a three-pronged approach to engagement: beginning with a questionnaire provided to stakeholders to complete, then following up with an interview with each of the stakeholders, and finally a workshop with the Board and stakeholders to explain our findings and seek additional input. Recognizing the Board's public-facing role, an online public survey was also prepared.

Questionnaires

The first aspect of the engagement process was the development of a questionnaire to be shared with stakeholders. The questionnaire is divided into 3 sections: a general section, a section focused on GMOB's mandate, and a section related to GMOB's principles. Finally, several classification questions were included. For GMOB Board members and staff, the questionnaire was adjusted slightly to remove questions that would not be relevant to them (for example, "How familiar are you with the Giant Mine Oversight Board?"). Questionnaires were distributed to stakeholders in Word format, with a 2-week timeline for return. Responses were then added into a response matrix for ease of comparison.

Interviews

As questionnaires were received, the project team was able to key into certain areas for further exploration with GMOB and stakeholders. This analysis was used to develop a list of questions to guide follow-up interviews with the parties. These questions were separated into a number of

themes, covering public awareness and visibility, GMOB's meetings, the GMOB Library, technical expertise, mandate effectiveness and scope, communication, socio-economic matters, social licence, the research program, the Environmental Agreement, and general topics. While a fairly standard list of questions was used for all interviews, often there was free-flowing conversation that drifted away from the set list of questions. Additionally, certain questions were asked of specific stakeholders as a result of their questionnaire responses.

Interviews were held between December 4th and December 15th, taking into account a busy time of the year for most parties. Interviews were held in a variety of forms, from in-person, to Google Meet video calls, to phone calls. While the project team anticipated one-on-one interviews beforehand, it turned out that several parties preferred meeting as a group, resulting in a smaller number of interviews overall than contemplated in the proposal. As examples, the interview with GMOB itself included all 6 Board members and 2 staff. In a similar fashion, the interview with Alternatives North included all 3 identified interviewees together. On the other hand, owing to their schedule and location, the Government of Canada interviewees had separate calls. Interviews were held with all stakeholders who completed questionnaires, except for the Mackenzie Valley Land and Water Board (MVLWB), who indicated following the questionnaire that they did not believe an interview with them would provide much value.

Each stakeholder interviewee was provided an interview waiver form beforehand, and was advised of how the interview would be used. While going through the list of questions, the interviewer took thorough notes. In the case of GMOB (due to the size of the group), the interview was recorded to ensure accuracy. After the interview, the notes were cleaned up and provided to the interviewee(s) to ensure the notes were accurate and nothing was misquoted.

Public Survey

Parallel to the stakeholder questionnaire and interviews, an online public survey using the Google Forms platform was developed. This survey included approximately 20 questions, focused mostly on public awareness of GMOB, rather than the more technical aspects of the questions posed to stakeholders. As discussed during the initial project kick-off calls, the link to the survey was shared with 3 parties determined to have a strong reach into the community: the Yellowknives Dene First Nation (YKDFN), the North Slave Metis Alliance (NSMA), and Alternatives North.

The identified contact(s) for each of these organizations then distributed the link through various methods including Facebook, mailing lists, and emails. When the survey closed, 23 responses were received. As part of the survey, respondents were asked if they would like to be contacted for a short follow-up interview. Two respondents indicated that they would be willing to be interviewed, and one interview was conducted on December 23rd, with a date for the other interview still to be confirmed.

In addition to direct questions for members of the public, the questionnaires and interviews covered topics of perceived public awareness of GMOB. This was particularly helpful with

organizations such as YKDFN and NSMA, where the interviewees had a good sense of their respective membership's awareness of the Board and its activities.

Workshop

Building on the feedback received so far, a day-long workshop will be held in January to present the project team's findings so far, to get feedback on those findings, and to answer any questions that may have arisen since the interviews. A Google Forms survey was sent to GMOB and stakeholders to inform possible dates, and a date will be confirmed shortly.

Stakeholders

The list of stakeholders to be contacted for this project was set out in the Terms of Reference, and the project team has adhered to this list. This includes the Board itself, the MVLWB, and the parties to the Environmental Agreement: YKDFN, NSMA, the City of Yellowknife, Alternatives North, the Government of the Northwest Territories (GNWT), and the Government of Canada. Specific individuals to be contacted were listed for each organization and again, the project team kept to this list.

Summary of Questionnaire Responses

The following summary of responses to the questionnaire is organized by theme, and includes responses from both GMOB and other parties.

General Questions

The questionnaire began by asking how familiar respondents are with GMOB on a scale of 1 to 5, and unsurprisingly, all but 2 respondents answered with a 5, with the other 2 respondents answering a 4. In a similar vein, every respondent indicated that they had had some interaction with a member of GMOB over the last 12 months.

Moving on, the questionnaire sought to get respondents' opinions on GMOB's visibility in the community. Out of 5, respondents on average gave the Board 3.7, suggesting that there's a feeling that GMOB is indeed visible in the community, but could perhaps be more so. Board members responded with a similar but slightly higher average rating of 4.25. All respondents answered "Yes" to whether they felt that community members were aware of GMOB. Suggestions to increase visibility in the community included continuing to take advantage of platforms such as Cabin Radio (the recent Facebook Live event was seen as a positive), podcasts, and social media. As well, one respondent suggested additional signage or even a sandwich board to draw the public into the storefront (after Covid-19). Some respondents did indicate that while the Board is visible, the public is not as aware of GMOB's responsibility for research into a permanent solution to the arsenic trioxide dust, so more focus in this area would be helpful.

Recognizing a key tenet of the Board is its independence from the Project and Parties, the next questions focused on this. Out of 5, stakeholder respondents gave an average of 4.3 for their own perception of the Board’s independence, while they gave an average of 3.8 for how they believe the public perceives the Board’s independence. The ratings for both of these questions were higher for GMOB respondents, identifying this as an area for focus in the interviews to help explain why. In expanding on this question, one respondent did note that they would actually like to see a less conservative approach in this sense, as they believe the project would benefit more from direct recommendations during Working Group meetings as opposed to only formal submissions.

