



Crown-Indigenous Relations  
and Northern Affairs Canada

Relations Couronne-Autochton  
et Affaires du Nord Canada

# GIANT MINE REMEDICATION PROJECT

ANNUAL  
REPORT  
2024-25

2025

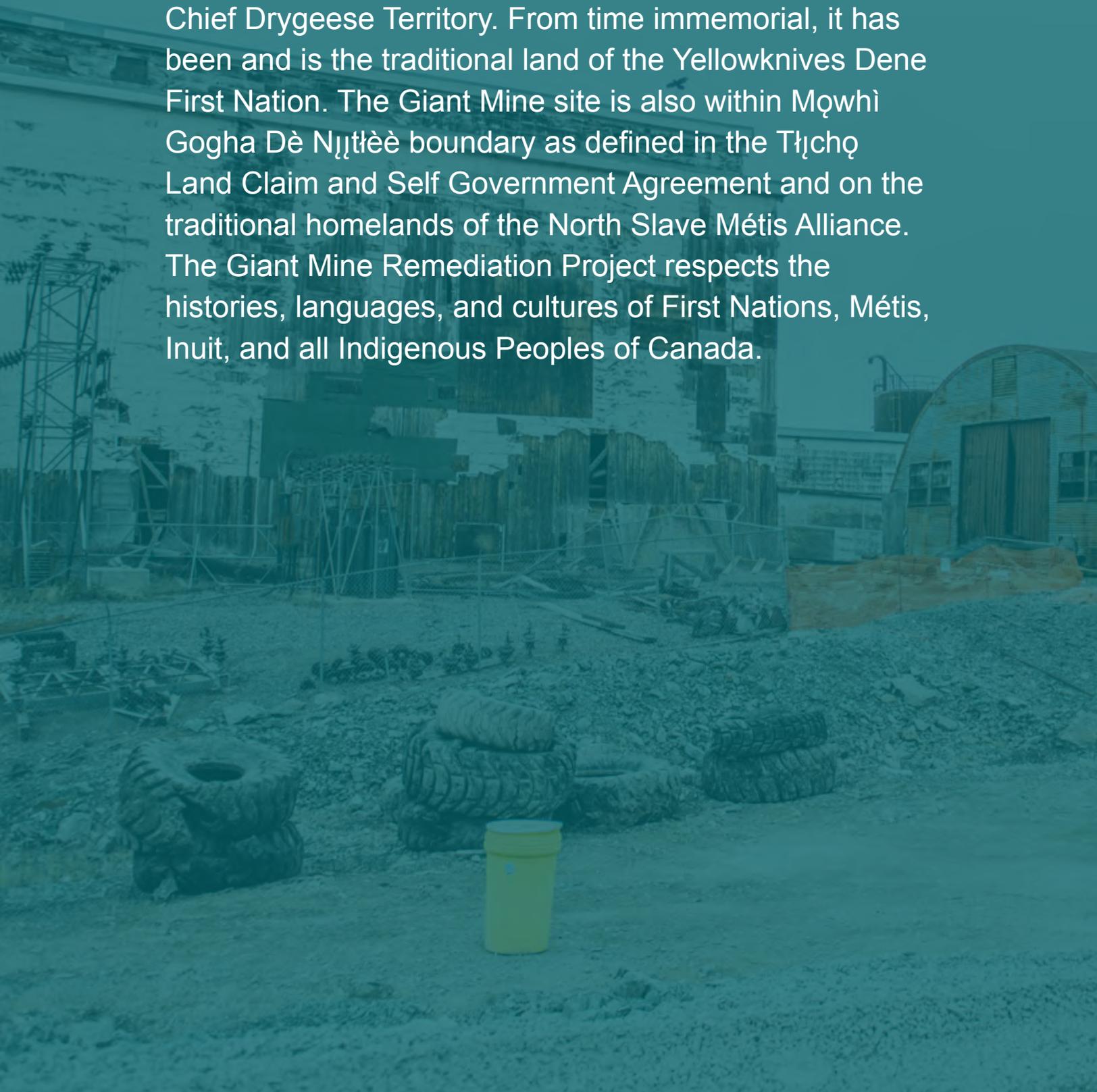


Government of  
Northwest Territories  
Gouvernement des  
Territoires du Nord-Ouest

Canada 

# LAND ACKNOWLEDGEMENT

We acknowledge that the Giant Mine site is located in Chief Drygeese Territory. From time immemorial, it has been and is the traditional land of the Yellowknives Dene First Nation. The Giant Mine site is also within Mqwhì Gogha Dè Njłtłèè boundary as defined in the Tłıchq Land Claim and Self Government Agreement and on the traditional homelands of the North Slave Métis Alliance. The Giant Mine Remediation Project respects the histories, languages, and cultures of First Nations, Métis, Inuit, and all Indigenous Peoples of Canada.



# ABOUT THIS REPORT

Welcome to the tenth Annual Report of the Giant Mine Remediation Project (GMRP). The report provides an overview of the GMRP's key activities and performance for the **2024-25** reporting year<sup>1</sup>, focusing on environmental management, health and safety, and community involvement. The report's purpose is to verify that:

- defined project objectives are being met;
- the GMRP meets the requirements of the Environmental Agreement; and
- interested Rights holders and stakeholders, members of nearby communities, and the broader public have accurate and timely information on the GMRP.

The report is provided to the Giant Mine Oversight Board (GMOB), the independent oversight body established through the Environmental Agreement, which is then responsible for posting on their website (for additional information, see [Environmental Agreement](#) – Report Alignment (Appendix A)).

The report's content is largely shaped by the Environmental Agreement signed in June 2015, as well as GMOB's feedback on previous reports and input from the GMRP team. The report aligns with the GMRP reporting obligations in the Environmental Agreement.

For additional information on the GMRP, please visit: [giant.gc.ca](http://giant.gc.ca).

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<sup>1</sup>April 1, 2024 – March 31, 2025

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# MESSAGE FROM THE ASSISTANT DEPUTY MINISTER

## ADM, Northern Affairs Organization



It is my pleasure to present the 10th Annual Report of the Giant Mine Remediation Project on behalf of the Giant Mine Remediation Project team, to the Giant Mine Oversight Board, in accordance with the requirements of the

Environmental Agreement. This milestone

marks not only a decade of transparent reporting but also a continued commitment to accountability, collaboration, and progress on this complex and historic remediation effort.

Over the past year, the Project achieved several significant milestones:

- Signing of an Economic Benefits Agreement with the Tłı̨chǫ Government;
- Completion of underground stabilization work and formal closure of the underground;
- Advancement of the new water treatment plant and substantial completion of the outfall pipeline construction;
- Progress in advancing the detailed design of key work packages, including the B1 Pit remediation and AR-1 thermosyphons, the earthworks remediation package, Baker Creek remediation, and on-site borrow production.

The socio-economic benefits of the Project continue to be a key focus. In the last year, we have seen strong participation by northern and Indigenous-owned businesses, as well as important opportunities for training and capacity-building that support long-term prosperity in the region. These outcomes reflect our commitment to ensuring that the remediation of Giant Mine contributes not only to environmental safety but also to local economic resilience.

We recognize that the Giant Mine story is deeply connected to the lived experiences of the Yellowknives Dene First Nation, the North Slave Métis Alliance, and the residents of Yellowknife. As such, we remain firmly committed to advancing reconciliation through this project. This means listening to community voices, incorporating traditional knowledge, and creating meaningful opportunities for Indigenous participation at all stages of the remediation process.

Looking ahead, our success will continue to depend on strong partnerships. I wish to acknowledge the Indigenous governments and organizations, the Giant Mine Oversight Board, and all project partners for their essential role. Together, we are making steady progress toward a safer, more sustainable future for the site and surrounding communities.

### **Georgina Lloyd**

*Assistant Deputy Minister – Northern Affairs Organization  
Crown-Indigenous Relations and Northern Affairs Canada*





# ACRONYMS

<b>ADM</b>	Assistant Deputy Minister
<b>AEMP</b>	Aquatic Effects Monitoring Program
<b>CIRNAC</b>	Crown-Indigenous Relations and Northern Affairs Canada
<b>DFO</b>	Department of Fisheries and Oceans Canada
<b>DM</b>	Deputy Minister
<b>ECCC</b>	Environment and Climate Change Canada
<b>EEM</b>	Environmental Effects Monitoring
<b>ENR</b>	Environment and Natural Resources
<b>ETP</b>	Effluent Treatment Plant
<b>FOS</b>	Freeze Optimization Study
<b>FTA</b>	Foreshore Tailings Area
<b>FTE</b>	Full-time equivalency
<b>GHG</b>	Greenhouse Gas
<b>GMOB</b>	Giant Mine Oversight Board
<b>GMRP</b>	Giant Mine Remediation Project
<b>GNWT</b>	Government of the Northwest Territories
<b>HHERA</b>	Human Health Ecological Risk Assessment
<b>IOC</b>	Indigenous Opportunities Considerations
<b>KPI</b>	Key Performance Indicator
<b>LKDFN</b>	Łutsel K'e Dene First Nation
<b>MCM</b>	Main Construction Manager
<b>MDMER</b>	Metal and Diamond Mining Effluent Regulations

<b>MVLWB</b>	Mackenzie Valley Land and Water Board
<b>NAO</b>	Northern Affairs Organization
<b>NCSP</b>	Northern Contaminated Sites Program
<b>NSMA</b>	North Slave Métis Alliance
<b>NWT</b>	Northwest Territory
<b>OMS</b>	Operations, Maintenance and Surveillance Manual
<b>PCP</b>	Perpetual Care Plan
<b>PFA</b>	Procurement Framework Agreement
<b>PM</b>	Particulate Matter
<b>PSIB</b>	Procurement Strategy for Indigenous Business
<b>PSPC</b>	Public Services and Procurement Canada
<b>QA/QC</b>	Quality Assurance and Quality Control
<b>RD CS</b>	Regional Director for Contaminated Sites
<b>RDG</b>	Regional Director General
<b>SEAB</b>	Socio-Economic Advisory Body
<b>SEWG</b>	Socio-Economic Working Group
<b>SNP</b>	Surveillance Network Program
<b>TCA</b>	Tailing Containment Area
<b>TK</b>	Traditional Knowledge
<b>TSS</b>	Total Suspended Solids
<b>WTP</b>	Water Treatment Plant
<b>YKDFN</b>	Yellowknives Dene First Nation

# SUMMARY OF PROGRESS In 2024-25 & PLANS FOR 2025-26

The table below summarizes key activities planned for **2024-25** (as identified in the 2023-24 Annual Report), provides a brief description of progress made, and identifies activities planned for 2025-26. This summary enables readers to see at a high level whether the GMRP team achieved what it planned.

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Advancement of Remediation [Section 3]</b>			
<b>Tailings [Section 3.1]</b>			
<b>Tailings Containment Areas (TCAs) (Northwest, North, Central and South Ponds, Settling and Polishing Ponds)</b>	Continue to develop the Earthworks remediation work package (which includes the Northwest, North, Central, and South Pond TCAs).  Continue use of settling and polishing ponds as part of Effluent Treatment Plant (ETP) Operation.	Refined designs for the Northwest, North, Central, and South Pond TCAs.  Continued developing detailed designs for the closure of the Settling and Polishing Ponds.  Continued use of settling and polishing ponds as part of ETP Operations.	Progress detailed designs for Northwest, North, Central, and South Pond TCAs.  Complete detailed designs for the closure of the Settling and Polishing Ponds as part of the Tailing Containment Areas detailed design work.
<b>Foreshore Tailings Area</b>	Begin detailed design for Foreshore Tailings Area remediation.	Delayed detailed design of Foreshore Tailings Area to 2025-26.	Begin detailed design for the Foreshore Tailings Area cover.
<b>Dams</b>	Progress reclamation activities at the TCAs.	Progressed reclamation activities, including removal of decant towers, borehole backfilling, and dam displacement monitoring.	Continue to develop designs for dam rehabilitation as part of Earthworks work package.  Ongoing dam monitoring and maintenance (under Care and Maintenance).
<b>Nearshore Cover</b>	Begin detailed design for nearshore sediments remediation.	Delayed detailed design of nearshore sediment area to the following year (2025/26).	Begin detailed design for remediation of the nearshore sediment area.
<b>Boat Launch</b>	No remediation activity planned.	Delayed detailed design of public boat launches to 2025-26.	Begin detailed design for the public boat launches.

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Advancement of Remediation [Section 3]</b>			
<b>Water Treatment Plant (WTP) and Outfall Systems [Section 3.2]</b>			
<b>WTP</b>	Continue WTP construction throughout the entirety of 2024-25.	Continued construction as planned. Completed building erection and enclosure in March 2025.	Continue WTP construction throughout the entirety of 2025-26.
<b>Outfall</b>	Complete the construction of the outfall.	Substantially completed the construction of the outfall.	Complete outfall remediation works and construction.
<b>Borrow Materials [Section 3.3]</b>			
<b>Quarries and Fine-Grained Soils Borrow</b>	<p>Advance quarry detailed designs.</p> <p>Gain approval for the Borrow Design Plan from the Mackenzie Valley Land and Water Board (MVLWB).</p> <p>Apply for a quarry permit.</p>	<p>Advanced quarry detailed designs.</p> <p>Received approval of the Borrow Design Plan from the MVLWB.</p> <p>Submitted application for a site-wide quarry permit.</p>	<p>Complete the detailed designs for quarries. Tender the work package and award the contract for the development of quarries.</p> <p>Issuance of site-wide quarry permit.</p>
<b>Site Infrastructure Construction and Demolition [Section 3.4]</b>			
<b>Site Infrastructure: General</b>	Submit Part 2 of the Site Infrastructure Design Plan in 2025.	Delayed submission of the Site Infrastructure Design Plan to 2026-27 to further advance detailed design of final site infrastructure.	Continue drafting Part 2 of the Site Infrastructure Design Plan.
<b>Freeze Optimization Study (FOS) Decommissioning</b>	Remove Dynalene antifreeze from the FOS infrastructure.	Removed remaining Dynalene from FOS infrastructure.	Advance detailed design of FOS infrastructure decommissioning (within AR1 Thermosyphon detailed design), with contract award anticipated in 2026.
<b>Building Demolition</b>	Continue detailed design for the demolition of buildings outside the townsite and Core Industrial Area.	<p>Procured subcontractor for demolition of buildings in the Core Industrial Area, Tailings Reprocessing Plant, and other high priority zones.</p> <p>Continued detailed design for remaining building demolitions.</p>	<p>Begin demolition of buildings in the Core Industrial Area.</p> <p>Complete detailed design for remaining building demolitions.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Advancement of Remediation [Section 3]</b>			
<b>Site Infrastructure Construction and Demolition [Section 3.4]</b>			
<b>Road Network and Bridges</b>	<p>Advance detailed design of road network under several different work packages.</p> <p>Continue ongoing upgrades to road network.</p>	<p>Advanced detailed design of road network under several different work packages.</p> <p>Continued ongoing upgrades to road network.</p>	<p>Continue detailed designs of roads and bridges.</p> <p>Upgrade Highway #4 intersections along the Giant Mine Remediation Project (GMRP) to include turning lanes.</p> <p>Upgrade Main Site Access Roadway close to Hwy 4.</p>
<b>Debris and Waste Storage Removal</b>	<p>Complete the removal of legacy debris piles in the fall of 2024.</p>	<p>Completed the removal of legacy debris piles in the fall of 2024.</p>	<p>No further work planned.</p>
<b>Utilities (including Power Line and communication infrastructure)</b>	<p>Complete Phase 1 of powerline implementation and begin detailed design of Phase 2.</p> <p>Progress communication infrastructure installation.</p>	<p>Substantially completed Phase 1 powerline implementation. Advanced detailed design for Phase 2.</p> <p>Progressed communication infrastructure installation.</p>	<p>Complete remainder of Phase 1 powerline implementation and complete design for Phase 2.</p> <p>Progress communication infrastructure installation.</p>
<b>Open Pits [Section 3.5]</b>			
<b>Pit Backfill</b>	<p>Complete the analysis of the C1 Pit fill location to inform detailed design for C1 Pit.</p> <p>Progress detailed design for the closure of pits.</p>	<p>Completed the analysis of the C1 Pit fill.</p> <p>Progressed detailed design for the closure of Pits, ongoing as part of the Earthworks and B1 Pit work packages.</p> <p>Received approval of the Open Pits Design Plan in January 2025 from the MVLWB.</p>	<p>Continue detailed design in various work packages.</p>
<b>Contaminated Soils and Sediment [Section 3.6]</b>			
<b>Excavation of Soils</b>	<p>Continue detailed design for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill.</p> <p>Submit the Contaminated Soils and Sediment Design Plan to the MVLWB.</p>	<p>Continued detailed design for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill.</p> <p>Delayed submission of the Contaminated Soils and Sediment Design Plan to 2025-26.</p> <p>Progressed detailed design for excavation of contaminated soils, under the Earthworks package.</p>	<p>Complete detailed design for highly arsenic-contaminated soil excavation, soil washing, and Chamber 15 backfill.</p> <p>Procure subcontractor for implementation for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill.</p> <p>Submit the Contaminated Soils and Sediment Design Plan to the MVLWB.</p> <p>Continue development of detailed design for excavation of contaminated soils for other areas of site under the Earthworks package.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Advancement of Remediation [Section 3]</b>			
<b>Baker Creek and Surface Water Drainage [Section 3.7]</b>			
<b>Baker Creek</b>	Continue development of Detailed Design for Reaches 4-6.	Continued development of detailed design for Reaches 4-6.	Continue development of detailed design for Reaches 0-2, 3, and 4-6.  Submit the Baker Creek Design Plan to the MVLWB in 2025-26.
<b>Wetland Treatment System (Reclamation Research Plan)</b>	Include a summary of Wetland Treatment System Reclamation and Research Memo as an appendix to the Baker Creek Design Plan to the MVLWB in 2024-25.	Engaged with the Working Group on the results of the Wetland Reclamation Research Plan in October 2024. Delayed submission of the Baker Creek Design Plan to 2025-26.	Submit the Baker Creek Design Plan with results of the Reclamation Research Plan to the MVLWB in 2025-26.
<b>Trapper Creek</b>	Conduct scour protection analysis on a portion of Trapper Creek.	Completed the scour protection analysis.	Integrate Trapper Creek Scour Protection Design into Baker Creek Reaches 4-6 Detailed Design.  Submit the Baker Creek Design Plan to the MVLWB in 2025-26.
<b>Surface Water Drainage and Fish Barriers</b>	Continue detailed design of drainages and fish barriers adjacent to Baker Creek.	Continued detailed design of drainages and fish barriers adjacent to Baker Creek.	Continue detailed design of drainages and fish barriers adjacent to Baker Creek.
<b>Freeze Program [Section 3.8]</b>			
<b>Design and Construction of Freeze Containment</b>	Continue detailed design for B1 Pit.	Continued B1 Pit detailed design, which includes the placement of arsenic impacted waste into a future frozen zone.	Continue with detailed design of B1 Pit.
<b>AR 1-4 Freeze Pad Construction</b>	No activities planned.	Included portions of AR-3 and AR-4 in B1 Pit detailed design.	Continue detailed design of AR-3 and AR-4 as part of B1 Pit design.
<b>AR 1-4 Thermosyphon Installation</b>	Progress detailed design for the thermosyphons installation for AR1.	Continued to progress AR-1 thermosyphon installation detailed design.	Complete AR1-thermosyphon installation detailed designs and begin procurement.

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Advancement of Remediation [Section 3]</b>			
<b>Underground Mine Workings [Section 3.9]</b>			
<b>Underground Stabilization</b>	<p>Melt ice within the A2 sublevels and in the A2 stopes in preparation for remainder works mine stabilization.</p> <p>Complete underground backfilling (both the carryover from 2023-24 and the planned 2024-25 volumes) in 2024-25.</p>	<p>Completed the required ice melting in A2 in support of preparation for remainder works mine stabilization. Completed underground backfilling as part of stabilization of the underground.</p>	<p>Submit As-built report for underground stabilization to the MVLWB.</p> <p>Begin installation of additional monitoring equipment (such as extensometers and surface monuments) to monitor the stability of the crown pillar from surface.</p>
<b>Closure of Openings to Surface</b>	<p>Implement the closure of four openings to surface.</p> <p>Progress detailed design for the closure of other openings to surface.</p>	<p>Postponed the closure of the four planned opening to 2025-26. Closed one additional opening. Progressed detailed design of other openings to surface.</p>	<p>Close four openings to surface in high priority areas.</p> <p>Complete detailed designs for closure of remaining openings.</p>
<b>Underground Care and Maintenance</b>	<p>Close off ramp accesses to the underground mine upon completion of paste backfilling and hazardous material removal.</p> <p>Decommission B Shaft mine air heating plant upon exiting the mine.</p>	<p>Completed regular maintenance, completed the A2 Power Project and other clean up activities.</p> <p>Exited and closed the underground portion of the mine in November 2024, after completing required closure activities.</p>	<p>Scope complete, no activities planned.</p>
<b>Long-term Portal</b>	<p>Progress design and procurement plans for the Long-term Portal.</p>	<p>Progressed design and procurement plans for the Long-term Portal.</p>	<p>Confirm the scope and schedule for the Long-term Portal through engagement with Rights holders and stakeholders.</p> <p>Finalise design and procurement plans.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Operations [Section 4]</b>			
<p><b>Care and Maintenance General</b></p>	<p>Continue care and maintenance in accordance with contract, regulatory requirements (e.g., Water Licence conditions), and site conditions, including:</p> <ul style="list-style-type: none"> <li>• Air quality monitoring, dust management</li> <li>• Spring freshet preparation</li> <li>• Site security</li> <li>• Road/infrastructure maintenance</li> <li>• Ongoing effluent treatment</li> </ul> <p>Install stench warning system at A2. Extend into A2 ramp system. Conduct surveying activities.</p>	<p>Continued care and maintenance in accordance with contract, regulatory requirements (e.g., Water Licence conditions), and site conditions, including:</p> <ul style="list-style-type: none"> <li>• Air quality monitoring, dust management</li> <li>• Spring freshet preparation</li> <li>• Site security</li> <li>• Road/ infrastructure maintenance</li> <li>• Ongoing effluent treatment</li> </ul> <p>Installed stench warning system at A2. Extended into A2 ramp system. Conducted surveying activities.</p>	<p>Continue care and maintenance in accordance with contract, regulatory requirements (e.g., Water Licence conditions), and site conditions, including:</p> <ul style="list-style-type: none"> <li>• Air quality monitoring, dust management</li> <li>• Spring freshet preparation</li> <li>• Site security</li> <li>• Road/ infrastructure maintenance</li> <li>• Ongoing effluent treatment</li> <li>• Surveying activities</li> </ul>
<p><b>Annual Geotechnical Inspection Report</b></p>	<p>Conduct the 2024 annual Geotechnical Inspection (dams) and submit the report to the MVLWB.</p>	<p>Completed the 2024 annual Geotechnical Inspection (dams) and submitted the report to the MVLWB. Progressed completion of recommendations raised in the Inspection.</p>	<p>Conduct the 2025 Annual Geotechnical Inspection (dams) and submit the report to the MVLWB. Complete recommendations from 2024-25 inspection. Address recommendations raised in the 2025-26 Inspection.</p>
<p><b>Dam Safety Review</b></p>	<p>Conduct the 2024 Dam Safety Review for 10 dams on Site.</p>	<p>Completed the 2024 Dam Safety Review Report.</p>	<p>Submit the 2024 Dam Safety Review Report to the MVLWB. No Dam Safety Review is planned for 2025-26.</p>
<p><b>Dam Monitoring</b></p>	<p>Continue work by the surface care and maintenance contractor to maintain dams in accordance with Operations, Maintenance and Surveillance Manual (OMS). Continue ongoing monitoring of all dams on site in accordance with the OMS.</p>	<p>Continued and completed work by the surface care and maintenance contractor (as and when required) to maintain dams in accordance with OMS. Continued and completed ongoing monitoring of all dams on site in accordance with the OMS.</p>	<p>Continue work by the surface care and maintenance contractor to maintain dams in accordance with OMS. Continue ongoing monitoring of all dams on site in accordance with the OMS.</p>
<p><b>Inspections and Audits in 2024-25</b></p>	<p>Complete ongoing internal inspections and address findings of internal and external audits and inspections.</p>	<p>Carried out 1,134 internal inspections and 2 external inspections by the CIRNAC Land Use Inspector. No concerns were identified by the Land Use Inspector.</p>	<p>Complete ongoing internal inspections and address findings of internal and external audits and inspections.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Environment [Section 5]</b>			
<b>Air [Section 5.1]</b>			
<b>Air Quality Monitoring</b>	Continue air quality monitoring, as outlined in the Air Quality Monitoring Plan.	Carried out air quality monitoring, as outlined in the Air Quality Monitoring Plan. A summary of activities and monitoring results is available in the Annual Water Licence Report.	Continue air quality monitoring, as outlined in the Air Quality Monitoring Plan.
<b>Dust Management</b>	Continue ongoing dust management for TCAs, road network, and active work areas, as per the approved Dust Management and Monitoring Plan.	Carried out dust management for TCAs, road network, and active work areas, as per the approved Dust Management and Monitoring Plan. A summary of activities and monitoring results is available in the Annual Water Licence Report.	Continue ongoing dust management for TCAs, road network, and active work areas, as per the approved Dust Management and Monitoring Plan.
<b>Water [Section 5.2]</b>			
<b>Effluent, Surface Water and Groundwater Quality Monitoring</b>	Continue implementing the Water Management and Monitoring Plan to ensure protection of water quality in the receiving environment by managing surface water, groundwater, and underground minewater.	Carried out water management activities on site and operated the ETP to treat underground minewater prior to discharge to Baker Creek.	Prepare for commissioning and operational transition to the new WTP (anticipated in 2026).  Continue regulatory and operational water monitoring as applicable.
<b>Metal and Diamond Mining Effluent Regulations (MDMER)/ Environmental Effects Monitoring (EEM)</b>	Complete ongoing water quality monitoring according to MDMER and EEM requirements.	Completed ongoing water quality monitoring. Became a Recognized Closed Mine under the MDMER in October 2024.	Remove MDMER-related requirements from future versions of the Water Management and Monitoring Plan (Version 6.0) and Aquatic Effects Monitoring Program (AEMP) Design Plan (Version 3.0)

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Environment [Section 5]</b>			
<b>Water [Section 5.2]</b>			
<b>AEMP</b>	Continue monitoring in accordance with the AEMP Design Plan. Submit the AEMP Re-evaluation and Yellowknife Bay Baseline Report in summer/fall 2024. Submit the AEMP Design Plan focussed on Yellowknife Bay to the MVLWB.	Submitted the AEMP Re-evaluation Report, which was approved by the MVLWB. Submitted the Aquatic Effects Baseline Report for Yellowknife Bay as an appendix to the AEMP Re-evaluation Report.  Completed ongoing monitoring in accordance with the AEMP Design Plan.	Continue AEMP monitoring in Baker Creek under the currently approved AEMP Design Plan Version 2.3.  Carry out engagement with Rights holders and stakeholders prior to submission of the updated AEMP Design Plan to the MVLWB.  Submit an updated AEMP Design Plan to the MVLWB.  Prepare for transition of AEMP monitoring from Baker Creek to Yellowknife Bay, aligned with the expected WTP commissioning in 2026 (subject to construction timelines).
<b>Fisheries Act Authorization</b>	Coordinate with Fisheries and Oceans Canada (DFO) under the anticipated <i>Fisheries Act</i> Authorization.	Coordinated with DFO under the new <i>Fisheries Act</i> Authorization, which was received in April 2024.	Submit the <i>Fisheries Act</i> Authorization Annual Monitoring Report to DFO and provide a copy to the MVLWB.
<b>Land [Section 5.2]</b>			
<b>Waste Management</b>	Continue managing waste in accordance with the Waste Management and Monitoring Plan.  Continue to accept waste at the Non-Hazardous Waste Landfill.  Continue operations of the Waste Transfer Station for operational waste.	Conducted waste management activities in accordance with the Waste Management and Monitoring Plan.  Continued to accept legacy waste at the Non-Hazardous Waste Landfill.  Continued operations of the Waste Transfer Station for operational waste.	Submit an update to the Waste Management and Monitoring Plan to the MVLWB.  Continue managing waste in accordance with the Waste Management and Monitoring Plan.  Continue to accept waste at the Non-Hazardous Waste Landfill.  Continue operations of the Waste Transfer Station for operational waste.
<b>Wildlife Management</b>	Continue implementing the Wildlife and Wildlife Habitat Management and Monitoring Plan in 2024-25.  Continue to log and report wildlife sightings and interactions including the bird survey.	Continued implementing the Wildlife and Wildlife Habitat Management and Monitoring Plan.  Continued to log and report wildlife sightings and interactions including the bird survey.	Continue implementing the Wildlife and Wildlife Habitat Management and Monitoring Plan.  Continue to log and report wildlife sightings and interactions including the bird survey.

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Environment [Section 5]</b>			
<b>Land [Section 5.2]</b>			
<b>Revegetation</b>	Begin Revegetation Test Plot Pilot.	Initiated Revegetation Test Plot Pilot.	Implement monitoring program of the Revegetation Test Plot Pilot.
<b>Spills Accidents, and Significant Malfunctions</b>	Continue to monitor, mitigate, and resolve spills.	Continued to monitor, mitigate and resolve spills.	Continue to monitor, mitigate, and resolve spills.
<b>Climate Change [Section 5.5]</b>			
<b>Climate Change</b>	<p>Continue to monitor and track Greenhouse Gas (GHG) emissions from the site.</p> <p>Engage with the Giant Mine Working Group.</p> <p>Continue to evaluate climate change considerations and GHG emission reductions and mitigative actions where relevant.</p> <p>Initiate the development of a framework for a GHG Reduction and Innovation Plan.</p>	<p>Continued to monitor and track GHG emissions from the site.</p> <p>Presented to the Giant Mine Working Group the Project's review of the new climate change projections (AR6) and impact on design.</p> <p>Initiated the development of a framework for a GHG Reduction and Innovation Plan.</p>	<p>Continue to monitor climate-related conditions on site as remediation progresses.</p> <p>Provide responses to the Giant Mine Working Group comments on the climate projections reporting.</p> <p>Develop the framework for a GHG Reduction and Innovation Plan.</p> <p>Continue to evaluate climate change considerations and GHG emission reductions and mitigative actions where relevant.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Health and Safety [Section 6]</b>			
<b>Occupational Health &amp; Safety</b>	Continue to track and report on occupational health and safety through tracking of training and incidents.	Continued to track and report on occupational health and safety through tracking of training and incidents.	Continue to track and report on occupational health and safety through tracking of training and incidents.
<b>Public Health &amp; Safety</b>	Progress the Health Effects Monitoring Program sampling program.	Published the 2023 sampling results for the Health Effects Monitoring Program.	<p>Complete children and youth re-sampling for Ndilo and Dettah residents in 2025.</p> <p>Complete adult, children, and youth re-sampling in 2027-28.</p>

Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Community [Section 7]</b>			
<b>Engagement [Section 7.1]</b>			
<b>Aquatic Advisory Committee</b>	Engage the Aquatic Advisory Committee on the AEMP Re-evaluation and Aquatic Effects Baseline Report for Yellowknife Bay and the AEMP Design Plan focussed on Yellowknife Bay.	Engaged the Aquatic Advisory Committee on the AEMP Re-evaluation Report and Aquatic Effects Baseline Report for Yellowknife Bay.	Engage on the updated AEMP Design Plan.
<b>Revegetation Engagement</b>	Draft and implement Revegetation Engagement Strategy.	Completed Revegetation engagement.	No further engagement planned for 2025-26.
<b>Perpetual Care Plan (PCP)</b>	Award PCP Plan contract and begin work for PCP Version 1.	Awarded PCP contract. Conducted initial engagement with PCP Task Force and Alternatives North in October 2024, January 2025, and March 2025.	Hold Project team and expert interviews, as well as initial community engagement.
<b>Additional Engagements</b>	Hold Industry Day in November 2024 (Parsons). Engage with the YKDFN-Giant Mine Advisory Committee on the Dam 3 Reclamation Research Plan.	Held Industry Day. Did not hold Giant Mine Advisory Committee Meetings in 2024-25 due to a lack of capacity within the YKDFN to participate and due to an update of membership.	Hold Industry Day in November/December 2025. Engage with the YKDFN-Giant Mine Advisory Committee on the Dam 3 Reclamation Research Plan in May 2025.



Project Component	Plans for 2024-25	Progress in 2024-25	Plans for 2025-26
<b>Community [Section 7]</b>			
<b>Socio-Economic [Section 7.2]</b>			
<b>Socio-Economic Activities</b>	<p>Continue to track employment, procurement and training statistics.</p> <p>Continue the development of the online performance tracking and reporting tool.</p> <p>Continue to work with the Socio-Economic Working Group (SEWG) and Socio-Economic Advisory Body (SEAB) to advance implementation of the Socio-Economic Implementation Plan.</p> <p>Advance ongoing communications with the public and stakeholders.</p> <p>Update the Indigenous Opportunities Considerations (IOC) process through an audit of past contracts, the development of an IOC Plan template for contractors, and the development of a public IOC Process Overview document.</p>	<p>Tracked and reported procurement, training, and employment statistics.</p> <p>Progressed development of the internal component of the online performance tracking and reporting tool, following delays in the first half of 2024.</p> <p>Continued to work with the SEWG and SEAB to advance implementation of the Socio-Economic Strategy.</p> <p>Communicated with the public and stakeholders through the Public Forum and other events.</p> <p>Advanced updates of the IOC process.</p>	<p>Engage on the updated AEMP Design Plan. Continue to track and report on employment, training and procurement statistics</p> <p>Update Indigenous Affiliation Key Performance Indicators (KPIs).</p> <p>Roll-out the internal component of the online performance tracking and reporting tool and continue to work on enabling external access.</p> <p>Continue to work with the SEWG and SEAB to advance implementation of the Socio-Economic Strategy 2023 - 2028.</p> <p>Continue multi-media communications with the public and stakeholders.</p> <p>Work with an Auditor to audit past Procurement Strategy for Indigenous Business (PSIB) contracts.</p> <p>Incorporate the IOC Plan template in Attachment D tender document (Parsons). Begin collecting and reporting on additional information that supports IOC statistics.</p>



# 1.0 PROJECT OVERVIEW

The GMRP is more than a major construction project. The GMRP works to minimize health, safety, and environmental risks at the site, reduce Canada's liability associated with the contamination, and renew the relationship between Canada and the Indigenous people affected by the legacy of the mine.

## OVERALL GOALS OF THE GMRP

- Minimize public and worker health and safety risks.
- Minimize the release of contaminants from the site to the surrounding environment.
- Remediate the site in a manner that instills public confidence.
- Implement an approach that is cost effective and robust over the long term.

