



Indigenous and  
Northern Affairs Canada

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Dr. Kathleen Racher  
Chair  
Giant Mine Oversight Board  
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July 10, 2018

Dear Dr. Racher:

Thank you for providing me with a copy of the Giant Mine Oversight Board Annual Report 2017. Similar to the process used for the first Annual Report, I have attached responses to each of the 12 recommendations from the Report, for your review and future discussion. I would be happy to discuss the attached responses when we next meet.

Thank you for your continued involvement in advancing the Giant Mine Remediation project.

Sincerely,

Natalie Plato  
Deputy Director  
Giant Mine Remediation Project  
Crown-Indigenous Relations and Northern Affairs Canada

c.c.: Parties to the Giant Mine Oversight Body Society

**Giant Mine Remediation Project (GMRP) Responses to Recommendations from**

**Giant Mine Oversight Board (GMOB) 2017 Annual Report**

<b><u>Subject</u></b>	<b><u>GMOB Comments</u></b> <sup>1</sup>	<b><u>GMOB Recommendations</u></b> <sup>2</sup>	<b><u>Giant Mine Project Team Response</u></b>
1.Socio-Economic and Community Development Opportunities	<p>The Giant Mine Project is both a remediation project and a development opportunity with major potential benefits from employment, business, and other economic activities for people of the region. However, to seize those benefits a fundamental shift is required, moving from a focus on periodic local employment toward a collaborative, long-term vision.</p> <p>All levels of government should make local economic opportunities associated with the Giant Mine Remediation Project front and center, leading ultimately to a positive socio-economic impact. The Project will inject hundreds of millions of dollars into the local economy but based on the Project Team's last annual report, it appears that there has been relatively poor local uptake of available opportunities.</p> <p>In its 2016 Establishment Report, GMOB recommended: "the Project Team apply a structured and deliberate framework...[to]...</p>	<p>GMOB recommends the Project Team meet with federal, territorial, municipal, and Indigenous representatives (and others deemed appropriate) to develop a socio-economic strategy that identifies specific economic, social, and educational opportunities to be generated by the Giant Mine Remediation Project. Meetings should continue annually to implement and monitor progress, and to plan for each year. A formal process with multi-party involvement (e.g., through a steering committee) for the life of the project will give socio-economic considerations the attention they deserve.</p>	<p>The Project is developing a Socio-economic Benefits Approach for the Project. This approach will provide an overarching framework to guide the project's actions to maximize economic opportunities for Northerners and local Indigenous people and address socio-economic impacts. Its implementation will be guided through an annual Socio-economic Action Plan. Both the Socio-economic Benefits Approach and Action Plan will be made available to the public for review in 2018.</p> <p>The Project recognizes the potential impact of the Giant Mine remediation on the Northern economy. As such, the team is working with organizations, with programs to promote capacity-building to ensure they can work together to maximize the benefits to Northern and Indigenous groups and businesses.</p> <p>The Project is developing a Terms of Reference for a Strategic Advisory Board with representatives from the GNWT, the City of Yellowknife, CanNor, Service</p>

<sup>1</sup> This text is taken directly from the Giant Mine Oversight Body 2017 Annual Report

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	<p>assist the Project Team to analyze and optimize local education, training, procurement, and jobs skills development opportunities" (<i>GMOB Recommendation #2016-11</i>). A socio-economic impact assessment framework would enable governments to identify issues and boost activities that improve the long-term public health and outlook for community wellbeing into the next generation(s). GMOB has not yet seen such a framework applied by the Project Team.</p> <p>GMOB understands that the Project Team is updating the 2016 Labour Resources Study Report but notes that this does not equate to a socio-economic plan for the Project. Further, while the Project Team has stated it intends to prepare a Socio-Economic Strategy, GMOB is concerned that limited progress has occurred on this critically important initiative. This concern is heightened by the fact that the active phase of remediation is scheduled to begin within a few years. In the opinion of GMOB, failure to address this gap on a priority basis will compromise the ability of the Project to achieve meaningful socio-economic opportunities. If they are aligned with the community vision, such opportunities could inject a spirit of reconciliation into the Project and correct some systemic social and economic disparities within the greater Yellowknife community.</p>		<p>Canada, Parsons Inc, PSPC, and CIRNAC. This committee will leverage capacity within their respective organizations and ensure socio-economic issues are given required support in the region.</p>