The questionnaire moved on to assess the technical expertise of the Board. All but one respondent answered either “Yes” or “Somewhat” to whether the Board has the proper skills to effectively perform its duties, however areas identified for potential improvement were in fisheries and in complex system optimization and construction management, as well as the communication of risks. All respondents agreed that GMOB is fulfilling the role that they believe it should.

Mandate Questions

The next section of the questionnaire delved into GMOB’ mandate as established by the Environmental Agreement. Generally, respondents were familiar with the Board’s mandate, and believed that mandate was being met. The respondents were then asked about their perception of GMOB’s performance on some specific mandate items, as outlined in the table below.

Topic	Average rating out of 5 (stakeholders)	Average rating out of 5 (GMOB)
Review and Recommendations	4.1	4.6
Options for Baker Creek	3.75	4.4
Promoting Public Awareness	3.22	4.4
Accessibility to the Public	3.5	4.6

From this table, it can be seen that the general feeling from stakeholders is that the Board is capably fulfilling the technical aspects of its mandate, but could improve in the area of public awareness and accessibility, though one respondent was happy to point out that their child had recently visited the GMOB office as part of a school trip. Particularly with these last two questions, there is a significant discrepancy between GMOB’s assessment of itself, and stakeholders’ assessment of GMOB. The questionnaire also touched on the research program and naturally most respondents were familiar with all of the current areas of research focus.

The public repository of records related to Giant Mine was the subject of the next few questions, with almost a third of respondents indicating they were not aware of how to access this repository, and a further forty percent respondents indicating that while they were aware of the GMOB Library, they had never accessed it. Suggestions offered for improving the public repository of records included adding a hard-copy library, removing password protection and increasing the ease of searching the GMOB Library.

Respondents indicated that they were all familiar with the Board’s Annual Reports, as well as being regular participants in the Annual General Meetings. These meetings were the next area of focus for the questionnaire, with an average rating of 3.5 out of 5 for the format of the meetings. It was noted by several respondents that the meetings can tend to drift into discussions of the Project itself, with questions being redirected to the Project team. Respondents did generally feel that the Board dealt with these situations as best it could, but would like to see an improvement in this area.

Only half of respondents could recall seeing an advertisement or notice for either the release of the Annual Report or the Annual General Meeting outside of their work environment, however many respondents did note that the Annual General Meeting tends to be well-attended compared to most meetings in Yellowknife.

The questionnaire then asked respondents’ thoughts on GMOB’s successes and challenges in meeting their mandate five years in. There were many positive comments, with the main successes noted as being the storefront location, the meaningful technical reviews and participation in the Water Licence process, the research program, and the Board’s support for other parties’ participation in the regulatory process. In terms of areas for improvement, some examples noted included improvements to the public repository and clarifying its vision for it, providing regulatory documents sooner to assist other parties, and considering a more direct role in providing recommendations to the Project Working Group.

Overall, respondents were happy with the mandate with no major suggestions for changes, although one respondent did identify that the Plan Review section could be looked at.

Principle Questions

The next section of the questionnaire dealt with GMOB’s principles, as outlined in the Environmental Agreement. The table below summarizes the rated questions, with further discussion following.

Topic	Average Rating out of 5 (stakeholders)	Average Rating out of 5 (GMOB)
Trustworthiness	4.2	4.9
Transparency	4	4.75

Communication with the community	3.6	4.1
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This data shows that in general, respondents believe the Board to be trustworthy and transparent, although one respondent did identify a perception that some Board members can go so far as to undermine the Project. The majority of respondents did believe that the existence of GMOB does improve transparency for the Project as a whole, although some respondents did disagree. This data also supports the notion that while GMOB’s communication has been good, there is some room for improvement, with most respondents answering “somewhat” to whether or not the Board helps facilitate communication among the parties in general. Respondents did believe that overall, communication between the parties is working.

The final set of questions in this section touched on topics such as reconciliation, social licence, traditional knowledge, the local culture, and improving the community. Respondents were hesitant to state that GMOB’s actions have helped support reconciliation, with only two responding “Yes” to this question, and the majority answering “Somewhat”. In general, respondents’ views were more positive in the other areas, and they particularly recognized the Board’s desire to improve the local community.

The questionnaire concluded with a small number of categorization questions identifying respondents’ organizations, years working on the Project, and years living in Yellowknife.

Summary of Interviews

Follow-up interviews were used as an opportunity to get more in-depth answers to questions or topics raised in the questionnaires. An overview of the interview discussions follows, organized by general theme.

Public Awareness, Public Meetings and Public Repository

Interviewees expanded on their questionnaire responses by offering suggestions for how the Board could improve public awareness and its visibility on the community. The discussions resulted in a range of suggestions, while several interviewees also noted the recent Cabin Radio live question and answer session as an example of the Board improving in this regard. One interviewee stated GMOB was the most visible of the many boards in the NWT. Many also mentioned the storefront as a positive when it comes to visibility. Suggestions for further improvements included holding an Annual General Meeting in Dettah (it was noted that this was in the works prior to Covid), improving signage at their office (including language making it more clear that GMOB is an independent oversight body), and expanding their use of social media and podcasts (noting there’s some great expertise on the Board, who could speak to a specific topic). Some interviewees noted that GMOB may be well-positioned to take on more of an official communications role for the Project as a whole, noting their increased visibility in the community in comparison to the Project Team, but also recognizing that additional funding would be required if GMOB were to assume this role. One interviewee pointed out that they

would like to see more information about how GMOB spends funds on communication, and what their priorities are in this regard. The Board itself noted that Covid has forced it to look at new communication methods, with some success seen thus far.

With the Board's meetings, a main topic of discussion coming from the questionnaires was the sense that meetings ended up drifting away from a discussion on GMOB, toward discussions on the Project as a whole. However, interviewees generally understood that this was likely to occur no matter what, and the bigger question was how the Board handled this, noting that efforts have been made. One interviewee suggested starting meetings off with a very clear introduction describing the Board's mandate and role, what the meeting's goals are, what the purpose of the meeting is and who to direct questions on different subjects to. Aside from this, interviewees acknowledged that the meetings are well-attended for meetings in Yellowknife, but could use more visual and plain-language materials.