Successful remediation of the Giant Mine will yield the following outcomes:

- Safeguard the health and safety of Northerners;
- Protection of water, soils, flora and fauna at, and adjacent to, the Giant Mine site;
- Reduction of the federal liability associated with the site by using industry best practices for remediation in a cost-effective manner;
- Improved relationships with local Indigenous groups;
- Demonstration of federal commitment, which illustrates how economic development can be carried out without adversely affecting the environment;
- Demonstration of federal leadership in complying with all applicable environmental Acts, Regulations, and standards;
- Demonstration of the government of Canada commitment to implement the United Nations declaration on the rights of Indigenous peoples and to work in partnership with Indigenous peoples to advance their rights and to create more economic opportunity and a higher quality of life in the north of Canada, by using public investments to spur economic growth and job creation for northern and indigenous peoples and businesses;
- Demonstration of the support of self-determination, improving service delivery, advancing reconciliation and the renewed relationship between Canada and indigenous peoples based on recognition, rights, respect, co-operation, and partnership;
- Strengthened local remediation capacity and transferable skills through support to Indigenous and local capacity development programs, provision of Project Information to training providers, and delivery of Project related training;
- Maximization of Indigenous and Northern participation through supportive Northern Indigenous procurement processes, proactive communication of opportunities, and collaboration; and,
- Ensure that the voices of Rights holders are heard, through ongoing engagement, incorporation of traditional knowledge into the Project, and collaborative input into decision making with other stakeholders/affected parties and the GMRP team.

# PHASES OF THE GMRP

The past, current, and planned activities of the GMRP are illustrated in Figure 1 below. The Project has transitioned into the remediation phase, which was extended to 2038 (from an original end date of 2030) in response to logistical as well as Rights holder and stakeholder considerations.

Figure 1: GMRP Timeline



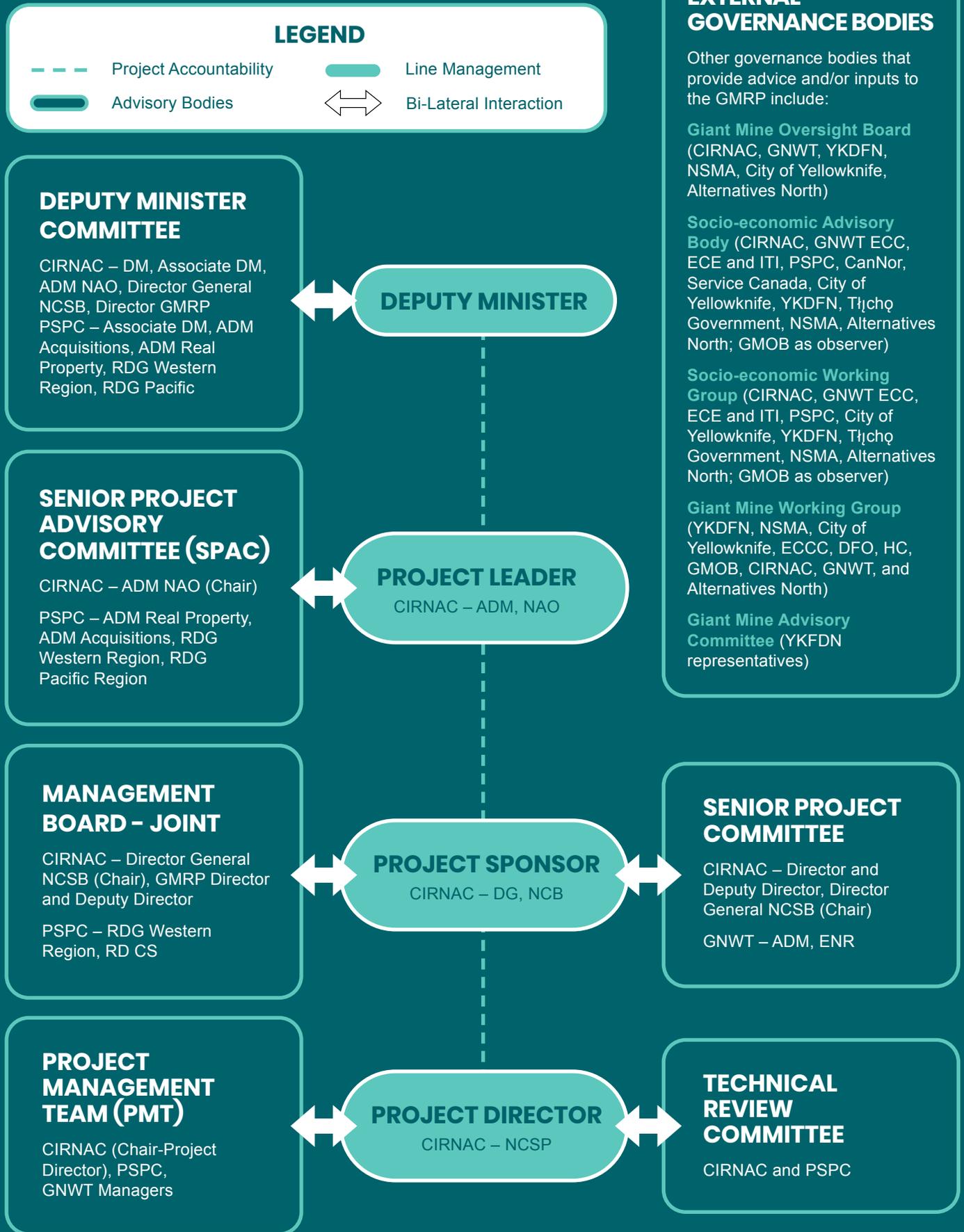


## GOVERNANCE OF THE GMRP

The GMRP is jointly managed through a Cooperation Agreement between the Government of Canada and the Government of the Northwest Territories (GNWT). The GMRP Team consists of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the Government of the Northwest Territories – Environment and Climate Change (GNWT-ECC) acting as co-proponents with respect to the Environmental Assessment and other regulatory considerations. Public Services and Procurement Canada (PSPC) provides contracting services, contract management, and technical support services to CIRNAC. PSPC awarded the Main Construction Manager (MCM) contract to Parsons Incorporated. The MCM is responsible for care and maintenance and emerging risks on site and managing and implementing the Project Implementation Plan for full remediation.

While CIRNAC is ultimately accountable, a joint CIRNAC – PSPC project governance structure provides oversight, direction, and advisory services to the Project team. The governance and management of the GMRP is also supported by external, independent, and technical reviews provided by multiple groups, such as GMOB, which was formed in 2015 and reports to the minister. Figure 2 shows the governance structure of the GMRP.

Figure 2: Governance Structure of the GMRP



# 2.0 2024–25 YEAR IN REVIEW

## 2.1 OVERVIEW

Remediation of the Giant Mine site commenced in July 2021, with the first full year (January to December) of remediation taking place in 2022. Major accomplishments and activities from **2024-25** included:

- Completion of Underground Stabilization work and closure of the Underground;
- Advancement of the WTP construction;
- Substantial completion of the outfall pipeline construction;
- Approval of Borrow Design Plan Version 1.1;
- Approval of Open Pit Design Plan Version 1.1;
- Advancement of the various work packages:
  - Earthwork Remediation Package, which includes TCAs, dams, and pit remediation
  - B1 Pit remediation
  - AR-1 Thermosyphons
  - Baker Creek Remediation
  - On-site borrow production

The Project also focused activities in these areas:

1. Advanced remediation activities (Section 3)
2. Ensured ongoing operations of the site (Section 4);
3. Undertook environmental monitoring studies (Section 5, Appendices D and F); and,
4. Continued to communicate and engage with the community (Section 7.1).

In addition, the GMRP team maintained an active risk identification and management program (described in Appendix C).

### 2.1.1. Project Implementation Plan

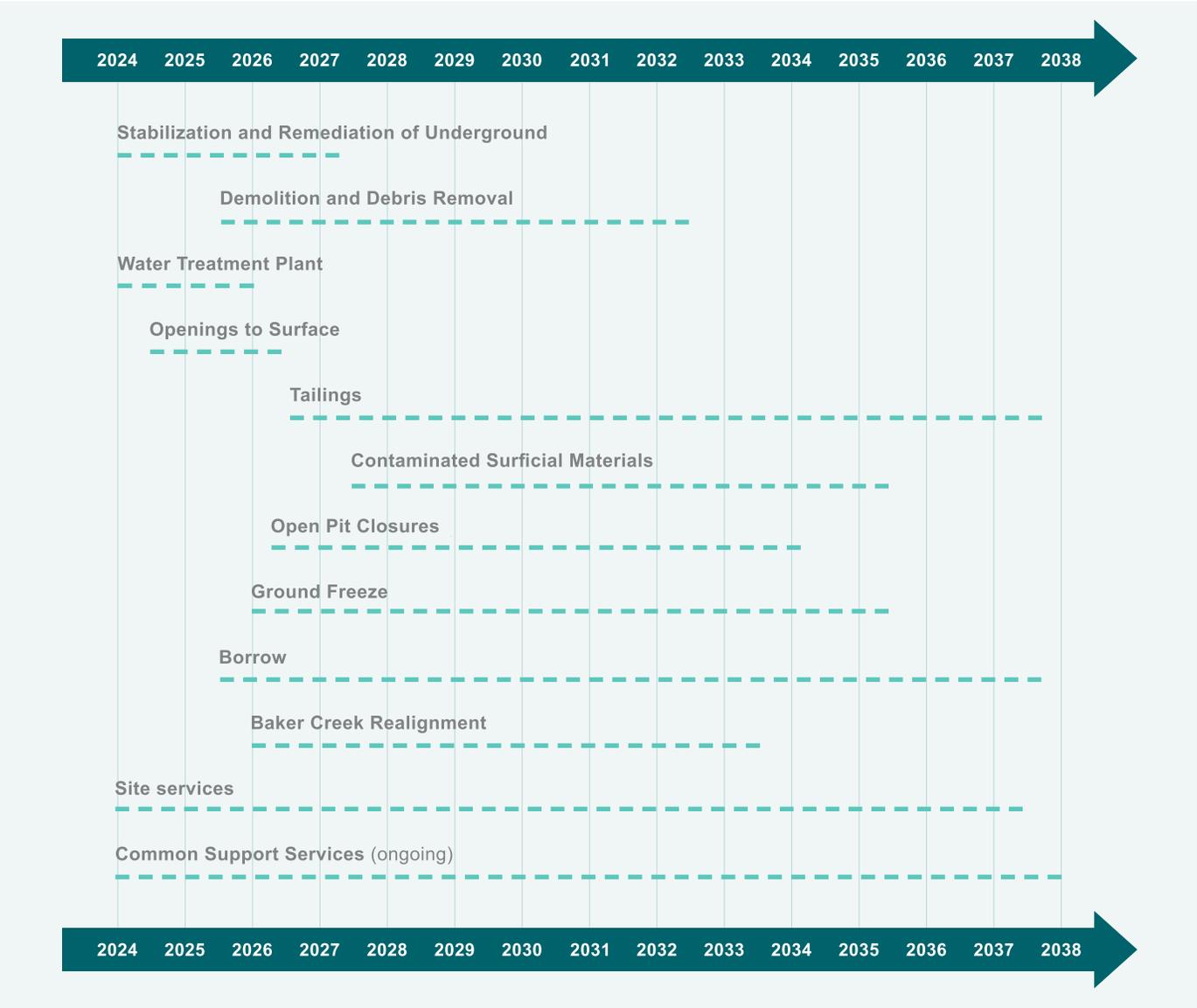
The Main Construction Manager, Parsons, produced the Project Implementation Plan for the GMRP in 2022. The Project Implementation Plan is the operational plan the Project will use for the duration of active remediation and includes the schedule and the sequencing of work packages for the implementation phase through to 2038.

The Project Implementation Plan outlines thirteen (13) major ongoing/upcoming projects as design work packages, which will be broken down further into approximately forty-three (43) individual construction work packages for procurement purposes. The thirteen design work packages are:

- 1. Tailings
- 2. Contaminated Surficial Materials
- 3. Water Treatment Plant
- 4. Baker Creek Realignment
- 5. Surface Water Management
- 6. Stabilization and Remediation of Underground
- 7. Demolition and Debris Removal
- 8. Open Pit Closures
- 9. Freeze
- 10. Openings to Surface
- 11. Non-Hazardous Waste Landfill
- 12. Borrow
- 13. Common Site Services

Figure 3, below, highlights the approximate schedule and duration of implementation of work packages.

Figure 3: Approximate Schedule and duration of Design Work Packages in the Project Implementation Plan (2023-2038)



## 2.2. PROGRESS ON ENVIRONMENTAL ASSESSMENT MEASURES

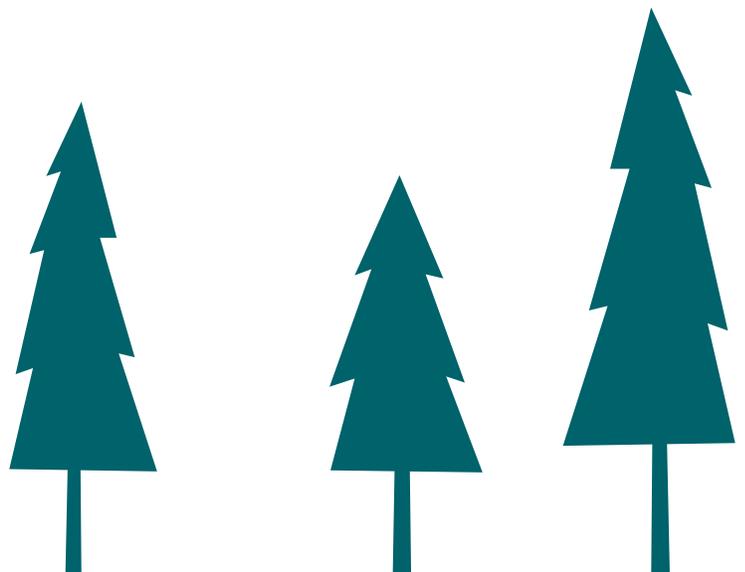
The *Report of Environmental Assessment and Reasons for Decision* (Mackenzie Valley Review Board, 2013) listed 26 Measures that must be addressed, as well as 16 suggestions that may be implemented at the GMRP team's discretion. The Team's focus has been to address the Measures with set timelines, and those with the biggest impact on the Project scope. Table 1 provides a brief summary of progress, while Appendix D provides a complete summary of progress against all Environmental Assessment Measures and Suggestions in 2024-25, as well as plans for the 2025-26 year.

In 2024-25, the Project focused on progressing the following measures:

- Measure 9:** In June 2023, the Health Effects Monitoring Program Advisory Committee completed the five-year follow-up resampling and sampling of new groups of arsenic and other metals for children and youth aged 3-19. The results of the 5-year follow-up were mailed to individuals in the fall of 2024.
- Measure 10:** In 2024-25, Project assessed additional scenarios related to the Human Health Ecological Risk Assessment (HHERA). The initial HHERA was completed in 2018.

Table 1: Status of Environmental Assessment Measures and Suggestions (as of March 2025)

STATUS	MEASURES	SUGGESTIONS
Completed	3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 22, 23	8, 9, 13, 15
Underway	9, 17, 20, 21, 25, 26	1, 2, 10, 11, 12, 14, 16
Future Action Required	2, 24	
No Action Required / Outside Scope of Project	1	3, 4, 5, 6, 7



## PERPETUAL CARE PLAN

As part of the GMRP Environmental Agreement, the GMRP is required to develop a Perpetual Care Plan that must address improvements in post-closure considerations for records management, communication with future generations, long-term access to funds for the Project, and analysis of different possible scenarios that might affect the perpetual care of the Project. In 2019, the GMRP conducted an initial desktop study to review the work that has been done to date on topics related to the perpetual care of the Giant Mine site. Following the completion of this study, the GMRP retained a consultant to conduct a series of independent interviews with representatives of the signatories to the Environmental Agreement to better understand perpetual care needs at the Giant Mine site. The results of the desktop study and independent interviews informed the development of a draft preliminary framework for the Giant Mine Perpetual Care Plan.

During the 2020-21 fiscal year, the Perpetual Care Plan Advisory Task Force (formed with members of the signatories of the Environmental Agreement) further refined the framework and established key assumptions for the Perpetual Care Plan. In November 2020, the GMRP submitted the preliminary framework to the Giant Mine Oversight Board.

In 2022-23, the Perpetual Care Plan Advisory Task Force supported the development of a statement of work for a Request for Information and a subsequent Request for Proposal to retain a consultant to support the next phase of work on version 1 of the Perpetual Care Plan. In June 2024, the PCP contract was awarded to ERM Consultants Canada Inc. ERM developed a detailed work plan, a communications plan, and a draft Engagement Plan **in 2024-25**. They also led engagement with the PCP Task Force in October 2024 to introduce the team and scope of work and followed up with a short presentation and overview to Alternatives North in January 2025 (on their request). ERM worked with the GMRP team to hold an in-person session in March 2025 with the Task Force to build a deeper and shared understanding of the scope of the PCP Version 1, to hear perspectives and questions on the PCP topics, and to discuss the draft PCP Engagement Plan.

# 3.0 ADVANCEMENT OF REMEDIATION ACTIVITIES

The following section summarizes the advancement of remediation activities at the Site, organized by Project component. Each section includes brief background information, an activity update for the **2024-25** reporting year, as well as the next steps, where applicable. Note that the 2024-25 report is organized differently than previous year's reports to better align with how the Project remediation activities are organized, including the incorporation of the design section into the proceeding section.

## 3.1. TAILINGS

Over the operating life of the mine, tailings were deposited into three main areas: the Northwest TCA, the Original TCA (which includes the North, Central, South, Settling, and Polishing ponds), and the Foreshore Tailings Area. Overall, approximately 16 million tonnes of tailings were deposited within these TCAs, most of which were deposited in the Northwest, North, Central and South Pond TCAs.

In 2022-23, the Project team developed and submitted a Tailings Design Plan and Tailings Management and Monitoring Plan to the MVLWB, which presented the design of remediation activities and the approach for monitoring and management of these areas post-construction. These plans were subsequently approved by the MVLWB in 2023-24.

Given the strong linkages and sequencing required, some of the TCAs (TCAs covers, spillways, dams) will be remediated under a new consolidated work

package named the Earthworks Remediation Work Package. This work package will also include contaminated soils remediation and the A1, A2, B2, and B3 open pits remediation.

### 3.1.1. Northwest, North, Central, and South Pond & Settling and Polishing Pond Tailings Containment Areas

The Northwest, North, Central and South Pond TCAs were used by the operating mine to discharge tailings and are the main components of the TCAs. The North, Central and South Ponds are part of the Original TCA, located east of Baker Creek and to the west of Yellowknife Bay; the ponds are divided by dams or dykes. The Northwest Pond is the main component of the Northwest TCA, located north of Baker Pond and to the west of the relocated Ingraham Trail (Highway 4).

The approximate surface area and volume of retained tailings are summarised in Table 2 (Giant Mine Remediation Project, 2021b).

Table 2: Summary of Surface Area and Retained Tailings

TCA	Pond	Surface Area (ha)	Tailings Retained (m <sup>3</sup> )
Original TCA	North	29	2,200,000
	Central	13	1,200,000
	South	9	950,000
	Settling	4	205,000
	Polishing	5	234,000
	Total	66	4,789,000
Northwest TCA	Northwest	44	5,000,000

The Project plans to relocate tailings located in the South Pond to the North and Central Ponds. Impacted natural soil below the tailings will also require rehabilitation. Remediation activities will include the shaping and grading of other Tailings Ponds to allow water to move toward the planned spillways once the new WTP is online. The Project will cover the TCAs with an engineered cover.

The Settling and Polishing Ponds are water management structures that are part of the Original TCA, located east of Baker Creek and to the west of Yellowknife Bay. The ponds are divided by a semi-permeable rock-filled dyke called the Splitter Dyke. The Project will remediate the Settling and Polishing Ponds once the new WTP is online. The Project will place an engineered cover on the area and construct a spillway through bedrock outcrops to drain surface water runoff from the engineered cover.

**In 2024-25**, no active reclamation activities took place for the Northwest, North, Central, and South Ponds. The Project team refined the design for those ponds, including the Northwest TCA rehabilitation and the Northwest Pond Spillway. Additionally, the Project pumped water from the Northwest Pond to the ETP as part of seasonal water treatment activities. The Project team continued the use of the Settling and Polishing ponds as part of the water treatment system for the ETP (see Section 3.2.1). Additionally, the Project team continued detailed design of the Settling and Polishing ponds.

**Next Step:**

- Continue to develop detailed design for the Earthworks Remediation work package.

### 3.1.2. Foreshore Tailings Area

The Foreshore Tailings Area (FTA) is located on the shore of Yellowknife Bay, south of the Original TCA. Prior to the early 1950s, between 300,000 and 375,000 t of tailings were deposited in the area, with approximately 35% of the tailings located above the water level in Yellowknife Bay at the time (Giant Mine Remediation Project, 2021b).

In 2001, the Project advanced interim works on the tailings located along the shoreline in the Foreshore Tailings Area. A rock, gravel, and geotextile cover was placed over approximately 2,500 m<sup>2</sup>. The objective of this work was to extend the physical barrier between the tailings and the waters of Yellowknife Bay to reduce the potential for further erosion and minimize further dispersion of tailings into Yellowknife Bay. As part of remediation, the Project will design and install an engineered cover for the remainder of the tailings that are located below the water level (Giant Mine Remediation Project, 2021b). The Project completed geotechnical investigations (Section 4.2), as well as the substantive design of the cover in 2021 (Golder Associates Ltd., 2021).

**In 2024-25**, no active remediation activities took place for the Foreshore Tailings Area, and detailed design work was delayed due to other remediation designs taking priority in the schedule.

Foreshore Tailings Area field investigations are planned for the summer of 2025-26 and will include the completion of a topographic survey. The results will further demonstrate the current status of the shoreline area and provide data to progress detailed design.

**Next Step:**

- Complete field investigation as required and begin detailed design for the Foreshore Tailings Area's remediation (2025-26).

### 3.1.3. Dams

The dams related to the Original TCA include Dam 1, Dam 2, Dam 3, 3C and 3D, Dam 4, Dam 5, Dyke 6, Dams 7 to 12, splitter dyke, and containment berm. Dam 10 was partially removed and is not classified as a dam anymore. The dams related to the Northwest TCA include Dams 21A to 21D, and Dams 22A and 22B. The monitoring and maintenance activities related to dams are described in Section 4.

In **2024-25**, the Project team carried out some reclamation activities at the Original TCA and the Northwest TCA dams, including:

- Removal of the decant towers on Dam 2 (North Pond) (K'alo-Stantec Limited, 2025);
- Filling of multiple boreholes near Dam 21B with paste-enhanced backfill to support the backfilling of the B4 pit voids, with a few left open for future underground monitoring, as confirmed by the Engineer of Record (K'alo-Stantec Limited, 2025); and,
- Reporting for the geotechnical investigations of Dams 8, 9, 10, and 12 (fieldwork was completed in 2023) (WSP, 2024b).

#### Next Step:

- Continue to develop the Earthworks Remediation work package, which includes designs for the rehabilitation of Dams 2 to 5, within the Original TCA area.

### 3.1.4. Nearshore Sediment Area

The Nearshore Sediment Area has been negatively affected by the contaminated sediments from Baker Creek (Golder Associates Ltd., 2022b). The area spans the area between the Foreshore Tailings Area and the Great Slave Sailing Club marina area and includes the shoreline adjacent to the Townsite. The Project will be designing an engineered rock cover, which will also include some dredging to retain navigation.

The Project has completed geotechnical investigations of the Nearshore Sediment Area and completed substantive design in 2021 (Golder Associates Ltd., 2021).

In **2024-25**, no active reclamation activities took place for the Nearshore Sediment Area, and detailed design work was delayed due to other remediation designs taking priority in the schedule.

#### Next Step:

- Begin detailed design for remediation of the Nearshore Sediment Area.

### 3.1.5. Boat Launches

The existing public boat launch and parking area will be closed to the public and used exclusively for construction purposes in support of remediation activities (estimated in 2030) for an extended period. The area will be reopened to the public upon the completion of construction. To maintain public access to Great Slave Lake, the Project will build a public boat launch in the area currently occupied by the Great Slave Sailing Club prior to closing the existing public boat launch.

In **2024-25**, the Project team hosted a public meeting for the boating community in June to present and discuss designs for the new launch. No active reclamation activities took place.

#### Next Steps:

- Field investigations are planned for both the existing boat launch and the location for the new boat launch at the Great Slave Sailing Club. These investigations will include the completion of topographic surveys and geotechnical drilling. The results will demonstrate the current status of the shoreline area, and the underlying geology to provide data to progress detailed design of the boat launches.
- Begin detailed design for the Boat Launches' remediation and construction (2025-26).



## 3.2. WATER TREATMENT PLANT AND OUTFALL SYSTEMS

### 3.2.1. Water Treatment Plant and Biomass Building

The WTP and associated biomass building will replace the ETP as the primary method to treat contaminated water, to adhere to GMRP's Type A Water Licence effluent quality criteria. Over the past several years, the GMRP finalized the substantive and detailed design for the new WTP and biomass building, completed a siting assessment of the new WTP, and updated the three-dimensional groundwater model to provide predictions for potential future conditions in the Water Licence period from 2020 to 2040 (AECOM Canada Ltd., 2019b; AECOM Canada Ltd., 2019c; AECOM Canada Ltd., 2019d; AECOM Canada Ltd., 2020b; Golder Associates Ltd., 2020d).

The Project released a Request for Proposals in November 2022 to pre-qualified bidders; AECON Water Infrastructure Inc. was awarded the contract, with construction of the WTP beginning in June 2023. The MVLWB approved the WTP Design Plan in May 2023.

**In 2024-25**, construction for the WTP and biomass building continued. The Project largely completed the respective building envelopes, civil works for associated stormwater ponds, The Project also progressed key pieces of the biomass facility including sumps, propane pads, and the installation of biomass boilers. The project progressed interior features such as walls, walkways, and mezzanine for both sites. The Project continued relevant earthworks, including the removal of contaminated soil around the WTP site and access road construction to the WTP. Construction completion is anticipated in Fall 2026.

#### Next Steps:

- Complete the electrical, mechanical, treatment process and architectural finishes within the WTP and Biomass buildings.
- Complete the civil works for the intake pipelines connecting the two intake wells to the WTP building.
- Complete final grading of all completed civil works.
- Progress outstanding quarrying

### 3.2.2. Outfall

The pipeline associated with the outfall spans just over one kilometer from the WTP building to the shore of Yellowknife Bay near the Townsite. It is intended to convey treated water from the WTP to discharge into Yellowknife Bay. The outfall pipeline is High-Density Polyethylene and will be installed mostly underground with a protection berm adjacent. Installation above ground will allow for easy access, which minimizes effort for future maintenance.

**In 2024-25**, the Project constructed the outfall gabion mats and fused and sank the in-water portion of the outfall pipeline. The Project largely completed the surface pipeline and associated earthworks, including the placement of the insulated surface portion of the outfall pipeline. Minor delays have led to the outfall's planned completion in early 2025-26.

#### Next Steps:

- Complete the heat tracing in the summer of 2025.
- Complete remainder of outfall construction and remediation works in the summer of 2025.

## 3.3. BORROW MATERIALS

### 3.3.1. Quarries and Fine-Grained Soils Borrow

Borrow materials are used as fill material for a variety of infrastructure and remediation scopes. At present, borrow material is sourced from both onsite and offsite sources. The Project has developed a Borrow Design Plan that outlines selected sources of borrow on site to be developed in support of remediation activities, provides designs for the quarries, and details post-construction management and monitoring.

In **2024-25**, the Project continued to advance quarry detailed designs. In May 2024, the Borrow Design Plan was approved by the MVLWB. In March 2025, the GMRP applied for a quarry permit from the GNWT for the remainder of site activities throughout remediation.

#### Next Steps:

- Complete the detailed designs for quarries.
- Tender the work package and award the contract for the development of quarries.

## 3.4. SITE INFRASTRUCTURE CONSTRUCTION AND DEMOLITION

### 3.4.1. Site Infrastructure: General

In 2022-23, the Project team received approval from the MVLWB for the Site Infrastructure Design Plan – Part 1. Part 1 outlines the high-level plan for the deconstruction of existing buildings and debris piles and removal of ancillary structures such as power poles, abandoned utilities, propane, fuel and water tanks. The Project team commenced Part 2 of the Site Infrastructure Design Plan in 2023-24, which will include designs for future site infrastructure required to support ongoing maintenance and monitoring activities.

In **2024-25**, the Project progressed detailed design to support development of Part 2 of the Site Infrastructure Design Plan. The Project team delayed the final submission of the detailed design plan to free resources for higher priority scopes.

#### Next Step:

- Progress Part 2 of the Site Infrastructure Design Plan with an anticipated submission to the MVLWB in 2026-27.

### 3.4.2. Freeze Optimization Study Decommissioning

The Project conducted the FOS (2011-2015) to test various active and passive freeze technologies to assess their performance and provide validated inputs for future applications. The passive operation performed as intended and was found to be sufficient to meet the design requirements of the GMRP. Decommissioning of the FOS includes removal of the hybrid and active study components as well as the FOS buildings and power conveyance piping. Existing passive freeze infrastructure will remain in place.

In **2024-25**, the Project removed the remaining Dynalene from the FOS infrastructure. Decommissioning of FOS infrastructure is included in AR1 Thermosyphon detailed design.

#### Next Step:

- Advance detailed design of FOS infrastructure decommissioning (within AR1 Thermosyphon detailed design), with contract award anticipated for March 2026.

### 3.4.3. Building Demolition

Buildings on the site have been divided into three groups, each with detailed deconstruction plans that consider erosion, traditional and community knowledge, disposal of waste, as well as environmental and health hazards. The three groups are as follows:

- Group 1 - Outlying Structures
- Group 2 - Townsite Structures
- Group 3 - Core Industrial Area Structures

The presence of contaminated material, as well as hazardous material such as asbestos, necessitates detailed sampling, decontamination, and abatement of sites before deconstruction activity can take place. In 2023-24, the Project completed the decontamination and deconstruction of the Townsite Structures and progressed the detailed designs for the Outlying Structures and Core Industrial Area Structures.

In 2024-25, the Project awarded the contract for the demolition of buildings in the Core Industrial Area, Tailings Reprocessing Plant, and other high priority zones. To support this work, the Project conducted pre-deconstruction environmental surveys.

#### Next Steps:

- Begin demolition of buildings in the Core Industrial Area, including the Mill Building.
- Complete detailed design for remaining building demolitions.

### 3.4.4. Road Network and Bridges

As part of the remediation process, additional roads and bridges have been required to move equipment throughout the site. Several projects have been completed throughout the Project's history, including the UBC Bridge Upgrade (2018) as well as ongoing care and maintenance.

In 2024-25, the Project conducted ongoing road maintenance across the site as well as several new works. This includes the planning and procurement for:

- Repairing sections of the Old Ingraham Trail;
- Widening of road from FOS to C-Dry;
- Reinstating Old Ingraham Trail from UBC bridge to B3 Pit;
- Resurfacing of UBC Bridge;
- Constructing a parking pad for C Dry; and,
- Constructing a single-lane road in the corner by the Storage Dome (Norsemen Tent).

The Project also progressed road works in association with the WTP (See section 3.2) (e.g., installing culverts, completing a bypass road, removing access ramp). Detailed designs for the broader road network have progressed under multiple work packages.

#### Next Steps:

- Continue detailed designs of roads and bridges.
- Continue maintaining roads as needed (see Section 4.1 Care and Maintenance).
- Upgrade Highway #4 intersections along GMRP to include turning lanes.
- Upgrade Main Site Access Roadway close to Highway 4.

### 3.4.5. Debris and Waste Storage Removal

In 2023-24, the Project team started the removal of legacy debris piles on site. This removal included the segregation of recyclable items. Several working assets are currently stored in debris piles and will be gifted or sold. Currently, all debris processed is either recycled for metals at off-site scrap yards, sent to the onsite non-hazardous waste landfill, or sent to off-site hazardous material processing facilities.

**In 2024-25**, the Project team removed all remaining legacy debris piles, marking the completion of this work package.

#### Next Step:

- Submit final invoicing and close out reporting. Once complete, no additional steps will be required. Refer to 3.4.3 and 3.5.1 for discussion of remediation of other wastes on site.

### 3.4.6. Utilities (including Power Line and Communication Infrastructure)

To support construction activities and long-term post-closure operations at the Giant Mine site, the Project will install additional utilities, including powerlines and communication infrastructure.

**In 2024-25**, the Project completed the bulk of the work associated with installing the three Phase 1 powerlines, which included ground preparation, pole installation, and line stringing, as well as the construction of several structure envelopes. The Project submitted a Request for Service application to the NWT Power Corporation. The Project also progressed detailed designs for Phase 2.

#### Next Steps:

- Complete the installation of Phase 1 powerlines and complete designs for Phase 2.
- Progress detailed plans for communication infrastructure.

## 3.5. OPEN PITS

### 3.5.1. Pit Backfill

There are eight open pits on the Giant Mine site. These open pits pose potential safety risks to workers and the public as well as to the environment from future flooding in Baker Creek and the subsequent potential flow into the pits. Without mitigation measures in place, flooding of Baker Creek could cause water to ingress into the underground mine, potentially compromising underground stability. To address this risk, the Project decided to fill and place a cover over the pits. Filling the pits is a commitment made during the Surface Design Engagement process. To support this commitment, the Project conducted studies to identify potential options and suitable on-site material for pit fill with some recommendations for additional investigations (sampling, testing, and modeling) for consideration (AECOM Canada Ltd., 2019a; Giant Mine Remediation Project, 2020; Golder Associates Ltd., 2019c; Golder Associates Ltd., 2020a; Golder Associates Ltd., 2020b; Golder Associates Ltd., 2020c). In addition, pit backfill provides a disposal location for excavated contaminated soil.

**In 2024-25** the Project continued to advance detailed design for the closure of the open pits. The MVLWB approved the Open Pits Design Plan in January 2025.

#### Next Step:

- Continue detailed design in various work packages.

## 3.6. CONTAMINATED SOILS AND SEDIMENT

### 3.6.1. Excavation of Soils

The GMRP team has continued refining strategies for managing contaminated soil and sediment at the site. Over the years this work has involved:

- An options analysis workshop (2017);
- The selection of preferred remedial/risk management options for areas of deep contaminated materials based on (i) technical feasibility, (ii) project objectives, and (iii) long-term performance; and,
- Development of a Reclamation Research Plan to study the area downgradient of Dam 3 and recommend a closure option for the area, which was approved in 2020 by the MVLWB (AECOM Canada Ltd., 2020a).

In 2023-24, the Project team continued the detailed design for contaminated soils and design for highly arsenic-contaminated waste removal.

**In 2024-25**, the Project team continued detailed design for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill. Submission of the Contaminated Soils and Sediment Design Plan was delayed to 2025-26 due to focus on the Open Pits Design Plan.

#### Next Steps:

- Complete detailed design for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill.
- Submit the Contaminated Soils and Sediment Design Plan to the MVLWB, including the results of the Reclamation Research Plan.
- Procure subcontractor for implementation of highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill.
- Complete development of detailed design for excavation of contaminated soils for other areas of site under the Earthworks package.

