

Raglan Mine

CLOSURE PLAN SUBCOMMITTEE

2020/2021

Bi-Annual Report



MINE RAGLAN



**25 ANS
D'ACTIVITÉS**

YEARS OF OPERATIONS
25 שנות פעילות

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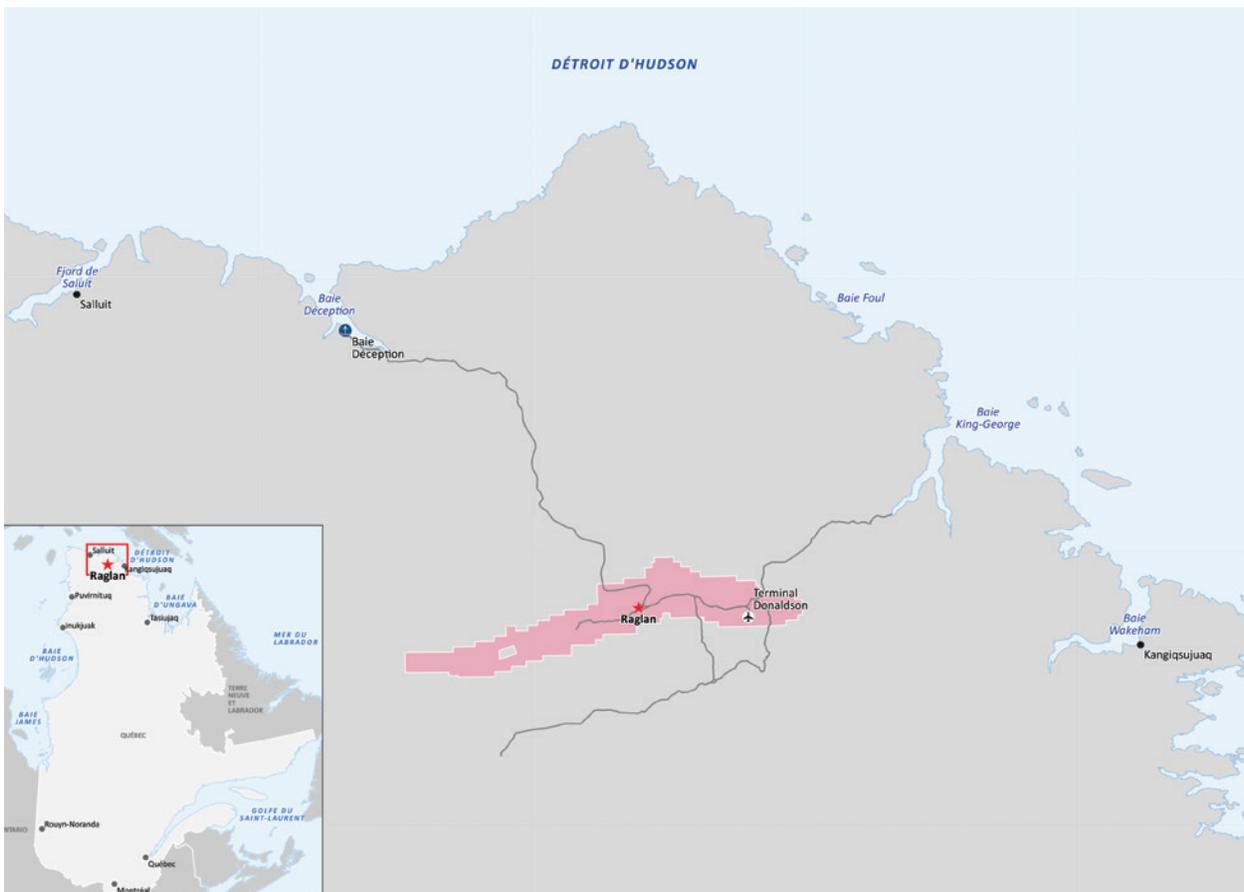
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COVID-19 Statement

Due to the COVID-19 pandemic, 2020-2021 was a challenging two years for the Raglan Mine Closure Plan Subcommittee. We were unable to travel for in-person meetings or site tours and the onslaught of other COVID-19 related duties, emergencies, and personal commitments made it difficult for committee members to commit significant time and attention to the Subcommittee.