The Board's public repository of records - the GMOB Library - was seen as a positive by most interviewees, though some were not aware or had only recently become aware of it. The online format had general support, although several interviewees suggested a physical aspect would be helpful as well. A few also thought it would be helpful to have an idea of GMOB's vision for the Library and policies for document selection, suggesting this would help avoid duplication of efforts with certain aspects of the Project team that relate to records. The password-protected nature of the Library in its current form was noted as a deterrent to some, with one interviewee noting that it was enough to make them look elsewhere for the information.

Technical Expertise

The majority of interviewees believed the Board had a strong level of technical expertise across a range of subject matters. It was often pointed out that this was deliberate, and was an indication of the Parties working together when selecting their appointees. Areas mentioned where expertise was either lacking or could be improved included fisheries, complex project management, communications and socio-economics, although some did not believe that this was really a responsibility of the Board. One interviewee noted that consideration of land use on the site has not really been included in the Board's recommendations thus far, though this has improved recently. This interviewee did note that it is probably too late to be looking at this now, and this topic should have been raised sooner.

Mandate

On the topic of the Board's mandate, interviewees overall believed the GMOB is fulfilling its mandate at this stage. The main area identified for improvement was the research program, although it was often noted that this has begun to ramp up in recent times, though it was a bit slow getting off the ground. One interviewee noted that the environmental part of their mandate was somewhat deficient, with there being more of a focus on socio-economic issues despite this, in some interviewee's views, being outside of the mandate. Off-site impacts were cited as the main area missing from GMOB's mandate by a number of interviewees, while others

believed that off-site matters should not be formally in the mandate, and indicated that GMOB does provide recommendations in this area anyway.

With reviewing and making recommendations on Project documents and plans a main aspect of the Board's mandate, the interviews asked about these recommendations. Overall, interviewees were happy with the quality of recommendations provided, particularly during the Water Licence process. However, some members of the Project team noted that GMOB's recommendations can often be for things that the Project cannot do, and they know this.

Interviewees were asked if they thought GMOB could take more of a leadership role, and generally the sense was that their current situation is working well. Some interviewees did believe that the Board could be more actively involved, taking advantage of their expertise, and particularly when a long-term solution to the arsenic trioxide is being discussed, as they are directly involved with the research program.

The interviews asked whether any changes were needed to the scope of GMOB's mandate, and it was fairly unanimous that no changes were necessary at this time. The item brought up most often was off-site impacts, though even some of the interviewees who raised this understood that it was unlikely that anything off-site would be formally added to the mandate, and noted that GMOB was already making recommendations in this regard. One interviewee noted that this was raised several years ago, and when it was not included in the mandate, there was little chance for it to be added thereafter, and it is unfortunate for Northerners that the GNWT retains the responsibility for off-site areas.

In certain interviews, based on the questionnaire responses, the principles of independence and transparency were discussed. Some interviewees noted some lack of transparency within the Board, with one noting that sometimes it feels like the Board is advocating on behalf of certain Parties over others.

Communication

The next segment of the interviews assessed communication between the Board and the Parties. Generally speaking, interviewees were happy with their communications with the Board, and many of the Parties feel comfortable contacting Board members in an informal manner as needed. Many interviewees felt that the Board communicated as an equal Party to the Environmental Agreement, however some did indicate they felt that the Board could be "standoffish" or appear to be at a different level to other Parties. One interviewee even noted that the Board wasn't consistent in this regard; sometimes they are directly involved, whereas in other situations they revert to more of the oversight role, with the example of the perpetual care plan cited.

Many interviewees from the smaller organizations noted that they see GMOB as a technical resource in relation to the project, able to answer questions or direct them to where they can

find answers. There is a feeling that GMOB's availability in this sense allows these Parties to participate more fully in the Project.

Socio-economic Matters

An area that saw some differences of opinion was the Board's role as it relates (or does not relate) to socio-economic matters. Most interviewees saw there being some role for GMOB in the socio-economic sense, while some interviewees from the Project team disagreed to an extent. It was clear in the interview with the Board itself that it sees a socio-economic role, and this was reflected in their recommendation for a socio-economic envoy to help navigate the northern context generally, and particularly in relation to procurement processes. One interviewee did point out that they feel the Board prioritizes socio-economic recommendations to the detriment of environmental issues, which they feel is interesting due to the Project being largely an "environmental" project. Parties which see GMOB as having a socio-economic role, and which are themselves pushing for additional socio-economic benefits, tended to believe that GMOB is making an effort in this area, but perhaps more can be done. One interviewee applauded GMOB's request for a socio-economic envoy, but noted the Board did not provide any comments on the Project's socio-economic strategy, leaving one party as the sole commenter on that strategy.

Several interviewees noted that one of the main effect of the Project should be benefits accruing to the communities at large, whether that's the YKDFN, NSMA, Tłıchq or the City of Yellowknife. It was noted that the Board is aware of this, and does make recommendations, but could try to do more while maintaining their neutrality. However, as one interviewee from the Project Team noted, they've tried to raise the Board and Parties' recommendations within the federal government, to no avail - there's a "toolbox" that they are in, and they have to do the best with the tools that are in that toolbox.

Social Licence

The term "social licence" can have a wide interpretation, and this was evident in the interviews. One of the Board's principles is to support the notion of a social licence for the Project in the community, and their efforts in this sense were discussed in the interviews. A number of interviewees believed that rather than it being a Board responsibility, it is the responsibility of the Project Team to maintain the Project's social licence in the community. However, there were multiple interviewees who believed that the fact that GMOB exists as a project-specific oversight body is representative of the Project's social licence. An interviewee from one of the Indigenous governments noted that the mere existence of GMOB and their performance thus far has improved their community's perception of the Project.