- Wash highly arsenic-contaminated soil and backfill Chamber 15 with extracted arsenic contaminated material (anticipated in 2026 and 2027).

## 3.7. BAKER CREEK AND SURFACE WATER DRAINAGE

### 3.7.1. Baker Creek

Baker Creek and its tributaries are a key feature of the Giant Mine site. Baker Creek is a unique stream that flows through site draining to Yellowknife Bay with a protected Arctic Grayling sport-fishery and a long history of traditional land use before mining.

The creek has been heavily altered over time by historic mining operations, ore processing, and highway construction. Tailings, treated effluent, hydrocarbon and tailings spills, uncontrolled runoff, and sewage were deposited into various reaches of Baker Creek. In addition, previous mine operations diverted the creek around open pits and mine infrastructure. Baker Creek runs adjacent to most of the open pits and flooding of Baker Creek could result in water entering the open pits and subsequently the underground mine. Closure activities for the remediation of Baker Creek will involve removal of contaminated sediments, realignment and widening of the channel corridor, construction of fish habitat features and flood protection berms, revegetation, and backfill of abandoned reaches of Baker Creek.

**In 2024-25**, the Project team continued development of the detailed design for Baker Creek Reaches 4-6.

#### Next Steps:

- Submit the Baker Creek Design Plan with results of the Reclamation Research Plan to the MVLWB in 2025-26.
- Continue development of detailed design for Reaches 4-6. For continuity in design, reaches 0-3 will also begin development of detailed design drawings to help inform reaches 4-6.

### 3.7.2. Wetland Treatment System (Reclamation Research Plan)

The GMRP team assessed the feasibility of treating contaminants via wetlands or other applicable passive and semi-passive surface water treatment technologies per Environmental Assessment Suggestion 10. A Reclamation Research Plan, appended to the Closure and Reclamation Plan, outlines the research undertaken on engineered wetlands and next steps. In 2019-20, the GMRP completed an off-site pilot-scale Passive Treatment System study to inform full-scale system design (Contango, 2019). This study concluded that removal of arsenic from water of similar composition to that at the site is possible through passive or semi-passive wetland applications. All parameters of potential concern exhibited some treatment. The study also identified potential risks for arsenic treatment, to be further assessed and addressed. The GMRP team analyzed the results from the pilot-scale testing (i.e., Phase 3 of the Reclamation Research Plan) to determine possible locations and requirements for the maintenance of the treatment structure (Giant Mine Remediation Project, 2021a).

In 2023-24, the Project team conducted additional analysis to determine whether to proceed with wetland treatment, including an analysis of operational considerations and monitoring/maintenance requirements. The Project team will include the results of the Wetland Reclamation Research Plan as an appendix to the Baker Creek Design Plan submission to the MVLWB in 2025-26. The submission of the Design Plan was delayed from **2024-25** to 2025-26 to focus on other priorities.

In **2024-25**, the Project engaged with the GMRP Working Group on the results of the evaluation of whether to proceed with Phases 4 and 5 of the Wetland Reclamation Research Plan. As indicated in the 2024 Annual Water Licence Report and during engagement, the evaluation supports findings from earlier phases of the Reclamation Research Plan that it is technically feasible to develop a wetland treatment system on-Site. However,

based on current information about the footprint of remediation activities and updated water quality modelling, few locations are suited to wetland development, and the projected water quality benefit is limited. Further, approved remediation activities at Site will result in lower surface runoff concentrations than were expected during the Environmental Assessment phase when treatment wetlands were first suggested. The updated water quality concentrations are predicted to meet the approved GMRP closure objective of reducing the pre-remediation total arsenic load without wetland treatment systems. The GMRP will not be proceeding with Phases 4 and 5 of the Reclamation Research Plan.

#### Next Step:

- Submit the Baker Creek Design Plan with results of the Reclamation Research Plan to the MVLWB in 2025-26.

### 3.7.3. Trapper Creek

Trapper Creek is a tributary of Baker Creek. Prior to development, Trapper Creek followed a flow path now covered by the Northwest Pond. Today, the creek feeds into Baker Pond. Surface water in Trapper Creek is a continued source of arsenic and other contaminants to Baker Creek, although at lower concentrations than in the effluent (Giant Mine Remediation Project, 2021b).

In **2024-25**, the Project completed Scour Protection Analysis on a portion of Trapper Creek to determine what work would be required.

#### Next Steps:

- Submit the Baker Creek Design Plan including design details for Trapper Creek to the MVLWB in 2025-26.
- Begin Trapper Creek Scour Protection detailed design and incorporate into Baker Creek Reaches 4-6 Detailed Design.

## 3.8. FREEZE PROGRAM

### 3.8.1. Design and Construction of Freeze Containment

The GMRP remediation includes freezing the chambers and stopes that contain arsenic trioxide dust. They exist in four areas (AR1, AR2, AR3, and AR4). The Project team will also freeze part of the B1 pit, as it will contain some arsenic-impacted materials. The frozen zone established around these areas will be maintained at a target temperature of -5°C throughout the year by thermosyphons that use the heat in the ground and the cold northern air to create a cooling cycle (CIRNAC, 2019d). The Project team will monitor temperatures to make sure the areas remain frozen.

In past years, the Project team prepared for the implementation of the freeze program by collecting data and conducting visual inspections.

**In 2024-25**, the Project continued B1 Pit detailed design, including the placement of arsenic-impacted waste into the future B1 Pit frozen zone.

#### Next Step:

- Continue detailed design of B1 Pit (2025-26).

### 3.8.2. AR 1-4 Freeze Pad Construction

A program of civil works is required prior to the thermosyphon drilling and installation program. The thermosyphon's pads will provide a level surface where thermosyphons can be installed as part of the overall freeze program. Four pads will be built. In 2022-23, the Project team completed the AR1 freeze pad installation (CIRNAC, 2022a). The AR1 Freeze Pad will serve as the base for over 200 thermosyphons, which will freeze four of the arsenic chambers.

**In 2024-25**, the Project advanced detailed design of the freeze pads for AR-3 and AR-4 for portions included in the B1 Pit design.

#### Next Step:

- Continue detailed design of AR-3 and AR-4 as part of the B1 Pit design (2025-26).

### 3.8.3. AR 1-4 Thermosyphon Installation

Thermosyphons use the heat in the ground and the cold northern air to create a cooling cycle (CIRNAC, 2019d). The Closure and Reclamation Plan anticipated approximately 700 thermosyphons to be installed, which translates to an estimated cumulative pipe length of 64,456 m (Giant Mine Remediation Project, 2021b).

**In 2024-25**, the team progressed detailed design for the AR1 Thermosyphons and prepared a first draft of the technical specifications.

#### Next Steps:

- Continue detailed design work of the AR1 freeze system and begin procurement. A final design is expected to be available for the end of 2025-26.
- Begin construction of the AR1 freeze system (expected to start in 2026-27 or 2027-28).

## 3.9. UNDERGROUND MINE WORKINGS

### 3.9.1. Underground Stabilization

An important element of the Giant Mine Closure and Reclamation Plan includes stabilizing stopes and other voids, which are underground areas that were excavated during mining operations as ore and rock material was removed. As part of the GMRP's ongoing risk management process, the GMRP team identified underground areas that required stabilization to reduce the risks to health, safety, and the environment. Underground stabilization work started in 2013. A large component of this work is backfilling the stopes and voids using paste.

The Project's paste backfill program has involved both underground and surface work. The underground work included the construction of barricades to contain the paste in the required

areas and the use of monitoring cameras to monitor the placement of the paste. Surface work involved drilling holes for paste fill delivery and monitoring. A paste plant produced the paste, which is a mixture of tailings, cement additives, and water. The paste mixture is engineered to achieve specific properties as it cures and becomes a solid.

In **2024-25**, the Project completed underground paste backfilling activities, as per the Underground Stabilization Design, placing approximately 75,000 m<sup>3</sup> of cemented paste backfill underground. In certain areas, warm air was pushed through the A1 and A2 declines to melt ice before backfilling.

#### Next Steps:

- Submit the As-Built Report for the backfilling operations to the MVLWB (fiscal year 2025-26).
- Begin installation of additional monitoring equipment (such as extensometers and surface monuments) to monitor the stability of the crown pillars from surface.

### 3.9.2. Closure of Openings to Surface

The Project will close openings to the surface, including shafts, raises, and ramps, with a combination of backfilling and surface caps. Boreholes will be plugged with cementitious backfill. The Project will close the numerous openings to the surface located within the open pits as part of the pit closure work.

In **2024-25**, once underground work was completed (see Sections 3.9.1 and 3.9.3), the Project initiated closure of openings to the surface. Due to delays caused by design complications, the four openings planned for **2024-25** were postponed to 2025-26. To compensate, the GMRP pulled forward the execution of closing of one additional opening to **2024-25**. The Project team progressed the detailed design of other openings to the surface. Additional activities included completing the borehole abandonment program, closing and locking of all portal doors, and piling of muck against the portal accesses where needed.

#### Next Steps:

- Complete the detailed design of remaining openings to the surface (2025-26).
- Close four openings to surface in high-priority areas (2025-26).

### 3.9.3. Underground Care and Maintenance

In **2024-25**, the Project completed regular ramp maintenance, pump checks, and refuge station checks as paste restrictions allowed. Underground activities also included the completion of the A2 Power Project, re-route of the Hi-test line to discharge in midsection of the mine, and the completion of underground clean-up activities such as arsenic-contaminated equipment relocation into the freeze zone, hazardous material removal, and accessible legacy equipment salvage. Once underground activities were completed, including underground stabilization (see Section 3.9.1), the Project demobilized material and people from the underground, secured the ramp doors (see Section 3.9.2), and shut down and locked the B-shaft ventilation plant and the power system.

These steps signified a major milestone for the Project in its exiting of the underground. There are no next steps associated with this work.

### 3.9.4. Long-term Portal

A new long-term mine access portal will be established in a safe location to allow inspection of the underground in the post-closure period, should this be necessary.

In **2024-25**, the GMRP progressed design work to reach a final design and the procurement plan.

#### Next Steps:

- Continue design work of the Long-term Portal; a final design is expected to be available for 2025-26.
- Confirm the scope and schedule for the Long-term Portal through engagement with Rights holders and stakeholders.

# 4.0 OPERATIONS

## 4.1. Care and Maintenance General

Ongoing care and maintenance at the Giant Mine Site is critical to ensure current hazards at the Site are managed to prevent harm to workers, surrounding communities, and the environment, as well as to maintain compliance with the Water Licence, Land Use Permit, and other regulatory requirements.

In **2024-25**, the Project continued care and maintenance activities to keep the Site stable and safe during remediation, including:

- Conducted ongoing air quality monitoring, dust management, road and site infrastructure maintenance, and the provision of site security;
- Treated and discharged 222,623 m<sup>3</sup> of treated effluent into Baker Pond;
- Maintained the ETP;
- Prepared for Spring 2024 and 2025 freshets;
- Conducted regular inspections of erosion and sediment control measures, including silt fences and straw wattles;
- Performed maintenance on the UBC Bridge to address rainfall erosion affecting the abutments;
- Monitored and maintained culverts, ensuring they were free from blockages and functioning properly;
- Conducted dust management activities, including the implementation of dust control plans and monitoring for action level exceedances (See Section 5.2.2);
- Continued work on improvements to the stench gas emergency warning system and replacement of the propane mine air heater burner;
- Conducted regular maintenance on drainage systems to prevent flooding and ensure proper water flow;
- Implemented corrective actions for sediment control as needed;
- Conducted ongoing monitoring of all dams and continued work, as in when required, to maintain dams in accordance with the OMS Manual;
- Conducted and completed options analysis for Mill Pond; and
- Pumped water found in the sump downstream of Dam 22B back into the Northwest TC (K'alo-Stantec Limited, 2025).

### Next Steps:

- Continue care and maintenance in accordance with contract, regulatory requirements (e.g., Water Licence conditions) and site conditions, including:
  - conducting ongoing monitoring and sampling of air quality;
  - conducting dust management activities;
  - continue seasonally treating effluent and maintaining the ETP;
  - maintaining site infrastructure and roads;
  - providing full-time on-site emergency medical services, and site security activities including new signage and security fencing upgrades.
- Continue work (as and when required) to maintain and conduct ongoing monitoring of all dams on site in accordance with the OMS Manual.
- Complete interim solution to increase storage capacity at Mill Pond and to comply with Canadian Dam Association guidelines.

## 4.2. Annual Geotechnical Inspection Report of Dams

At the Giant Mine site, dams are used for mine water management, surface water management, and tailings solids retention. Dams are inspected annually to assess water level restrictions and geotechnical integrity to comply with the Canadian Dam Association Guidelines. The list of dams on site include the B2 Dam, M&M Dam, DWC Dam, C1

Clay Borrow Dam and Mill Pond Structure, as well as the dams related to the Original TCA and the Northwest TCA dams (See Section 3.1.3).

In **2024-25**, the Annual Geotechnical Inspection of dams and dykes on Site included all the dams listed above. The report was submitted to the MVLWB as required by the Water Licence (WSP, 2024b). In general, the inspected structures appeared to be performing satisfactorily. At the time of the inspection, the general condition of the dams appeared to be similar to that observed during the last inspection.

Many common Site observations seen in the 2024 Annual Geotechnical Inspection, such as erosion holes and erosion gullies, do not present an immediate hazard to the integrity of the dams. In 2024, there were no pond levels exceeding the maximum permissible water levels, with the exception of Mill Pond, which is planned to undergo corrective ditching to maintain water levels in early 2025-26. In addition, 2024 also saw no dam instrumentation reading exceedances, except for one settlement plate at Dam 1 which, upon review, proved to be non-concerning. The GMRP continues to monitor and inspect dams on Site on a regular basis as per the OMS Manual (Section 4.4).

The MCM has addressed most of the recommendations proposed in 2024. As a result of work completed on Site, only a small number of outstanding recommendations remain from the 2024 Annual Geotechnical Inspection. The remaining recommendations are anticipated to be completed in 2025-26.

**Next Step:**

- Conduct the 2025 Annual Geotechnical Inspection (dams) and submit the report to the MVLWB (2025-26).

### 4.3. Dam Safety Review

As part of the Canadian Dam Association Guidelines, tailings facility dams are to be reviewed for safety reasons on a recurring basis. The frequency of these reviews is based on the classification of each dam. Some dams on-site require a maximum of 5-year period before another review is required.

In **2024-25**, a Dam Safety Review was completed for 10 dams on Site. The review included dams with “Very High” and “High” consequence classification (Dam 1, Dam 2, Dams 21A, 21B, 21C and 21D, Dams 22A and 22B, and B2 Dam) as well as the Mill Pond Structure (K’alo-Stantec Limited, 2025). The findings and recommendations of the 2024 review cover geotechnical (5), hydrotechnical (11), and dam safety management (10). There are several pending document updates and closure-related designs. Therefore, several of the noted recommendations may have been recently addressed or are in progress. For this reason, most recommendations have been categorized as potential deficiencies or potential non-conformances. The 2024 Dam Safety Review resulted in no recommendations requiring immediate or time-sensitive action (K’alo-Stantec Limited, 2025).

**Next Step:**

- Submit the 2024 Dam Safety Review to the MVLWB.

#### 4.4. Dam Monitoring and Maintenance

Dam monitoring and maintenance activities include recurring tasks, and additional tasks as recommended through the Annual Geotechnical Inspections and/or the monthly monitoring letters.

In **2024-25**, the Project team continued ongoing maintenance and monitoring of the dam areas in accordance with the OMS Manual, main activities include:

- Monthly, weekly, and daily dam inspections were completed, in accordance with the OMS Manual;
- Ongoing maintenance such as the removal of heavy vegetation, the removal of rejected/unused material, removal of debris and scrap materials on and near dam structures, filling of cracks and erosion gullies, and regrading of poor drainage areas near the crest and toes of the dams (WSP, 2024b); and,
- Remote sensing using interferometric synthetic aperture radar (InSAR) technique to monitor dam displacement (started in 2022). InSAR monitoring focuses on Dam 1, Dam 2, Dams 21A to 21D, Dams 22A and 22B, B2 Dam, Mill Pond, and the Splitter Dyke (WSP, 2024b).

##### Next Steps:

- Continue ongoing maintenance and monitoring of the dam areas in accordance with the OMS Manual, including inspection and maintenance of the dam and dyke structures, and erosion remedial actions as needed.
- Implement Dam Safety Reviews and Annual Geotechnical Inspection recommendations on site where possible and include updates in the Operation, Maintenance, and Surveillance Manual.

#### 4.5. Inspections and Audits in 2024-25

The number of external inspections per year is determined by the Inspectors (e.g., Land Use Inspector), based on a variety of factors including the nature of work being undertaken at the site. Table 3 shows the number of inspections that have been conducted at the Site since 2020-21.

Table 3: Number of External Inspection 2020-21 to 2024-25

YEAR	INSPECTIONS
2020-21	6
2021-22	13
2022-23	4
2023-24	3
2024-25	2

In **2024-25**, the CIRNAC Land Use Inspectors conducted two external inspections, inspecting the mine water pumping station, Northwest Pond, Settling/Polishing Pond, ETP, treated water discharge line, the in-construction WTP, and outflow line. The inspectors did not identify any concerns, and lab results did not identify any issues/exceedances.

In addition to these external inspections, the MCM and their subcontractors conduct their own internal inspections on a regular basis to ensure safe operation at the site and compliance with various regulatory and contractual documents, including the Water Licence, Land Use Permit, and Management and Monitoring Plans. These internal inspections include daily site inspections and regular inspections of major structures (e.g., dams and bridges) and equipment.

In **2024-25**, the MCM and its subcontractors conducted a total of 1,134 internal inspections, which identified 39 non-conformances with Project requirements. The increase in non-conformances was a result of increased work activities and, consequently, more people and equipment onsite. The Project has completed or is in the process of completing all identified corrective actions for each of the non-conformances reported.

##### Next Steps:

Complete ongoing internal inspections and address findings of internal and external audits and inspections.



## 4.6. Summary of Fiscal Year 2024–25 Expenditures

Table 4 outlines the planned (i.e., expenditure totals by categories) versus actual expenditures for **2024-25** while Table 5 outlines the planned expenditures in 2025-26. Planned expenditures in every fiscal year include the full annual contingency allocation for the project. Not all contingency is typically required. Beyond contingency, there were some delays associated with the WTP construction such that scope activities and budget were deferred to 2025-26.

Table 4: Planned Versus Actual Expenditures in 2024-25

Category	Planned (\$)	Actuals (\$)	Difference (%)
Care and Maintenance	29,451,901	22,896,791	(22.3)
Regulatory	820,065	556,346	(32.2)
Engagement and Consultation	5,259,501	6,929,708	31.8
Remediation	269,466,825	240,452,866	(10.8)
Monitoring	6,353,396	5,768,140	(9.2)
Program & Project Management	14,009,536	14,772,963	5.4
<b>Totals</b>	<b>325,361,224</b>	<b>291,376,812</b>	<b>(10.4)</b>

Table 5: Planned Expenditures in 2025-26

Category	Operating Expenditures (\$)	Grants and Contributions (\$)	Salary and EBP (\$)	Totals (\$)
Care and Maintenance	28,316,394	0	0	28,316,394
Regulatory	903,540	0	0	903,540
Engagement and Consultation	601,866	6,450,899	0	7,052,765
Investigation and Assessment	0	0	0	0
Remediation	214,161,918	821,330	0	214,983,248
Monitoring	5,861,805	0	0	5,861,805
Program & Project Management	10,613,048	307,750	4,691,306	15,612,104
<b>Totals</b>	<b>260,458,570</b>	<b>7,579,979</b>	<b>4,691,306</b>	<b>272,729,855</b>

### 4.7. Summary of Expenditures Trend 2020–2025

Table 6 and Figure 4 outline the Project’s expenditures trend from fiscal years 2020-2021 to 2024-2025. The project is in the implementation phase, and annual expenditures will be increasing significantly as remediation activities ramp up. Figures presented in this section are not cumulative.

Table 6: Project Expenditures 2020-2025

Category	2020-21	2021-22	2022-23	2023-24	2024-25
Care and Maintenance	\$22,166,327	\$27,095,659	\$28,919,581	\$24,279,218	\$22,896,791
Regulatory	\$1,134,420	\$730,733	\$608,230	\$516,284	\$556,346
Consultation	\$1,345,500	\$3,210,463	\$3,294,542	\$3,130,246	\$6,929,708
Investigation & Assessment	-	-	\$23,370	\$3,818,600	-
Remediation	\$14,941,948	\$46,328,945	\$64,683,491	\$156,366,799	\$240,452,866
Monitoring	\$3,727,700	\$5,395,981	\$5,623,059	\$5,152,180	\$5,768,140
Program Management	\$13,875,697	\$11,104,618	\$12,378,007	\$15,007,545	\$14,772,963
<b>Total</b>	<b>\$57,191,591</b>	<b>\$93,866,400</b>	<b>\$115,530,280</b>	<b>\$208,270,871</b>	<b>\$291,376,812</b>

Figure 4: Project Expenditures 2020-2025



# 5.0 ENVIRONMENT

## 5.1 ENVIRONMENTAL MANAGEMENT

The following report sub-sections (**Air, Water, and Land**) describe key activities and results of existing environmental management programs and additional assessments and monitoring programs (as described in the Site-Wide Monitoring Plans and Programs summary below).

### SITE-WIDE MONITORING PLANS AND PROGRAMS

Site-Wide Monitoring is a combination of all monitoring plans currently ongoing or that will be required at the Giant Mine site. This monitoring includes environmental monitoring of the receiving environment and for managing and monitoring construction work on site as well as structural monitoring of project components currently on site and post-construction. This monitoring is used to determine baseline conditions, monitor changes in the environment, and monitor performance of existing and future engineered structures. Site-Wide Monitoring includes regulatory and due diligence monitoring and can be grouped into the following types of plans and programs:

#### ENVIRONMENTAL

- Water Management and Monitoring Plan
- Surveillance Network Program (SNP)
- Metal and Diamond Mining Effluent Regulations (MDMER) including Environmental Effects Monitoring (EEM) Program
- AEMP
- Operational Monitoring Program (OMP) (ETP, underground)
- Wildlife and Wildlife Habitat Management and Monitoring Plan
- Dust Management and Monitoring Plan including Air Quality Monitoring Program for site perimeter and community stations

- Waste Management and Monitoring Plan
- Borrow Materials and Explosives Management and Monitoring Plan
- Erosion and Sediment Management and Monitoring Plan
- Emergency Management and Spill Response Plan
- Fish Habitat Remediation and Offsetting Monitoring Plan

#### STRUCTURAL

- Arsenic Trioxide Frozen Shell
- Operations, Maintenance and Surveillance Manual for Dams
- Non-Hazardous Waste Landfill
- Open Pits
- Tailings Management and Monitoring Plan
- Underground Structures
- Baker Creek

Site-Wide Monitoring will happen for the lifetime of the project (100 years); the monitoring requirements will change as remediation progresses. Appendix E provides additional information on the individual aspects of the monitoring program. The Type A Water Licence includes conditions related to monitoring and reporting for many of the above components.

### 5.1.1. Status of the Environment Report

The Status of Environment Report is a requirement of the GMRP Environmental Agreement. The first report was submitted 7 years after the agreement was signed (2015) and a subsequent report is due every 3 years until the 15-year mark, at which the report is due every 5 years. The purpose of the report is to summarize:

- Key operational activities and planned key operational activities for the upcoming reporting period;
- Methods and results from environmental monitoring;
- Actions taken if conditions on the site were not going as planned (adaptive management) and whether the actions taken were effective; and,
- Effects of the remediation and other human activities (cumulative effects).

The Project team plans to submit the second Status of Environment Report in 2025, which will provide a high-level overview of the project's key activities and the status of the environment on the site for mid-June 2021 to mid-June 2024.

## 5.2. AIR

Activities undertaken at the Giant Mine site have the potential to release contaminants from the Site into the air. Of primary interest are particulates carrying arsenic, antimony, iron, lead, or nickel. If these contaminants become airborne, they may be transported off-site and deposited elsewhere. To monitor and minimize air quality impacts, the Project team has established an ambient air quality monitoring program, as outlined in the GMRP Air Quality Monitoring Plan. This program includes ongoing air quality monitoring on-site and in nearby communities as well as active management of air quality through dust management, which is described in the Dust Management and Monitoring Plan.

### 2024-25 HIGHLIGHTS

- Results of the ambient air quality monitoring program indicated the air quality of the local airshed was not significantly impacted by activities associated with the Project in 2024 and was representative of regional and local air quality.
- The Project team applied SoilTac throughout the spring and summer at the TCAs to stabilize soil and suppress dust. The Project team also suppressed dust on roads and TCAs using water trucks and cannons and employed blasting mats to minimize dust during blasting activities.
- Air quality monitoring recorded 25 days with 15-minute PM10 exceedances and 8 days with total suspended particulate exceedances at perimeter stations, primarily due to wildfire smoke or fog. Two Action Levels exceedances (per the Dust Management and Monitoring Plan) were attributable to Site-related sources and reported to the MVLWB.

### 5.2.1. Air Quality Monitoring

The GMRP air quality monitoring stations provide data to monitor potential adverse effects to the local airshed during remediation activities. This data also helps the Project team to determine whether additional mitigation measures are required if air quality results exceed established Action Levels in the Dust Management and Monitoring Plan and ambient air quality criteria (summarized in Appendix E).

The GMRP ambient air quality monitoring program continued to measure what is in the dust, both from stations on-site and at community stations located in Yellowknife and Ndilq. The Project team uses criteria in alignment with national and territorial standards. If real-time monitors detect dust levels above criteria, more actions are taken to investigate and control the dust. Monitoring helps to ensure residents are not exposed to unacceptable levels of contaminants from the activities occurring at the Giant Mine site (Giant Mine Remediation Project, 2024a). The Project team will continue to develop positive and proactive approaches to community concerns. To this end, a Frequently Asked Questions handout on dust and air quality was developed as a communication and engagement tool.

The GMRP team conducts ambient air quality monitoring during non-snow-covered months, and as site activities warrant, at locations on-site as part of the site perimeter air quality monitoring network. The monitoring locations measure real-time total suspended particulate and Particulate Matter (PM) measuring less than 10 microns in diameter (PM10). Additionally, the Project team measures total suspended particulate, PM10, total inorganic trace metals, and PM10 arsenic from filters collected at the site perimeter monitoring stations and submitted for analytical analysis.

Three GMRP community stations are located off-site in the community of Ndilq, Niven Lake, and at Yellowknife Bay, in the vicinity of the Great Slave Sailing Club marina. The community stations measure continuous PM10, and particulate matter measuring less than 2.5 microns in diameter (PM2.5). The Project team measures integrated total suspended particulate, PM10, total inorganic trace metals, and PM10 arsenic from filters collected at the community stations. Nitrogen dioxide is also measured at the Niven Lake community station.

**In 2024-25**, the results of the ambient air quality monitoring showed that Site activities did not significantly impact air quality in the area. The air quality in the region remained consistent with both local and regional standards.

During 2024, there were 25 days when the 15-minute average levels of PM10 at the site perimeter stations exceeded the risk-based action level outlined in the Dust Management and Monitoring Plan and the Air Quality Monitoring Plan. These exceedances were mostly due to smoke from regional wildfires or fog. On two days, exceedances were attributed to site-related sources: on May 26, windblown dust was the likely cause, and on July 15, visible dust from on-site activities was the primary contributor. During 2024, there were 8 days when the 15-minute average levels of total suspended particulate at the site perimeter stations exceeded the risk-based action level outlined in the Dust Management and Monitoring Plan and the Air Quality Monitoring Plan. All total suspended particulate exceedances were attributed to regional wildfire smoke or fog.

There were four days (May 27, June 5, July 29, and August 13) where 24-hour integrated filter samples collected from the Site Perimeter Monitoring Stations exceeded the program Ambient Air Quality Criteria for PM10, four days for total suspended particulate, and four days for arsenic and iron concentrations (May 27, June 5, August 22 and November 26) all due to windblown dust or site activity.

In the community, one day (April 12) saw levels of total suspended particulates or trace metals exceed their respective criteria in 24-hour samples. Continuous monitoring showed that 24-hour average PM2.5 concentrations were above the Ontario Ministry of the Environment's criteria on eight days, all due to wildfire smoke. Similarly, PM10 levels were above the criteria on five days, primarily due to smoke, except on April 11, 12, and 17, when localized windblown dust was the likely cause.

Overall, results of the ambient air quality monitoring program indicated the air quality of the local airshed was not significantly impacted by activities associated with the GMRP in 2024.

#### Next Steps:

- Continue ambient air quality monitoring, as outlined in the GMRP Air Quality Monitoring Plan.

More details on the air monitoring program, including real-time data and weekly reports, are available on the [NWT Air Quality Monitoring Network](#). You can also receive the weekly reports via email by requesting to be added to the distribution list by writing to [giantmine@rcaanc-cirnac.gc.ca](mailto:giantmine@rcaanc-cirnac.gc.ca)

## 5.2.2. Dust Management

The Project team takes active measures to reduce dust from the site's tailings ponds and roads. These measures include communicating daily wind forecasts to team members each morning, applying dust control products to the tailings ponds and road network, reducing road speeds when wind speeds are elevated, and wetting the tailings ponds as needed. Dust suppression decisions on site are driven, in part, by a combination of measured 15-minute average concentrations at site perimeter monitoring stations compared to risk-based action levels and observed visible dust.

In **2024–25**, the Project team diligently continued their efforts in managing dust for the TCAs and road network, as well as active work areas. Key activities included:

- Suppressed dust along the roads and the TCAs using water trucks, water cannons, EcoSoil, and SoilTac;
- Employed mats during blasting to manage dust;
- Discussed wind conditions, weather forecasts, and dust suppression for each construction project and ongoing compliance;
- Continued to monitor wind speed and forecasts to guide mitigation;
- Maintained Version 3.1 of the Dust Management and Monitoring Plan, approved by the MVLWB in May 2023;
- Utilized a total of 89 m<sup>3</sup> of SoilTac and 14 m<sup>3</sup> of EcoSoil (Giant Mine Remediation Project, 2025); and,
- Withdrew 3,343 m<sup>3</sup> of water from the Polishing Pond, 32,638 m<sup>3</sup> from Yellowknife Bay, and 18,849 m<sup>3</sup> from the North Pond to suppress dust on roads, TCAs and other areas in accordance with the Water Management and Monitoring Plan (Giant Mine Remediation Project, 2025).

#### Next Steps:

- Continue ongoing dust management for TCAs, the road network, and active work areas, as needed, with application of approved dust suppressants and water.



## 5.3. WATER

To monitor and minimize water quality impacts, the GMRP undertakes ongoing effluent and water quality monitoring on-Site.

### 2024-25 HIGHLIGHTS

- Operated the ETP, discharging 222,623 m<sup>3</sup> of treated water to Baker Creek in full compliance with Water Licence and MDMER limits.
- Maintained comprehensive water quality monitoring through SNP, AEMP, and OMP programs.
- Achieved Recognized Closed Mine status under the MDMER in October 2024.

### 5.3.1. Effluent, Surface Water and Groundwater Quality Monitoring

GMRP implements a comprehensive Water Management and Monitoring Plan to ensure that water quality is protected during remediation activities. The plan includes monitoring of effluent, surface water, groundwater, and minewater, and supports adaptive management and regulatory compliance under Water Licence MV2007L8-0031.

To protect the health and safety of workers, the public, and the environment, water from the Giant Mine site is treated at the on-site ETP before being seasonally discharged to the environment. The ETP system consists of various components including reaction tanks, a Settling Pond, and a Polishing Pond that are used – in this order – to treat the minewater. Discharged effluent water is released into Baker Creek and must meet standards set by the MDMER under the Fisheries Act and the GMRP Type A Water Licence (MV2007L8-0031). The GMRP became a Recognized Closed Mine under the MDMER in October 2024. MDMER monitoring and reporting requirements therefore applied to the effluent discharge season in 2024 (11 July to 20 September). Starting in 2025, the GMRP will no longer be subject to monitoring and reporting requirements under the MDMER.

Minewater is pumped to surface throughout the year and stored on-Site in the Northwest Pond. Treatment of this water typically begins in June of each year, with discharge to the environment typically occurring between July and September. This timing also avoids the Arctic Grayling spawning window in Baker Creek.

The volume of mine water pumped to surface and seasonally treated and discharged depends on several factors, including available surface storage volumes, runoff, and precipitation events. In 2024, the ETP discharged a total of 222,623 m<sup>3</sup> of treated effluent to Baker Creek over a 72-day period from July 11 to September 20. This represents an increase from 2023, when 179,296 m<sup>3</sup> was discharged.

The Project team undertakes effluent and water quality monitoring in and around the Giant Mine site via different programs to report on surface water, groundwater, and underground minewater. These programs track parameters such as the volume of water pumped or discharged, water quality, and the performance of the ETP. The effluent and surface water quality monitoring encompass the programs outlined below. These programs are used to monitor existing performance and to inform the design process for remediation activities:

- Surveillance Network Program (SNP);
- Aquatic Effects Monitoring Program (AEMP);
- MDMER including the Environmental Effects Monitoring (EEM) Program;
- Operational Monitoring Program; and,
- Supplemental surface water and groundwater baseline data collection to support the surface water quality and Yellowknife Bay models and the AEMP.

Parameters tested at all stations include standard general parameters (e.g., temperature, pH, conductivity, hardness), major ions, nutrients, and total and dissolved metals. There are also specific station requirements for other tests such as total cyanide, sulphide, hydrocarbons, and radium-226.

Table 7 summarizes the key water quality monitoring activities undertaken across the Giant Mine site during the 2024–25 reporting period, including hydrology, surface and mine water, and groundwater programs. It outlines the monitoring focus, observed results, and recommended next steps to support continued environmental compliance and adaptive site management (WSP, 2025).



Table 7: Annual Water Quality Monitoring 2024-25

	ACTIVITIES	RESULTS	RECOMMENDATIONS / NEXT STEPS
Hydrology (water quantity)	Water level and streamflow monitoring at Baker Creek, Northwest Pond, and Polishing Pond (May to October 2024).	TData collected at five hydrometric stations. Flow measurements confirmed dry seasonal trends throughout the season.	Continue hydrometric monitoring through open-water seasons.
	Comparison of modelled vs measured streamflow to refine water balance estimates.	Modelled flow closely aligned with measured values, validating the reliability of the water balance model. 2024 was a dry year. The calibrated water balance model effectively supported operational water management decisions.	Continue comparing modelled vs measured streamflow.
Surface water and minewater quality	Surface water and effluent quality sampling across ponds, creeks, sumps, and TCAs.	Results showed general consistency with historical trends. Slight increases in major ions, nitrate, and some metals were observed during dry periods and post-discharge, though these remained within expected seasonal ranges.	Continue multi-point surface water sampling aligned with AEMP and SNP protocols.
	Weekly SNP 43-1 effluent sampling during discharge (11 July–20 September 2024).	All samples complied with Water Licence and MDMER limits. No Action Levels were triggered. Variations in Baker Creek concentrations were attributed primarily to dry conditions rather than remediation activities.	Maintain effluent monitoring during discharge windows to ensure compliance.
	Minewater sampling from the Northwest Pumping System and underground workings.	Minewater samples met data quality objectives. The risk of sampling contamination was low.	Continue Quality Assurance and Quality Control (QA/QC) for minewater to confirm sampling reliability.
	Water withdrawals for dust suppression, compaction, and paste production.	Withdrawals from the Polishing Pond, North Pond, and Yellowknife Bay supported activities such as drilling, dust suppression, and compaction. All usage remained within the Water Management and Monitoring Plan parameters, and no adverse impacts were reported.	Continue to document and assess withdrawal volumes and sources monthly as per Water Licence requirements.