However, we continued to have regular virtual meetings and tested out various models for how best to move forward in pandemic times. Despite the circumstances, we are happy to see movement on several objectives and look forward to meeting again in person soon. These two years have also been a reminder of how important stable, yet flexible governance and community engagement is for extractive projects on Inuit territory, and how closure/reclamation is a pivotal part of that long-term, community-based, contingency planning.

Location of Raglan Mine



About the Subcommittee

Working Together

Through discussions with Inuit partners from Salluit and Kangiqsujuaq, Raglan Mine came to realize that some of the communities' key concerns about the project centered around mine closure practices, including tailings management.

Raglan Mine decided to address these concerns by including its host communities in the reviewing process. This process gives Raglan Mine the opportunity to improve closure concepts alongside their Inuit partners and work towards an integrated closure plan that is both environmentally and socially acceptable.

Closure Plan Subcommittee

Although Raglan Mine is expected to remain operational for at least another 20 years, the Raglan Mine Closure Plan Subcommittee was launched in March 2018 to establish and maintain a dialogue with the Mine's Inuit partners about mine closure and to integrate the traditional knowledge of the communities of Salluit and Kangiqsujuaq into the Closure Plan for Raglan Mine.

The first meeting of the Closure Plan Subcommittee occurred in March 2018. Throughout 2018-2019 we held five meetings across 11 days. In 2020 we held 4 virtual meetings and in 2021 we held 6 virtual meetings. Through these meetings, Raglan Mine employees, community and regional representatives and university researchers are collaboratively developing a plan for the eventual closure and remediation of Raglan Mine.

The Closure Plan Subcommittee benefits from being multi-stakeholder, organized far in advance of closure, and made up of members who are willing and committed to achieving the goals that have been set. Through the work of the Subcommittee, there are consistent opportunities to learn from one another, apply a wide variety of expertise (Inuit, industry and academia), and maximize the strengths and capacities of Inuit communities.

The members of the Closure Plan Subcommittee include Inuit partners from both Salluit and Kangiqsujuaq, representatives of Makivik Corporation and Raglan Mine, and researchers from UQAT (Université du Québec en Abitibi-Témiscamingue) and TERRE-Net (Towards Environmentally Responsible Resource Extraction Network).

Vision and Mission Statement

Vision Statement

We will strive for a mine closure outcome that will safeguard Inuit land use, resources, and ecological integrity, create benefits and build capacities in Salluit and Kangiqsujuaq, and ensure the transfer of skills, knowledge, and values between Inuit and industry to ensure efficient, safe and long-term solutions to closure and remediation at Raglan Mine.

Mission Statement

The Raglan Mine Closure Plan Subcommittee is a partnership within the Raglan Agreement that aims to provide assurances for safe water, land and food resources, maximize community benefits, and contribute to a sustainable future for Salluit and Kangiqsujuaq by mitigating the negative social, economic and ecological impacts of mine closure. This will be realized through the creation of culturally relevant closure goals and criteria and the integration of Inuit knowledge, enterprise, and values, scientific expertise, and industry know-how.



Roles and Responsibilities of the Subcommittee Parties

Inuit Partners

- Ensuring compliance with the Raglan and Sivumut Agreements
- Ensuring that Inuit have a voice at the Mine Closure Plan Subcommittee level
- Ensuring that Inuit voices are reflected and addressed in the Raglan Mine Closure Plan
- Reporting back to the communities to ensure they are informed and have up to date information on mine closure planning
- Actively participate in workshops and visits to other mine sites
- Participating in university level training to become familiar with mining laws and regulations
- Lobbying the industry and government (including universities) for support for Inuit concerns related to mine closure and monitoring on the site after mine closure
- Acting as co-chair for meetings

Makivik Corporation

- Providing input and recommendations to the review, update and amendment of the Raglan Mine Closure Plan
- Ensuring that Raglan Mine Closure Plan and post-closure programs are as efficient, environmentally sound, and socially adequate as possible
- Ensuring that local environmental laws and regulations are respected and implemented
- Validating that all available technical advances and innovations are being executed to minimize environmental impacts and to restore the land to its original state as much as possible
- Bringing awareness about the Raglan Mine Closure Plan Subcommittee and communicating relevant proceedings and findings to Nunavik Inuit