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2. Capacity	<p>The Parties face high demands. They must review the many documents distributed by the Project Team and attend regular meetings. Party representatives must also communicate updates to their constituencies, and compile and relay community feedback. They also assist the Project Team with its interactions with the community. The YKDFN, NSMA, Alternatives North, and the City of Yellowknife each have at least one person in their organization designated to fulfill these responsibilities. In some cases, this person has other duties unrelated to the Project. The Parties are concerned that they do not have adequate capacity to participate effectively in the technical and socio-economic aspects of the Project.</p> <p>In its 2016 Establishment Report, GMOB noted these concerns (<i>GMOB Recommendation #2016- 9</i>) and recommended steps to address the capacity needs. The Project Team responded with a list of ways it has tried to address capacity issues. For example, the Project Team funds an independent technical consultant to lead technical reviews of materials presented to the Giant Mine Working Group. This reviewer is a valued resource to the Parties and GMOB. However, this one person has limited time and scope of expertise, and is shared by the various Parties. GMOB continues to hear that Parties struggle to keep</p>	<p>GMOB recommends that the Project Team meet with the Parties and GMOB, to assess capacity needs and the best use of resources to fully understand where there are gaps, and how they can be closed. This needs assessment should happen as soon as possible to allow the Parties to participate effectively in the upcoming water licensing process. Timely attention to capacity issues could facilitate both current socio-economic opportunities and those that will open up when the remediation gets underway.</p>	<p>The Project team regularly meets with all Parties and funds annual proposals from the Yellowknives Dene First Nation, North Slave Métis Alliance, and Alternatives North for technical and administrative resources to participate in all aspects of the Project.</p> <p>In 2017/18 the Project team funded a new position with the YKDFN to support the Health Effects Monitoring Program and this position continues in 2018/19. In 2018/19 the Project team has agreed to fund two additional positions with the YKDFN, a Junior Coordinator and an Economic Development Officer.</p> <p>In 2017/18 the Project team funded a half time position with the NSMA and this continues in 2018/19.</p> <p>The project team welcomes the suggestion to meet with GMOB and the parties to continue this discussion.</p>

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	on top of all aspects of the Project. Improved collaboration among the Parties could help provide collective input into key Project document reviews and decisions.		
3. Communication and Engagement	<p>GMOB recommended in its Establishment Report (<i>GMOB Recommendation #2016-3</i>): “communication and engagement be treated with an importance equal to other aspects of the Project and that they be resourced accordingly”. The Project Team responded with a list of its many efforts and restated its commitment to strong communications with all stakeholders. GMOB acknowledges the Project Team’s willingness to respond to requests for information and meetings, and its sensitivity to capacity issues when scheduling those meetings. Some Parties noted that communications with the Project Team improved over the past year.</p> <p>GMOB’s 2016 recommendation stands. The Project Team should devote more resources to communicate and engage the public at large. For example, the public has difficulty to get information, provide input, or ask about opportunities, except through quarterly newsletters and yearly public meetings. The Project Team is without an accessible “storefront” office and its website remains limited. The Agreement required a plain language summary of the Project Team’s annual report but this has not yet happened. GMOB continues to encourage the Project</p>	As in 2016, GMOB recommends that Project Team communication and engagement responsibilities be given equal importance as other parts of the Project and that they be resourced accordingly. Similarly, the Parties and GMOB should seek input from their constituencies on how to best represent constituent interests and expand awareness of the challenges and opportunities provided by the Project.	<p>We welcome the insights gathered by GMOB and the Parties. The GMRP has human resources dedicated to maintaining open two-way communication, and ensuring engagement occurs on all aspects of the Project.</p> <p>Engagement is one of the highest priorities for the Project, which has been demonstrated by the commitment to processes in the past few years including Surface Design Engagement (SDE) and the dietary survey and voluntary sampling program as part of extensive engagement for the HHERA completed in 2017.</p> <p>After much effort, and considering feedback from stakeholders, the updated website is now live.</p> <p>The Project notes that a plain language summary of the 2017 Annual Report has not been produced but will endeavor to complete it as soon as possible.</p>