	ACTIVITIES	RESULTS	RECOMMENDATIONS / NEXT STEPS
Groundwater	Monitoring of shallow and deep groundwater wells (Spring and Fall 2024).	Groundwater was monitored at shallow and deep multiport wells across the site. Flow direction remained consistent with past years, showing a downward gradient toward underground workings. Water quality was generally stable across seasons, with spring and fall hydraulic head patterns aligned with historical trends.	Continue seasonal groundwater sampling schedule per SNP and Operational Monitoring Program.
	Groundwater level and hydraulic head measurements.	Hydraulic gradients confirmed downward flow trends, consistent with past years.	Continue head and gradient measurements to track underground flows.
	Collection of water quality data and supporting QA/QC samples.	Field and lab QA/QC met program objectives; all exceedances were minor and explained by field conditions.	Continue to collect and report QA/QC data and update procedures as needed.



Water quality is also monitored under the Erosion and Sediment Monitoring and Management Plan. As reported in the 2024 Annual Water Licence Report, there were two (2) Action Level exceedances under the Erosion and Sediment MMP in 2024:

- Low Action Level exceedance during in-water works for WTP construction on 18 July 2024:** Total Suspended Solids (TSS) concentrations remained below the Low Action Level threshold of 5 mg/L during in-water works associated with construction of the WTP, except for a field-derived measurement of 7.7 mg/L at 16:10 on 18 July 2024. The background TSS concentration at this time ranged from approximately 2.5 to 6.0 mg/L (based on two background locations within Yellowknife Bay). This increase in TSS was attributed to repositioning of a vertical anchor for the barge used for placement of gabion mats and boat traffic at the public boat launch. The TSS concentration returned to background within 30 minutes at this location and a visual plume was not observed.
- Low Action Level exceedance during beaver dam removal in Baker Creek on 3 October 2024:** Short-term increases in TSS (approximately 30 to 60 mg/L) downstream of beaver dam removal activities in Baker Creek resulted in a Low Action Level exceedance per on 3 October 2024. These removal activities were completed over a 2.5-hour period. The exceedance was therefore of short duration, and there were no increases in TSS concentrations in Baker Creek at SNP 43-5 during the following weekly sampling event on 5 October.

### 5.3.2. Metal and Diamond Mining Effluent Regulations (MDMER)/Environmental Effects Monitoring (EEM)

The MDMER under the Fisheries Act requires metal mines to conduct environmental effects monitoring. This monitoring includes monitoring of effluent and surface water quality, toxicological testing of the treated effluent, and biological monitoring. These results are used to assess and identify any effects that may be caused by the treated effluent. The overall objective of these studies is to protect fish and fish habitat and maintain the safe use of fish by people.

Effluent and water quality are monitored during periods of effluent discharge as part of EEM. This data is used to interpret the effects observed in the fish and benthic invertebrates from Baker Creek (i.e., the results from the biological program that is completed every three years). An EEM program has been conducted since 2003, with seven phases of monitoring completed to date. In 2021, GMRP submitted its intention to become recognized as a closed mine. The Phase 7 EEM report was the last report in this series.

**In 2024–25**, the Project achieved a milestone by becoming a Recognized Closed Mine under the MDMER in October 2024. As a result, MDMER requirements will be removed from future GMRP plans, including the Water Management and Monitoring Plan (Version 6.0) and the AEMP Design Plan (Version 3.0), as these documents are updated.

**In 2024–25**, the project also continued effluent and water quality monitoring during the discharge period (July 11 to September 20, 2024), including weekly sampling and toxicity testing as part of the SNP, MDMER, and AEMP programs.

#### Next Steps:

- Remove MDMER-related requirements from future versions of the Water Monitoring and Management Plan as well as AEMP Design Plan.
- Continue existing water quality monitoring (SNP, AEMP, OMP) as applicable.

### 5.3.3. Aquatic Effects Monitoring Program

The AEMP framework includes four document types: Design Plan, Annual Report, Re-evaluation Report, and Response Plan (as applicable). The current AEMP Design Plan (Version 2.3) focuses on Baker Creek and conditions under discharge from the ETP. The Yellowknife Bay Special Study, completed in 2023, assessed baseline conditions in Yellowknife Bay prior to discharge from the new WTP. Results from this study were incorporated into the 2024 AEMP Re-evaluation Report. Until the new WTP becomes operational, the existing ETP continues to discharge into Baker Creek. The AEMP will shift focus to Yellowknife Bay once the WTP is commissioned, expected in 2026. The Project team will update the AEMP Design Plan to reflect this change in receiving environment from Baker Creek to Yellowknife Bay.

**In 2024-25**, the Project conducted Aquatic Effects Monitoring in accordance with the approved AEMP Design Plan Version 2.3. Monitoring activities in 2024 included water quality sampling in Baker Creek, and acute and sublethal toxicity testing of treated effluent. Biological monitoring (e.g., benthic invertebrates, fish health, and fish tissue) was not conducted in 2024 as per the schedule.

Key findings from the 2024 AEMP included:

- Water quality in Baker Creek was influenced by low flows and treated effluent during discharge;
- No Action Levels (Low, Moderate, or High) were exceeded. Increases in major ions and metals were attributed to persistent dry conditions, not GMRP activities;
- Acute toxicity tests showed no lethal effects on Rainbow Trout or *Daphnia magna*; and,
- Sublethal toxicity tests indicated no effects on algal growth (*R. subcapitata*), but reduced reproduction in *C. dubia* and growth in *L. minor*.

The Project team submitted the AEMP Re-evaluation Report, which was approved by the MVLWB. The Aquatic Effects Baseline Report for Yellowknife Bay was submitted as an appendix to the AEMP Re-evaluation Report.

#### Next Steps:

- Continue AEMP monitoring in Baker Creek under the currently approved AEMP Design Plan Version 2.3 until the new WTP is commissioned.
- Submit an updated AEMP Design Plan to the MVLWB in 2025 following pre-engagement with Rights holders and stakeholders through the Aquatic Advisory Committee. This updated plan will focus on discharge from the WTP into Yellowknife Bay.
- Prepare for transition of monitoring from Baker Creek to Yellowknife Bay, aligned with the expected WTP commissioning in 2026 (subject to construction timelines).

### 5.3.4. Fisheries Act Authorization

In 2023, the Project submitted a *Fisheries Act* Authorization Application to Fisheries and Oceans Canada (DFO) for remediation activities proposed from 2024 to 2038 in and near Baker Creek, Trapper Creek below Ingraham Trail, and Yellowknife Bay.

**In 2024-25**, the Project received its Fisheries Act Authorization, reflecting a culmination of years of effort, including engagement with the Project's Aquatic Advisory Committee as well as fish habitat surveys of the foreshore tailing areas, the near shore contaminated sediments, and the outfall area in Yellowknife Bay.

#### Next Steps:

- Coordinate with DFO under the new Fisheries Act Authorization, which includes monitoring and reporting requirements related to fish habitat offsetting measures.
- Submit the Fisheries Act Authorization Annual Monitoring Report to DFO by April 30, 2025, and provide it to the MVLWB for information.

## 5.4. LAND

The GMRP team undertook several activities to monitor and minimize impacts to land and protect the health and safety of the public, on-site workers, and wildlife.

### 2024-25 HIGHLIGHTS

- Continued to manage site waste in accordance with the Waste Management and Monitoring Plan.
- Maintained operations of the Non-Hazardous Waste Landfill and Waste Transfer Station.
- Conducted seasonal groundwater monitoring at landfill perimeter wells.
- Implemented the Wildlife and Wildlife Habitat Management and Monitoring Plan.
- Logged and reported wildlife sightings and deployed bird deterrents at high-risk areas.
- Kicked off the revegetation test-plot pilot project to evaluate biotic soil media options.

### 5.4.1. Waste Management

The Waste Management and Monitoring Plan Version 3.2, approved by the MVLWB in May 2023, provides an overview of the waste management strategy for active remediation. The plan explains why waste must be managed and how it is managed and provides the guiding procedures for collection, decontamination, storage, characterization, and on-site or off-site disposal that will be followed during remediation.

Temporary storage continues in designated areas such as the Material Storage Area, where containers with arsenic-impacted building materials are stored. Runoff from these areas is directed to the TCA for subsequent treatment at the site's ETP.

The GMRP continues to operate the Non-Hazardous Waste Landfill, which was developed to contain non-hazardous legacy and demolition waste generated during active remediation. Following approval of the Non-hazardous Waste Landfill Design Plan and the updated Waste Management and Monitoring Plan by the MVLWB, construction of the landfill began in 2021, and Phase 1 was completed in 2023.

**In 2024-25**, the Waste Transfer Station was in continuous operation for managing operational waste streams. No changes to location or layout were made in 2024-25. The Non-Hazardous Waste Landfill remained active and continued to accept non-hazardous materials classified under the Waste Management and Monitoring Plan, including demolition and other legacy debris, and asbestos-containing materials that are not otherwise impacted by arsenic or other hazardous substances. Hazardous material continued to be handled in accordance with the Waste Management and Monitoring Plan.

Monitoring activities included:

- Seasonal groundwater sampling (Spring and Fall) of the shallow monitoring wells surrounding the Non-Hazardous Waste Landfill. These efforts support the assessment of seasonal groundwater flow and potential leachate migration trends.
- Characterization and classification of operational and demolition-related waste remained consistent with previous years. The plan's screening protocols were implemented such that materials were directed to the appropriate disposal pathway.
- Unlike the previous year, no additional hazardous materials study or inventory program was conducted for the Core Industrial Area in 2024. Instead, the focus remained on operational compliance, material tracking, and management of known stockpiles.

#### Next Steps:

- Submit an update to the Waste Management and Monitoring Plan to the MVLWB.
- Continue managing waste streams in accordance with the approved Waste Management and Monitoring Plan.
- Continue accepting waste at the Non-Hazardous Waste Landfill for eligible materials.
- Maintain operations of the Waste Transfer Station to support active remediation.
- Continue groundwater monitoring near landfill boundaries to identify any seasonal changes or potential risks.

A summary of waste segregation audits can be found in the 2024 Annual Water License Report located in the following link:

[https://lwb-registry-867.s3.ca-central-1.amazonaws.com/Documents/MV2007L8-0031/GMRP%20-%202024%20Annual%20Water%20Licence%20Report%20-%20V1.0%20-%20Part%201%20-%20Apr30\\_25.pdf](https://lwb-registry-867.s3.ca-central-1.amazonaws.com/Documents/MV2007L8-0031/GMRP%20-%202024%20Annual%20Water%20Licence%20Report%20-%20V1.0%20-%20Part%201%20-%20Apr30_25.pdf)

## 5.4.2. Wildlife Management

The Project team submitted the Wildlife and Wildlife Habitat Management and Monitoring Plan as part of the Water Licence package in April 2019. An updated plan was submitted in March 2021. All activities and interactions with wildlife are conducted in accordance with the plan. The Project team maintained wildlife logs on-site, which are available to Inspectors upon request.

In 2024-25, the Project Team:

- Continued implementing the Wildlife and Wildlife Habitat Management and Monitoring Plan to minimize and monitor impacts to wildlife;
- Maintained wildlife sighting and interaction logs, including incidental observations during daily activities;
- Reported wildlife observations to GNWT-ECC, ECC, and Inspectors as appropriate;
- Continued inspections at the ETP and other areas around the Site to identify and deter nesting activity as applicable;
- Deployed bird deterrents and visual scare devices in known problem areas to reduce bird nesting and congregation;
- Obtained General Wildlife Permits from GNWT as needed to address potential wildlife conflicts, nest removal, and beaver dam removal;
- Applied mitigations for protected species interactions, in coordination with regulatory agencies where necessary; and,
- Conducted seasonal bird and bear monitoring, especially in areas of active or planned remediation.

#### Next Steps:

- Continue to implement the Wildlife and Wildlife Habitat Management and Monitoring Plan.
- Continue to log and report wildlife sightings and interactions (including the bird survey), in accordance with the approved Plan.
- Maintain ongoing communication with Territorial and Federal Inspectors regarding wildlife management activities, as applicable.

### 5.4.3. Revegetation

In early July 2022, the GMRP engagement team held separate sessions with YKDFN Elders and youth, and North Slave Métis Alliance (NSMA) Elders to gather their perspectives on revegetation as part of the remediation process. In 2023-24 the Project, in collaboration with the Revegetation Task Force, initiated the development of a draft Engagement Strategy that was successfully rolled out in the summer of 2024.

In 2024-25, the Project began work on the Revegetation Test Plot Pilot to evaluate types of biotic soil media and determine which one would be best for revegetation on site. This work included clearing, grading and planting the test plots in summer and fall of 2024.

#### Next Steps:

- Continue the Revegetation Test Plot Pilot and monitor the revegetation test plots once a year.

### 5.4.4. Spills Accidents, and Significant Malfunctions

In 2024-25, 10 spills [unauthorized discharges] involved the release of reportable or tracked substances (Giant Mine Remediation Project, 2025). The spills of greatest volume included:

- 28,000 L of tailing paste that leaked from the A2 Pit areas into the area between the rock face side wall and the berm adjacent to the A2 Pit access ramp.
- 1500 L of arsenic impacted minewater impacted the immediate gravel pad due to a malfunctioned air bleed valve on the deep well pump system at 201 Pumphouse.

Other spills include those associated with engine coolant, treated water with lime, hydraulic oil, and diesel fuel. There were a higher number of reportable spills than in previous years (3 spills in 2023-24 and 2 in 2022-23), reflecting greater activity at Site. All spills were managed in accordance

with the Site's Emergency Management and Spill Response Plan and reported to the NWT 24hour Spill Line. Further detail can be found in the 2024 Annual Water Licence Report.

#### Next Steps:

- Continue to monitor mitigate and resolve spills in accordance with the Emergency Management and Spill Response Plan.

## 5.5. CLIMATE CHANGE

This section summarizes the Project's GHG emissions, climate conditions at Site of note, information on how climate considerations are incorporated into designs, and what next steps GMRP is taking to address climate change.

### 2024-25 HIGHLIGHTS

- Continued to monitor and track GHG emissions from Site.
- Continued to monitor wind speed, temperature, precipitation, and streamflow on Site.
- Amalgamated and reviewed the most recent climate change projections.
- Updated the 2019 climate risk assessment with the most recent climate change projections.
- Continued engagement on climate change and how the GMRP is incorporating it into design and future planning (e.g., climate change pamphlet and evaluation of GHG emission reduction).

### 5.5.1. Greenhouse Gas Emissions

The GMRP is taking several steps to proactively reduce GHG emissions and implement Federal and GNWT climate action plans and policies. The GMRP is fully committed to finding opportunities to reduce GHG emissions during implementation. The principal source of GHG emissions from implementation activities will be through the operation of heavy construction equipment. Given that heavy construction equipment must be used for a remediation project of this nature, the principal tool available to minimize GHG emissions will be to minimize fuel use and reduce haul distances where possible. After remediation, the main source of emissions would be operation of the WTP and fuel use for vehicles for inspections and care and maintenance.

The MCM monitors and tracks three key GHG's (i.e., carbon dioxide, methane, and nitrous oxide) monthly on Site. Emissions of these GHG's can be from vehicles, buildings, industrial activities, and water treatment (i.e., direct emissions), or from the purchase and consumption of electricity (i.e., indirect emissions).

Stemming from recommendations included in the Office of the Auditor General's (OAG) 2024 Audit Report, the GMRP conducted a review of the GHG tracking tools in 2024-25 as part of good GHG inventory management practices. To better align with federal reporting through the Greenhouse Gas Reporting Project, federal emission factors are now used to estimate the GHGs. As well, the direct emission category was expanded to include vehicle use (previously only considered stationary sources, like buildings). This results in a decrease of approximately 6% in the annual emission total relative to 2024-25 results using the previous estimation method considered in reports of past years; the 2024-25 results derived using both methods are below the federal reporting threshold of 10 M Kg CO<sub>2</sub>e (one million kilograms of carbon dioxide equivalent, a way to measure the total impact of different GHGs in terms of how much carbon dioxide [CO<sub>2</sub>] would cause the same amount of warming). This new method does not impact the conclusions of previous reports. Table 8 below shows the trend information over the last 3 years (2022-23 to 2024-25) using both the previously used emission factors and the federal emission factors, as well as the updated definition of direct emissions.

Table 8: GHG Emissions Trend (2022-23 to 2024-25)

	2022-23 (M Kg CO <sub>2</sub> e) <sup>(1)</sup>	2023-24 (M Kg CO <sub>2</sub> e)	2024-25 (M Kg CO <sub>2</sub> e)
<b>Previous Estimation Method</b>			
<b>Direct<sup>(2)</sup></b>	3.03	6.50	7.30
<b>Indirect<sup>(3)</sup></b>	2.12	1.88	1.33
<b>Federal Emission Factors</b>			
<b>Direct</b>	2.94	6.29	6.89
<b>Indirect</b>	2.12	1.88	1.33

Note: (1) M Kg is one million kilograms or one thousand tonnes (or one kiloton); CO<sub>2</sub>e is carbon dioxide equivalent, a way to measure the total impact of different greenhouse gases in terms of how much carbon dioxide (CO<sub>2</sub>) would cause the same amount of warming. (2) Direct emissions refer to emissions that directly result from the project (e.g., vehicles, buildings, industrial activities, and water treatment). (3) Indirect emissions refer to purchased electricity.

Figure 5 below shows the trend information using the updated emission factors.

Figure 5: GHG Emissions Trend (2022-23 to 2024-25)



Looking at the emissions from the last 3 years using the federal emission factors, the direct emissions emitted on Site were 6.89 M Kg CO<sub>2</sub>e in 2024-25, which is higher than the last two years (6.29 M Kg CO<sub>2</sub>e in 2023-24 and 2.94 M Kg CO<sub>2</sub>e in 2022-23). This is comparable to the trend using the previous estimation method. This increase in emissions can be explained by the increase in Site activity during remediation (e.g., more fuel use in buildings, industrial activities, and vehicles). The indirect emissions generated by the site in 2024-25 were 1.33M Kg CO<sub>2</sub>e, which is lower than the last two years (1.88 M Kg CO<sub>2</sub>e in 2023-24 and 2.12M Kg CO<sub>2</sub>e in 2022-23).

See Appendix F for additional GHG emissions data, including the monthly breakdown.

### 5.5.2. Climate Conditions at Site

The Project continues to monitor climate conditions at Site, including wind speed, temperature & precipitation, streamflow, and any extreme events (e.g., wildfires). The section below summarizes noteworthy conditions in the reporting year. See Appendix F – Climate Change and GHG Emissions for more detailed information.

In **2024-25**, noteworthy conditions included:

- The annual precipitation amount was less than the long-term average (i.e., 1943 to 2024), characterized by a near-average winter and dry summer.
- Streamflow at Baker Creek was low in 2024 relative to the long-term average.

- The streamflow peak during freshet took place at the end of May and was consistent with typical peak timing.

The GMRP uses this information, as well as updated climate change predictions, to make decisions on whether immediate action is required, or whether changes to Management and Monitoring Plans, Design Plans, or other documents are required.

### 5.5.3 Incorporation of Climate into Design

The GMRP has assessed climate conditions and future climate change, and incorporates findings into design engineering of the remediation, with Design Plans finalized for approval for the MVLWB. Examples of climate reviews and how designs incorporated climate considerations in 2024-25 are outlined below.

**Review of Updated to Climate Projections –** The review of the Intergovernmental Panel on Climate Change’s Sixth Assessment Report (AR6, IPCC 2021) projections was finalized incorporating comments from the Giant Mine Working Group. The review indicated that:

- Designs developed using Intergovernmental Panel on Climate Change’s Fifth Assessment Report (AR5, IPCC 2013) projections and primarily dependent on precipitation (i.e., water treatment plant minewater intake pump, drainage structures, and Baker Creek) would not be affected by the new AR6 projections.
- Designs developed using AR5 projections and primarily dependent on temperature (i.e., thermosyphons and dam foundations) would require further review by the design teams.

**Review of Dam Foundation Design –** the Project team completed a review of dam foundation designs developed using AR5 projections in response to the review of AR6 projections mentioned above. The review concluded that the designs would not be affected by the new projections, and that no design changes were necessary. The review is expected to be finalized in 2025.

**Review of Thermosyphon Design –** the Project team completed a review of the thermosyphon design developed using AR5 projections in response to the review of AR6 projections mentioned above. The review concluded that the design, along with adaptive management measures to address residual uncertainty as described in the Freeze Program design plan, and on-going climate monitoring and reviews of new climate projections, is adequate. This conclusion is documented in responses to the Working Group comments, to be submitted to the Working Group in Fall 2025.

**Review of the 2019 Climate Risk Assessment with Updated Climate Projections –** the Project team completed a review of the Qualitative Risk Assessment’s Climate Risk Assessment, triggered by newly available climate projections mentioned above., and in order to satisfy a recommendation from the OAG’s 2024 Audit Report for the Northern Contaminated Sites Program.

**Engagement and Incorporation of Feedback in the GMRP Climate Change Strategy** – Climate-related engagements in **2024-25** included:

- Working Group engagement in May 2024, addressing how climate change has been incorporated in the project to date, and how new projections are considered as they become available. The GMRP is finalizing responses to questions and comments provided by the Working Group, planned for release in fall 2025.
- Independent Peer Review Panel engagement in March 2025, based on a shorter version of the May 2024 Working Group presentation material. Formal feedback from the Independent Peer Review Panel has not yet been provided at the time of this report.

**Public Pamphlet** - GMRP continues to support the general public in understanding how remediation includes climate considerations. The Project developed a draft pamphlet highlighting the importance of climate change, how climate is monitored at the site, and how climate is incorporated into remediation. The pamphlet is expected to be finalized and released to the public in Winter 2026.

**Next Steps:**

- Continue to monitor climate-related conditions on site (e.g., temperature, streamflow, site stability) as remediation progresses.
- Provide responses to the Giant Mine Working Group review comments provided through engagement on the climate projections reporting and implications for final design.
- Continue to evaluate climate change considerations and GHG emission reductions and mitigative actions where relevant.
- Develop the framework for a GHG Reduction and Innovation Plan. to further address recommendations in the OAG's 2024 Audit Report.
- Continue to support the general public's understanding of how GMRP remediation includes climate considerations through different engagement mechanisms (e.g., pamphlet).





DO NOT  
ERATE GAS  
VEHICLES

NO SMOKING

TRANS  
SLOW DOWN  
BE PREPAR  
TO STOP

Q2022 and YHS Area  
2022-2030

Barham  
Community



# 6.0 HEALTH AND SAFETY

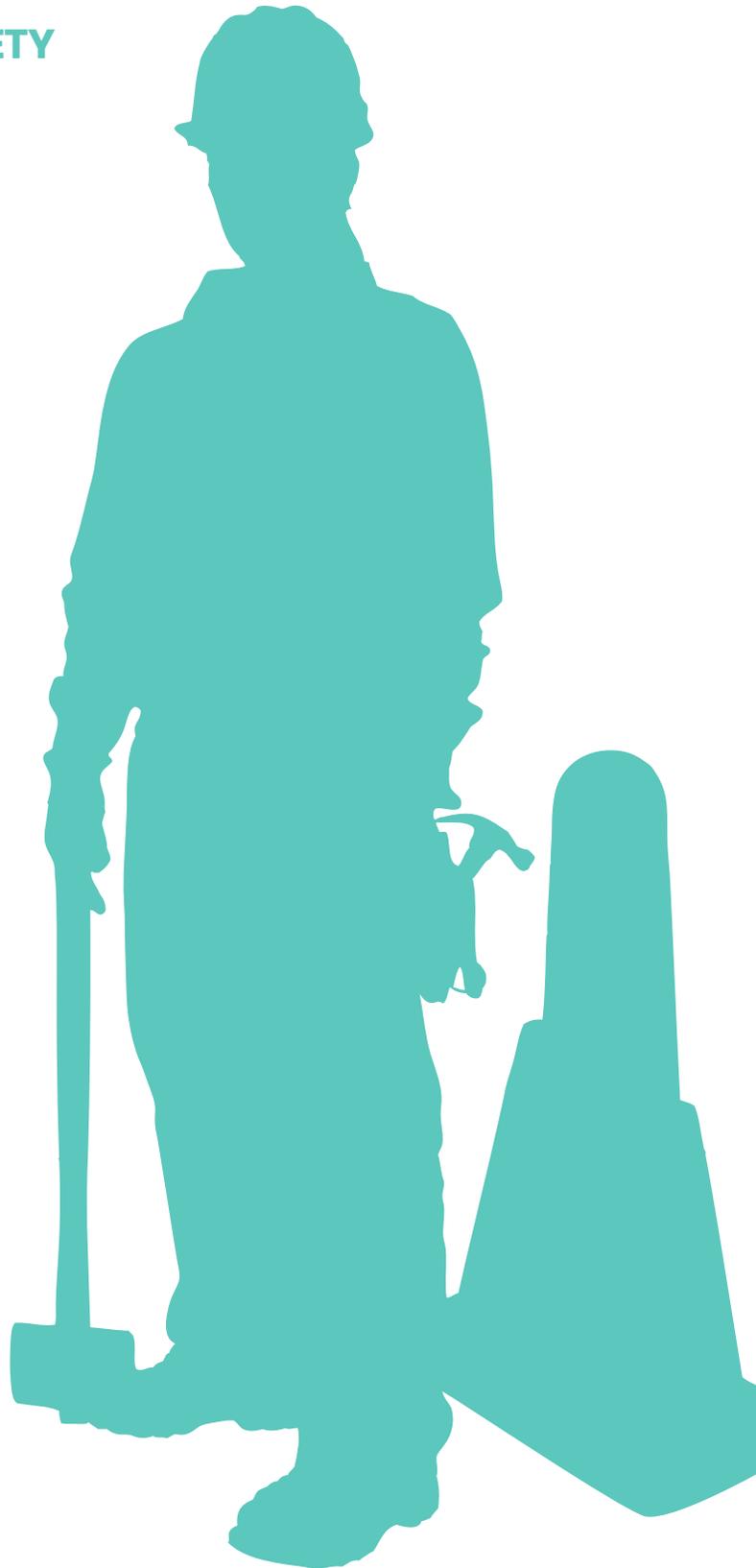
## 6.1. OCCUPATIONAL HEALTH & SAFETY

CIRNAC provides oversight for occupational health and safety, while PSPC provides oversight and manages engineering design consultants to ensure that they have in place a health and safety plan, health and safety procedures, and emergency response plans, and that they follow the procedures and report any health and safety incidents.

The MCM maintains overall health and safety responsibility as the Mine Manager at the Giant Mine site. To ensure that on-Site safety plans are implemented, there is a designated MCM occupational health and safety manager who organizes ongoing training and occupational health and safety support for managers, supervisors and other employees and subcontractors. Additionally, there is a GMRP health and safety committee, as well as an on-Site health and safety committee, that collaborate to oversee and enhance health and safety measures across the Project.

### 2024-25 HIGHLIGHTS

- There were 0 major safety incidents, 1 moderate safety incident, and 37 minor incidents in 2024-25.
- The number of reported near misses increased to 48 in 2024-25 from 35 in 2023-24 and 2022-23 (29), but lower than 2021-22 (71), and 2020-21 (56).
- 0.84% of urinalysis samples were above the action level of 35 micrograms of arsenic per litre of urine ( $\mu\text{g/L}$ ) in 2024-25, a small decrease from 0.86% in 2023-24 and a significant decrease from 3.35% in 2022



### 6.1.1. Health and Safety Incidents

The GMRP tracks the number of major incidents, moderate incidents, minor incidents, and near misses on a monthly basis. Table 9 summarizes the number of health and safety incidents and near misses in 2024-25.

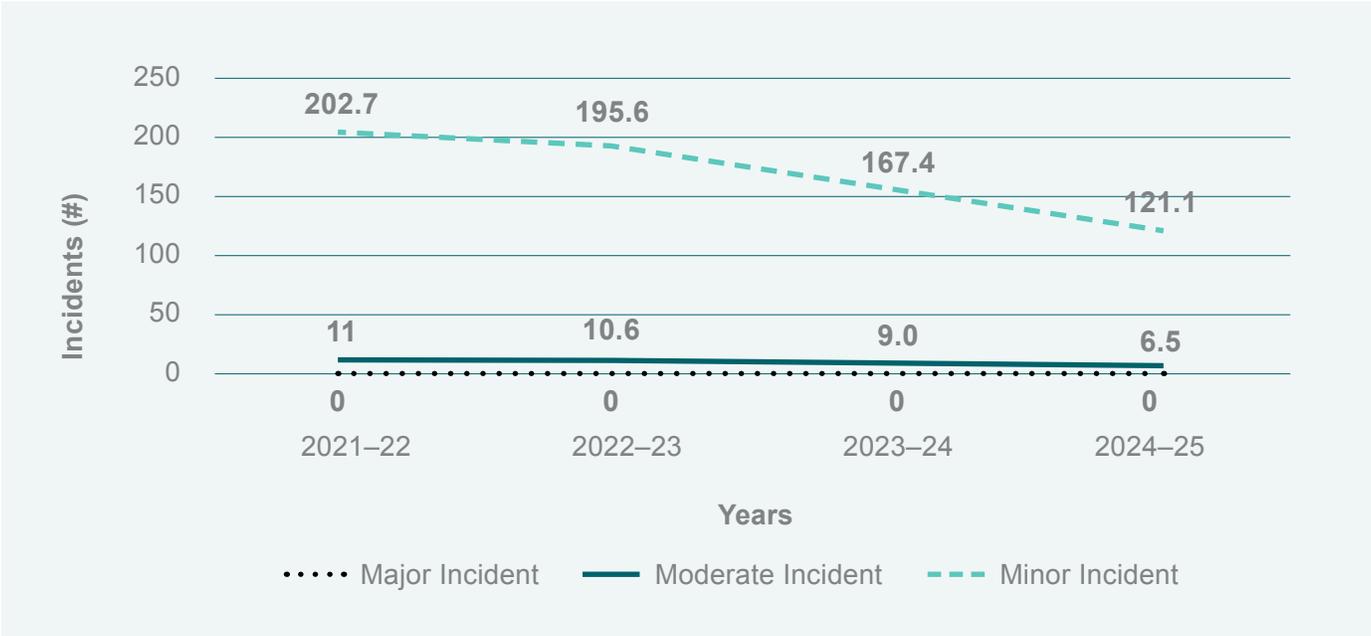
Consistent with previous years, there were no major safety incidents on Site. There were 2 moderate incidents, which is lower than last year (3 in 2023-24) but similar or lower than the previous years (1 in 2022-23, 3 in 2021-22, 7 in 2020-21). The total number of minor incidents in 2024-25 (37) is higher than previous years (19 in 2023-24, 10 in 2022-23, 9 in 2021-22, and 3 in 2020-21).

Table 9: Health and Safety Incidents and Near Misses in 2024-25.

INCIDENTS AND NEAR MISSES	2023-24 TOTAL
<b>Major Incident:</b> An incident resulting from activities performed at the site that results in a severe and irreversible disability, impairment, injury, illness or fatality to an individual or individuals.	0
<b>Moderate Incident:</b> An incident resulting from activities performed at the site that results in a reversible disability, impairment, injury or illness that temporarily alters the lives of an individual or individuals.	3
<b>Minor Incident:</b> An incident resulting from activities performed at the site that results in injury or illness that inconveniences an individual or individuals.	19
<b>Near Misses:</b> An unplanned incident resulting from activities performed at the site that did not result in any disability, impairment, injury, illness or fatality, but had the potential to do so.	33

Figure 6 below illustrates the number of incidents normalized by person-hours worked to enable comparison across years, when the amount of activity on site may differ. When normalized, the number of minor incidents has trended down since 2020-21. Moderate incidents have also trended down but at a less pronounced rate. The normalization does not account for differences in the nature of activities undertaken from one year to another.

Figure 6: Health and Safety Incidents per 200,000 Person-hours Worked, by year (2020-21 to 2024-25)



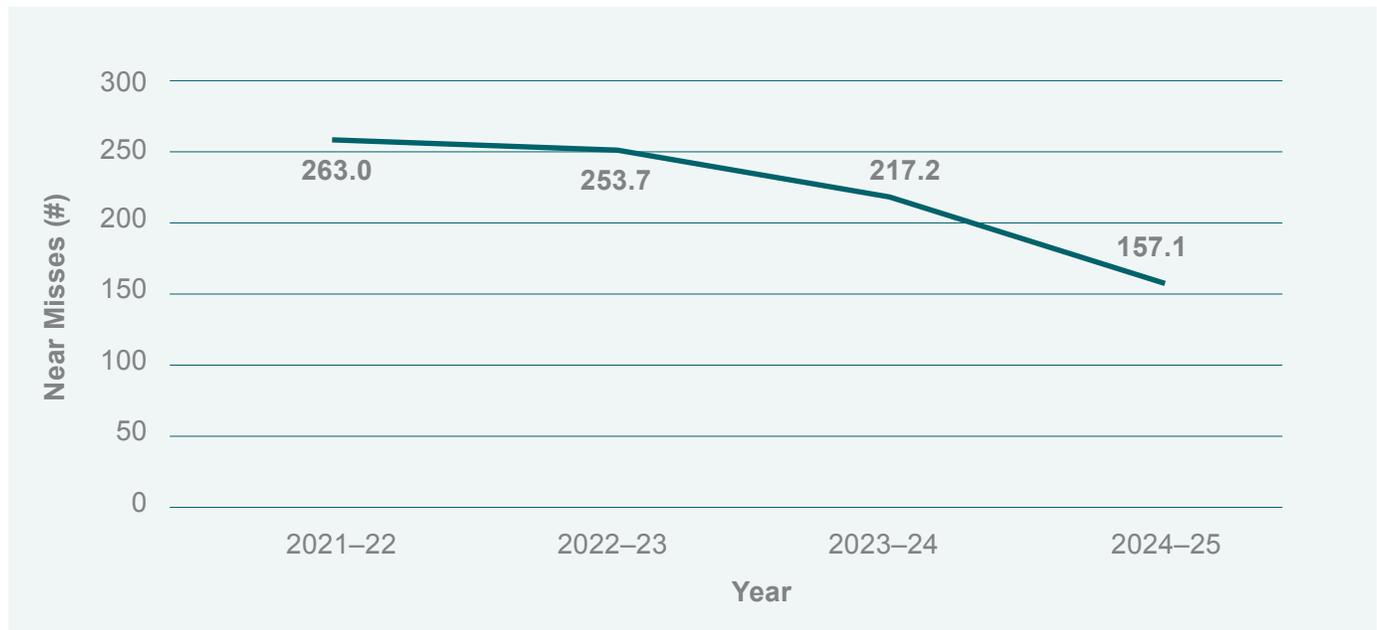
In real terms, there were 48 near misses in 2024-25. This result represents an increase from 2023-24 (25) and 2022-23 (29), but a decrease from 2021-22 (71) and 2020-21 (56). When normalised by person hours worked, the clear downward trend continues, with 2024-25 showing the largest drop in incidents to date as shown in Figure 7.