Raglan Mine (Glencore)

- Ensuring compliance to Québec government regulations and to the Raglan Agreement
- Ensuring a closure plan is submitted on time every 5 years
- Ensuring budgetary approval for Subcommittee meetings and activities
- Managing the logistics of Subcommittee meetings and activities for members and guests (travel, lodging, meal, etc.)
- Acting as co-chair for meetings



TERRE-Net

- TERRE-Net is a network of university researchers working to develop and promote knowledge about the technical and social challenges associated with mine closure and reclamation. TERRE-Net members of the Subcommittee include both social and technical reclamation experts.
- The social reclamation expert on the Subcommittee is responsible for:
- Participating in Subcommittee meetings for at least the life of the TERRE-Net project
- Contributing expertise and input on closure and reclamation policy, especially as it relates to social and community aspects
- Coordinating research activities and communications related to TERRE-Net/Raglan Mine closure
- Supervising TERRE-Net graduate student participation and contributions to the Subcommittee

Technical Expert

The technical reclamation expert on the Subcommittee is responsible for:

- Providing independent technical expertise on the science of mine site reclamation
- Increasing the technical capacity of the Subcommittee members in relation to the reclamation of mine sites
- Monitoring and reporting on technological advancements in the field of mine site reclamation
- Finding relevant references where necessary
- Preparing materials to help better understand the technical aspects of mine reclamation
- Finding experts to explain phenomena related to mine reclamation when the subject is outside their field of expertise

Subcommittee Members

<p>Kangiqsujuaq Representatives</p>	<p>George Pilurтуut Peter Arngak</p>
<p>Salluit Representatives</p>	<p>Barbara Papigatuk (Co-chair) Paul Papigatuk</p>
<p>Makivik Representative</p>	<p>Jean-Marc Séguin</p>
<p>Raglan Mine Representatives</p>	<p>Amélie Rouleau (Co-chair) Guy Dufour Nina Kiatainak (Community Mining Liaison Officer in Salluit) Alasie Arngak (Community Mining Liaison Officer in Kangiqsujuaq)</p>
<p>Technical expert</p>	<p>Dr. Bruno Bussière (Technical reclamation expert)</p>
<p>TERRE-Net Representative</p>	<p>Dr. Arn Keeling (Social reclamation expert)</p>
<p>Subcommittee observers</p>	<p>The Subcommittee can invite observers to assist with technical, administrative and research support. To date, the Subcommittee has invited graduate students, technical advisors, government observers and administrative support to attend meetings and to provide additional research, informational and organizational capacity to further the goals of the committee.</p>

Accomplishments in 2020-2021

Four main objectives have been set for the Raglan Mine Closure Plan Subcommittee. Each objective has a set of actions to be completed by specific Subcommittee members by specified dates. All these actions have been compiled into a working document to track our movements towards each objective. This working document is reviewed in preparation for each meeting. The four key objectives are:

1. Keep the communities well informed
2. Develop the expertise of the Subcommittee
3. Establish clear governance structures for the Subcommittee
4. Review the full Closure Plan for Raglan Mine

Work towards these objectives is highlighted below and summarized in Table 1 (next page). Due to COVID-19 many of the activities that we had planned needed to be altered or cancelled. In particular, community engagement and communication became increasingly difficult as we were not able to hold in-person meetings, participate in community forums or host site tours. Throughout this year, we have relied on the Inuit partner representatives and community liaisons to keep people informed. To assist with communication, we also created 3D models of the Raglan Mine tailings facility. While we continued the review of the Raglan Mine Closure Plan, it was difficult to work through this material in a virtual format. For this reason, we focused much of our effort on developing expertise within the committee and establishing governance structures. Work towards these objectives included: establishing a mine closure and reclamation micro-program, hiring a Closure Plan contractor, discussions with the provincial government about reclamation work at Asbestos Hill (Purtuniq), and further research development with TERRE-Net researchers.