Reconciliation

Building off of the social licence, interviewees from the NSMA and YKDFN were asked about the Board's role in reconciliation as it relates to the Project. One interviewee noted that GMOB

has the best reputation in their community of any of the many boards in the City, and that the Board does a good job of being respectful, promoting areas where Traditional Knowledge should be sought and incorporated, and advocating for Indigenous participation in the Project. One interviewee noted that sometimes the Board's actions in this regard are unsuccessful, but noted that they create a space for discussions around these topics to take place, while letting the appropriate organizations speak to those topics. Meetings set up by GMOB in Ottawa in 2016 were identified by this interviewee as "gamechanging" when it came to having these conversations with all Parties in a respectful and engaging manner.

Research Program

The Board's research program was a frequent subject of conversation in the interviews, from public knowledge of this aspect of the Board, to the research budget, and the focus of the research. It was generally felt that while the public may know that research is a part of the Board's role, there was not much knowledge of the actual research projects beyond people who are involved in the Project. It was felt that more communication around the research and Terre-Net's role would be useful.

Most interviewees felt that the research budget was generally adequate, with some hoping for more, some believing there was too much budget, and some simply surprised that they were able to get such funds to begin with. Regardless, there was a sense that the Board could increase its research budget by leveraging the funds it has through research networks, with Terre-Net being an example of this. In its interviews, GMOB indicated that they have been working toward this, and are hopeful of more success in the future.

One interviewee suggested that the Board is taking the wrong focus with its research program, noting that the current solution for the arsenic trioxide of keeping it frozen in perpetuity is the best solution at this time. They believe that rather than looking at other 'solutions' that keep the arsenic on the site, research should be focused on removal of the material from the site, noting this would be a real benefit to the local community for a billion dollar project.

Environmental Agreement

Interviewees were then given the opportunity to speak to the Environmental Agreement in general, and the role of other Parties (and themselves). Across the board, there was a sense that the Environmental Agreement is still quite a strong agreement, and no major changes are needed. Some did bring up the off-site impacts issue again, but recognized that it was unlikely to change. One interviewee did note that for the annual budget for the Board of approximately \$1 million, there is not a lot of value added, noting the high amount of oversight on the Project already.

Parties were generally happy with the contributions of other Parties, though some noted the City was not fully participating as they should be (while also noting it has improved recently). One interviewee noted that non-Indigenous City residents should not have to go to the Indigenous

governments for information on the Project, just because they are not getting that information from the municipality. Some thought that the GNWT was playing too small of a role, often deferring to the federal government. Most interviewees recognized that the Parties generally contribute to the Project to the best of their ability.

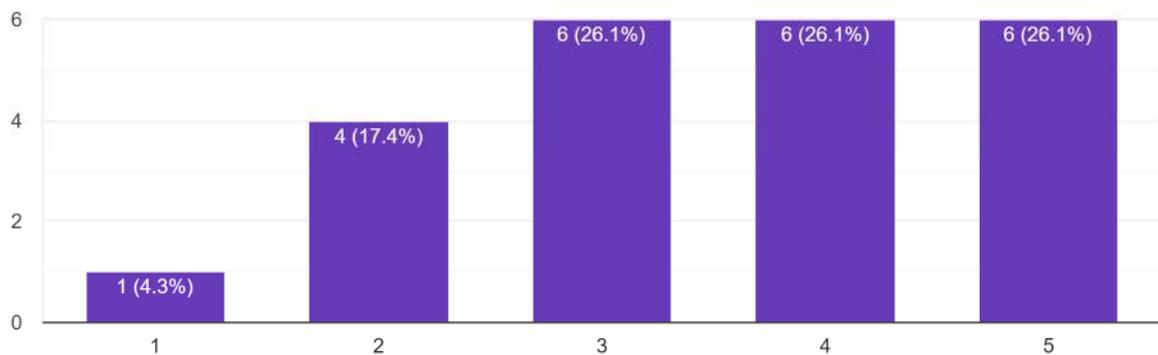
The interviews concluded with an opportunity for general comments, but there was typically little added at this point. Many noted an improvement in GMOB's operations over the 5 years of its existence, and pointed to the next 5 years as being a real indicator of GMOB's success. Several interviewees also noted how important Ben was to the Board's success, and how helpful he is with their inquiries. In general, there was a sense that after the Board got established and up to speed a couple of years into its existence, and the research program kicked off, that it has been able to begin really working toward the fulfillment of its mandate.

Summary of Public Survey and Interviews

As noted earlier, an online survey aimed at the public was also conducted, using Google Forms. The following is an outline of some of the key findings from this survey, which had a focus on GMOB's visibility in the community and public awareness of GMOB's activities. The majority of respondents indicated they were at least somewhat familiar with GMOB, as seen below.

How familiar would you say you are with the Giant Mine Oversight Board?

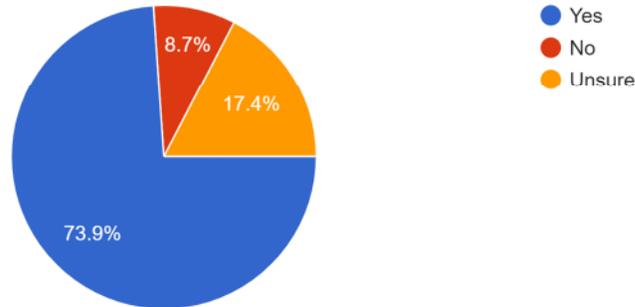
23 responses



The survey moved on to questions on where respondents could remember seeing mention of GMOB.

In the past 12 months, can you recall seeing mention of the Giant Mine Oversight Board - including advertisements - in any form of media?

23 responses



Specific forms of media were then explored, and all respondents who answered “Yes” to the question above indicated that they had heard mention of GMOB on the radio (including web-based radio such as Cabin Radio), followed by newspapers and posters around the community at slightly lower levels. Less than half of respondents could remember seeing a post related to GMOB on Facebook, and even fewer on other social media platforms. Finally, only one respondent could remember seeing GMOB mentioned on television.

Continuing on the topic of visibility, all but two respondents noted they were aware of the storefront office, and more than 75% had actually visited the office.

Have you ever visited or considered visiting the office?