All incidents and near misses are discussed at daily safety meetings to review lessons learned, root causes, and corrective measures.

#### Next Steps:

- The GMRP team will continue to track and report health and safety incidents and implement any necessary changes.

Figure 7: Health and Safety Near Misses per 200,000 Person-hours Worked from 2020-2021 to 2024-25



### 6.1.2. Monitoring Arsenic Levels in Workers

In 2013, the Roaster demolition Project team (Parsons, AECOM, Golder, PSPC and CIRNAC) developed a medical monitoring framework to monitor arsenic levels in workers, which includes an Action Level of 35 ( $\mu\text{g}/\text{L}$ ). Samples are compared against the Action Level of 35 micrograms of arsenic per litre of urine ( $\mu\text{g}/\text{L}$ ). This framework was accepted by the Workers' Safety & Compensation Commission.<sup>2</sup> Monitoring includes baseline urinalysis sampling when workers start on site and then subsequent regular urinalysis sampling depending on frequency on site and activities performed (e.g., weekly samples if on-site full-time). For any urinalysis sample above the Action Level, the MCM notifies

Workers' Safety & Compensation Commission, CIRNAC, and PSPC and investigates the root cause (e.g., diet, poor hygiene practices, inadequate procedures). The MCM then takes immediate actions to reduce exposure to workers, such as improvement of dust control measures, adoption of more rigorous Personal Protective Equipment procedures, re-training of staff on proper procedures, placing affected workers on limited duty to limit exposure to higher risk activities, or reassigning personnel to other duties (in the rare case of continued / recurring high levels of arsenic). The GMRP also tracks urinalysis results that are below but nearing the Action Level, allowing for identification of those workers who could benefit from preventive interventions, to avoid reaching the Action Level.

<sup>2</sup>The analytical approach, the analytes, and the action level (i.e., the exposure limit) were documented by Senes & Arcadis and peer-reviewed by Stantec in 2014.

In the 2024-25 reporting year, the GMRP team monitored arsenic levels in workers. Table 10 shows the total number of samples and the number of samples above the Action Level of 35 micrograms of arsenic per litre of blood. The percentage of

samples above the action level was 0.84%, which represents a continuation of the significant drop in the percentage identified in 2022-23. The spike in arsenic levels in 2022-23 has been traced back to an isolated scope of work involving contaminated material.

Table 10: Summary of Urinalysis Sampling and Results between 2020-21 and 2024-25

Year	Total samples	Number of samples above the action level (35 µg/l)	Percentage of samples above the action level (35 µg/l)
2024-25	2264	19	0.84%
2023-24	2671	23	0.86%
2022-23	2181	73	3.35%
2021-22	1305	25	1.92%
2020-21	728	9	1.24%

Figure 8 below highlights the key trends in the percentage of samples above the action level from 2020-21 to 2024-25.

Figure 8: Percentage of samples above the Action Level (35 µg/L) from 2020-21 to 2024-25



**Next Steps:**

- The GMRP team will continue to provide oversight for the health and safety of its employees and contractors through the established management system and associated health and safety procedures, including urinalysis for on-site workers.

### 6.1.3. Health and Safety Training

The MCM's Occupational Health and Safety manager ensures that employees and sub-contractors receive or have relevant health and safety training, including first aid, wildlife safety, water safety, and fire response, as required by applicable regulations. Each year, all new employees are assessed to ensure they have the required training to complete their jobs safely and effectively. Health and safety training also includes site orientations provided by the MCM to new employees as well as annually for all employees.

The GMRP tracks the number of person-hours that employees and sub-contractors receive in training. In **2024-25**, a total of 4,522 health and safety training hours were provided, including 2,328 hours of general Environment, Health and Safety awareness training on policy and procedures.

#### Next Steps:

- Continue to track the type and amount of training received by employees and contractors to ensure that all employees receive the required training.
- Continue to share health and safety training information with interested parties and stakeholders – such as GMOB, Socio-Economic Working Group and Socio-Economic Advisory Body and the community – to assure them that on-Site personnel are appropriately trained to do their job safely and effectively and are getting training that is potentially transferable to other employment.
- Track training provided to community members to prepare them for employment at the Site.

## 6.2. PUBLIC HEALTH AND SAFETY

Since the Government of Canada took over responsibility in 1999, the GMRP team has monitored the site and ensured it is kept safe and secure through 24-hours-a-day presence and care and maintenance activities. This work involves ensuring public safety through site security, dust suppression, and minewater and effluent management. This work also includes the Health Effects Monitoring Program, detailed below.

### 2024-25 HIGHLIGHTS

- Made available results for the 2023 child and youth re-sampling and new group sampling in 2024.

<sup>3</sup>Including antimony, cadmium, lead, manganese, and vanadium, which are being measured because other research and studies have shown that they are present at the Giant Mine site.

## 6.2.1. Health Effects Monitoring Program

In response to Measure 9 of the Report of Environmental Assessment, the GMRP commits to working with other federal and territorial departments to design and implement a broad Health Effects Monitoring Program. The Health Effects Monitoring Program in Ndilo, Dettah, and Yellowknife focuses on effects in people related to arsenic and other contaminants<sup>3</sup> that might result from monitoring effects of the site and/or from the remediation activities.

The monitoring includes studies of baseline health and ongoing periodic monitoring, in accordance with Measure 9 of The Report of Environmental Assessment and Reasons for Decision (Mackenzie Valley Review Board, 2013). Dr. Laurie Chan, based at the University of Ottawa, is leading the monitoring program. A Health Effects Monitoring Program Advisory Committee ('committee') was established for the program with representatives from GNWT Health and Social Services, Health Canada, the City of Yellowknife, the YKDFN, NSMA, GMOB and the Project team. The committee meets monthly and provides advice to the program (Health Effect Monitoring Program, 2024).

The timeline for the monitoring program is as follows:

- **2017-2018:** Baseline sample collection in 2018. There was a total of 2037 participants between Fall 2017 and Spring 2018. Individual results were reported back to all the participants by mail, and a progress report summarized key results.
- **2019-2020:** Public engagement was undertaken in May 2019 to report back on the initial results of the study.
- **2021-2022:** The committee continued to provide

updates on relevant publications, genetic analysis, and communication strategies for the revised website.

- **2022-2023:** The committee completed the third progress report and developed plain language booklets that showed the results from the 2017-18 baseline study.
- **2023-2024:** Between April and June 2023, the Project conducted re-sampling of arsenic and other metals for children aged 3-19 who lived in Yellowknife area for at least one year.
- **2024-25:** Results for the 2023 sampling were made available in 2024.
  - Inorganic arsenic levels were similar in 2017/18 and 2023, with year-to-year variation.
  - Lead levels in 2023 were higher than in 2017-18.
  - Cadmium levels in 2023 were higher than in 2017/18.

In 2027-2028, the re-sampling will occur for adults, children, and youth, when remediation is occurring.

### Next Steps:

- Complete children and youth re-sampling for Ndilo and Dettah residents in 2025.
- Complete adult, children, and youth re-sampling in 2027-28.

For more information on the Health Effects Monitoring Program, please refer to the Frequently Asked Questions on the program's public-facing website: [Health Effects Monitoring Program \(ykhemp.ca\)](https://ykhemp.ca)

# 7.0 COMMUNITY

## 7.1. ENGAGEMENT

Project engagement is guided by an Engagement Plan, submitted to the Mackenzie Valley Land and Water Board in March 2021. The overall GMRP engagement goals are:

- Affected parties have increased trust in the Project, the Project team, the overall project management, and are confident in the direction the Project is taking moving forward;
- The GMRP is operating in an open, inclusive and transparent manner; and,
- Affected parties feel increased ownership and optimism with respect to the future remediation of the mine site, as the result of collaborative input into decision making with stakeholders/affected parties and the GMRP team.

The Project team developed an Engagement Evaluation Plan in 2022, which incorporated feedback from the Giant Mine Working Group. The Project team will implement planned evaluation activities going forward, including asking standard questions to gather feedback at meetings. The Project team continues to maintain a media log to track inquiries and topics and an engagement log to track the number and type of engagement activities planned and achieved.

Working groups are an important way for the GMRP team to engage with key affected parties in a meaningful way, both to provide information and to solicit input. There are numerous working groups, ranging from those focused on specific areas, such as socio-economic issues, to those focused on the Project as a whole (e.g., the Giant Mine Working Group). The full list of committees/working groups and regular meetings with Rights holders and stakeholders is summarized in the Engagement Plan.



## 7.1.1. Engagement Activities

In **2024-25**, the GMRP team undertook or participated in 48 engagement activities and events, aligned with and in support of the Project or related activities.

Key GMRP engagement activities in 2024-25 include:

### Open Pits Closure Criteria

The Project team presented on the Open Pits Closure Criteria at the Giant Mine Working Group meeting in June 2023. The presentation included the confirmation that Giant Mine Working Group comments, from a previous Giant Mine Working Group meeting in November of 2023, and feedback were incorporated into the updated criteria. The Project team submitted the criteria to the MVWLB in Fall 2024. No additional action is planned for this scope.

### Aquatic Engagement

In 2020, the Project established an Aquatic Advisory Committee that includes all signatories to the Environmental Agreement along with additional members from the YKDFN and the NSMA. The Committee was established to allow for participants with a keen interest in the GMRP aquatic environment to actively participate in meaningful conversations and exploration of concepts. The objective of the Aquatic Advisory Committee is for participants to develop a deeper knowledge of the Project, the regulatory framework, the aquatic environment, and environmental monitoring concepts. Furthermore, the Aquatic Advisory Committee and associated engagement was designed to meet the engagement requirements of DFO Fisheries Act Authorization for the GMRP. The Aquatic Advisory Committee met in June 2023, to continue discussions on AEMP reference areas under consideration for the forthcoming AEMP Design Plan, which focusses on Yellowknife Bay and discharge from the WTP. The GMRP held a follow-up meeting in June 2024 to review the key elements of the AEMP and present the Reference Area Selection as well as the Re-evaluation Recommendations. The GMRP plans to present the final AEMP Design Plan to the Committee May 2025.

### Site-Wide Revegetation Plan

In early July 2022, the GMRP engagement team held separate sessions with YKDFN Elders and youth, and NSMA Elders to gather their perspectives on revegetation as part of the remediation process. In 2023-24 the Project, in collaboration with the Revegetation Task Force, initiated the development of a draft Engagement Strategy. In July 2024, the Project held two full day sessions with representatives from YKDFN, NSMA, Tłıchq Government, and the Giant Mine Working Group. The objectives of the sessions were to inform the participants on progress and the revegetation process, proposed plant source locations, and reference areas. The sessions concluded the engagement planned for the revegetation program at this time.

### Perpetual Care Plan (PCP)

As noted above under Section 2.2, the contract for drafting the Perpetual Care Plan was awarded in June 2024. The consultant team supported the engagement of the PCP Task Force in October 2024 and hosted a workshop in March of 2025 with the Task Force and several additional Rights holders / stakeholders to discuss the PCP scope, objectives, topics, and Engagement Plan. The GMRP engagement team and consultant team also engaged Alternatives North in January 2025.

## Townsite (Boat Launch and Marina Area)

The GMRP has engaged Rights holders and stakeholders, including the Giant Mine Working Group, the Yellowknife Historical Society, and the Great Slave Sailing Club, with respect to how the Townsite and marina area might look in the future. The Project has committed to ensuring access will remain available to both the Yellowknife Historical Society's museum building and the lake at all times, through the construction of a new boat launch in the Great Slave Sailing Club marina area (CIRNAC, 2022c). Conceptual drawings were reviewed by stakeholders in 2022, with a follow-up session in 2023. In June 2024, the Project held a public boater information session to inform the public on works. Additional sessions are planned for 2025, including discussions on the boat launch design plans and further discussions with the Yellowknife Historical Society. GMRP will also post signage in the boat launch area in order to inform the wider boating community of upcoming changes.

## Site Visits

The GMRP hosted 12 site tours for stakeholders/Rights holders, university students, and government officials. GMRP also supported a tour of the Faro Mine site on revegetation, with participants from YKDFN and NSMA. In 2025, the Project plans to host members of the Kaska Dena First Nation and Faro Mine representatives at a Giant Mine site tour.

## School Visits

The GMRP presented to a YKDFN EcoCanada/Aurora College class in November 2024. In March 2025, the Environment and Climate Change department of the GNWT, with support from GMRP and members of GMOB, YKDFN, and City of Yellowknife, put forward a plan to continue the development of a GMRP Education Resource for future-use in classrooms.

## Annual Public Forum

Since 2010-11, the GMRP team has held Annual Public Forums to discuss general Project updates and key studies or initiatives for that respective year.

In **2024-25**, the Annual Public Forum was held, in-person and online, on March 4, 2025. The Project officials provided an update on:

- A brief history of the site and overview of the Remediation Project;
- Completed and upcoming work;
  - WTP construction and WTP outfall pipeline road
  - Selective Revegetation test plots
  - Demolition of Core Industrial Area contract
  - \*Project Milestone\* Underground Closure (closed November 2024)
- Townsite and Boat Launch timeline;
- Socio-economic achievements; and
- Perpetual Care Plan.

## Trade Shows

The Yellowknife Spring Trade Show took place as an in-person event on May 10 and 11, 2024. GMRP hosted a booth with approximately 140 visitors. Reoccurring questions included individuals seeking work, arsenic, soils, future site use, and impacts of low water on remediation. Some specific questions pertained to borehole liners, risks of eating fish from Back Bay, demolition, and marina lease titles.

## Additional Engagements

In addition to the regularly scheduled meetings listed above, the Team provides updates on GMRP activities and progress through multiple communication techniques (Giant Mine Remediation Project, 2019a), including:

- E-newsletter: Sent regularly to more than 325 email addresses and posted on the GMRP website;
- Website ([Giant Mine](#));
- Media briefings and responses to media requests;
  - There were 19 media interactions (media requests for interview, information/responses) in fiscal year **2024-25**.
- Responses to unforeseen events;
- Topic-specific public service announcements, as required; and,
- Topic-specific engagements, as appropriate

Giant Mine Advisory Committee Meetings were not held in 2024/25 due to a lack of capacity within the YKDFN to participate and due to an update of membership.



## Key Stakeholder and Rights holder Concerns

The GMRP team captures stakeholder and Rights holder concerns through their meeting minutes, the GMRP's Consultation Log, emails, and other correspondence. The GMRP team endeavours to respond in a timely manner. Key concerns raised in 2024-25 are shown in Table 11 below.

Table 11: Concerns and GMRP Responses

CONCERN	GMRP RESPONSE
<p><b>Dust Management</b></p> <p>Rights holders and stakeholders have expressed concerns over the tailings dust and the management of the dust.</p>	<p>Dust and its impact on air quality is an ongoing concern.</p> <p>In 2021, water cannons were added to the site and have been used as a pre-emptive measure in times of high wind expectancy and at other times as warranted by site conditions.</p> <p>As per the MVLWB directive, the GMRP developed a Dust Communications Strategy, submitted with the updated Engagement Plan in August 2022.</p> <p>In 2023-24, the GMRP updated its website with Frequently Asked Questions (FAQ) related to dust suppression. The FAQ provides information that addresses topics of concern related to dust, dust management and the effects of dust at the Giant Mine site (CIRNAC, 2024).</p> <p>For <b>2024-25</b>, the Project sent weekly reports from the Ambient Air Quality Monitoring Program to GMRP's air quality distribution list. Members of the public are also directed as needed to GNWT's Air Quality Monitoring Network website, which reports the air quality status at site and around Yellowknife in real time. GNWT's website also provides a downloadable history of previous program reports from the GMRP. The GMRP has developed a Safety Notices website, including a Dust notice section.</p>
<p><b>Climate Change</b></p> <p>Rights holders and stakeholders have expressed concerns that climate assumptions by the project are too conservative.</p>	<p>The GMRP has assessed climate conditions and future climate change into design engineering of the remediation and continues to review new climate change projections (see Section 5.5.2).</p> <p>In <b>2024-25</b>, the Project began developing a Climate Change Handout for the public. The information pamphlet is expected to be released in 2025-26.</p>
<p><b>Local jobs and contracts not staying in the North</b></p> <p>An ongoing concern that contracts issued by the Main Construction Manager for on-site work and associated employment will not remain predominantly in the NWT.</p>	<p>There are several activities consistently applied by the MCM to try to maximize Northern employment and procurement. In advance of tendering, the MCM always assesses existing local-area business capacity. To increase awareness of contract opportunities, the MCM holds an annual Industry Day in Yellowknife (or virtually when in-person restrictions are in effect) and informs the local business community of upcoming opportunities. The MCM also meets with Indigenous business development corporations to determine future interests / capacities and to encourage them to prepare for upcoming contracting opportunities either on their own or via Joint Ventures. If there are two or more Indigenous businesses in the local area that can do the work, Parsons releases work packages via the PSIB (PSIB information provided below on recent PSIB changes (section 7.2)), which restricts bidding on the contract only to Indigenous businesses across Canada.</p> <p>Though the MCM cannot tell its contractors who to hire, they do establish mandatory local Indigenous training, employment, and procurement requirements for each contract, called IOCs. IOCs are local because they are geographically restricted to the GMRP's contract area, which is within the combined territories of M̄whi Gogha Dè N̄l̄t̄t̄èè, as defined in the T̄j̄ch̄ Land Claims and Self-Government Agreement, and the Akaitcho Asserted Territory, as defined in the Akaitcho Interim Measures Agreement. When bids are evaluated, bidders receive points for committing to train and employ local Indigenous persons. Prior to starting work and throughout the contract's length, the MCM works closely with each contractor to make sure that they meet or exceed their commitments.</p>

CONCERN	GMRP RESPONSE
<p><b>Safety of Workers on Site</b></p> <p>Members of the public along with Rights holders and stakeholders have raised questions about how safe they and their loved ones will be should they be hired on site. The Project has determined this concern is regarding both exposure to arsenic trioxide, as well as general construction/mine workplace safety.</p>	<p><b>Arsenic:</b></p> <p>Workers on site are required to participate in routine urinalysis for the purpose of screening arsenic levels. Mitigation measures are in place and enforced by the MCM should a worker's levels start trending higher. The MCM has implemented an "Arsenic Awareness Week" annually to provide workers with more information.</p> <p><b>Operational Health &amp; Safety:</b></p> <p>The MCM is responsible for setting the site standards that all subcontractors on site are expected to achieve. A Daily Mine Manager's meeting is held for all subcontractor leadership to discuss workflow for the day, including sharing of incidents/near miss/ hazard identification learnings and generally ensure there is open communication site wide.</p> <p>All subcontractors hold their own daily and weekly safety meetings that are mandatory for all personnel on site. A large television was installed in the C-Dry building foyer, above the safety board, with rotating site notifications and safety messages.</p> <p>GMRP has a joint Health and Safety Committee with representatives from all contractors (employees and management) to address any safety concerns and bring ownership to the field, encouraging a proactive safety culture.</p> <p>The Site Safety Manager for the MCM is currently drafting a PPE and Site Safety presentation that will be brought to Rights holders who have expressed concern.</p>
<p><b>Access to Public Boat Launch</b></p> <p>Members of the community and the GSSC are concerned about the access to the Public Boat Launch, as well as available storage for boats and parking</p>	<p>The design plan of the areas allows access roads and parking near the marina and that all areas are sufficiently flat for trailers, vehicles and boat handling.</p> <p>GMRP is creating renderings of potential design of the areas to be shared with the public.</p> <p>GMRP will post signage in the boat launch area to further inform the boating community of upcoming changes.</p>

## Next Steps

The GMRP will continue to host community forums for YKDFN, NSMA, and residents of Yellowknife to engage with the external advisory bodies, and to communicate in a frequent and transparent manner via the established channels (e.g., e-newsletter, website, radio, school outreach). Some meetings will continue to be held virtually (e.g., Giant Mine Working Group meetings), while some meetings will be in-person (e.g., YKDFN Community Meeting). Engagement activities for 2025-26 will focus on:

- **Aquatic Engagement** – engagement with the Aquatic Advisory Committee planned for 2025-26 on the updated AEMP Design Plan.
- **Perpetual Care Plan** – the Consultant team will engage with the Project team and experts through interviews and will hold engagement sessions with the PCP Task Force, GMOB, and community members.
- **Dam 3 Reclamation Research Plan** – the Project team will engage with the YKDFN - Giant Mine Advisory Committee on the Dam 3 Reclamation Research Plan in May 2025.
- **Community Events** – the Project team will have a booth set up at the Yellowknife Spring Tradeshow in May 2025 and will hold the annual public forums for the general community, NSMA, and YKDFN.

## 7.1.2. Incorporation of Traditional Knowledge

The YKDFN and the NSMA have developed and shared extensive knowledge of the Giant Mine site and surrounding area. Engagement with Indigenous Organizations (Rights holders) is part of the 26 measures listed in the Report of Environmental Assessment and Reasons for Decision (Mackenzie Valley Review Board, 2013) to mitigate negative environmental impacts and address public concerns. As a result, incorporating Traditional Knowledge (TK) into planning and work on-site was a requirement for obtaining the Water Licence. While some TK has been incorporated in GMRP activities to date (e.g., to help determine the best time of year to deconstruct buildings), the Team acknowledges that there is always a need for continual improvement for the incorporation of TK and community perspectives within Project initiatives.

- **In 2018-19**, YKDFN Lands and Environment completed a TK Study, which aimed to document YKDFN knowledge, values, priorities, concerns, perceptions of risk, and understanding of impacts to past and current land use (Yellowknives Dene First Nation & Trailmark Systems, 2019).
- **In 2019-20**, the NSMA completed a TK study “Summary of Traditional Land-Use by the Indigenous Métis People in the Yellowknife Bay Area” (Shin Shiga Consulting, 2020).
- **In 2020-21**, the Project team completed an Archaeological Impact Assessment. The YKDFN participated in a multi-day walkthrough of the site, providing TK on areas of Traditional Land Use. An NSMA Elder provided TK via telephone and an NSMA member did a one-day visit to key areas. In addition, the GMRP gathered traditional and local knowledge through the Aquatic Advisory Committee, which has influenced Project remediation activities.
- **In 2021-22**, the Project team collaborated with the YKDFN to develop and finalize the YKDFN TK brochure that depicts history of the YKDFN around the Giant Mine, as well as Yellowknife Bay. With permission from the YKDFN, the TK brochure is now being utilized as a cultural awareness component of the Giant Mine site orientation and in various locations around the communities.
- **In 2022-23**, the Project team began discussions with YKDFN members to support the creation of a TK video that will discuss the way the land at site was used prior to mining activities. This video will be used in orientations for new members at the GMRP site.
- **In 2023-24**, a TK Study for the Tłıchq was funded by GMRP and completed in early 2023. The findings of the study were presented to Elders and youth on April 6th, 2023, by Two Worlds Consulting.
- **In 2024-25**, the GMRP funded the completion of a TK video with the YKDFN entitled “The Copper People”, which will be used to educate visitors to the site during orientation.

### Next Steps:

- GMRP will engage directly with members of YKDFN and NSMA in the development of the Perpetual Care Plan. Traditional Knowledge will help to inform topics such as “Communicating with Current and Future Generations.”

## 7.2. SOCIO-ECONOMIC

The Project team has been guided by a Socio-Economic Strategy (the Strategy) since 2016. The purpose of the Strategy is to provide guidance to the GMRP team for identifying and delivering socio-economic benefits to the region, while minimizing and mitigating potential negative social impacts associated with the Project. The Project team led a comprehensive update to the Strategy in 2022-23, integrating feedback from Rights holders and stakeholders from the past five years. The overall aim of the updated 5-year (2023-2028) Strategy is to maximize socio-economic benefits for Northerners and Indigenous Peoples and to deliver on regional socio-economic commitments and requirements. This socio-economic aim is supported by three pillars:



The Strategy describes objectives, focus areas, desired outcomes, indicators, and targets under each pillar. A Plain Language Summary of the Strategy can be found here: <https://www.rcaanc-cirnac.gc.ca/eng/1566487546150/1618357081011>.

The Strategy is dynamic and will continue to evolve as the Project changes over time and responds to successes and challenges. The Project anticipates a full Strategy review and revision leading up to March 2028. The Project may also make additional revisions part-way through the five-year timeline as part of its adaptive management approach.

### 2024-25 HIGHLIGHTS

- On March 6, 2025, GMRP signed an Economic Benefits Agreement with Tłıchǫ Government committing to long-term funding for capacity development and training initiatives.
- The Project team advanced the first Procurement Framework Agreement Annual Report to YKDFN, submitted on 28 June 2024.
- The SEWG and SEAB continued to provide expertise and support to advance implementation of the Socio-Economic Strategy. The SEWG met four meetings throughout the fiscal year and the SEAB met twice.
- The Project committed to fund training as part of the Community Benefit Agreements for YKDFN's Dechǫta Nàowo program and NSMA.
- All socio-economic Key Performance Indicators (KPI) increased in real terms, despite not hitting their percentage targets.

## 7.2.1. Socio-Economic Governance

To enhance coordination and preparedness for socio-economic benefits, the Project team established the following advisory and coordinating bodies in 2018-19:

- Socio-Economic Advisory Body:** The Socio-Economic Advisory Body provides strategic advice to the Socio-Economic Working Group and acts as senior government champions for the implementation of the Socio-Economic Working Group's approach. The Advisory Body is chaired by the Northern Contaminated Sites Program Director General and is comprised of senior level representatives from Alternatives North, Canadian Northern Economic Development Agency, CIRNAC, City of Yellowknife, GNWT (Environment and Climate Change, Industry Tourism and Investment, and Education, Culture and Employment), PSPC, Service Canada, NSMA, YKDFN, and Tłıchq Government. The Giant Mine Oversight Board acts as an observer.
- Socio-Economic Working Group:** The Socio-Economic Working Group coordinates and integrates socio-economic activities for the Project. This working group shares information and seeks opportunities to improve collaboration, as well as reports to and seeks advice from the Socio-Economic Advisory Body on the implementation approach. It usually meets every two months. Its membership includes representatives of, CIRNAC, City of Yellowknife, GNWT (Environment and Climate Change, Industry Tourism and Investment, and Education, Culture and Employment), Parsons (MCM), PSPC, NSMA, Tłıchq Government, and YKDFN. The Project engages representatives of the Canadian Northern Economic Development Agency, and GNWT Health and Social Services on a case-by-case basis. The Giant Mine Oversight Board continues to act as an observer at the Socio-Economic Working Group.

In **2024-25**, the Socio-Economic Working Group met four times virtually, via Microsoft Teams. The Socio-Economic Advisory Body met twice in 2024-25.

## 7.2.2. Community Benefits Agreements / Economic Benefits Agreement

The Project has worked with the YKDFN, the NSMA, and Tłıchq Government to develop Community / Economic Benefits Agreements to establish long-term funding sources directly to the communities. The GMRP and YKDFN signed a Community Benefits Agreement in 2021, which outlines how the Project team and the Yellowknives Dene are working together to help the First Nation achieve socio-economic benefits from the Project, including a commitment to negotiate a Procurement Framework Agreement. The Community Benefits Agreement also details how the Project team and the YKDFN will work together to enable training and capacity building activities; healing of the land; socio-economic development; community-based environmental monitoring; and perpetual care planning.

In 2023, Canada and the YKDFN signed a Procurement Framework Agreement (PFA). A requirement of the PFA is an Annual Report for Canada to share with the YKDFN every year. On 28 June 2024, the Project shared the first PFA Annual Report, for April 1, 2023, to March 31, 2024, with the YKDFN.

An additional requirement of the PFA is a Socio-Economic Framework developed by the MCM with support from Canada, the Socio-Economic Working Group, and the Advisory Body. The purpose of the Socio-Economic Framework is to better understand how the requirements outlined in the PFA are being fulfilled and reported on. The Socio-Economic Framework is set to be finalized in 2025-2026.

In 2023, Canada and the NSMA signed a Community Benefits Agreement. This agreement outlines how the Project team and the NSMA are working together to help them achieve socio-economic benefits from the Project. The Community Benefits Agreement also details how the Project team and the NSMA will work together to enable training and capacity building activities.

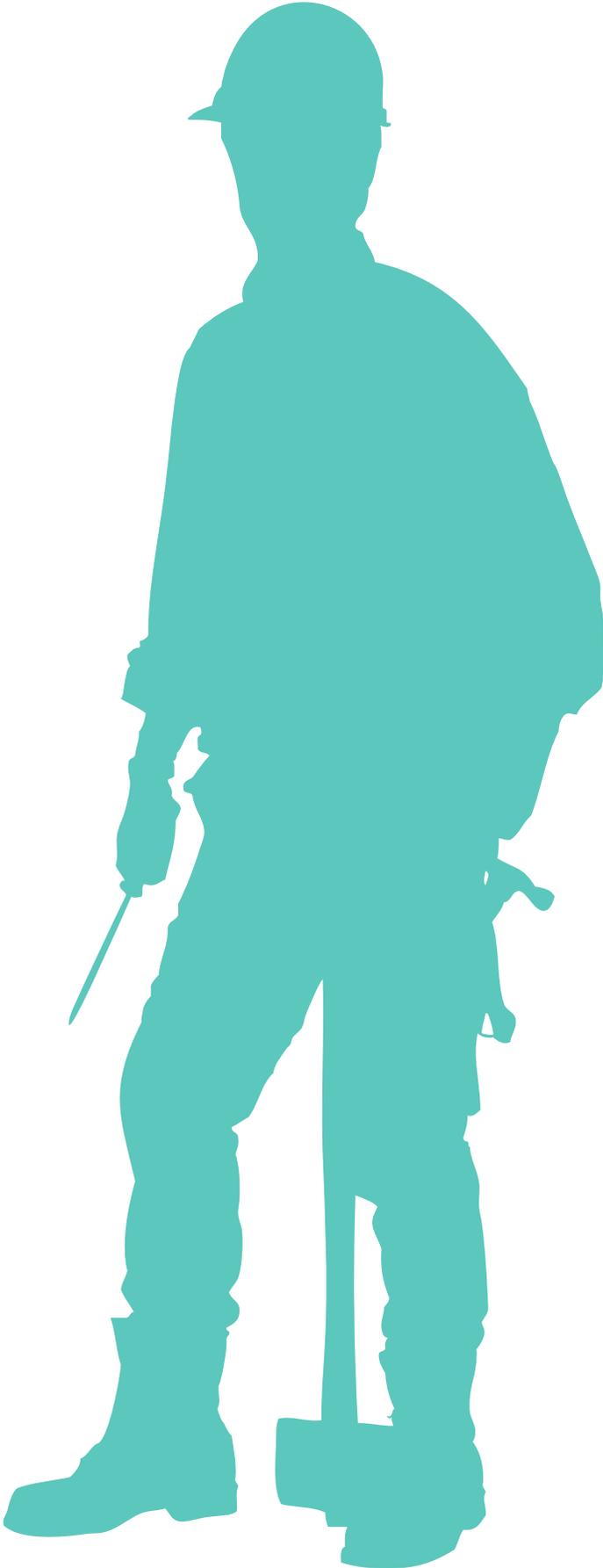
In 2024-25, Canada and the Tłı̨chq̓ Government signed an Economic Benefits Agreement for Tłı̨chq̓'s participation in the GMRP. Canada is committing to provide annual funding for the duration of project implementation (until 2035) to support leadership development, employment and training (including heavy equipment operator training programs), business capacity development, and administration costs to increase Tłı̨chq̓ Government's participation in the project.

### 7.2.3. Online Performance Tracking and Reporting

The Project team began the development of an online performance tracking and reporting tool in 2023. This tool is meant to support the Project team and its subcontractors by modernizing and simplifying socio-economic data collection, quality control and retention processes. It is being developed in-house by PSPC. The initiative encountered delays in 2023-24 and 2024-25 due to staffing shortages. PSPC directed additional efforts in the latter half of 2024-25. The Project anticipates that the tool will be available for internal access in 2025-26.

**Next Steps:**

- Continue to work on obtaining approval for external access.
- Continue the development of the tool that is scheduled to roll out in Q4 2025-26.



## 7.2.4. Procurement and Employment

Providing access to employment and procurement opportunities is one of the Projects' key approaches to maximize Northern and Indigenous benefits. The table below (Table 12) summarizes the employment and procurement activities that the Project advanced and/or completed in 2024-25. The Project continues to work with the SEWG and SEAB, with input and observations from GMOB, to adapt its approaches to socio-economic activities, reflected in its evergreen Socio-Economic Implementation Plan. Some examples are provided within the table below as well as Table 16 (Training).