Table 1 : Summary of Raglan Mine Closure Plan Subcommittee Accomplishments in 2020-2021

Key Committee Objectives	Subcommittee Activities 2020-2021					
	3D Model Creation	Reclamation Micro-Program	Selection of a Closure Plan Contractor	Asbestos Hill Updates	TERRE-Net Research	Closure Plan Review
1. Keep the Community Informed	Model of tailings facility and tailings cover sent to communities	Community liaisons to participate in the micro-program and share information with communities		Coordinated meetings with MERN to provide updates to Inuit party representatives regarding Asbestos Hill	Participated in multiple forums, virtual conferences and at an international workshop for Indigenous communities	
2. Develop the Expertise of the Subcommittee		All members of the Closure Plan Subcommittee to participate in the micro-program	Subcommittee members learned about contractors' proposals and the process/expectations for contracting	Draw on experiences at Asbestos Hill to inform decisions for Raglan Mine closure	Two masters' students completed their research and submitted it to the Subcommittee.	
3. Establish Clear Governance Structures			Subcommittee members provided input for contracting decisions		One Mitacs, PhD researcher began work on researching governance structures for mine closure	
4. Review the Full Closure Plan						Continued the review of the current Raglan Mine Closure Plan and provided these comments to the contractor working on the next Closure Plan.

Other Major Accomplishments

Creation of a 3D Model of the Raglan Mine Tailings Facility

Subcommittee members reviewed model options and had models created that represents the Raglan Mine tailings facility and a potential, future tailings cover option. These models have been sent to Salluit (and Kangiqsujuaq in coming months), where it will be made available to the public. This model was created to help community members visualize what the tailings look like now and what they might look like in the future, in order to facilitate discussions about mine closure objectives.



3D models of the Raglan Mine tailings facility

Mine Closure and Reclamation Micro-Program

UQAT (Université du Québec en Abitibi-Témiscamingue) approved this course, and the content/video was developed and finalized by Dr. Bruno Bussière. All the Subcommittee members will be the first to enroll in this course, which began online in fall 2021. This course will ensure that all the Subcommittee members have a strong understanding of the basics of mine closure (in law, regulation, engineering, geology, water treatment, waste management etc.). This course will also be available to community members and leadership.



Hiring a Closure Plan Contractor

The Subcommittee participated in the review process for the Closure Plan contractor. Subcommittee members listened to presentation from three bidders, had the opportunity to ask them questions and then provided the Raglan Mine team with a list of pros and cons for each bidder. This feedback was used to direct the hiring of the contractor who will be completing the next Closure Plan. This contractor also received the list of comments and questions being developed throughout the current Closure Plan review process. For many Subcommittee members, it was meaningful to be included in this hiring process and this represents one of the many avenues for community engagement in mine reclamation planning.

Asbestos Hill Update

The contamination at Asbestos Hill is a major concern for the Inuit parties of the Subcommittee. The legacies at Asbestos Hill shape reclamation discussions for Raglan Mine. Due to this, the committee has had discussions with MERN (Ministère de l'Énergie et des Ressources naturelles) and has encouraged MERN to establish a working group with Inuit communities and governments in order to address this topic going forward. At our October 2020 meeting, the Subcommittee also invited MERN to present their reclamation planning process for abandoned sites. Because of the Inuit parties constant work on the Subcommittee, and Raglan Mine's support of their concern, we have urged the government to take responsibility for this Asbestos reclamation file.

TERRE-Net Research

Two Masters students at Memorial University, Vanessa Potvin and Miranda Monosky finished their research projects and submitted research summaries to the Subcommittee. These research summaries can be found in Appendix B. A list of publications resulting from this research can be found in Appendix C. Caitlynn Beckett, a PhD student at Memorial University, began a MITACS internship with the Closure Plan Subcommittee and is providing support and research for governance structures. See a list of other 2020 presentations and publications in [Appendix C](#).

Priorities for 2022-2023

Finishing the Closure Plan Review

Due to delays in 2019 and the ongoing COVID-19 pandemic in 2020/21, the Subcommittee has been unable to finish their in-depth review of the Closure Plan. This objective is the central priority for 2022. The final deliverable of this review is a complete list of concerns, comments, questions and direction to submit to the contractor who will be developing the next Closure Plan.

Participation in UQAT's First Mine Closure and Reclamation Micro-Program

The Subcommittee members will all complete the first offering of this micro-program, designed by Dr. Bruno Bussière. This will be a valuable tool for expanding the knowledge of the Subcommittee and for providing educational and training opportunities for community members going forward.