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	<p>Team to use communication tools that engage the community in ways that are meaningful.</p> <p>All Parties should seek input from their constituencies to ensure their interests are appropriately represented. Some of this is happening. For example, the YKDFN's Giant Mine Advisory Committee effectively communicates Project-related issues within the community. The YKDFN health liaison has proved to be an important position. GMOB continues to interact with the public through its storefront office and public meetings.</p> <p>Until recently, the City of Yellowknife relied on the Project Team to keep City residents informed. It could be argued that the City of Yellowknife, however, is best placed to engage with city residents. It could provide information and facilitate feedback to better understand community priorities, concerns, and values about the Project. GMOB notes that the City is not playing that role through its website nor through public forums. This situation could reduce residents' influence on remediation design and limit opportunities for local socio-economic benefits.</p> <p>During GMOB's most recent meetings with the Parties, the City announced it had identified a lead person to coordinate the different aspects of the City's participation in the Project. This is promising, but GMOB is uncertain how the City</p>		

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	<p>plans to engage its residents. GMOB recognizes that the City, like the other Parties, struggles to find the capacity to devote to the Project.</p> <p>GMOB encourages the City of Yellowknife to continue its efforts to find internal resources for the Giant Mine Remediation Project and to effectively engage Yellowknife residents on Project progress, obligations, and opportunities. The City and the Project Team should work together on public engagement.</p>		
4. Public Concern and Legacy	<p>Public concern about the legacy of Giant Mine remains a key issue. In its 2016 Establishment Report, GMOB <i>recommended</i> (GMOB Recommendation 2016-3): “the Federal Government formally respond to requests of Indigenous groups for an apology and compensation related to the historic operation at the Giant Mine.” That recommendation stands. In response, the Project Team said that an apology and negotiations about compensation are outside its mandate. However, the GMOB recommendation remains, directed to Government of Canada politicians and not to the Project Team.</p> <p>Still, the Project Team does have a key role to play to support reconciliation efforts, as noted above. In 2017, YKDFN invited the Project Team and GMOB to attend a “healing the land” ceremony involving its leaders, Elders, and community members. These important</p>	GMOB continues to recommend that the Federal Government formally respond to requests from Indigenous groups for an apology and compensation related to the historic operations at the Giant Mine.	The issues arising from the legacy of the Giant Mine and other local mine sites are complex. While the Project team is focused on the remediation of the former mine site, and as formal responses on the issue of apology and compensation for Indigenous groups are outside the Project team’s mandate, the team has conveyed this request within INAC’s NWT regional office. Regional staff has, in turn, met with the Yellowknives Dene First Nation to hear concerns directly in order to develop a path forward.

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	<p>community-driven events should be strongly supported.</p> <p>In addition, in 2017, the NWT Legislative Assembly unanimously passed a motion calling on the Government of Canada to apologize to the YKDFN for harm caused by the Giant Mine operations. The Government of Canada has yet to formally respond to this motion.</p>		
5. Critical Path, Integration, and Performance Measures	<p>Since its establishment, GMOB has asked the Project Team for a high-level Project plan that clearly lays out the multi-year timeline and critical path for all Project elements and major activities.</p> <p>This information would help answer several questions. First, GMOB needs a detailed plan to assess whether the Project Team's commitment to begin remediation in 2020 is feasible. Second, since the Project is so complex, GMOB wants assurance that the final closure plan appropriately considers the results from all the studies conducted. These studies also need to be integrated into management and monitoring plans. For example, GMOB questions how the results of the recent Human Health Ecological Risk Assessment (HHERA) will be integrated into the final closure plan, as required by the environmental assessment.</p> <p>In 2017, the Project Team distributed an engagement calendar with a one-year planning window. The usefulness of this calendar is</p>	<p>GMOB recommends that the Project Team provide a five-year project plan and critical path to show how all Project elements are linked and integrated. The Project schedule should highlight major milestones, a budget, specific performance measures, and a flowchart showing the decision-making model for the Project. The Project Team's annual report should detail what was achieved compared to what was planned and budgeted for each year. The report should explain variations between goals and achievements.</p>	<p>A draft integrated project schedule has been prepared by the Project Team. This includes both the definition and implementation phases of the project through 2031. The schedule has been provided to GMOB at the May 14, 2018 semi-annual meeting.</p> <p>This draft integrated schedule will be a key tool to allow tracking progress, major milestones and critical path. This schedule is draft and represents the current project understanding and approach, recognizing that some design elements are not yet finalized, and therefore, future schedule adjustments will be necessary.</p> <p>Short term performance indicators have been shared with GMOB at the May 14, 2018 semi-annual meeting. The project plans to incorporate the performance targets in future annual reports.</p>