21 responses



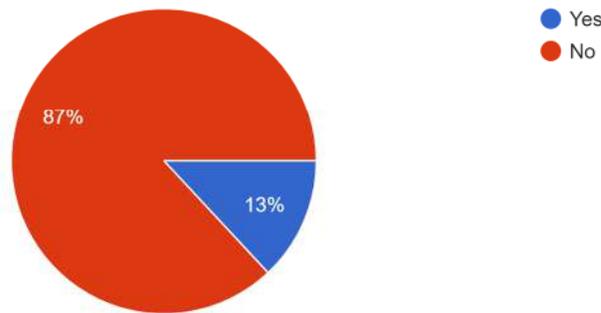
Generally, respondents believed that GMOB was visible in the community, with almost three quarters of respondents rating the Board’s visibility level at a 4 or 5 (highest), however, only half of respondents felt that other people in their community were aware of the Board (with a significant number “unsure” of the level of awareness). Suggestions provided for improving awareness included the use of social media, newsletters to “provide a counter balance to the Remediation Project’s newsletters,” a sandwich board out front of the office after Covid, and asking the YKDFN for permission to post updates on their Facebook page.

The questions then moved more toward the Board’s mandate and activities. Respondents generally indicated they were familiar with the Remediation Project, and a similar number indicated familiarity with the Board’s mandate. Eighty-seven percent of respondents also noted that they were aware of GMOB’s role in research towards a permanent solution to the arsenic trioxide on the site, though only 70% of that group were familiar with any of the research projects currently underway.

Notably, only 13% of respondents indicated that they had ever accessed the GMOB Library, though those that had accessed it appeared to be frequent users (one noting they had used it approximately 30 times in the past twelve months).

Have you ever accessed the GMOB Library?

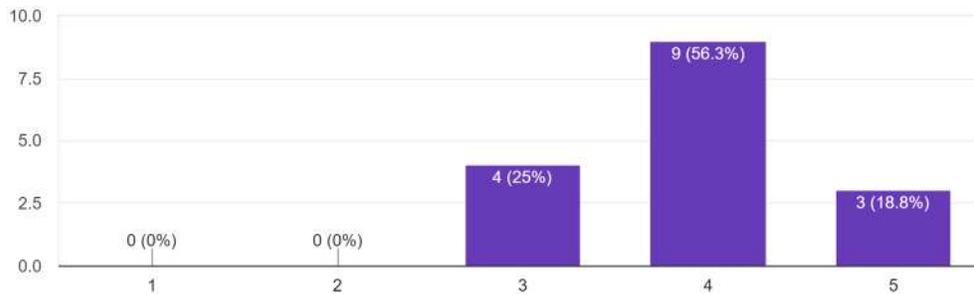
23 responses



More than two-thirds of respondents indicated that they had attended at least one of the Board’s public meetings, and the majority were pleased with the effectiveness of these meetings, as shown below.

How would you rate the effectiveness of the meeting(s) you attended?

16 responses

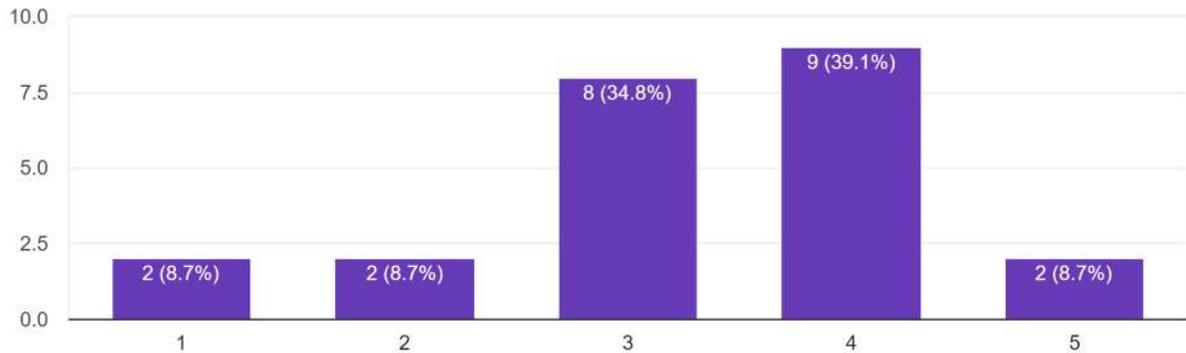


Suggestions offered to improve the meetings included the incorporation of more visual tools such as maps, more accessible discussion rather than formal presentations, using YKDFN platforms to advertise the meetings in advance, and doing more to show the difference between GMOB and the Remediation Project.

On the subject of communication with the community as a whole, respondents tended to believe GMOB was doing a good job, with some improvement warranted. It should be noted that a small number of respondents did, however, have a fairly poor view of the Board’s communication effectiveness. Suggestions to improve this aspect reiterated the use of social media, particularly the YKDFN’s platforms, publishing a newsletter, hosting events (post-Covid) at the storefront, using less “dry” language, and presentations to schools.

How would you rate the Board’s effectiveness at communicating and engaging with the community at large?

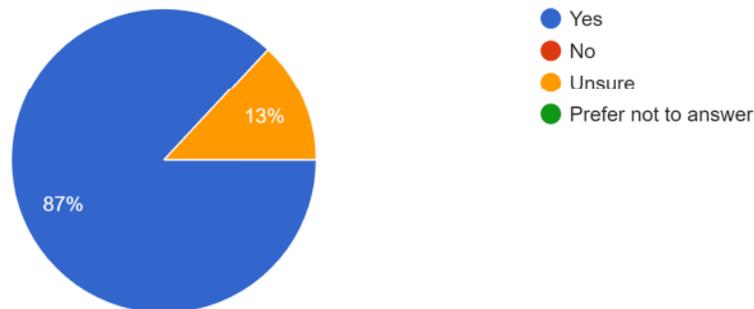
23 responses



The next set of questions dealt with topics built around the Board’s such as the promotion of reconciliation, incorporation of the local culture, the Project’s social licence, the use of Traditional Knowledge, and the desire to improve the community. Responses tended to have similar results as the questions asked of the stakeholders in the questionnaire, with most having a positive view of the Board’s actions, particularly in regards to the desire to improve the local community, and social licence in the Project.