Table 12: Key Actions and Deliverables Advanced in 2024-25 – Employment and Procurement

Action	Deliverable
<p><b>Objectives:</b> Maximize Indigenous and Northern participation through Northern and Indigenous-centered procurement processes, proactive communication of opportunities, and collaboration.</p>	
<p><b>Procurement Approaches and Tools</b></p>	<ul style="list-style-type: none"> <li>• <b>IOC Plan:</b> in addition to continuing to utilize the IOC commitment process, the Project began work on adding a quality element to the IOC process via an IOC Plan. The Plan will be mandatory when committing to IOCs and will require bidders to submit a written narrative describing how they will realize their proposed IOC commitments. This requirement is scheduled to roll out in Q3 of 2025-26.</li> <li>• <b>Procurement Strategy for Indigenous Business (PSIB):</b> In 2024-25, MCM awarded several contracts via PSIB. In addition, there are now two types of PSIB used by the Project. The first type is a "Regional PSIB", which limits the bidding to Indigenous businesses located within the GMRP's Area of the Contract. The second one is a "Conditional PSIB", which opens bidding to Non-Indigenous businesses when there is an insufficient number of Indigenous businesses that bid (less than 2 compliant bids). Conditional PSIB enables the MCM to avoid retendering the contract due to an insufficient number of compliant bids for the tender to be competitive. Both variants can be used simultaneously as well (a.k.a. Regional Conditional PSIB), which initially limits bidding to Indigenous businesses from GMRP's Area of the Contract, but opens if there are an insufficient number of compliant bids.</li> <li>• <b>Master Service Agreements:</b> introduced in 2023-24, the GMRP continues to utilize Master Service Agreements to streamline the procurement process that simplifies the bidding process for short-term work.</li> </ul>
<p><b>Labour Capacity Updates and Communication</b></p>	<ul style="list-style-type: none"> <li>• <b>Labour Capacity Updates:</b> The Project continues to monitor its employment statistics during remediation and provides updates through its dedicated two socio-economic committees, as well as a Socio-Economic Snapshot and the Project's Annual Reports (this document).</li> <li>• <b>Indigenous Affiliation:</b> Indigenous partner organizations on the SEWG requested that the Project report on Indigenous affiliation, that further breaks down the existing Northern Indigenous KPI. The Project updated its reporting template to accommodate this request, and in 2024-25 began reporting on this indicator bilaterally to Indigenous Groups. This indicator will not be reported in this Annual Report at the request of the Indigenous Groups.</li> </ul>

Action	Deliverable
<b>Outreach and Engagement with Communities and Businesses</b>	<ul style="list-style-type: none"> <li>Recruitment Support: The Project team attended the Yellowknife Spring Trade Show in May 2024.</li> <li>Bilateral meetings: Parsons’ Economic Development Manager met with a variety of Indigenous business development arms throughout 2024-25. Parsons continues to maintain a physical office in Yellowknife where people drop by regularly, from those looking for employment to business owners looking for partnerships. Parsons also works with new contractors to ensure they understand what reporting information is required and the importance of providing accurate information (e.g., IOC and Indigenous employment hours).</li> <li>Business list – Parsons continues to maintain a list of Northern and Indigenous businesses.</li> <li>Parsons’ Industry Day – Parsons continues to host an Industry Day, which was held November 19 and 20, 2024.</li> </ul>

**7.2.4.1. 2024-25 Employment Results and Performance Compared to Target Ranges**

The GMRP tracks several employment statistics, including total employment and employment by certain categories, including Northern, Northern Indigenous, Indigenous, IOC<sup>4</sup>, and Female employees.

The Project reports the combined employment statistics for Parsons as the MCM and its contractors as well as CIRNAC contractors. Parsons and its contractors provide on-Site/local employment, while CIRNAC contractors tend to be large engineering and consulting firms that provide Project design support. The employment statistics do not include Federal or Territorial employees. There are several indicators for which data is only available from the MCM and its subcontractors.

In 2019-20, the Project approved a set of employment target ranges for the Implementation Phase of the Project, through extensive engagement with the Socio-Economic Working Group and the Socio-Economic Advisory Body. The annual report

compares actual employment performance to target ranges. In December 2023, the Project team reviewed target performance and potential updates with the Socio-economic Working Group. Consensus within the Working Group was to maintain the current targets for now and focus on activities that can boost results. These activities are reflected in the evergreen Socio-Economic Implementation Plan and progress updates on key activities are listed in “Key Actions and Deliverables Advanced” tables within this report.

**EMPLOYMENT TARGETS**

- Northern\* employees:**  
55–70% person-hours
- Northern Indigenous employees:**  
25–35% person-hours
- Female employment:**  
15–30% person-hours

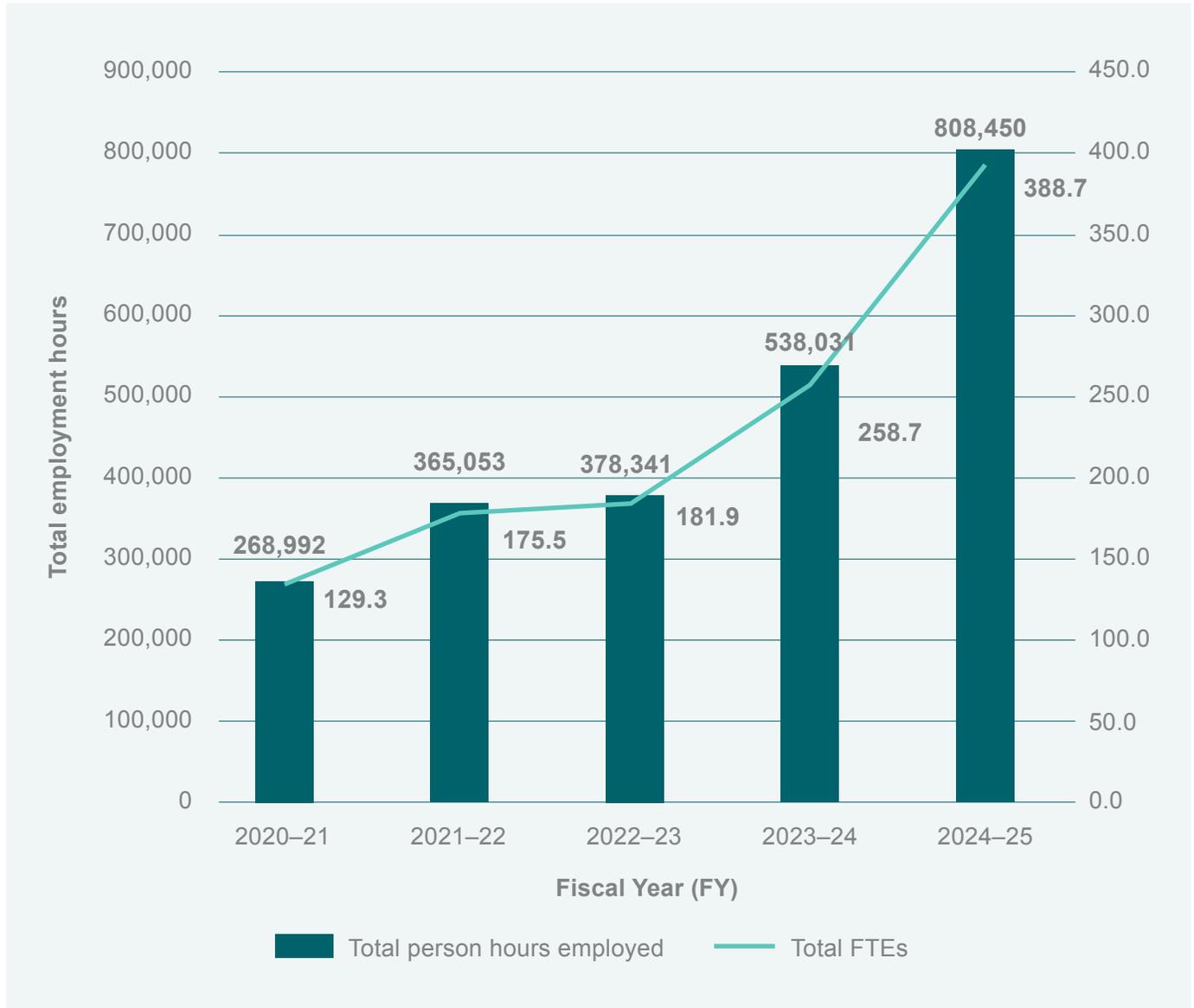
*\*Northern: resident of the North for a minimum of six months.*

<sup>4</sup> IOCs consist of point-rated evaluation criteria used within a solicitation process. These criteria evaluate bidders based on the type and extent of commitments made to maximize Indigenous participation within the resulting contract work. GMRP considers to be IOC eligible any Indigenous peoples residing in (longer than 6 months) and businesses located within the Area of the Contract.

## Total Employment

In **2024-25**, the GMRP employed a total of 1,966 people, for a total of 808,450 person hours, or 389 Full Time Equivalent (FTE). This result represents a continuation of the steady increase in employment seen in the past 5 years (Figure 9).

Figure 9: Total Employment 2020-21 to 2024-25 (# of people hours and FTEs)



### Northern Employment

While the GMRP did not meet the northern employment goal (55-70% person hours) with an overall percentage of northern employment of 26% (Figure 10), 2024-25 had the highest level of northern employment in real terms. The relatively low percentage is due to the significant increase in overall employment drawn from the South, as seen in Figure 11. In particular, the WTP (217,553 total person hours) and Early Works (67,484 total person hours) packages have the highest number of Southern employees.

#### Northern Employment results for 2024-25:

- 26% of total hours (209,327 hours)

Figure 10 Northern Employment results for 2024-25

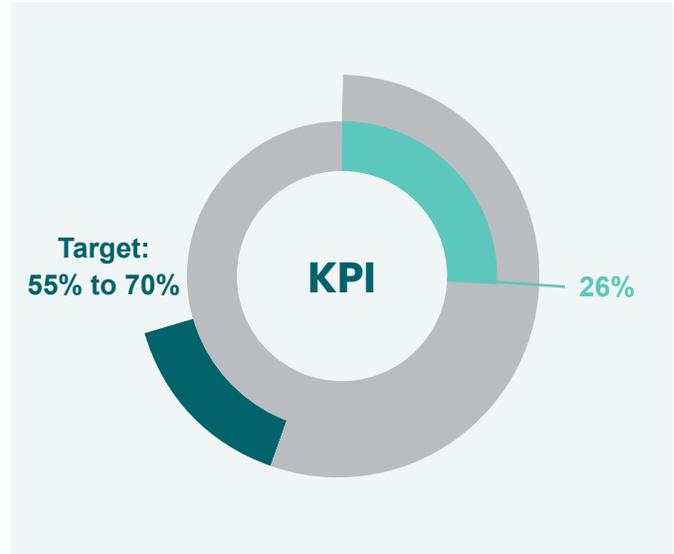
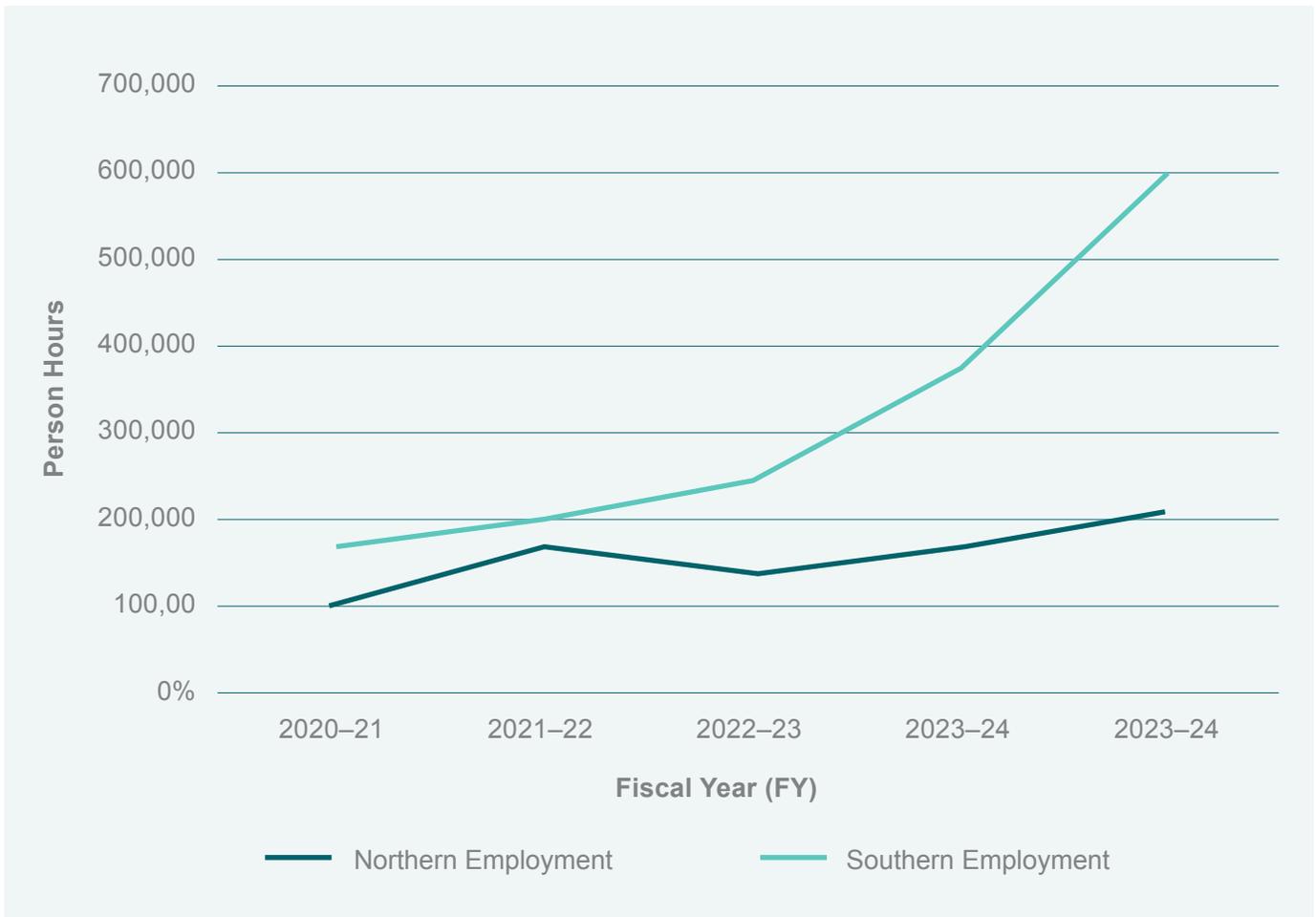


Figure 11: Northern Versus Southern Employment (person hours)

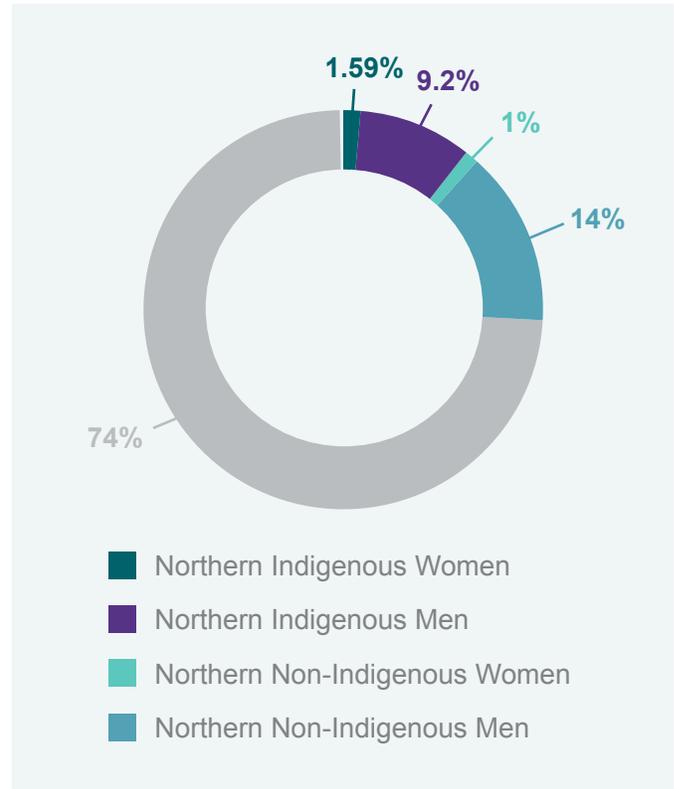


### Northern Employment Breakdown

Figure 12 highlights employment statistics broken down by Northern sub-category, including Indigenous (Indigenous and non-Indigenous persons residing in any of the three Territories) and whether they represent female or male employees.

While all Northern sub-categories have increased in real terms, it has been at a lower rate than Southern drawn employment. Figure 13 shows that the percentage of Northern Indigenous and Non-Indigenous Woman has remained relatively constant over the past five years, however it is notable that the rate of Northern Indigenous and Non-Indigenous Men has decreased as an overall percentage. In real terms, all sub-categories of Northerners increased in 2024-25, though at varying rates (Northern non-Indigenous Woman increased by 1 FTE or 40%; Northern Indigenous Women increased 0.3 FTEs or 4%; Northern Men increased by 11 FTEs or 26%; Northern Indigenous Men increased by 8 FTEs or 29%). This growth has been consistently lower than the rate of increase for Southern employment, which has increased at least twice the rate of Northern employment, with 2020-21 to 2021-22 being a notable exception (Table 13).

Figure 12: Northern Employment Breakdown results for 2024-25



#### Northern Employment Breakdown for 2024-25:

- Northern Indigenous Women, 44 people, 12,894 p-hrs
- Northern Indigenous Men, 176 people, 74,695 p-hrs
- Northern non-Indigenous Women, 35 people, 10,676 p-hrs
- Northern non-Indigenous Men, 147 people 111,121 p-hrs

Figure 13: Percentage of employment by Northern sub-category, from 2020-21 to 2024-25.

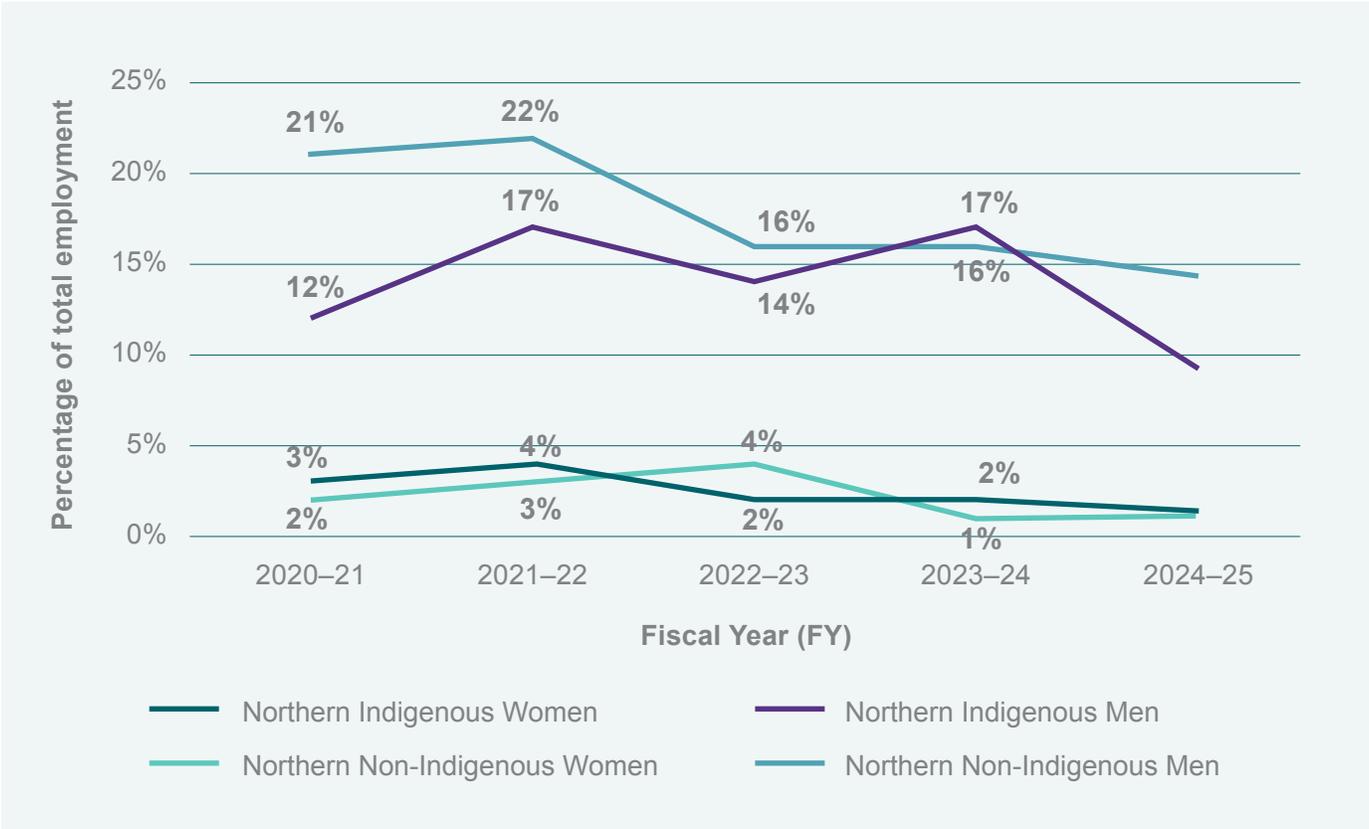


Table 13: Percentage of change year to year in employment person hours by category and sub-category from 2020-21 to 2024-25

Category	2019-20 to 2020-21	2020-21 to 2021-22	2021-22 to 2022-23	2022-23 to 2023-24	2023-24 to 2024-25
Total Southern	54%	18%	22%	54%	61%
Total Northern	18%	65%	-18%	22%	26%
Northern Indigenous women	43%	44%	-40%	58%	4%
Northern Indigenous men	17%	95%	-14%	11%	29%
Northern non-Indigenous women	-17%	119%	34%	-55%	40%
Northern non-Indigenous men	21%	45%	-26%	48%	26%

### Northern Indigenous Employment

As indicated in Figure 14, in **2024-25**, the percentage of person-hours worked by Northern Indigenous employees was 11%, which is lower than the 2023-24 percentage (19%) and lower than the 2022-21 percentage (16%). The results are below the lower end of the target range (25-35%). As shown in Table 13, the greater increase in Southern employment compared to Northern Indigenous and non-Indigenous employment hides the fact that Northern Indigenous employment hours have increased by 119% since 2020-21.

#### Northern Indigenous Employment results for 2023-24:

- 11% of total hours (87,589 hours)
- 11% of total employees (220 people)

### Female Employment

As shown in Figure 15, the percentage of person-hours worked by female employees was 17%, which is lower than the 2023-24 percentage (19%) and the 2022-23 percentage (22%). Employment of females is within the target range of 15-30%. While the decrease in the percentage of female employment is noteworthy, in real terms, female employment continues to increase, rising 25% since 2020-21.

#### Female Employment results for 2024-25:

- 17% of total hours (139,630 hours)
- 28% of total employees (546 people)

Figure 14 Northern Indigenous Employment Results for 2024-25 (person hours)

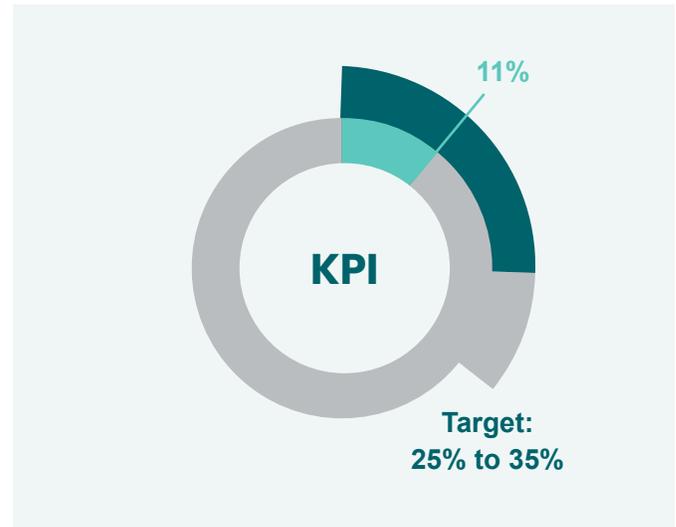
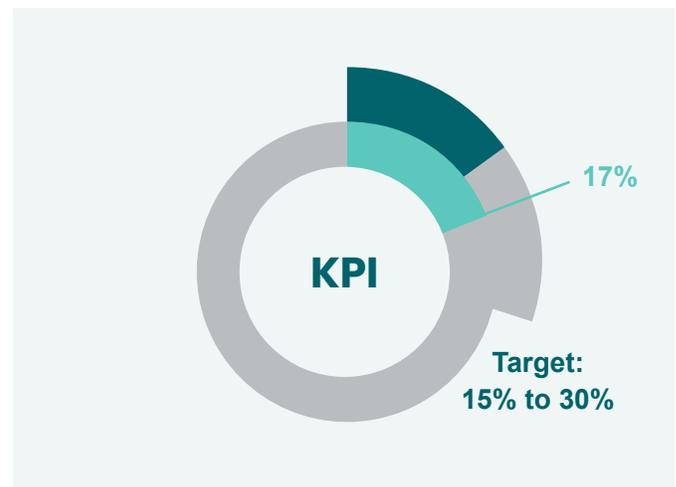


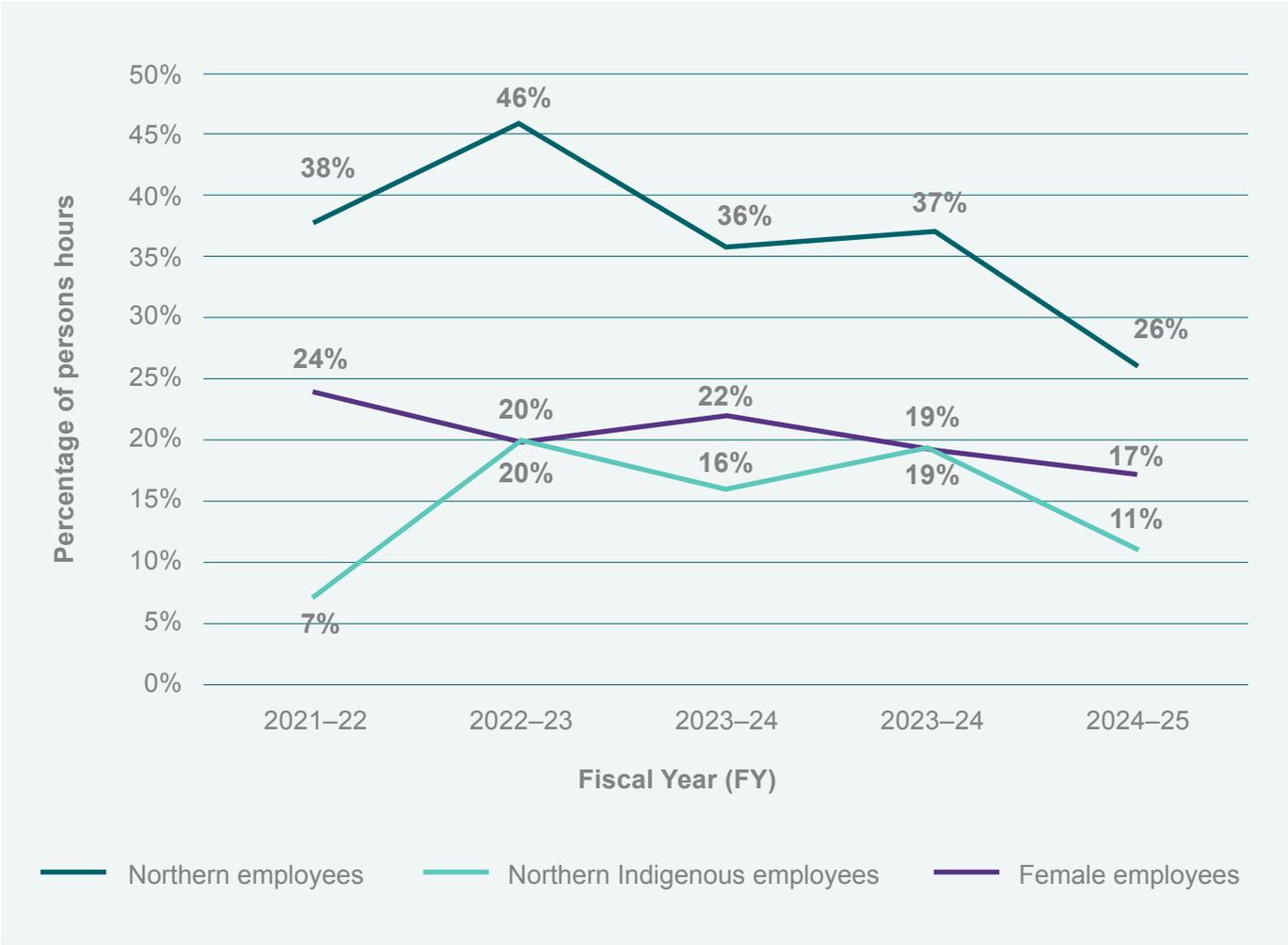
Figure 15: Female employment Results for 2024-25 (person hours)



### KPI Summary

Figure 16 provides information on key trends of the total percentage of persons hours, by category, since 2020-21. These results represent the combined data reported by both CIRNAC and Parsons. As shown in below, the percentage of Northern, Northern Indigenous, and Female workers have all decreased since 2023-24 as overall percentages. However, as shown in previous sections, the person hours continue to increase in real terms.

Figure 16 Person hours as % of all Employees by Category from 2020-21 to 2024-25\*



\*Employee categories might overlap – each category is a subset of Total Person Hours (e.g., the same person may be represented here three times if they are Indigenous from the North).

## PARSONS AND PARSONS' CONTRACTORS

In 2024-25, the employment statistics for Parsons and its subcontractors, which include key operational and construction roles, provide a focused look at the workforce contributing directly to on-the-ground project activities. These figures, which represent only the Parsons-led portion of the Project, are distinct from the broader project statistics that encompass all contractors and consulting firms involved in the work. Specifically, Parsons and its subcontractors accounted for the following portion of total employment:

- **Northern** - 34% of all employee hours, representing 99 FTE (target range: 55 – 70%)
- **Northern Indigenous** - 14% of all employee hours, representing 42 FTE (target range: 25 – 35%)
- **Female** - 12% of all employee hours, representing 35 FTE (target range: 15 – 30%)

These statistics demonstrate that nearly all the Northern (99% of the total FTE) and Northern Indigenous (100% of the total FTE) employees are contracted under Parsons rather than under CIRNAC contracts, which focus on engineering and design and are held by Southern-based consulting companies.

The Project also tracks indicators related to overall Indigenous employment, IOC employment, NWT residential status, and skill levels. Results for 2024-25 are summarized below.

### Indigenous and IOC Employment

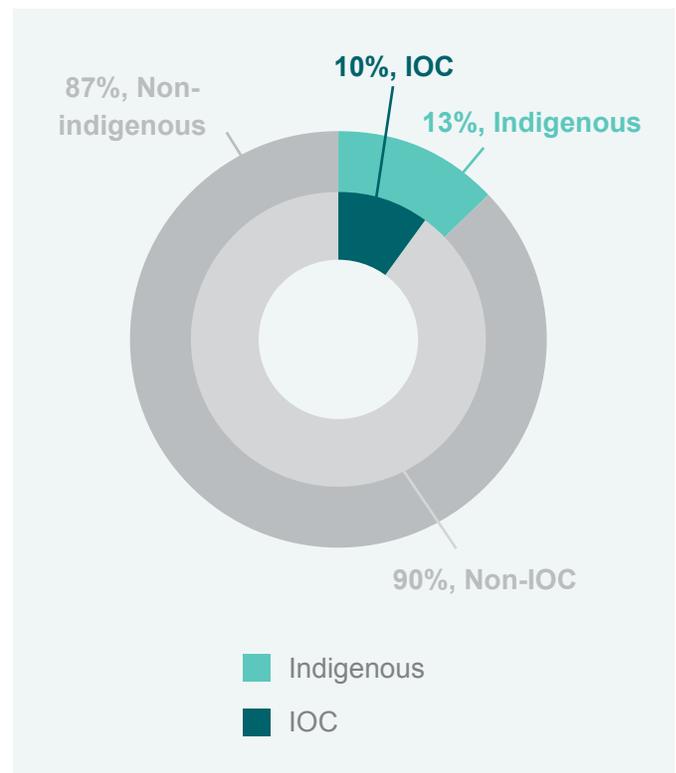
Overall Indigenous and IOC categories have decreased as percentages of employment, with Indigenous decreasing from 21% in 2023-24 to 13% in 2024-25, and IOC decreasing from 19% in 2023-24 to 10% in 2024-25. Like other KPI's however, there have been increases in person hours in real terms, with Indigenous employment increasing by 33% since 2023-24 and IOC employment increasing by 22%. This downward trend in percentages is due to the significant increase in employment drawn from Southern companies.

#### Indigenous and IOC Employment result for 2024-25\*

- Indigenous: 13% of total hours (103,668 person hours)
- IOC: 10% of total hours (81,775 person hours)

\*There are overlap between these two categories with IOC's also counting as Indigenous.

Figure 17: Indigenous and IOC Employment Results for 2024-25



**NWT Residential Status  
(Parsons and their sub-contractors)**

Figure 18 highlights employment statistics broken down by NWT residential status specifically for Parsons and their subcontractors in 2024-25. The number of NWT residents accounted for 33% of their total employees (365 people, up from 311 in 2023-24), while non-NWT residents made up 67% (744 people) of the workforce. This breakdown provides a more accurate representation of the Territorial workforce, focusing on Parsons and its contractors, rather than including Southern firms that may only contribute short-term, specialized labor.

**NWT Residential Status results for 2024-25:**

- NWT Resident: 33% of total employees (365 people)
- Non-NWT Resident: 67% of total employees (744 people)

**Employment by Skill Level  
(Parsons and their subcontractors)**

Figure 19 highlights the employment statistics broken down by skill level for total employment for Parsons and their subcontractors only ('on-site'). In 2024-25, the total number of entry level employees on-site made up 11% (124 people) and semi-skilled employees made up 20% (217 people) of total on-site employment. Skilled employees constituted the largest segment, comprising 43% (476 people) of the total workforce. Professional employees made up 26% (292 people) of total employment. This is a broadly similar distribution of skill levels as 2023-24.

Figure 18: NWT Residential Status results for 2024-25 (% of # persons hours)

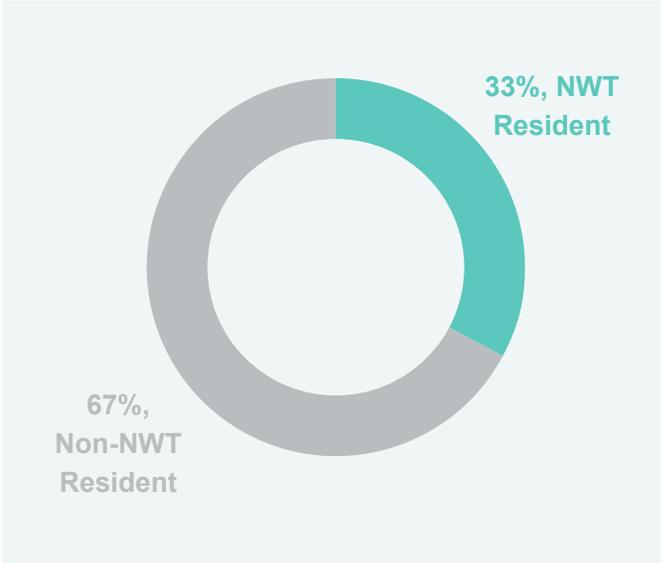
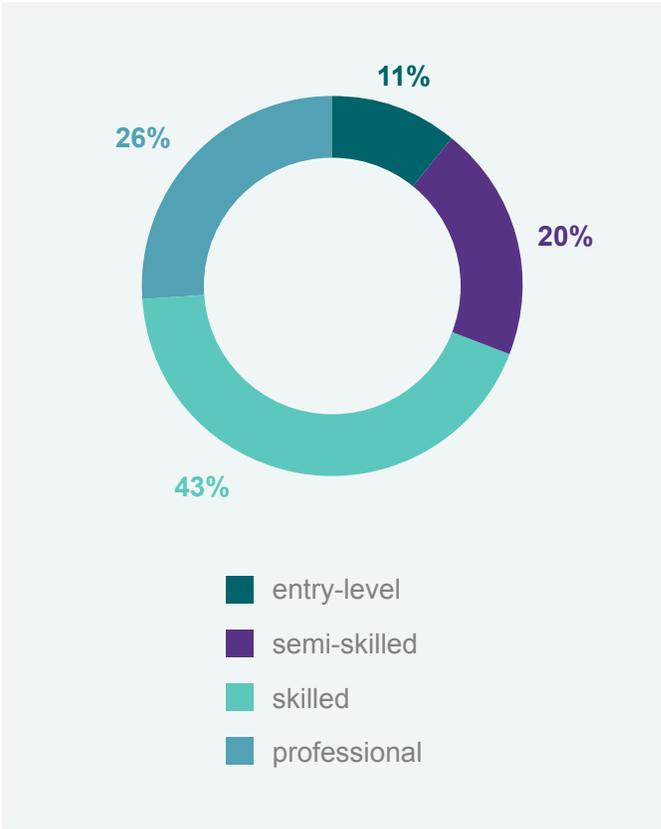


Figure 19: Employment by Skill Level results for 2024-25



### 7.2.4.2. 2024-2025 Procurement Results and Performance Compared to Targets

The GMRP tracks the total number of suppliers and the total value of contracts by four categories: Northern, Southern, Indigenous, and IOC. It is important to note that these categories might overlap in some instances. For example, a single supplier may simultaneously be counted as Northern, Indigenous, and IOC – or a combination thereof. There is one target range associated with procurement, outlined below.