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	<p>limited since reviewers can't see how the Project Team will advance to remediation. Neither the brief annual work plans provided in an appendix to the Project Team's annual reports, nor the schedule of Project components show how the many elements relate and will eventually come together.</p> <p>Without an overall Project plan and until a defined water licence is in place, GMOB is unable to properly evaluate the critical path for the Project. Similarly, the absence of performance measures makes it difficult to assess if the Project Team is meeting its goals and targets, or where improvements should be made. This recommendation echoes the recommendations made last year, which have yet to be satisfactorily addressed. GMOB will follow up directly with the Project Team to expand on these recommendations.</p>		
6. Main Construction Manager	<p>In late 2017, the Project Team awarded a contract for a Main Construction Manager (MCM). This company will take over a substantial part of the management of the remediation Project. The Project team stated that the MCM would operate as an extension of the Project Team for planning, engagement, and operations. The Project Team reassured GMOB that the co-proponents would keep final authority over all parts of the Project.</p> <p>GMOB hopes this change will enhance project management, since it addresses, in part, GMOB's 2016 recommendation regarding the Project's delivery model (<i>GMOB</i></p>	<p>GMOB recommends that the co-proponents describe the responsibilities that the Main Construction Manager will inherit from the Project Team, and how this arrangement will affect relationships among the co-proponents, the Parties, GMOB, and the public.</p>	<p>The Main Construction Manager will take over the role of Mine Manager as of July 1, 2018, which is a role required under Northwest Territories mining regulations. Since the Government of Canada assumed responsibility of the site, this role has been filled by the site's Care and Maintenance contractor. The MCM will take over this role from current care and maintenance contractor, Deton Cho / Nuna.</p> <p>The Government of Canada, along with the Government of the Northwest Territories as co-proponent, will continue to be responsible for the Giant Mine site and its remediation. The relationship with partners and stakeholders should</p>

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	<p>Recommendation # 2016- 10) i.e., “that the Project Team carefully examine options other than the current government-driven and controlled approach to the Project”. To understand this new Project management model, GMOB needs a comprehensive list of the MCM responsibilities, as well as how responsibilities will be transferred and delegated. This is especially relevant because of the role the MCM will play in the Giant Mine Working Group sessions, in community consultations, and with GMOB.</p>		<p>remain largely unchanged.</p> <p>The MCM will be a key partner and advisor as it relates to scheduling, constructability reviews, project implementation plan preparation, resourcing and other aspects related to the socio-economic benefits, working with the Project team as it is integrated into the project. However, the Project team remains responsible and accountable and will continue to maintain its relationships with partners and stakeholders.</p>
7. Independent Peer Review Panel Advice	<p>The Project Team established an Independent Peer Review Panel (IPRP) of internationally recognized experts to advise on major technical decisions related to the Project. At GMOB’s request, the Project Team provided technical IPRP documents prepared between January 2014 and March 2017. GMOB reviewed these, focusing on topics related to GMOB’s oversight mandate. Several IPRP recommendations emphasized that the remediation and stabilization of arsenic dust should happen “as expeditiously as possible”. GMOB asked the Project Team to formally clarify its actions to address the IPRP’s advice. The Project Team responded that it is conforming to those IPRP recommendations. GMOB would like confirmation that the IPRP agrees with the Project Team’s statement.</p>	<p>GMOB recommends that the Independent Peer Review Panel (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.</p>	<p>This recommendation was discussed at the May 8, 2018 IPRP and Project Team Meeting. IPRP has indicated that a response will be provided to the Project Team for furtherance to GMOB.</p>
8. Remediation Studies and Plans	<p>In 2017, the Project Team made progress on a number of important studies that will feed into</p>	<p>GMOB recommends that the Project Team make it a priority to fulfill all requirements associated</p>	<p>The Project team has made both Measure 5 and 6 a</p>