Continued TERRE-Net Research

TERRE-Net is committed to continue supporting the Subcommittee's work, to help with communication with communities and other audiences, and to assist the Closure Plan review.

Appendix



APPENDIX A

Summary of Meetings

APRIL 2020

As the COVID-19 pandemic began to impact much of Canada in March 2020, the April 2020 meeting focused on how the Subcommittee would plan for the coming months.

COVID-19 Precautions and Planning

In Québec the mining sector was recognized as an essential service, however all mines were requested to reduce production to the bare minimum and to limit the number of staff on site and traveling between sites. As a result, Raglan Mine went in to care and maintenance in order to set up alternative employment structures, testing systems etc. Plans for the Subcommittee to meet in person were put on hold until July with the hope that COVID-19 circumstances might have changed.

Mine Closure and Reclamation Micro-Program

The micro-program was accepted by UQAT, but because of COVID-19, the start date of the program was delayed. The first two courses will be recorded in the fall 2020, and the program will be delivered in 2021.

TERRE-Net Research

The committee heard an update of research from TERRE-Net students and requested a summary of research completed to date. These students will continue to support the Subcommittee through MITACs internships with Raglan Mine in 2021.

Review of Communication Materials

The Subcommittee completed a review of documents and communications, including: a Fact Sheet, the Draft 2019 Annual Report and a report on 3D site model options.

JULY 2020

This in-person and on-site meeting was cancelled due to the ongoing COVID-19 pandemic and personal commitments of committee members. Instead, we scheduled another virtual meeting for September 2020.

SEPTEMBER 2020

Due to the absence of some Subcommittee members, the Closure Plan review was postponed. Instead, the Subcommittee focused on reviewing communication material and developing internal expertise. To increase the comprehension of the Subcommittee, we are going 'outside of the box' and bringing in resources, experts etc. to help us learn and to assist us in evaluating the Raglan Mine Closure Plan.

Review of Communication Materials

A Mining 101 video was presented to the Subcommittee for review and will be used for broader communication about the mine and the Closure Plan. The Subcommittee also reviewed a presentation on the geology basics of the mine site and provided some feedback for future presentations on this topic.

Developing the Subcommittee's Expertise

Ouranos presented on climate change implications for mining, closure and reclamation throughout Québec. Climate change predictions and implications are particularly important to the Subcommittee since climate change makes future environmental conditions less predictable. The Subcommittee requested more information on the relationship between climate change and mine reclamation specifically.

Asbestos Hill Update

Makivik's representative on the Subcommittee, Jean-Marc Séguin provided an update on the state of reclamation planning at Asbestos Hill, which has largely been paused due to COVID-19. MERN (Ministère de l'Énergie et des Ressources naturelles) has committed to establishing a Steering Committee, involving Inuit communities, to review these types of files and the progression of the Asbestos Hill site reclamation. Jean-Marc is working with them to establish this committee.

TERRE-Net Research

The TERRE-Net team will develop a research communication plan, which will include a variety of methods for getting research results to their intended audiences. This may include short reports, scripts for Raglan Mine videos, radio segments in the communities

OCTOBER 2020

The October 2020 meeting centered on a discussion with MERN about Asbestos Hill and their commitment to creating a working group with Inuit communities regarding abandoned mines in Nunavik.

Asbestos Hill Update

The Subcommittee first presented to MERN about who we are, what we do and what our objectives are. We then invited MERN to present on the status of the reclamation of the Asbestos Hill mine. This presentation included an overview of the steps involved in developing a reclamation plan for abandoned mines and what work has been completed so far. To date, MERN has completed the first 2 phases of reclamation, which include: 1) collecting historical data about the site to eliminate and reduce uncertainties, 2) conducting surveys to develop a more precise picture of the site. MERN is currently discussing the best options for waste rock and tailings covers and is considering how best to approach community engagement given the COVID-19 circumstances.

TERRE-Net Research

TERRE-Net presented research reports for the work completed by Masters students Vanessa Potvin and Miranda Monosky (see Appendix 9 for these research summaries).

DECEMBER 2020

The purpose of this meeting was to hear from three companies about their proposed strategies for updating the Raglan Mine Closure Plan. For the first time in the history of the mine, the Inuit parties were invited to sit on the panel for a contractor evaluation.