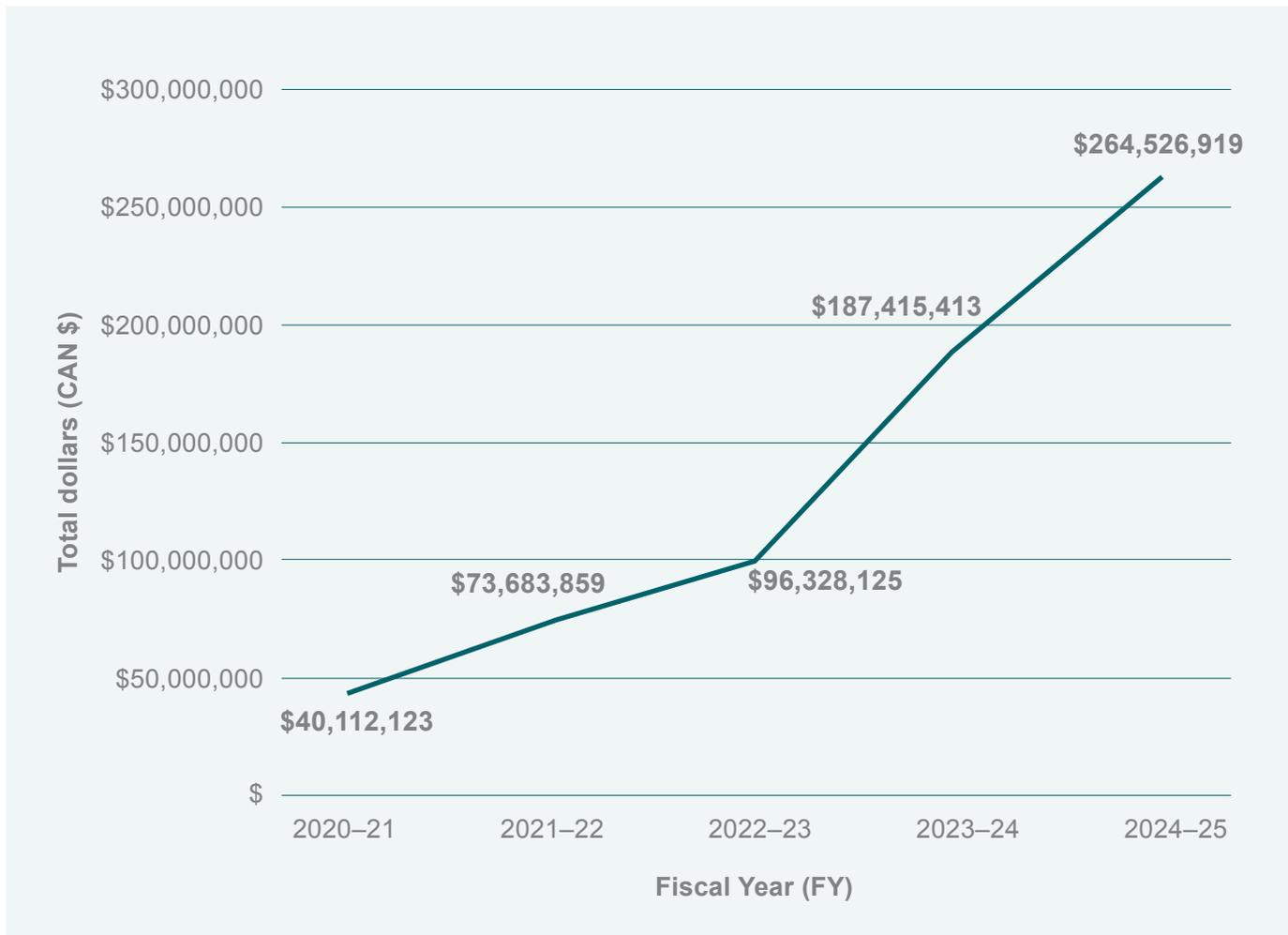
### PROCUREMENT TARGET

**Northern expenditures:** 65-75% amount spent.

### Total Expenditures on Contracts

In **2024-25**, the Project team spent a total of \$264,526,919 on contracts. Expenditures on contracts has increased steadily over the past five years, with \$40,112,123 in 2020-21; \$73,683,859 in 2021-22; \$96,328,125 in 2022-23, and \$187,415,413 in 2023-24. Figure 20 shows the total amount spent on contracts since 2020-21.

Figure 20: Total Amount (\$) Spent on Contracts since 2020-21.



**Northern Supplier Expenditures on Contracts**

In **2024-25**, the proportion of expenditures with Northern suppliers is 49% of all the Project’s expenses. This result is on par with 2023-24 (50%), and lower than 2022-23 (61%), but higher than 2020-21 (32%) and 2019-20 (44%) (Figures 22 and 23, Table 14 below). Despite the significant increase in procurement through Northern suppliers observed in **2024-25** (up by 34% in dollars), values are still below the target range due to the significant increase in spending overall.

**Northern supplier results for 2024-25**

- Northern Suppliers 49% of expenditure (309 suppliers, \$129,193,556 in value)

Figure 21: Northern Supplier Expenditures on Contracts results for 2024-25

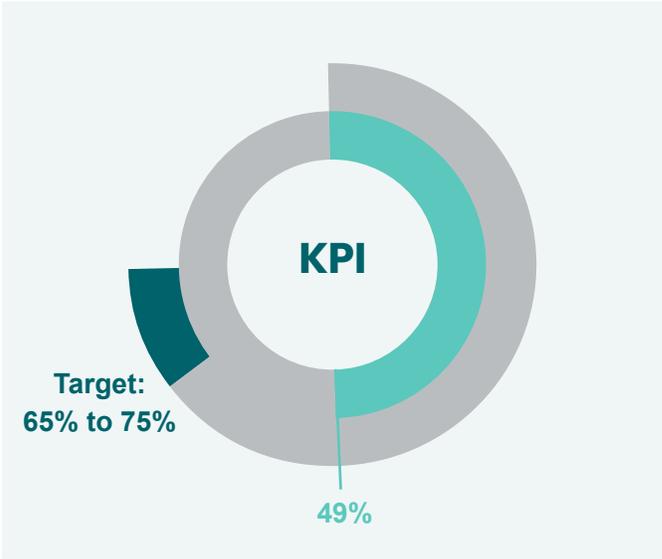


Table 14: Percent of Total \$ Value Spent from 2020-21 to 2024-25

	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Total Spent (\$)</b>	<b>\$40,112,123</b>	<b>\$73,683,859</b>	<b>\$96,328,125</b>	<b>\$187,415,413</b>	<b>\$129,193,556</b>
Northern suppliers	32%	59%	61%	50%	49%



### Northern Supplier Expenditures Breakdown

Figure 22 highlights the procurement accounted for by Northern Indigenous and by Northern non-Indigenous suppliers for 2024-25. In 2024-25, out of the 49% of Northern supplier expenditures on contracts (\$129,193,556), 46% were Northern Indigenous (\$121,564,293) and 3% were Northern non-Indigenous (\$7,629,263).

The total expenditures to Indigenous suppliers increased to \$121,564,293 in **2024-25** compared to \$84,136,499 in 2023-24 and \$50,714,487 in 2022-23. The total percentage spent increased when compared to 2023-24 (45%) but decreased compared to 2022-23 (53%). There are no targets set for expenditures with Indigenous suppliers.

### Northern Supplier Expenditures on Contracts 2024-25:

- Northern-Indigenous Suppliers: 46% of contracts (113 suppliers, \$121,564,293 in value)
- Northern Non-indigenous Suppliers: 3% of suppliers (196 suppliers, \$7,629,263 in value)

Figure 22: Northern Supplier Expenditures on Contracts results for 2024-25

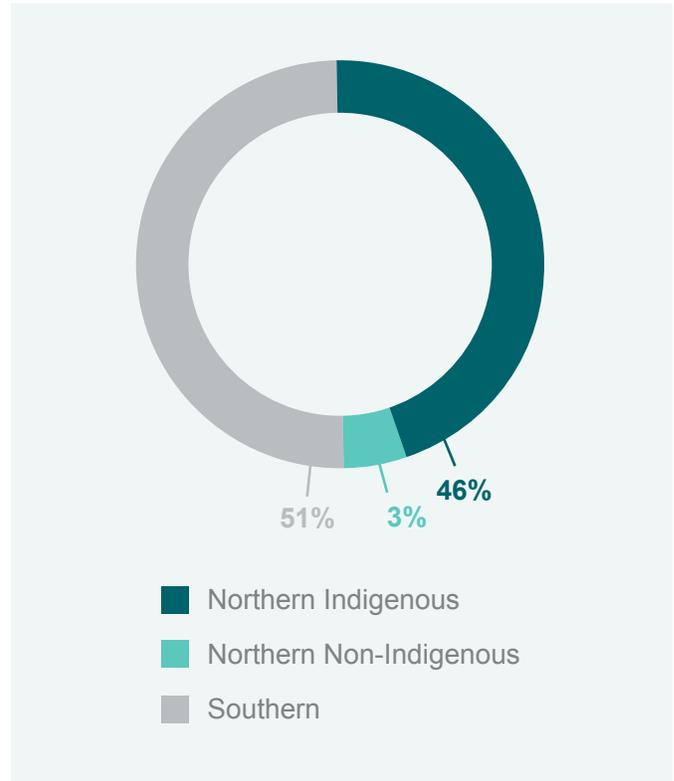


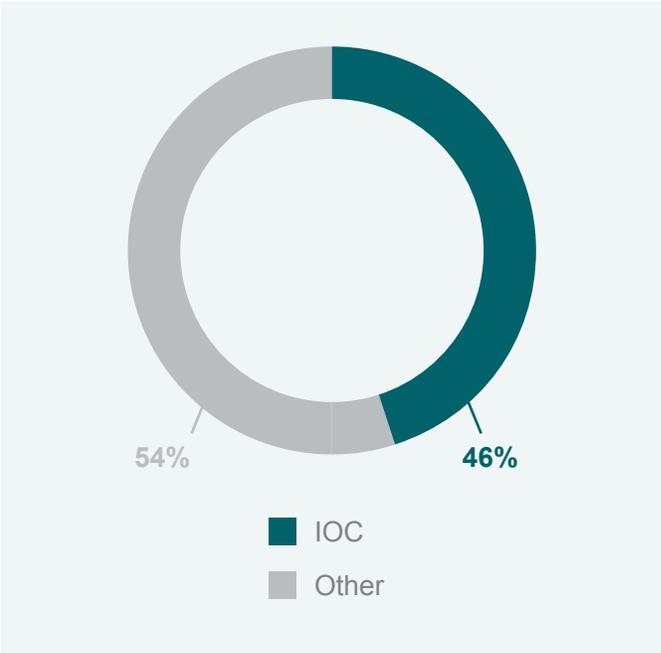
Figure 23: Percent of Total \$ Value Spent from 2020-21 to 2024-25



**IOC Supplier Expenditures on Contracts**

Spending with IOC suppliers reached 46% in 2024-25, matching the proportion spent with Indigenous suppliers (Figure 24). No specific targets are set for spending with Indigenous or IOC suppliers; however, it is a component of the Northern Expenditures target (i.e., if IOCs expenditures are high, it will help boost the Northern expenditures results). As noted in Section 7.2.4, the Project team is focusing expenditures on the region within Project’s Area of the Contract through the introduction of Regional PSIB.

Figure 24: IOC Supplier Expenditures on Contracts results for 2024-25



**7.2.4.3. Major Procurements**

The major procurements awarded in 2024-25, are included in Table 15 below. Some of the values include contract extension amounts (i.e., a contract had been awarded in a previous fiscal year(s) so its contract value was updated to include extension amount, and contract duration was extended), while others are for single or multi-year contracts starting in 2024-25. There continues to be uptake by northern firms participating and collaborating in procurement processes, with four of the five 2024-25 contracts awarded to Northern firms or firms in joint ventures with Northern companies.

Table 15: Major work packages awarded by Parsons in 2024-25

Value	Scope of work	Contract Period	Awarded to:
\$103,074,426	Demolition and Debris Removal – Core Industrial Area	Nov 2024 - Oct 2026	True North Environmental Ltd.
\$4,848,688	New Power Supply Lines and Substations	Jun 2024 - Jun 2025	Midlite Construction Ltd. & Tłjchq Investment Corp. & Metcor Inc. JV
\$956,000	Site Wide Survey	Nov 2024 - Oct 2027	Det'on Cho Challenger Geometrics Ltd.
\$693,623	Off-Site Borrow	Apr 2024 - Dec 2028	Nahanni Construction Ltd.
\$1,890,000	Perpetual Care Plan	May 2024 - Mar 2027	ERM Consultants Canada Ltd.

### IOC Bonuses and Deductions

In addition, the Project has committed to report on the total IOC bonuses issued for surpassing IOC commitments and total IOC deductions issued for not meeting them, as specified in contracts. Results for the 2024-25 reporting year are as follows:

- A total of **\$17,508.15** was **issued in bonuses** to sub-contractors.
- A total of **\$5,365.75** in **deductions** was paid by sub-contractors

This represents an increase in bonuses from 2023-24 (\$156) as well as a significant decrease in deductions from 2023-24 (\$175,677).

#### 7.2.4.4. Next Steps: Employment and Procurement

In 2025-26, the Project will continue to advance the following activities related to procurement and employment:

- Finalize Socio-Economic Framework.
- Update the socio-economic portion (Attachment D) of the MCM's tender package.
- Finalize the process to require bidders to provide an IOC Plan if they make IOC commitments and integrate IOC Plan into Attachment D.
- Continue outreach and engagement with communities and businesses, including the annual Industry Day in Fall of 2025.
- Continue to work with GNWT Industry, Tourism and Investment and directly with Diavik to identify opportunities for the transition of workers as Diavik winds down production and preparation for closure.





## 7.2.5. Training

In addition to the mandatory occupational health and safety training, GMRP contractors are required to ensure that employees are properly trained to perform their responsibilities. Contractors deliver workforce training, including site orientations. The inclusion of IOC in contracts ensures Indigenous training and capacity building is considered and implemented, where possible, by all GMRP contractors.

Table 16 summarizes the training and capacity development activities from the Implementation Plan that the Project advanced and/or completed in 2024-25:

Table 16: Key Actions and Deliverables Advanced in 2024-25 – Training & Capacity Development

Focus Areas	Deliverable
<p><b>Objectives:</b> Strengthen local remediation capacity transferable skills through support to Indigenous and local capacity development programs, provision of Project information to training providers, and delivery of Project-related training.</p>	
<p><b>Development of Skills and Capacity</b></p>	<p>The GMRP issued three (3) scholarships with a total value of \$70,000.</p> <p>In addition, contractors provided a total of 62,233 hours of training and training institutions [Dechįta Nàowo (YKDFN) and the Mine Training Society and Tłįchų Investment Corp. (Tłįchų)] provided 43,907 hours.</p>
<p><b>Funding Support for Indigenous Communities to Deliver Training</b></p>	<p>Funding for training has been committed by the Project as part of the Community Benefits Agreement for YKDFN's Dechįta Nàowo program and for the NSMA. The Project also provides annual funding to the Tłįchų Government for training and long-term training plans.</p> <ul style="list-style-type: none"> <li>• <b>In 2024-25</b>, the Project team funded \$6,778,476 via contribution agreements. The contributions were provided for capacity building initiatives, such as training programs, economic and business development, salary for positions, supporting professional development, engagement activities, etc. Recipients of this funding included Yellowknives Dene First Nation, North Slave Métis Alliance, and Tłįchų Government. An example of the training provided by Tłįchų Government is provided below this table.</li> </ul>
<p><b>Information Sharing with Training Providers and Program Support</b></p>	<p>Parsons meets regularly with training providers to receive updates on the training offered and information on recent graduates. Parsons includes in all tenders a list of local training institutions, the training they offer, and their contact information. Parsons also meets with contractors prior to and after issuing contracts to ensure they are aware of training providers and what is offered. The Project team also shares information (e.g., labour estimates, contract schedules, gaps in skillsets) to training providers and regional coordinators, to keep them informed of the anticipated needs on the site.</p>

## TRAINING SUPPORT EXAMPLE: TŁJCHQ GOVERNMENT SUMMARY

In **2024-25**, the GMRP provided funding to the Tłjchq Government in support of capacity building initiatives, including:

- Heavy Equipment Operator training via Tłjchq Engineering and Environmental Services Ltd. and in partnership with Aurora College, which trained 6 people on excavators, haul trucks, and loaders. Five of the six participants went on to be employed as operators at various NWT companies, including Tłjchq Engineering and Environmental Services and Diavik.
- Internships with WSP to develop knowledge and skills related to careers in science, technology, engineering, arts, and mathematics (2 individuals).
- Trainee program with BluMetric on the ETP, including ETP orientation and monitoring, confined space training, first aid training, and attainment of Level 1 Surface Mine Supervisor Ticket (2 individuals).
- Tłjchq Project Administrator trainee at the Mine Training Society (1 individual).

The GMRP tracks workforce training by number of people who have participated in training exercises, as well as the number of person hours. Based on statistics reported by both CIRNAC and the MCM, workforce training for 2024-25 is organized by the following categories: Northern, Northern Indigenous, Indigenous, IOC, Women, and Total. It is important to note that the total presented does not reflect the sum of its categories due to intersectionality between the categories. Training targets are listed below:

### TRAINING TARGETS

- **Northern Indigenous and Northern Non-Indigenous Apprenticeships:** a minimum of 1 Northern apprentice supported per year.
  - Contribute a minimum of 25% of on-the-job hours required for an apprentice to complete their apprenticeship program.
- **Professional Development Scholarships:** 1 scholarship issued per year.

### Scholarships And Apprentices

In **2024-25**, 1 electrical apprentice worked on Site, who was supported in their apprenticeship by the Surface Care and Maintenance contractor.

The Project issued 3 scholarships worth a total value of \$70,000, an increase from 2023-24 (\$25,000). Scholarships were distributed as follows:

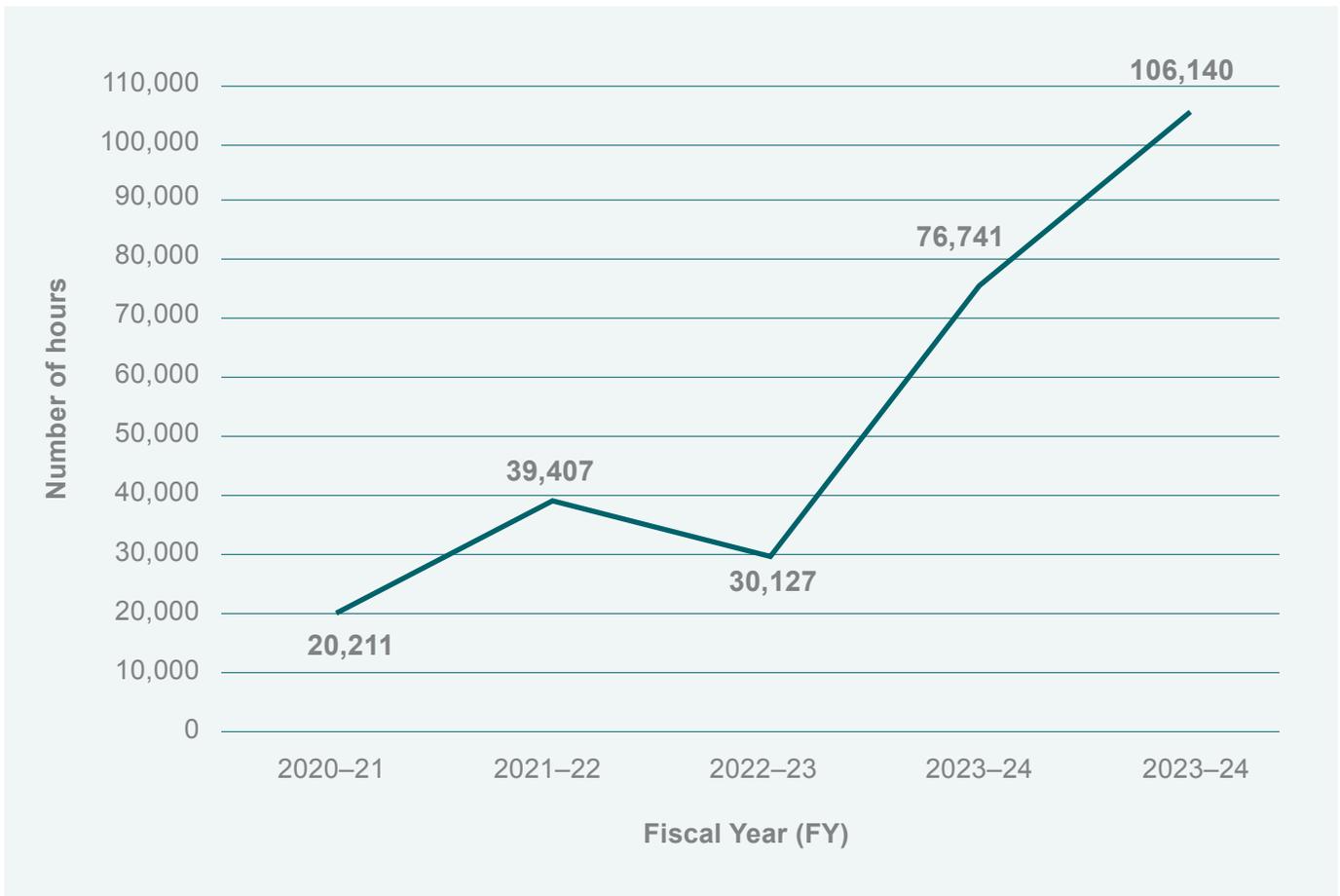
- 1 scholarship (\$5,000) to YKDFN by CIRNAC;
- 1 scholarship (\$5,000) to NSMA by CIRNAC; and,
- 1 scholarship mixed with additional training to Tłjchq by CIRNAC.

Parsons also issued 5 scholarships (\$15,000) to various parties.

## Total Training

In **2024-25**, the total number of training hours (106,140 hours) is higher than previous years (e.g., 39% higher than 2023-24, at 76,741 hours) (Figure 25 below). On-site training increased from 38,894 hours to 61,725. Meanwhile, off-site (training institutions) training went from 37,847 to 44,415. The off-site training increase is due to the inclusion of training offered by Tłchq (and funded by the Project) in reporting statistics.

Figure 25: Total Training 2020-21 to 2024-25 (# p-hrs)



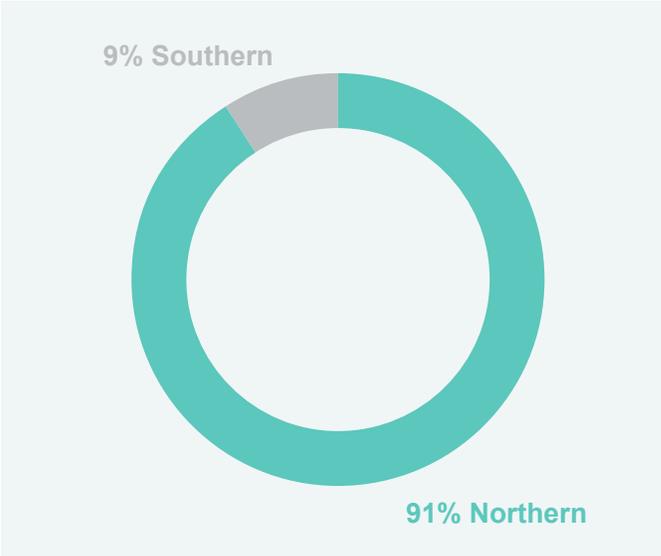
**Northern Training**

As shown in Figure 26, in **2024-25**, Northerners made up 91% (96,148 hours) of total training hours. While this is a slight decrease in the percentage of total hours (94% in 2023-24) this is an increase from the previous years in real terms (72,294 in 2023-24 and 22,413 in 2022-23). There is no target set for Northern training.

**Northern training results for 2024-25:**

- 91% of total training-hours; 96,148 hours.

Figure 26: Northern Training results for 2024-25



**Northern Training Breakdown**

Table 17 below highlights training statistics broken down by Northern sub-categories, including Northern Indigenous and Northern Non-Indigenous and whether they represent female or male employees. Since 2020-21, there has been a steady increase in training hours. Northern Indigenous people have consistently made up most trainees, with Northern Men as the largest proportion of these trainees. The smallest number of trainees were Northern Non-Indigenous Women, however there was a significant increase between 2023-24 and 2024-25 (283 to 1945 person hours).

Table 17: Percentage of training by Northern sub-category from 2020-21 to 2024-25 (person hours).

	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Total Employees</b>	<b>20,211</b>	<b>39,407</b>	<b>30,127</b>	<b>76,741</b>	<b>106,140</b>
Northern Indigenous Women	27%	18%	14%	18%	19%
Northern Indigenous Men	64%	65%	56%	65%	55%
Northern non-Indigenous Women	0%	0%	1%	0%	2%
Northern non-Indigenous Men	5%	4%	4%	10%	15%
Southern Employees	3%	12%	26%	7%	9%

### Indigenous Training

As shown in Figure 27, in **2024-25**, Indigenous Peoples (Northern and Southern) made up 74% (78,940 hours) of total training hours. As a percentage, this is a decrease from 2023-24 (84%, 64,358 hours) however is on par with 2022-23 (73%, 22,032 hours). In real terms, there has been a moderate increase in person hours since 2023-24, and a significant increase from 2022-23.

IOCs made up 32% (33,832 hours) of total training-hours. As a percentage, 2024-25 is relatively consistent with 2023-24 (34%, 25,785 hours) and 2022-23 (31%, 9,227 hours). In real terms, there has been a significant increase since 2022-23. There are no targets set for IOC training.

#### Indigenous and IOC training results for 2024-25:

- Indigenous; 74% of total training-hours; 78,940 hours.
- IOC: 32% of total training hours; 33,832 hours.

### Female Training

As shown in Figure 28, in **2024-25**, training of women made up 21% (22,446 hours) of total training hours. This result is on par with the previous years in percentage terms but represents a steady increase in real terms (20%, 15,069 hours in 2022-23 and 17%, 5,040 in 2022-23). There is no target set for training of women.

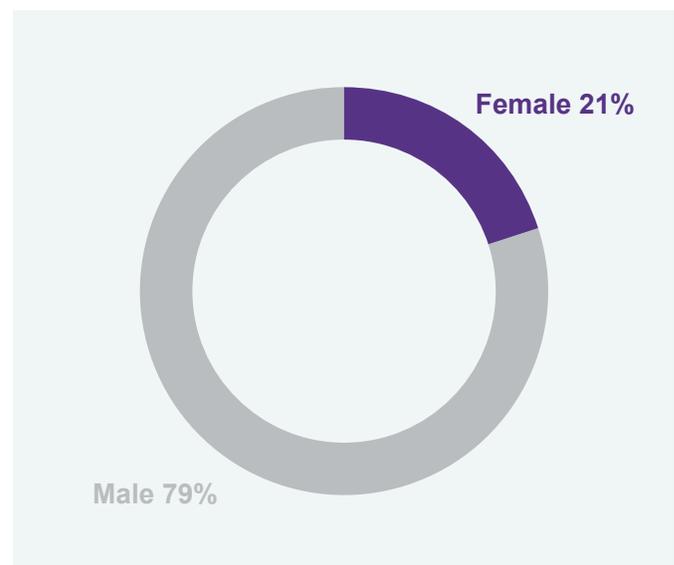
#### Female training results for 2024-25:

- 21% of total training hours; 22,446 hours.

Figure 27: Indigenous and IOC Training results for 2024-25



Figure 28: Female Training results for 2024-25



### Training Summary

Table 18 provides trend information on the percentage of training hours by sub-category since 2020-21.

Table 18: Percentage of person-hours by Employee Group from 2020-21 to 2024-25

	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Total Employees</b>	<b>20,211</b>	<b>39,407</b>	<b>30,127</b>	<b>76,741</b>	<b>106,140</b>
<b>Northern employees</b>	97%	88%	74%	94%	91%
<b>Indigenous (Northern and Southern) employees</b>	91%	83%	73%	84%	74%
<b>IOC employees</b>	16%	54%	31%	34%	32%
<b>Female employees</b>	28%	19%	17%	20%	21%

Figure 29 below highlights the number of normalized person-hours of training by employee group from 2020-21 to 2024-25. The number of person-hours of training is normalized by person-hours worked to enable comparison across years, since the total number of training hours may significantly differ over the years.

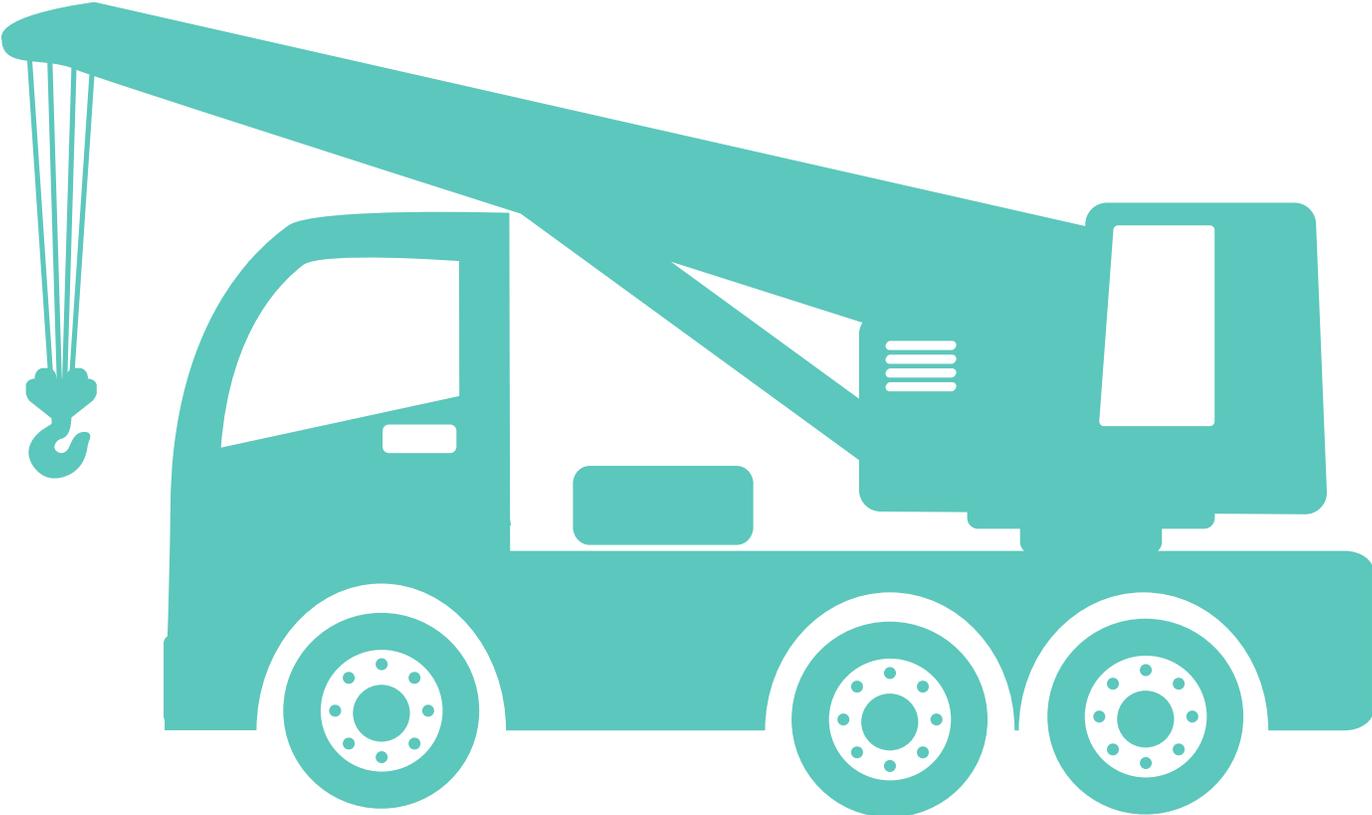


Figure 29: Number of Person Hours of Training per 200,000 Person-hours Worked by Employee Group from 2020-21 to 2024-25



### Training Next Steps

In 2025-26, the Project will continue to advance the following activities related to training and capacity development:

- Addition of an IOC Plan requirement in bidding packages to provide a qualitative aspect to IOC training commitments. This requirement will also improve tracking of training by providing additional narrative to the committed hours.
- Overall review of the IOC training component and further consideration of opportunities to modify IOC training based on ongoing engagement of Rights holders and stakeholders; potential for a pilot program to be introduced in 2025-26.

## 7.2.6. Social Impact Management

### 7.2.6.1. Social Impact Management Overview

There is potential for negative social impacts associated with large-scale projects, such as impacts related to health, infrastructure (e.g. housing), social services, crime and violence, culture, and money management. Several factors influence the realization and extent of impacts, including the location of the Project and associated work schedules and whether there is an influx of permanent or temporary workers to the region. In 2021, GMRP worked with its Rights holders and stakeholders to identify potential social impacts of the Project, as well as associated mitigation measures.

The table below provides a summary of actions and deliverables related to social impact management that were advanced or completed.