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	<p>the final closure plan. It released the final report of the Surface Design Engagement process, the draft HHERA report, and an analysis of options for potential Baker Creek diversions. The Project Team held a Contaminated Soils Workshop to evaluate remediation options for the different areas of contaminated soils on the site. It gave the Parties a preview of the draft Closure and Reclamation Plan, including a description of the closure objectives. The Project Team continues to make progress on several environmental assessment measures set out by the MVEIRB, especially those required to obtain the remediation water licence. GMOB acknowledges the work done by the Project Team and its subcontractors on these studies. Specific comments from GMOB on individual studies or plans are posted on the GMOB website.</p> <p>There are, however, other measures which have not received enough attention. Notably, the Project Team has made little progress on the Quantitative Risk Assessment (<i>EA0809-001 Measure #5</i>). The MVEIRB report indicates this assessment is needed for regulatory approvals and it should be considered in the final remediation strategy. In addition, only small progress has been made on <i>EA0809-001 Measure #6</i>, which requires the Project Team to report on options for long-term funding of</p>	<p>with Measures 5 and 6 in <i>MVEIRB's Report of Environmental Assessment</i>.</p>	<p>priority for 2018/19.</p> <p>Measure 5: Engagement started with the Giant Mine Working Group in 2017 on the Quantitative Risk Assessment (QRA). Several decisions are required as inputs to the QRA that needed other activities to conclude prior to starting this work, such as the SDE process cited above. There are many interdependent elements that add to the complexity of the Giant Mine project, as well as the need to fully involve stakeholders at each stage of the development of the remediation plan, which takes time. The Project team met with the Working Group on April 19, 2018 to present the proposed methodology and engagement plan for review and input. Engagement for the implementation of the QRA started in June 2018 and will continue throughout the year. A draft report is anticipated in December 2018.</p> <p>Measure 6: A report was completed and presented to the Giant Mine Working Group in 2017, as required by the Measure, and a number of meetings were subsequently held with a sub-committee of the Working Group to discuss the report and provide recommendations, also required by the measure to involve stakeholders and the public in discussions on funding options. The Project team will strive to meet stakeholder expectations to finalize the report in advance of the Water License package submission.</p>

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	<p>the Project (i.e., after remediation). GMOB and other Parties determined that the draft report on funding failed to meet the intent of Measure #6. GMOB encourages the Project Team to revisit this important issue. Significant progress on these and other measures are essential if the upcoming regulatory proceedings are to be efficient and effective.</p>		
<p>9. Regulatory Process</p>	<p>The MVLWB must approve a Type A water licence and associated land use permits before full remediation can begin. The Project Team recently announced it would submit the information required to start the MVLWB licensing process in early 2019. The Project Team intends to begin engagement on the information package in May 2018 and has asked for feedback on the engagement process. GMOB looks forward to participating in these processes.</p> <p>As voiced in 2016, GMOB recommends the Project Team obtain a water licence to regulate the discharge of treated mine water from the Giant Mine site during the current care and maintenance phase. During the environmental assessment phase, the Project Team indicated that urgent on-site remedial action was necessary to protect public health and safety. The Project Team argued that the emergency provisions of the <i>Mackenzie Valley Resource Management Act</i> applied, including the ability to temporarily operate without a water licence. The Project Team has continued to</p>	<p>GMOB recommends that the MVLWB review the current absence of a valid water licence at the Giant Mine site to determine if the Project Team should obtain a short-term, focused water licence as an interim measure, until a broader remediation water licence is issued.</p>	<p>N/A – action for MVLWB.</p>



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	<p>operate without a water licence since 2005, including discharging treated effluent, or wastewater, into Baker Creek each summer. Since any urgency has long since passed, routine multi-year discharge of treated wastewater into the environment without a water licence is inappropriate. No other operator in the NWT would be allowed to do this for more than a decade without a water licence.</p> <p>The Project Team's response to GMOB Recommendation #2016-7C, in Appendix 2 of this report, states it did not require a water licence for its ongoing care and maintenance activities. It noted that its operations comply with the <i>Metal Mining Effluent Regulations (MMER)</i> and the <i>Fisheries Act (FA)</i>, and that it treats wastewater to the standards set out in the pre-2005 water licence. However, both the <i>MMER</i> and the <i>FA</i> are reactive and punitive in nature – operators can be charged if they exceed the specified limits or cause significant environmental harm – rather than proactive and permissive as is the case with a water licence. Finally, the issue is not so much about environmental harm per se, but rather the appropriateness of government agencies operating without a water licence under conditions that would normally require one.</p> <p>In GMOB's opinion, a valid water licence should have been in place to regulate the</p>		