Hiring a Closure Plan Contractor

These contractors' presentations included a summary of the company's qualifications and experience and their answers to 2 questions that were pre-determined by the Subcommittee. These two questions pushed the companies to integrate their approaches to technical, socio-economic, community engagement and cultural aspects of mine closure/reclamation. After all three companies had presented and answered the Subcommittee's questions, the Subcommittee members provided a list of pros and cons to the Raglan Mine team. This feedback was used, in combination with other factors, to make the final hiring decision.

FEBRUARY 2021

This meeting focused on TERRE-Net research planning and updates. We also discussed our plan for 2021 and mapped out how we would continue working on the 2018 Closure Plan Review virtually. We also discussed participation in an international workshop on Mine Closure and Indigenous Communities through the University of Queensland, Australia.

TERRE-Net Research

Caitlynn presented her plan for her MITACs internship, which included developing a package of transition materials for new subcommittee members, producing the 2020-2021 bi-annual report, researching governance structures, and laying the groundwork for future terminology/community workshops.

MARCH 2021

This meeting focused on discussions about presenting at the University of Queensland Mine Closure and Indigenous Communities forum and the Nunavik Mining Workshop. In addition, a draft of the transitional material for new members was reviewed.

Developing the Subcommittee's Expertise

The Raglan Mine Closure Plan Subcommittee was invited to participate in the University of Queensland Mine Closure and Indigenous Communities forum and discussed putting together material to support participation in this fall 2021 forum. It was also decided that the subcommittee (as a group) would not participate in the Nunavik Mining Workshop in April 2021, but that Miranda would still present her Masters' research. Her presentation material was reviewed via email.

APRIL 2021

The Subcommittee reviewed general updates on the following projects: the mine closure and reclamation micro-program; the University of Queensland workshop; the Nunavik Mining Workshop. It was also decided that a meeting every 4 weeks was too onerous and was switched to a 6-week schedule. We then continued the group review of the 2018 Closure Plan.

MAY 2021

The Subcommittee reviewed a draft of a 2020 annual report. We also discussed mechanisms to communicate our work to the public, given the challenges of COVID-19. We agreed that all information in annual reports could and should be actively shared with the public (communities, academia, industry, regional governmental organizations etc.). We identified the need to create an internal communication/review protocol. We then continued the group review of the 2018 Closure Plan.

AUGUST 2021

This meeting focused on communication materials and a review of material for our 2020-2021 bi-annual report. We also continued our group review of the 2018 Closure Plan.

TERRE-Net Research

Arn circulated a draft summary of Vanessa Potvin's Master's paper. Miranda Monosky sent a summary report of her second Master's chapter to the Subcommittee for review. We discussed how to share this information with community members in Salluit and Kangiqsujaq.

Review of Communication Materials

Arn provided an update on his team's participation in the Canadian Institute of Mining (CIM) Symposium in June 2021. Arn also provided an update on preparations for the Subcommittee's participation in the University of Queensland Mine Closure and Indigenous Communities forum. We then discussed participation in Makivik's March 2022 Annual General Meeting and Kativik Environmental Advisory Committee's (KEAC) Annual General Meeting in September 2021, in order to present our work and achievements. Jean-Marc and George were nominated to present at the KEAC meeting.

SEPTEMBER 2021

While we had planned to have an in-person meeting in September and/or November, given the ongoing COVID-19 circumstances in Nunavik, this was not possible. Three Subcommittee members were unable to attend, so it was decided to postpone the review of the 2019 Closure Plan and to focus on other Subcommittee updates. We completed the review of content for the 2020-2021 bi-annual report and materials for participation in the Québec Mines Forum (Nov 22-25, 2021) and the University of Queensland Mine Closure and Indigenous Communities forum (Nov 2-3, 2021). We began planning for 2022 scheduling and priorities.



APPENDIX B

Research Summaries

Planning for Social Mine Closure: Common Strategies and Best Practices In Northern Canada

KEY MESSAGES

Background

Mine closure can have pronounced environmental, social and economic impacts on a nearby community. However, the environmental aspects of closure receive greater focus from regulators and mine operators. Social mine closure aims to incorporate social and economic goals into closure planning, contribute to the diversification of community and regional economies, and allow communities to be directly involved in the closure planning process so they can make decisions based on their own knowledge about their community's strengths, needs, and priorities.