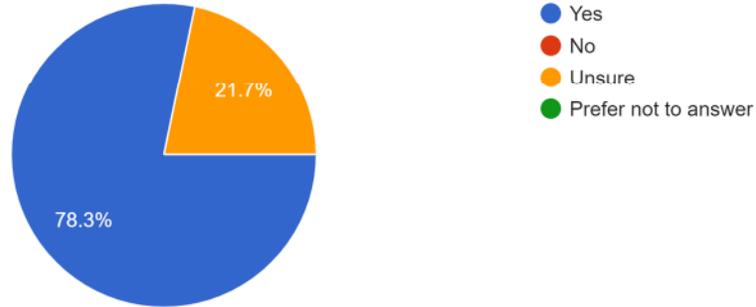
Do you believe that the Board’s activities and recommendations reflect a desire to improve the community?

23 responses



In your opinion, have the activities of the Board contributed to a feeling of social license (public trust in the legitimacy of the Remediation Project... Giant Mine Remediation Project in the community)?

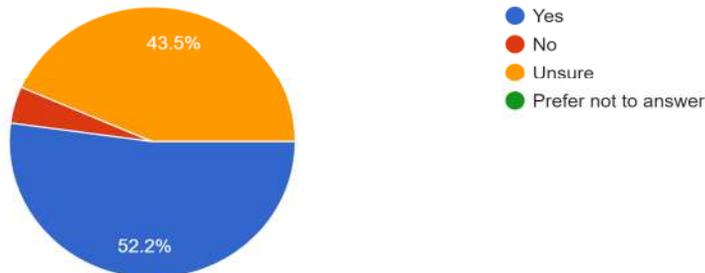
23 responses



On the other hand, respondents were less certain about the Board's role in promotion of reconciliation, and in encouraging the use of Traditional Knowledge in addition to Western knowledge in the Project. However, it should be noted that few respondents flat out disagreed that GMOB was contributing in either of these areas.

From your perspective, do you believe that the Board's actions have helped promote reconciliation?

23 responses



From what you have seen, has the Giant Mine Oversight Board encouraged the use of traditional knowledge in addition to western knowledge in relation to the Giant Mine Remediation Project?

23 responses

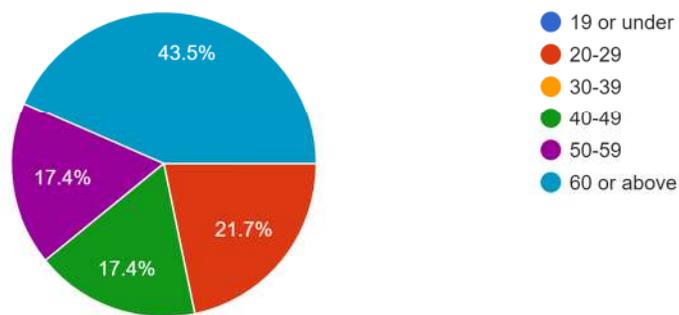


To conclude the survey, respondents were offered a chance to provide any additional comments. Some of the feedback received included a desire for more research dollars to be allocated to the Board, encouragement to continue trying to expand their scope to cover off-site impacts, and support for the Board reinforcing the need for locals, in particular the YKDFN, to benefit from the Project.

Finally, respondents were asked their age from a selection of ranges. As seen below, while a greater number of survey respondents would have been ideal, the respondents who did participate represent a wide demographic range.

What is your age?

23 responses



One of the members of the public – a young adult in the 20-29 age range – who identified in the survey that they would like to be contacted for a follow-up interview was interviewed on December 23, 2020. This interview built on the survey questions, in which the interviewee noted that while they had heard of the Board, they were completely unfamiliar with its role as it related to the Giant Mine Remediation Project. Being a life-long Yellowknifer, but away at university for the past three years, the individual was sure they must have seen GMOB mentioned around town, but stated that “nothing [about GMOB] registered” with them, despite one of their parents working for a contractor on the Remediation Project. They also indicated that they had not noticed the Franklin Avenue storefront despite walking past it often, but suggested a sandwich board or some improved signage could draw more attention, as could the continued use of Cabin Radio and social media platforms, rather than formal communications or notices. Finally, the interviewee did note that since taking the survey, they were excited to learn more about the Board and its role and activities, and suggested that post-Covid, events such as “lunch and learns” might be a good way to increase public awareness.

Conclusion

This report has provided a summary of the initial feedback received from stakeholders and the public on the Giant Mine Oversight Board’s first five years of existence. Along with research and review of the Board’s documents, and the forthcoming workshop, this information will be analyzed further, and will inform the project’s final report.



APPENDIX D – REVIEW OF GMOB RECOMMENDATIONS

Project Impacts on Community Opportunities and Wellness

Since 2015-16, GMOB has made 18 recommendations across 7 distinct topics related to the theme of Project Impacts on Community Opportunities and Wellness.

Health and Community Well-Being

In 2015-16, GMOB recommended that the Project Team “actively embrace the principles of trust, transparency, and communication and engagement to communicate Project risk with respect to health and community well-being...”

The Project Team issued a response fully committing to these principles and noting that a Quantitative Risk Assessment as required by Measure 5 would be taking place in 2017.

Arktis assessment of the status of this recommendation - Closed

Traditional Knowledge

In 2015-16, GMOB commended the Project Team for efforts to incorporate traditional knowledge into the Surface Design Engagement process but noted that developing meaningful relationships with the Indigenous parties to the Agreement had been less successful. GMOB therefore recommended that the Project Team use best practices to develop a comprehensive traditional knowledge strategy.

The Project Team issued a response noting that rather than a stand-alone strategy, traditional knowledge has been integrated into the project planning and activities and provided examples. GMOB noted in subsequent reports (2017, 2018) that they had heard public concerns and calls for a traditional knowledge study, though no further recommendations were issued on the topic.

In 2018, the Co-Proponents commissioned a traditional knowledge study of the Giant Mine Area, that was underway as the 2019 Annual Report was published.