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	<p>ongoing effluent discharge from the Giant Mine site since 2005 and should be in place now and until the full remediation water licence is granted. GMOB sees a narrowly focused five-year water licence that addresses effluent discharge limits as appropriate in this circumstance.</p> <p>GMOB's interprets the law differently from the Project Team. GMOB suggests that an independent authority such as the MVLWB, which has jurisdiction in this area, resolve the issue.</p>		
10. Environmental Monitoring Studies	<p>The Project Team continues to conduct a broad range of environmental monitoring programs on and around the remediation site. The Project Team's annual report lists these programs and uses them to evaluate current environmental conditions and support remediation planning. GMOB routinely reviews the environmental reports distributed by the Project Team and provides comments or suggestions as appropriate. Overall, the quality of the reports is good.</p> <p>One key ongoing environmental program monitors the dust caused by site activities. Dust is monitored at stations along the Project boundary and at nearby stations. The Air Quality Monitoring Program (AQMP) ensures that the dust management strategies used on the site are working as intended. It also allows local residents to check on the level of contaminants in the dust compared to</p>	GMOB again recommends that the Project Team develop a fully-integrated Environmental Management System. Further, GMOB recommends that related program descriptions and their results be made easily accessible to the public.	<p>The Giant Mine Project team currently has an Environment, Health, Safety and Community Management System in place for the project.</p> <p>It includes aspects of an Environmental Management System (ISO-14001), Health and Safety (OHSAS-18001), and socio-economic aspects.</p> <p>The Project is currently updating the Management System to be compliant with the revised 2015 ISO 14001 Standard. In addition, the intent is for the Project to work with the MCM to develop an integrated management system.</p> <p>Environmental Management Plans and associated Environmental Protection Plans will be encompassed within this integrated system. The Project team will provide this to the Board once completed.</p>



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	<p>environmental health standards. GMOB acknowledges the Project Team's efforts to make the results of the AQMP consistently accessible to the public via a dedicated website, and its willingness to investigate and discuss any irregular results with the Parties.</p> <p>In 2016, GMOB recommended that the Project Team develop an integrated environmental monitoring plan and report any trends noted in water, soil, and wildlife monitoring results (<i>GMOB Recommendation #2016-7A</i>). The Project Team responded that this is being done and pointed to where the information could be found. However, in contrast to the AQMP, neither the program descriptions nor their results are easily accessible to the public. This issue was discussed at the last semi-annual meeting of GMOB and the Parties. GMOB expects progress will be made in the coming year.</p> <p>During the upcoming water licensing process, GMOB will continue to advocate for the environmental programs necessary for the remediation and post-remediation phases of the Project. Once the licensing process is underway, environmental monitoring results will be publicly available on the MVLWB website.</p>		
11. Human Health-related Studies	Human Health and Environmental Risk Assessment (HHERA) and the Yellowknife Health Effects Monitoring Program (YkHEMP) are the main human health-related studies	GMOB recommends that the Project Team develop a communication and education strategy to improve the public understanding of arsenic	The Project team will continue to work with GNWT Health and Social Services to improve public understanding of arsenic risks, and take every opportunity available to share knowledge as it

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	<p>undertaken by the Project Team. The HHERA was a requirement of the environmental assessment, to be completed before water licensing. The draft report was released in October 2017, with public presentations to the YKDFN, NSMA, and Yellowknife communities. This study brought environmental quality data together with studies of human activities to aid in understanding the potential health risks from contaminants at the Giant Mine site in its pre-remediation state. The study also evaluates whether, and to what extent, the remediation project will change health risks.</p> <p>The YkHEMP launched in 2017. Led by Dr. Laurie Chan from the University of Ottawa, the program will create a database of the arsenic and other metals, associated with the Giant Mine site, found in YKDFN and NSMA community members and in randomly selected Yellowknife residents.</p> <p>In the past two years, the Project Team placed significant emphasis on these two studies to alleviate the health concerns of local residents. Community members wait with anticipation to see the study results. The HHERA and the YkHEMP studies each refer to expectations that the other study will fill in potential gaps about the health effects of arsenic. How these study results are interpreted and communicated to the public will be critical with respect to addressing stakeholder concerns and expectations. As reflected in our recommendation, there are real differences in</p>	<p>risks. The strategy should aim to reduce the gap between scientists and the broader community in their perceptions of risk and safety.</p>	<p>emerges, such as through our public information sessions on the results of the Human Health and Ecological Risk Assessment (HHERA) update held in October 2017, our newsletter and at the community forums with the Yellowknives Dene First Nations members, North Slave Métis Alliance members, and members of the Yellowknife-area public. The Project team also continues to share reports and information, such as the results of the Human Health and Ecological Risk Assessment, to the appropriate authorities with responsibilities for health and public education, in order that they can take new information into consideration in their program decision-making processes, public health advisories and public education information.</p>