Methods

An analysis of 10 mine closure plans from across northern Canada was undertaken to understand whether these documents are addressing the socio-economic aspects of closure and incorporating community knowledge into the Closure Plan.

Key Findings

- Most closure plans have unclear explanations of their community engagement methods;
- The use of community knowledge in closure planning is limited and inconsistent;
- Most closure plans only acknowledge the physical, environmental aspects of closure while neglecting any social or economic impacts;
- There are no examples that effectively present plans for mitigating negative socio-economic impacts;
- Closure plans from the Northwest Territories are more likely to incorporate community knowledge throughout the entire Closure Plan.

Important Questions to Consider in Closure Planning

Explanation of Community Engagement Methods

- Does the Closure Plan clearly explain how communities are being engaged with?
- Are there clear explanations of engagement activities related specifically to closure (as opposed to mine operations broadly)?
- Does the Closure Plan explain what the outcomes of community engagement activities are (as opposed to simply listing the dates when engagement occurred)?

Incorporation of Community Knowledge

- Does the Closure Plan clearly indicate where community knowledge is being applied in the document?
- Is community knowledge only present in a few sections of the Closure Plan (i.e. only in “community engagement” or “wildlife” sections), or is it present throughout the entire Closure Plan and used in many different aspects of closure?
- Are closure objectives and goals taken only from government regulations, or have they been co-developed with affected communities?

Acknowledging a Wide Scope of Socio-Economic Issues

- Does the Closure Plan acknowledge a wide range of possible impacts?
- Are the possible impacts related specifically to closure (as opposed to the construction/operations phases)?

Planning for the Mitigation of Negative Socio-Economic Impacts

- Does the Closure Plan use clear, well-defined language with regard to mitigating negative socio-economic impacts, or is the language easily interpreted in multiple ways?
- Does the Closure Plan include specific mitigation plans for the unique impacts of closure (as opposed to suggesting that benefits from operations offset the negative impacts of closure)?
- Are the mitigation strategies measurable, and is it clear when and how monitoring will happen?

Recommendations for Regulators

- Policies and guidelines should have clear requirements for community engagement and socio-economic planning for the closure phase of the mine's life specifically;
- Governments should provide clear and numerous examples of the possible socio-economic impacts that proponents must address in their closure plans;
- Governments should develop a clear framework for community engagement in closure planning specifically;
- There should be greater follow-up between impact assessments and the closure of a mine site, the impact assessment should not be the only structured venue for community consultation related to mine closure.

While not necessarily a policy recommendation, closure planning in general would benefit from communities having greater access to information about closure and remediation, what it entails, and the ways that communities elsewhere have been impacted. When communities are equipped with adequate knowledge about the realities of closure, they are better prepared to negotiate a closure plan that meets their current and future needs.

For More Information

For access to the full Master's thesis, as well as the following papers produced from this research:

Memorial University's library: <https://research.library.mun.ca/15031/>

Monosky, M. & Keeling, A. (2021). *Planning for Social and Community-Engaged Closure: A Comparison of Mine Closure Plans From Canada's Territorial and Provincial North*. *Journal of Environmental Management*, 277 (1).

Monosky, M. & Keeling, A. (2021). *Social Considerations in Mine Closure: Exploring Policy and Practice in Nunavik, Quebec*. *Northern Review*, 52(1), 29-60

Beckett, C., Dowdell, E., Monosky, M., & Keeling, A. (2020). *Integrating Socio-Economic Objectives for Mine Closure and Remediation Into Impact Assessment in Canada*. Report for the SSHRC Knowledge Synthesis Grant: Informing Best Practices in Environmental Impact Assessment.

Improving Reclamation Strategies Through

Community Based Research at the Raglan Mine, Nunavik

KEY MESSAGES

Background Information

Mine closure is one of the greatest sustainable development challenges that exists in the mining industry resulting in a spectrum of social impacts. This varies from mass loss of employment - one of the most serious and long-lasting consequences - weakened social structures, health impacts leading to depression and hopelessness, and damage to community cohesiveness. Research that considers these impacts of mine closure remains underdeveloped and underemphasized, focusing primarily on the environmental side. A new approach to mine closure planning is being explored at the Glencore Raglan Mine, located in Nunavik. It involves the collaboration of industry and Inuit knowledge to mitigate negative environmental, social and economic impacts to bring about a positive experience for the communities.