Arktis assessment of the status of this recommendation - Closed

Communication and Engagement

Between 2016 and 2018, GMOB issued three recommendations on the topic of communications and engagement. GMOB has repeatedly encouraged the Project Team to prioritize communications and engagement, develop appropriate tools, ensure public accessibility, and to actively seek input from their audiences as to how to communicate.

The Project Team has responded to these recommendations by stating a commitment to open and active communications, providing examples, being open to specific advice, and acknowledging areas where improvements can be made.

As there were no recommendations made in 2019, it is presumed that GMOB considers the collective response from the Project Team to be satisfactory for the time being.

Arktis assessment of the status of this recommendation - Closed

City of Yellowknife Involvement

In 2018 and 2019, GMOB issued similar recommendations to the Mayor and Council of Yellowknife to increase efforts and take a leadership role in making sure citizens are informed and engaged on all aspects of the Project. GMOB acknowledged capacity issues as well as improvements once capacity funding was provided in 2019.

In 2020, the Mayor of Yellowknife issued a response to GMOB specifically addressing this topic and taking the position that the recommendations made by GMOB were misplaced given the City’s active role in

engagement activities. The letter also seemed to validate aspects of GMOB's position and confirmed a commitment to engagement while identifying possible areas of collaboration with GMOB.

Arktis assessment of the status of this recommendation - Active/Ongoing

Reconciliation and Legacy Issues

Since 2016, GMOB has each year issued a recommendation related to the topic of reconciliation. GMOB has called on the federal government to address the YKDFN request for a formal apology and compensation for the historic impacts of Giant Mine operations on the First Nation in the spirit of reconciliation. GMOB has also called for continued funding for legacy documentation projects being undertaken by YKDFN.

In 2019, the Project Team noted that legacy issues such as apologies and compensation are the responsibility of CIRNAC and beyond the scope of the Project. CIRNAC further stated that engagement between Canada and YKDFN is underway, and that funding had been provided to cover their research costs.

Arktis assessment of the status of this recommendation - Active/Ongoing

Resources and Capacity

Each year since 2016, GMOB has issued recommendations related to the topic of resources and capacity, encouraging the Parties to provide sufficient funding to support their full engagement in Project activities.

GMOB has noted hearing about capacity issues including knowledge/expertise, staff, workload and various pressures associated with participating in the water licencing phase.

Responding to the 2018 recommendation, the Project Team acknowledged capacity as a widespread issue in the north and provided examples of where funding was provided to various groups to facilitate participation in the Project.

In 2019, GMOB expanded its recommendation beyond the water licencing phase into subsequent phases of the Project.

Arktis assessment of the status of this recommendation - Active/Ongoing

Socio-Economic Issues

Since 2016, GMOB has advocated that all levels of government prioritize understanding and pursuing local economic opportunities and benefits of the Project. GMOB has recommended that an impact assessment be conducted, that a strategy be developed, and finally that a special envoy be appointed to address what is considered a lack of progress on this topic.

The Project Team has issued responses noting that a strategy has been developed and is being implemented and provided examples of implementation work as well as summary statistics about the employment and business benefits accruing to the region.

GMOB maintains that the Project Team is structured and operates from a technical approach and lacks the experience and capacity to understand and maximize local economic benefits and mitigate impacts. GMOB acknowledges the actions taken to date as positive steps forward, though ultimately insufficient.

Arktis assessment of the status of this recommendation - Active/Ongoing

Project Management and Planning

Since 2015-16, GMOB has made 15 recommendations across 8 distinct topics related to the theme of Project Management and Planning.

Project Planning

In the Establishment Report, and each year since, GMOB has recommended that a plain language and multi-year (i.e., 5-year) work plan be developed that describes the main activities planned, provides a critical path for the Project and presents budget, timelines and performance measures.

In its responses, the Project Team has detailed the documents that have been produced in accordance with GMOB recommendations, including a five-year workplan, and expressing a commitment to continue working with GMOB to meet its expectations in this area.

In 2019, GMOB noted that the materials received to date still do not meet expectations, and that a meeting between the Board and the Project Team is necessary to arrive at a shared understanding of a project plan should contain.

Arktis assessment of the status of this recommendation - Active/Ongoing

Performance Measurement

In its comments on the Giant Mine Remediation Project 2015-2016 Annual Report, GMOB recommended that quantifiable performance measures be developed and included in future annual reports. The Project Team responded that performance measures prior to the implementation phase (i.e., water licensing phase) would be qualitative in nature.

GMOB remained unclear as to why quantifiable performance measures could not be developed ahead of implementation, as certain remediation activities were already taking place, and clear performance measures are required for GMOB to evaluate performance against expenditures.

In 2017, the Project Team responded that performance targets were being updated to align with INAC's Departmental performance management framework, and that the final project scope would be defined to comply with the Environmental Assessment and would include quantifiable performance measures. Subsequent recommendations (e.g., 2019 called for performance measures and a high-level plan to connect all of the Project's activities).

Arktis assessment of the status of this recommendation - Active/Ongoing

Remediation Planning and Activities

In 2016, GMOB issued recommendations that the Project Team identify advance remediation activities that would be required prior to full remediation, that the risk profile and trends of the site be defined and communicated, and that work with interested parties be undertaken to identify and mitigate potential delays to the mitigation planning process, and to accelerate planning where possible.

The Project Team responded that advance remedial work is detailed in annual work plans, and that risk profile monitoring is ongoing. The Project Team also stated that working with stakeholders to expedite the planning process will continue.

In 2017, GMOB recommended more specifically that the Project Team prioritize fulfilling requirements associated with Measures 5 and 6 of the MVEIRB's Report of Environmental Assessment. This recommendation was reiterated in 2018.

Project Team responses to the 2017 and 2018 recommendations documented progress in meeting the Environmental Assessment requirements. The 2019 Annual report recommended that there be a plan to connect all planning and activities.

Arktis assessment of the status of this recommendation - Active/Ongoing

Project Delivery Model

In 2016, noting that it will have taken the Project 13 years to move through the regulatory process, GMOB recommended that the Project Team adopt an overall method to execute the Project and to examine alternatives to the “current government-driven and controlled approach...” and to seek efficiencies if an alternative model is impractical.