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	<p>the perceptions of safety between scientists and the public. Scientists view safety as a quantitative, numerical question – is exposure to arsenic below guidelines? Community members see safety as a qualitative, holistic question – how does arsenic affect my health or my children’s health and future wellbeing?</p> <p>Each study aims to increase understanding about exposure to arsenic, from food, soil, and water by measuring arsenic levels in toenails and urine. These scientific results should inform people of the environmental health issues related to arsenic on the Giant Mine site and in the Yellowknife region. They should give people information on the exposures from various activities and how to minimize exposure. The more participation by local residents, the more valuable the study results and their usefulness for future arsenic exposure monitoring. Neither study will evaluate the overall health or wellbeing of an individual or community.</p> <p>The public often raises concerns about the health effects from past exposures to arsenic. However, the scientific limitations of the HHERA and YkHEMP studies mean they are not able to address concerns of past exposure to arsenic trioxide, whether from working in the mines or from environmental exposure. Due to continued concern about past exposures, Dr. Chan committed to explore the feasibility of a retrospective study that might evaluate data</p>		

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	<p>from historical occupational or community sampling programs. However, such a study is outside the mandate of the Giant Mine Remediation Project.</p> <p>GMOB believes that the best opportunities for the Project to improve public health and community wellbeing in the region lie in improving other determinants of health, such as education, skills upgrading, jobs, the economy, cultural and traditional practices, and reconciliation. (See the earlier section on Project Impacts on Community Opportunities and Wellness.)</p>		
12. Offsite Legacy Contamination Issues	<p>In its 2016 Establishment Report, GMOB raised the issue of elevated concentrations of arsenic in soils, vegetation, and lakes outside the Giant Mine lease boundary (<i>GMOB Recommendation #2016-8</i>). The former Giant Mine lease defines the boundaries for the Project. The Project Team maintains it is not responsible for remediation beyond that area. However, the historic operations of Giant, Con, and Negus Mines resulted in air and water-borne arsenic contamination well beyond the mine leases. Although off-site contamination is not directly within GMOB's mandate, it can lead to on-site contamination, e.g., via Baker Creek watershed drainage into the mine site or through re-suspension of arsenic trioxide dust by off-site construction. Further, off-site contamination tends to dominate any public discussion of the Giant Mine Remediation Project. As a</p>	<p>As in 2016, GMOB again recommends that the federal, territorial, and municipal governments make it a priority to ensure off-site contamination issues are resolved to satisfy public health and environmental concerns.</p>	<p>While clean-up efforts at Giant Mine contribute to the Government's actions to protect the health and safety of NWT residents and the environment, legacy issues such as off-site contamination fall outside the scope of the Giant Mine Remediation Project. However, the Government of Canada recognizes the importance of this issue, and as such, departmental officials continue to work with the Government of the Northwest Territories and other federal departments to address it.</p>



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	<p>consequence, offsite issues must be resolved.</p> <p>GMOB has seen some progress on its 2016 recommendation. The GNWT Departments of Health and Social Services and Environment and Natural Resources advised the public of safe levels for drinking, fishing, and swimming in local lakes. A GNWT interdepartmental working group co-operated with the City of Yellowknife to put signs around affected water bodies to help people understand the risks. In addition, university-led research has continued to add to an off-site database during the past year.</p> <p>These latter studies indicate that some soils and lakes surrounding Giant Mine have elevated, or even high, arsenic concentrations. However, the HHERA findings show low risks of exposure or accumulated contaminants for people engaging in recreational activities such as wading or swimming in local lakes, and eating fish from Yellowknife Bay and Back Bay.</p> <p>“Hot spots” identified in and around Yellowknife, which includes high soil arsenic levels in Ndilo, are a source of continuing concern highlighted by the YKDFN. GMOB will continue to advocate for resolution of this issue.</p>		