Methods

In order to accomplish this collaboration, community members of Salluit and Kangiqsujaq were interviewed in June 2018 in order to voice what their concerns are for the future closure of the mine in 2041. Interviews were organized with the help of the community liaison officer for a total of 15 interviews. Participants were previous mine workers at Asbestos Hill, Raglan Mine or both. Community members who were also interested or had an opinion about the mining operations were also interviewed.

Key Findings

- The Salluit and Kangiqsujaq communities have limited knowledge of the mine closure process and require future engagement and communication with the Raglan Mine Closure Plan Subcommittee.
- The Salluit and Kangiqsujaq communities welcome future consultation and engagement from the Raglan Mine employees, where both parties perspectives are considered and respected.

- Key priorities and issues expressed by interviewees included:

Infrastructure

- keep the infrastructure to build a new facility (detention centre, hospital, etc.)
- take useable parts to help build cabins so that buildings are not abandoned
- maintain all transportation infrastructure

Environmental Impacts

- educate communities on what tailings is, and together develop a plan for the long-term monitoring and maintenance of the tailings

Company-Community Relations

- the communities should continue to be engaged with and consulted for decisions about closure
- community members all agreed that Inuit should be actively involved in the closure process

Socio-Economic Impacts

- continue to train Inuit so that they can be involved in the current operations at the mine, and the future closure

The information provided should assist in updating the current Closure Plan to include a social component.

Recommendations

These findings suggest the importance of creating a socially acceptable closure plan for Raglan Mine, by engaging the communities of Salluit and Kangiqsujuaq as well as including social components in future closure plans. This includes frequent community engagement to inform and educate community members about closure planning. Once this knowledge is shared, community members will be better prepared to contribute to a closure plan that addresses their needs and attends to their values.

For More Information

For access to the full Master's thesis produced from this research:

Memorial University's library: <https://research.library.mun.ca/15156/>

APPENDIX C

Presentation and Publication Reference List

Beckett, C. (2020). *Remediating and Caring for the Legacies of Extractivism in Northern Canada*. Conference Presentation, NSERC TERRE-Net Annual Meeting, Dec. 8-9, 2020.

Monosky, M. (2020). *Planning for social mine closure: a report on common strategies and best practices in Northern Canada*. Master's thesis report prepared for the Raglan Mine Closure Subcommittee.

Monosky, M. and Keeling, A. (2021). *Planning for social and community engaged closure: a comparison of mine closure plans from Canada's territorial and provincial North*. *Journal of Environmental Management* 277: 111324.

Keeling, Arn, Beckett, Caitlynn and Monosky, Miranda (2021). *Social Closure: Best Practices for Integrating Socio-Economic Dimensions of Mine Closure and Remediation*. Canadian Institute of Mining (CIM) Symposium, Jun. 14-16, 2021.

Beckett, C. (2021). *Remediating and Caring for the Legacies of Extractivism in Northern Canada*. Conference Presentation, NSERC TERRE-Net Annual Meeting, Jun. 8-10, 2021.

Séguin, Jean-Marc (2021). *Kativik Environmental Advisory Committee's (KEAC)*. Annual General Meeting, Sep. 30, 2021.

Bussière, Bruno, Dufour Guy, and Séguin, Jean-Marc (2021). *Raglan Mine Closure Plan Subcommittee*. Presentation at the "30 Years of Mine Site Reclamation: A Clear Look at the Past" session, Quebec Mines + Énergie Conference, Nov. 23, 2021.

Seguin, Jean-Marc (2021). *The Raglan Mine Closure Subcommittee*. Presentation at the virtual Indigenous Knowledge Exchange Forum, hosted through the University of Queensland Sustainable Minerals Institute, Nov. 2-3, 2021.

Monosky, Miranda and Keeling, Arn (2021). *Social considerations in mine closure: Exploring policy and practice in Nunavik, Québec*. *The Northern Review* 52, forthcoming.

Monosky, M. & Keeling, A. (2021). *Social considerations in mine closure: Exploring policy and practice in Nunavik, Quebec*. *Northern Review*, 52(1), 29-60.