In 2017, the Project Team responded to this recommendation, noting that the Project falls under shared federal and territorial jurisdiction, and is therefore bound by federal project management policies, procedures, and practices.

No further recommendations specific to the delivery model were made in subsequent years, and GMOB noted in 2017 that the hiring of a Main Construction Manager may help satisfy the intent of this recommendation. Nevertheless, project delivery, performance measures and planning continued to be a topic of concern in 2019.

Arktis assessment of the status of this recommendation - Active/Ongoing

Main Construction Manager

In 2017, the Project Team awarded a contract for a Main Construction Manager to Parsons, to assume responsibility for a substantial part of the project management of the Project. In the 2017 Annual Report, GMOB recommended that the Co-Proponents describe the responsibilities that the Main Construction Manager would be assuming, and how the various relationships between the parties and the public would be impacted.

In responding to the 2017 recommendation, the Project Team provided a high-level overview of the responsibilities that Parsons would be assuming. GMOB repeated the recommendation in 2018, indicating that the Project Team response was not satisfactory. The Project Team provided additional details in responding to the 2018 recommendation, presumably to the satisfaction of GMOB, as the recommendation was not reissued in 2019.

Arktis assessment of the status of this recommendation - Closed

Independent Peer Review Panel Confirmation

The Project Team established an Independent Peer Review Panel (IPRP) of internationally recognized experts to advise on major technical decisions related to the Project. The IPRP reviewed several technical documents, and issues recommendations emphasizing that the remediation and stabilization of arsenic dust should happen “*as expeditiously as possible*”.

Whereas the Project Team stated that it is conforming to the IPRP recommendations, in 2017, GMOB recommended that the IPRP respond to the Project Team’s conclusion that the remediation and stabilization of arsenic dust is progressing at a rate appropriate for the associated risk.

In responding to the 2017 recommendation, the Project Team noted that the IPRP would provide GMOB with the results of its review. It is presumed that this commitment or follow-up actions satisfied GMOB on this topic.

Arktis assessment of the status of this recommendation - Closed

Regulatory Process

In 2017, GMOB noted that the Project Team has continued to operate without a water license since 2005, and that even in the absence of urgency, wastewater is being discharged each summer into Baker Creek without a water licence. GMOB notes that such a situation would not be permitted for private operators and recommended that the MVLWB determine whether the Project Team should obtain a short-term water license as an interim measure until the water license for full remediation is obtained.

In the 2018 Annual Report, GMOB noted that CIRNAC and the MVLWB reviewed the need for an interim water license and determined that CIRNAC is not legally obliged to obtain one. GMOB expressed disappointment that CIRNAC would not hold itself to the same standards as a private proponent and stated that no further recommendations would be made on this topic.

Arktis assessment of the status of this recommendation - Abandoned

Long-Term Funding

In 2019, GMOB recommended that CIRNAC develop legislation to guarantee long-term funding for remediation and maintenance of the Giant Mine site. This is related to obligations under Measure 6 of the Environmental Assessment.

The Project Team commissioned Deloitte LLP to produce a report on long term funding, though it did not meet the expectations of GMOB or generate confidence that Measure 6 has been addressed.

Arktis assessment of the status of this recommendation - Active/Ongoing

Environment and Health

Since 2015-16, GMOB has made 11 recommendations across 5 distinct topics related to the theme of Environment and Health.

Environmental Management System

Each year from 2016 to 2018, GMOB recommended that the Project Team develop a comprehensive and fully integrated Environmental Management System that is accessible to the public. In 2016 GMOB also requested the Project Team provide a rationale for discharge of effluent into Baker Creek, and for plain language explanation of how monitoring occurs at site in the absence of a water license and land use permit.

In responding to GMOB recommendations, the Project Team provided updates with respect to the development of the Environment, Health, Safety and Community Management System for the Project, ensuring it aligns with international standards.

In 2019, GMOB acknowledged progress on these recommendations and noted that adjustments to the environmental management and monitoring programs following approval of the water licence will provide additional insight into how the recommendations have been addressed.

Arktis assessment of the status of this recommendation - Closed

Off-site Contamination

Each year between 2016 and 2019, GMOB has issued recommendations related to the topic of off-site contamination. In 2016, GMOB recommended that all levels of government prioritize initiating a process to address off-site contamination.

GMOB acknowledges that this includes remediation of areas outside the Giant Mine lease boundaries (e.g., Con and Negus Mines), and that off-site contamination is not strictly within the GMOB mandate. However, GMOB believes that the federal and territorial governments are ultimately responsible for addressing the “toxic legacy” from roaster operations in the area, and that its recommendations are therefore appropriate.

In 2019, GMOB acknowledged progress is being made on its previous recommendations, and added that affected communities (Yellowknife, Ndilq and Dettah) should be involved in developing strategies and action plans related to addressing off-site contamination.

Arktis assessment of the status of this recommendation - Active/Ongoing

Understanding Arsenic Risks

Noting that the public often raises concerns about the health effects of past exposure to arsenic, in 2017 GMOB recommended that the Project Team develop a communication and education plan to improve the public's understanding of arsenic risks and safety. The recommendation was repeated in 2018.

In responding to the recommendations, the Project Team described several initiatives designed to address GMOB and public concerns, including outreach material and study being conducted to determine current arsenic exposure and monitor it over time.

Arktis assessment of the status of this recommendation - Closed

Land Use Planning

In 2019, GMOB recommended that by 2025 the federal, territorial, municipal and Indigenous governments develop and approve a land use plan for the Giant Mine site post-remediation, including aspects of the long-term care plan. GMOB recognizes that a clear process for developing this type of land use plan does not yet exist and developing such a process and integrating it with work on the Perpetual Care Plan is encouraged.

Arktis assessment of the status of this recommendation - Active/Ongoing

Greenhouse Gas Emissions

In 2019, GMOB recommended that the Project Team account for and minimize the greenhouse gas emissions associated with its plans and activities. In addition, the Project Team should conduct a baseline energy use and greenhouse gas emissions audit, against which future emissions and offsets can be assessed.

Arktis assessment of the status of this recommendation - Active/Ongoing