Table 19: Key Actions and Deliverables Advanced in 2024-25 – Social Impact Management

Focus Areas	Deliverable
<b>Objectives:</b> Advance reconciliation with local Indigenous communities. Monitor and mitigate potential negative social impacts associated with the Project.	
<b>Information Sharing and Review</b>	GMRP has worked with the Socio-Economic Working Group to identify a set of community health and wellness indicators that could be tracked and reported. <b>In 2024-25</b> , GMRP continued to work with GNWT Health and Social Services to determine what data and reporting is already available and could be used for GMRP’s purposes. The Project anticipates being able to report more progress on this activity in 2025-26.
<b>Health Effects Monitoring</b>	The Project continued to fund the Health Effects Monitoring Program. Results of each phase are shared at <a href="https://ykhemp.ca/">https://ykhemp.ca/</a> and in public meetings by the University of Ottawa’s research team.
<b>Supporting Reconciliation</b>	As mentioned above, the Project provides annual Contribution Agreement funds to YKDFN and NSMA and has signed an Economic Procurement Agreement with Tłıchq Government <b>in 2024-25</b> . Based on feedback received from Indigenous Groups, the MCM (with feedback from GMRP) is updating the overall on-site orientation and adding a cultural awareness aspect to it.

### 7.2.6.2. Next Steps: Social Impact Management Actions

In 2025-26, the Project will continue to advance the following activities related to social impact management:

- Update SEWG on how GMRP and GNWT will work together to share community health and wellness information and next steps.
- Continue to share results of each phase of the Health Effects Monitoring Program at <https://ykhemp.ca/> and in public meetings.
- Enhance cultural awareness components of on-Site orientation.

# 8.0 IN CLOSING

In 2024-25, the Project team progressed remediation work on site while continuing site operations and monitoring, immediate risk mitigation activities, community engagement, and progressing work on the review and resubmission of applicable Management and Monitoring Plans and other requirements under the Water Licence.

In 2025-26, the Project expects to start or continue the following activities:

## Advancement of Remediation

- **Tailings:** advance detailed designs on the remaining TCAs, foreshore tailing areas, dams, nearshore cover, and boat launch, as well as conduct geotechnical investigations in association with design of the boat launches.
- **Water Treatment Plant:** continue to construct the water treatment plant and complete remedial work on the associated outfall.
- **Borrow Material:** complete detailed quarry design and tender work packages.
- **Site Infrastructure Construction and Demolition:** advance detailed designs of FOS infrastructure decommissioning, remaining building demolition, and roads and bridges. Advance Part 2 of the Site Infrastructure Design Plan, building demolition, debris pile removal, powerline installation, and communication infrastructure installation.
- **Open Pits:** complete detailed design for the backfill and closure of open pits.
- **Contaminated Soils and Sediment:** complete and submit the Design Plan and procure a contractor for highly arsenic-contaminated waste removal, soil washing, and Chamber 15 backfill. Advance field work around ponded water.
- **Baker Creek:** submit the Baker Creek Design Plan to the MVLWB and continue development of detailed design for Reaches 4-6.
- **Freeze Program:** Advance detailed designs for B1 Pit and install AR1-Thermosyphon.
- **Underground Mine Workings:** Advance the Underground Stabilization As-Built Report, close openings to surface in high priority areas, complete detailed designs for closure of remaining openings, and finalise plans for the Long-term Portal.
- **Non-Hazardous Waste Landfill:** Continue waste placement operations at the Non-Hazardous Waste Landfill during the 2025 construction season.

## Operations

- **Care and Maintenance General:** continue care and maintenance activities and monitoring as per contracts, regulatory requirements, and site conditions.
- **Dams:** Continue ongoing monitoring, maintenance and reporting.
- **Inspections and Audits:** continue ongoing internal and external inspection and audit program.

## Environment

- **Air:** continue implementing the Air Quality Monitoring Plan and Dust Management and Monitoring Plan.
- **Water:** conduct monitoring as per regulatory and operational requirements.
- **Land:** continue executing the associated management plans, addressing spills, and processing waste.
- **Climate Change:** Continue to monitor and track GHG emissions.

## Health and Safety

- **Occupational Health & Safety:** Continue to track and report on occupational health and safety through tracking of training and incidents. Continue to take steps to remove or mitigate risks.

## Community

- **Engagement:** Continue to engage and collaborate with Rights holders and stakeholders.
- **Socio-economic:** Continue to implement the Socio-economic Strategy.

The GMRP will continue to prepare Annual Reports that describe the progress and performance of the project. In the spirit of continual improvement, we welcome your comments on this Report and how it can be enhanced in the future.

For more information or to provide comments on the Report, please contact:

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[natalie.plato@rcaanc-cirnac.gc.ca](mailto:natalie.plato@rcaanc-cirnac.gc.ca)  
 867-669-2838



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# APPENDICES

**Appendix A:** Environmental Agreement – Report Alignment

**Appendix B:** List of 2024-25 Studies / Reports

**Appendix C:** Project Risks

**Appendix D:** Progress on Environmental Assessment Measures and Suggestions

**Appendix E:** Additional Information on Monitoring Parameters

**Appendix F:** Climate Change and Greenhouse Gas Emissions





## APPENDIX A – ENVIRONMENTAL AGREEMENT – REPORT ALIGNMENT

A significant driver for the development of the GMRP Annual Report is the Environmental Agreement, the signing of which is a mandatory requirement per Measure 7 of The Report of Environmental Assessment and Reasons for Decision (Mackenzie Valley Review Board, 2013). This agreement establishes an independent oversight body (i.e., GMOB) for the GMRP, and was signed in June 2015 by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC; formerly Aboriginal Affairs and Northern Development Canada [AANDC]), the Government of the Northwest Territories (GNWT), the City of Yellowknife, the Yellowknives Dene First Nation (YKDFN), Alternatives North, and the North Slave Métis Alliance (NSMA).

Article 5 of the Environmental Agreement stipulates that “the Co-Proponents shall prepare, provide to GMOB and make available to the public an Annual Report on the Project each year,” to be submitted to GMOB “no later than October 1 in each year,” starting October 1, 2016 (the report addressing the 2015-16 fiscal year).

The Environmental Agreement specifies what content must be included in each Annual Report. Table 20 outlines each requirement and where the content can be found in this 2023-24 report.



Table 20: GMRP Annual Report Alignment with the Environmental Agreement Requirements

Environmental Agreement Requirement	Section of Report
A summary of the Project's key operational activities and associated expenditures	Section 4: Operations
A summary of any other significant developments relating to the Project	Section 2: 2024-25 Year in Review Progress on Measures and Suggestions
A summary of the results or findings of all monitoring done for the Environmental Programs and Plans and a description of actions taken or planned to implement Adaptive Management	Section 5: Environment Section 6: Health and Safety
An assessment of the effectiveness of actions already taken to address the results or findings of all monitoring completed for the Environmental Programs and Plans	Section 5: Environment
A summary of any environmental or engineering studies conducted by the Co-Proponents in relation to the Project	Section 3: Advancement of Remediation Design and Preparation Section 5: Environment Appendix B: Studies
A summary of any changes to, or plans for changes to, the Environmental Program and Plans	Summary of Progress In 2024-25 and Plans for 2025-26
A summary of the environmental audits of the Project, and the Co-proponents' response to the audit	Section 4: Operations
A summary of any reportable spills, accidents or significant malfunctions, and a summary of the Co-Proponents' responses	Section 4: Operations Section 5: Environment
A listing of regulatory inspections, reports or directions, and a summary of the Co-Proponents' response to any issues arising therefrom	Section 4: Operations
An analysis of trends in environmental effects data over time	Section 5: Environment Section 6: Health and Safety Section 7: Community
A summary of significant public engagement activities, or matters raised as public concerns, and the Co-Proponents' responses	Section 7: Community
A summary of the Project's planned key operational activities for the coming year and associated planned expenditures, subject to the need to protect commercially sensitive financial information	Section 4: Operations Section 8: In Closing
A summary of the progress of the Project, including the Mackenzie Valley Resource Management Act (MVRMA) Measures, Mackenzie Valley Environmental Impact Review Board Suggestions, and Co-Proponents' Commitments	Progress on Environmental Assessment Measures Appendix D
References to all sources relied on by the Co-Proponents in coming to conclusions in the Annual Report	References
A plain language summary of the Annual Report	Plain Language Summary provided under separate cover

## Addressing GMOB Recommendations

In the GMOB feedback on the 2023-24 Report, GMOB identified several questions and areas for improved clarity. GMRP's responses can be found on the GMOB website as indicated in Table 21.

Table 21: Link to GMOB Comments, Recommendations and GMRP's Responses

Description	Hyperlink
GMOB website home page	<a href="https://gmob.ca/">https://gmob.ca/</a>
Giant Mine Remediation Project Responses to Recommendations from the Giant Mine Oversight Board (GMOB) 2023 Annual Report	<a href="https://gmob.ca/wp-content/uploads/2025/01/2025-01-06-GMOB-Comments-RE-GMRP-Annual-Report-2023-2024.pdf">https://gmob.ca/wp-content/uploads/2025/01/2025-01-06-GMOB-Comments-RE-GMRP-Annual-Report-2023-2024.pdf</a>



# APPENDIX B – LIST OF 2024-25 STUDIES/REPORTS

Table 22 lists environmental or engineering studies conducted in 2024-25 by the GMRP. It includes studies that were completed, as well as several that are still underway. Many of these studies are intended to provide information needed to inform closure design, while others are monitoring programs to ensure the safety of the surrounding communities during current site operations. Additional details on these studies can be found throughout the report.

Table 22: Studies Undertaken in 2024-25

Theme	Study / Report
Design	<ul style="list-style-type: none"> <li>• 2024 Annual Geotechnical Inspection of Dams</li> <li>• Geotechnical Monitoring Annual Report – 2024</li> <li>• 2024 Dam Safety Review</li> <li>• Annual Rock Slope Inspection – 2024</li> <li>• Mill Pond Options Analysis – 2025</li> <li>• 2024 InSAR Monitoring of Dams</li> <li>• Analysis of the Bedrock Geochemistry in the North Pond Spillway - 2024 Report</li> <li>• Test Pitting Investigation in Support of Coarse Grain Borrow Design – 2024 Report</li> <li>• Contaminated Soils Field Program in Support of Earthworks Remediation Design – 2024 Report</li> </ul>
Air	<ul style="list-style-type: none"> <li>• 2021 GMRP Air Quality Monitoring Plan</li> <li>• 2023 Dust Management and Monitoring Plan (v3.1)</li> </ul>
Water	<ul style="list-style-type: none"> <li>• AEMP 2024 Annual Report</li> <li>• Annual Water Licence Report 2024</li> <li>• DWC Dam Fish Habitat Assessment – 2024 Report</li> </ul>
Land	<ul style="list-style-type: none"> <li>• 2023 Waste Management and Monitoring Plan (v3.2)</li> </ul>
Health & Safety	<ul style="list-style-type: none"> <li>• CIRNAC and MCM Incidents Reports</li> <li>• Health Effects Monitoring Program (Health Study – ongoing)</li> </ul>

## APPENDIX C – PROJECT RISKS AND MITIGATION

Risk management has been an important and ongoing management activity for the GMRP since 2002-03. Risk is about uncertainties, or unknowns, and how these could impact the objectives of the GMRP, such as the objective to minimize impacts to the environment. Risk management involves identifying and understanding risks, ranking them (which ones are low or high), and taking steps to prevent risk events from happening or to reduce their impact if they do happen. Organizations with strong risk management processes are better prepared to anticipate, avoid or reduce the impact and/or likelihood of risk events, should they occur.

The GMRP has a risk management procedure and process<sup>5</sup> which it uses to reduce risks to acceptable levels (e.g., legacy risks; see text box) and to manage risks which may increase with increased project activity (e.g., project activity risks; see text box).

### Examples of GMRP Risks

- Legacy Risks:** risks related to the infrastructure (e.g., dams) and environmental conditions (e.g., underground chambers) left by the former mining operation that could have human health and environmental impacts. Examples include: the release of arsenic trioxide from the underground chambers, or the injury or death of a trespasser from falling into a mine opening.
- Activity Risks:** risks related to the remediation project and the activities involved in reducing the legacy risks. These risks include risks to scope, budget, schedule, health and safety of workers and the surrounding environment. Examples include delays in advancing work (and associated cost impacts), health and safety impacts to workers while conducting remediation activities (e.g., moving earth), and air pollution due to dust from remediation work.

There are many examples of how risk management has informed project decision-making. When the risk management process was first implemented in 2002-03, the identification of various public access risks led to the implementation of a range of site security measures to prevent unauthorized entry to the site. More recently, the identification of significant risks related to the Roaster Complex, Baker Creek, and underground chamber instability led to the development of a Site Stabilization Plan – a set of remediation measures (including the demolition of the Roaster Complex) that were approved and implemented ahead of schedule to minimize impacts to human health and safety and the environment. An overview of current legacy and activity risks for the GMRP, and associated risk treatment activities, is presented below.

<sup>5</sup> GMRP's risk management procedure and process aligns with best practice and the international risk management standard CAN/CSA-ISO 31000-10 (R2015).

### Risk Profile Summary – 2023-24

This section provides a summary of the GMRP **2024-25** risk profile. The information is from the GMRP Risk Register that is continuously updated. There are currently 99 active risks, 191 closed risks, and 2 issues<sup>6</sup>. Of the 200 risks, 19 are activity risks, and 80 are Legacy. Table 23 breaks down the active risks by category and shows that the top categories are underground, building & structures and infrastructure related risks. Figure 30 breaks down the active risks by risk level and shows that 75% of risks are moderate or moderately high which falls under the risk management category “As low as reasonably practicable”. There is only one risk in the unacceptable high level which relates to low market capacity and decreased bidder interest could lead to schedule delays and additional costs for the project. Table 24 shows the risk drivers behind the active risks and shows that cost and health and safety are the leading drivers.

Table 23: Studies Undertaken in 2024-25

Category	Number of Active Risks	Category	Number of Active Risks
Underground	20	Engagement	2
Building & Structures	16	Regulatory	2
Infrastructure	11	Human Resources	1
Diversions	9	General Health and Safety	1
Water Treatment	4	Funding	1
Tailing & Sediment	4	Other – Technical	0
Open Pit	3	Waste Rock	0
Governance	3	Waste, Barrel and Site Debris	0
Fuel Tank	2	Contaminated Soil	0
Procurement	2	Fraud	0
Planning and Controls	2	Other Management	0

<sup>6</sup> **Active Risks:** These are identified risks that are currently being monitored or managed because they have the potential to impact project objectives. They are not yet realized but remain a concern.

**Closed Risks:** These are risks that have been resolved, mitigated, or are no longer relevant. They are formally documented as closed and require no further action.

**Issues:** These are events or problems that have already occurred and are currently affecting the project. Unlike risks, which are potential future events, issues are present and require immediate resolution.

Figure 30: Active Risks by Level

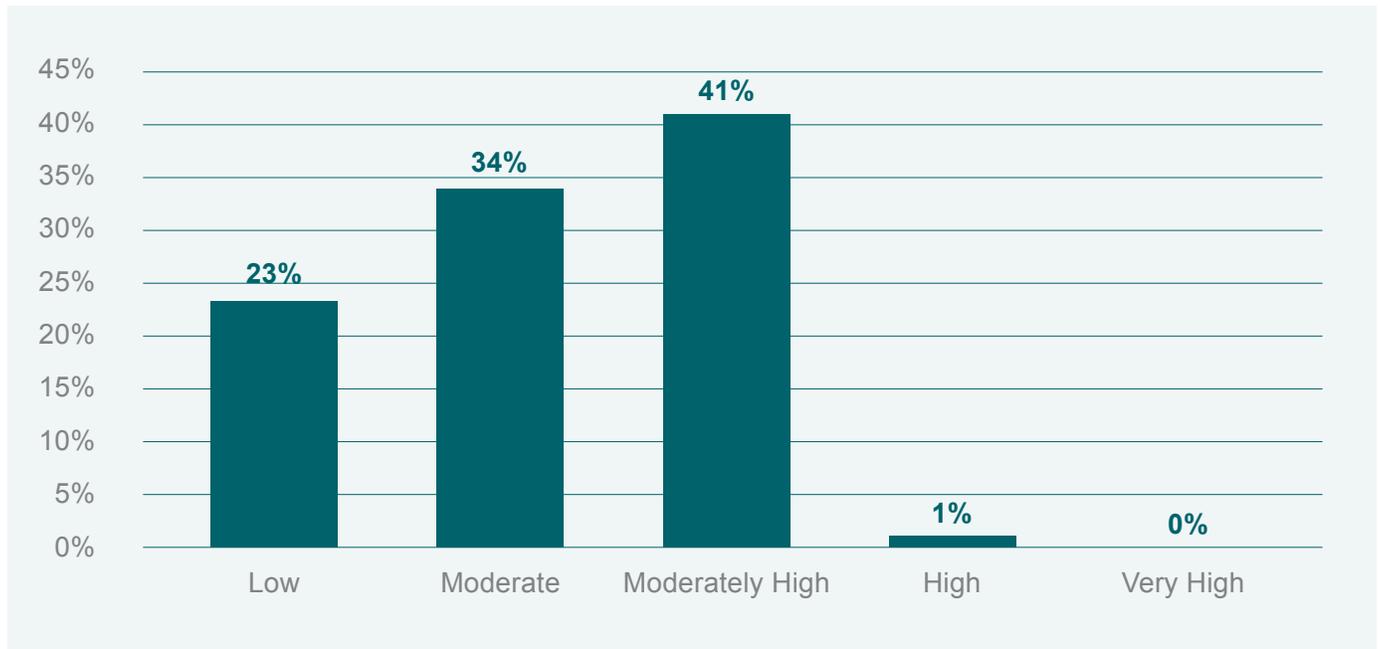


Table 24: Active Risks by Drivers

Drivers	Number of Active Risks
Cost	34
Health and Safety	29
Environment	13
Legal	12
CMR	10
Special Considerations	1





## APPENDIX D – PROGRESS ON ENVIRONMENTAL ASSESSMENT MEASURES AND SUGGESTIONS – DETAILED TABLES

This appendix provides supplemental details about progress toward achieving the Measures stipulated via The Report of Environmental Assessment and Reasons for Decision (Mackenzie Valley Review Board, 2013) and plans for 2025-26. Throughout these tables, “the Project”, refers to the GMRP. The language in the Measure column is drawn directly from The Report of Environmental Assessment and Reasons for Decision (Mackenzie Valley Review Board, 2013).

Table 25: Giant Mine EA Measures Tracking Table (as of March 2025)

#	Measure	Status	GMRP Comments on Status
1	To prevent the significant adverse impacts on environment and the significant public concern from the proposed perpetual timeframe, the Project will proceed only as an interim solution, for a maximum of 100 years.	No Action Required	The closure period is 100 years as outlined in the CRP.
2	Every 20 years after the beginning of Project implementation, the Developer will commission an independent review of the Project to evaluate its effectiveness to date, and to decide if a better approach can be identified. This will: <ol style="list-style-type: none"> <li>consider results of the ongoing research</li> <li>be participatory in nature</li> <li>follow the requirements of procedural fairness and be transparent in nature.</li> </ol> <p>If the periodic review identifies a better approach that is feasible and cost-effective, the Developer will further study it, and make the study and its results of the study public.</p>	Future action required	Article 8 of the June 9, 2015 Environmental Agreement further formalized the process through which the future Independent Project Review will be conducted. The Agreement ensures the independent review of the Project is conducted in a manner that considers ongoing research results, is participatory and transparent in nature and follows the requirements of procedural fairness.
3	To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant mine site, the Developer will fund research activity as advised by stakeholders and potentially affected Parties through the GMOB. The ongoing funding for this research activity, and additional resources required to manage its coordination, will be negotiated and included as part of the Environmental Agreement specified in Measure 7 and will make best use of existing research institutions and programs. The GMOB will ensure through the research activity that, on a periodic basis: <ol style="list-style-type: none"> <li>reports on relevant emerging technologies are produced;</li> <li>research priorities are identified;</li> <li>research funding is administered;</li> <li>results of research are made public, and</li> <li>results of each cycle are applied to the next cycle of these steps.</li> </ol>	Complete	Articles 7 & 11 of the June 9, 2015 Environmental Agreement provide a commitment of funding for the Oversight Body (which will be known publicly as the Giant Mine Oversight Board, or GMOB) to manage a research program as required by Measure 3. Initial funding flowed for this Measure in 2016-17 and will be ongoing.

#	Measure	Status	GMRP Comments on Status
4	<p>The GMOB will provide the results of the research funded by the Developer to the periodic reviews of the Project described in Measure 2. If better technological options are identified through the funded research in-between these periodic 20-year reviews, these will be reported publicly by the GMOB to the Parties, the Developer and the Canadian public. The Developer will consider these technologies and make decisions regarding their feasibility. The Developer will make any such decisions public.</p>	Complete	<p>The Giant Mine Oversight Board (GMOB) hosted a research workshop in March 2018 and negotiated an MOU with the University of Waterloo for TERRE-NET researchers to establish a formal research relationship with respect to alternate technological options for the permanent remediation solution for the arsenic trioxide dust stored at the Giant Mine site. Currently, the research focus is on stabilization of the dust; the safe extraction of the dust will be a future focus.</p>
5	<p>In order to mitigate significant adverse impacts that are otherwise likely, the Developer will commission an independent Quantitative Risk Assessment to be completed before the Project receives regulatory approvals. This will include:</p> <ol style="list-style-type: none"> <li>1. explicit acceptability thresholds, determined in consultation with potentially affected communities</li> <li>2. an examination of risks from a holistic perspective, integrating the combined environmental, social, health and financial consequences.</li> <li>3. possible events of a worst-case/ low frequency high consequence nature</li> <li>4. additional considerations specified in Appendix D of the Report of Environmental Assessment</li> </ol> <p>From this, the Developer will identify any appropriate Project improvements and identify management responses to avoid or reduce the severity of predicted unacceptable risks.</p>	Complete	<p>An independent consultant (Wood) was retained in 2018 to complete the Quantitative Risk Assessment. A separate consultant was retained to develop the engagement component (Stratos). The report and findings will be presented during engagement sessions in Spring / Summer 2020. The completed report was submitted to the MVLWB in June 2020.</p> <p>Design Plan submissions to the MVLWB in 2022/23 included sub sections specific to the outcomes of the QRA and how these have been addressed.</p>
6	<p>The Developer will:</p> <ul style="list-style-type: none"> <li>• investigate long-term funding options for the ongoing maintenance of this Project and for contingencies, including a trust fund with multi-year up front funding,</li> <li>• involve stakeholders and the public in discussions on funding options; and,</li> <li>• make public a detailed report within three years that describes its consideration of funding options, providing stakeholders with the opportunity to comment on the report.</li> </ul>	Complete	<p>The Measure 6 report on long term funding options for Giant Mine was finalized in July 2019 (Deloitte LLP, 2019a).</p>

#	Measure	Status	GMRP Comments on Status
7	<p>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 (GMOB) for the GMRP. These negotiations will build on the existing discussion paper and draft environmental agreement of the Giant Oversight Working group. This GMOB will exist for the life of the Project unless otherwise agreed by the Parties to the Environmental Agreement. Every effort will be made to have the GMOB in place as early as possible. The negotiations will make significant progress within six months of the Ministers' Environmental Assessment decision or proceed to mediation. The Developer will cover any mediation costs. The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the GMOB.</p>	Complete	<p>Through negotiations with the six affected parties (GNWT, CIRNAC, Alternatives North, the NSMA, the YKDFN, the City of Yellowknife) an Environmental Agreement was signed in June 2015. This Agreement established the mandate for GMOB. Details of the Board's mandate are included in the Giant Mine Environmental Agreement and Society's by-laws found on the GMOB's website.</p>
8	<p>The activities of the oversight body will include:</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• considering the adequacy of funding for the Project and ongoing research;</li> <li>• providing advice to the Developer, regulators and government on ongoing improvements in monitoring and Project management to prevent risks and mitigate any potential impacts;</li> <li>• sharing the oversight body's conclusions with the general public and potentially affected communities in a culturally appropriate manner</li> </ul>	Complete	<p>The Environmental Agreement provides for the creation of the Oversight Board and funding to fulfill these obligations going forward. Article 3 of the Environmental Agreement outlines the mandate of the GMOB. The GMRP continues engaging with GMOB staff and directors through various engagement initiatives and venues, further described in the Engagement Plan.</p>
9	<p>The Developer will work with other federal and territorial departments as necessary to design and implement a broad health effects monitoring program in Ndilo, Dettah and Yellowknife focusing on arsenic and any other contaminants in people which might result from this Project. This will include studies of baseline health effects of these contaminants and ongoing periodic monitoring. This will be designed with input from:</p> <ul style="list-style-type: none"> <li>• Health Canada, GNWT Health and Social Services and the Yellowknife medical community; and</li> <li>• The Yellowknives Dene and other potentially affected communities.</li> </ul> <p>The organization conducting the monitoring will provide regular plain language explanations of the monitoring results in terms that are understandable to lay people, and communicate this to potentially affected communities in a culturally appropriate manner.</p>	Underway	<p>The Health Effects Monitoring Program was established in 2017. The Program is carried out by University of Ottawa's Dr. Laurie Chan and his team. It is a long-term monitoring program to establish levels of arsenic and other contaminants of concern in residents of Ndilo, Dettah and Yellowknife. The results of baseline data collection phase (two waves in 2017 and 2018) indicated: that overall arsenic levels in urine are similar between the overall Yellowknife population and the Canadian Health Measures Survey (CHMS) levels, which represent the general Canadian population.</p> <p>An illustrated, plain language brochure that provides information on the YKHEMP study, reasons for the study, results from the 2017-2018 sample collection, and some background on arsenic and Giant Mine was published in 2021.</p> <p>The 5 year follow-up study for children and youth was completed in 2023. Results were made available in 2024.</p>

#	Measure	Status	GMRP Comments on Status
10	<p>The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. This human health risk assessment will be completed before the Project receives regulatory approvals. It will:</p> <ol style="list-style-type: none"> <li>1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports;</li> <li>2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of Environmental Assessment);</li> <li>3. Decide whether a Tier III risk assessment is appropriate;</li> <li>4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner;</li> <li>5. Provide interpretation of results and related guidance; and</li> <li>6. Inform the broad health effects monitoring program (described in Measure 9 above).</li> </ol> <p>The Developer may conduct the human health risk assessment concurrently with the Quantitative Risk Assessment described in Measure 5. Based on the results of this human health risk assessment, and on any existing results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.</p> <p>Also, footnote #133 in the Report of Environmental Assessment (Appendix D) is revised to read, in its entirety, "Including inference of causality and pathologies deducted from any available health studies."</p>	<p><b>Complete</b></p>	<p>The HHERA was completed by Canada North Environmental Services. The HHERA was carried out with significant input from stakeholders, community members and traditional knowledge holders. This input included both the scope of the assessment and the implementation to better assess risks considering differences in traditional land use, food consumption, and lifestyles for residents living in Yellowknife, Ndilq and Dettah. The final report was released in January 2018. Additional considerations for communications are underway to ensure residents understand the outcomes that have informed public health advisories through the GNWT Department of Health and Social Services. In addition, an Acute Human Health Risk Assessment was completed by WSP in 2023, with a subsequent addendum memo that provided a sensitivity analyses. The analyses was in response to a Review of Quantitative Risk Assessment directed by the GNWT.</p> <p>The GMRP developed the Hoëla Weteëst'eèdeë study (formerly called the Stress Study) via an independent research team through the University of Wilfred Laurier. Wilfred Laurier were the principal investigators of the study which has been co-designed with the YKDFN. The requirement of this study was identified in Appendix F to the Report of Environmental Assessment noting the requirement to "evaluate indirect effects of potential exposures to arsenic on wellness, including stress effects. On June 6, 2022, the Yellowknives Dene First Nation advised the GMRP they were withdrawing from the study. In September 2022, the GMRP met with the remaining members of the study's advisory committee to seek advice with respect to how to proceed. After careful deliberation, the committee unanimously advised that the Study should not proceed; as such, the Study has been discontinued.</p>

#	Measure	Status	GMRP Comments on Status
11	<p>The Developer, with meaningful participation from the Oversight Body and other parties, will thoroughly assess options for, and the environmental impacts of, diversion of Baker Creek to a north diversion route previously considered by the Developer or another route that avoids the mine site and is determined appropriate by the Developer. Within one year of the project receiving its water license, a report outlining a comparison of options including the current on-site realignment will be provided to the appropriate regulatory authorities, the Oversight Body and the public.</p> <p>Once informed by the advice of the Oversight Body and regulatory authorities, the Developer will determine and implement the preferred option. In doing so, the Developer will consider the advice of the Oversight Body, regulatory authorities, and the public, and will ensure that the primary considerations in selecting an option are to:</p> <ol style="list-style-type: none"> <li>minimize the likelihood of Baker Creek flooding and entering the arsenic chambers, stopes and underground workings, and</li> <li>minimize the exposure of fish in Baker Creek to arsenic from existing contaminated sediments on the mine site, surface drainage from the mine site or tailings runoff. If off-site diversion is selected, the Developer will seek required regulatory approvals to implement the diversion within five years of receiving its water license.</li> </ol>	Complete	<p>A comprehensive evaluation of diversion alternatives was undertaken and documented in the Baker Creek Diversion Alternatives Evaluation Report. The assessment included an evaluation of alignment options based on environment, society and feasibility. The Draft Report was engaged on with GMOB, the GMRP Working Group, and the YKDFN Giant Mine Advisory Committee. Engagement details are documented in the engagement log. Overall support for the recommendations provided for alignment option.</p> <p>The Final report was provided as Appendix 5.5A to the Closure and Reclamation Plan in the Water Licence Package.</p> <p>Actions taken as part of the Baker Creek design to address a) include:</p> <ul style="list-style-type: none"> <li>providing Baker Creek with geomorphic channel including floodplain conveyance;</li> <li>designing closure channel and floodplain conveyance for floods up to and including the Probable Maximum Flood (PMF), sealing underground mine openings to surface to mitigate potential for inundation and uncontrolled flow to the underground mine during extreme events and placing pit fills in a manner to provide additional flood protection.</li> </ul> <p>Actions taken as part of the Baker Creek design to further address b) include: removing tailings, where present from Baker Creek and removing fine sediments, where present, from Baker Creek.</p>



#	Measure	Status	GMRP Comments on Status
12	<p>To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the existing or former channel of Baker Creek, should it be re-routed to avoid the mine site, the Developer will ensure that water quality at the outlet of Baker Creek channel will meet SSWQO based on the CCME Guidance on the Site-Specific Application of Water Quality Guidelines in Canada.</p>	<p><b>Complete</b></p>	<p>Water quality objectives specific to and protective of Yellowknife Bay were developed based on CCME Guidance and are presented in the Effluent Quality Criteria (EQC) report. Extensive modelling including a site model in GoldSim, a near field model of the mixing zone (CORMIX) and a 3D Model of Yellowknife Bay (GEMSS) were developed to support the development of EQC and demonstrate the Project's ability to meet Water Quality Objectives. Modelling documentation is included in the EQC report along with prediction of future water quality in Yellowknife Bay. The Water Quality Objectives will be met upon completion of the GMRP active remediation phase and will be met in the vicinity of the outlet of Baker Creek (see Measure 13), at the edge of a 200 m mixing zone (see Measure 15) that includes the Project's new WTP outfall and the influence of Baker Creek.</p> <p>Site Specific Water Quality Objectives (WQO) were presented as part of pre-engagement and submitted in the EQC Report to the MVLWB for approval in April 2019. These were discussed at the first technical session in July 2019, hosted by the MVLWB, in support of the Water Licence application process and approved by the MVLWB in July 2020. Final EQC were determined by the MVLWB and included in the GMRP Water Licence MV2007L8-0031 issued September 18, 2020.</p>
13	<p>The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the existing or former channel of Baker Creek, should it be re-routed to avoid the mine, excluding Reach 0:</p> <ul style="list-style-type: none"> <li>a) Water quality changes due to discharge from the former channel of Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity;</li> <li>b) Water quality changes due to discharge from the former channel of Baker Creek will not harm fish health, abundance or diversity;</li> <li>c) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect areas used as drinking water sources,</li> <li>d) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect any traditional or recreational users; and,</li> <li>e) There is no increase in arsenic levels in Great Slave Lake due to discharge from the former channel of Baker Creek beyond the parameters described in Measure 12.</li> </ul>	<p><b>Complete</b></p>	<p>Measure 13 a) through d) are satisfied by selecting Water Quality Objectives for Yellowknife Bay that are protective of aquatic life and drinking water. Arsenic concentrations in Great Slave Lake, beyond the edge of the mixing zone (200 m from breakwater), will not increase from present-day concentrations as demonstrated in the EQC report and supporting documentation (see Measure 12).</p>

#	Measure	Status	GMRP Comments on Status
14	The Developer will add an ion exchange process to its proposed water treatment process to produce WTP effluent that at least meets Health Canada drinking water standards (containing no more than 10µg/L of arsenic), to be released using a near shore outfall immediately offshore of the Giant mine site instead of through the proposed diffuser. The Developer will achieve this concentration without adding lake water to dilute effluent in the treatment plant.	Complete	The new WTP will include ion-exchange technology as part of the treatment process and will discharge effluent meeting the criteria of 10 ug/L of Arsenic. The outfall location was identified through stakeholder engagement and options analysis and will be located nearshore of the Giant site in the vicinity of Baker Creek. No diffuser is proposed. Final EQC were determined by the MVLWB and included in the GMRP Water Licence MV2007L8-0031 issued September 18, 2020.
15	The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern: <ol style="list-style-type: none"> <li>1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and,</li> <li>2. The following water quality objectives in the receiving environment are met: <ol style="list-style-type: none"> <li>a) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity at 200 metres from the outfall;</li> <li>b) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity;</li> <li>c) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and,</li> <li>d) There is no increase in arsenic levels in Yellowknife Bay water at 200 metres from the outfall: and,</li> <li>e) There is no increase in arsenic levels in Yellowknife Bay sediments at 500 metres from the outfall</li> </ol> </li> </ol>	Complete	All parameters of potential concern (POPC) will meet relevant Canadian Drinking Water Guidelines (DWG) at the edge of the mixing zone. Water Quality Objectives specific to Yellowknife Bay have been developed to be protective of aquatic life and drinking water and all Water Quality Objectives will be met at the edge of the mixing zone. Arsenic concentrations in Great Slave Lake, beyond the edge of the mixing zone will not increase from present-day concentrations due to effluent discharge. See Measure 12 for more details on Water Quality Objectives and supporting evidence. Final EQC were determined by the MVLWB and included in the GMRP Water Licence MV2007L8-0031 issued September 18, 2020.
16	Before construction, the Developer will model re-suspension of arsenic from sediments and resulting bioavailability in the vicinity of the outfall. If the modeling results indicate that the outfall may re-suspend arsenic from sediments, the Developer will modify the outfall design until operation does not cause resuspension of arsenic from sediment.	Complete	The GMRP is taking a more protective approach and mitigating the potential of sediment resuspension through design of a sediment cover, rather than modelling. The design criteria for the outfall will include the requirement to avoid resuspension of arsenic from sediments.  During design of the WTP outfall, modelling of the outfall to predict scour and potential resuspension of sediment was completed and the design was completed to prevent any resuspension of sediment at the outfall. In December 2022, details of the design were submitted to the MVWLB in the WTP Design Plan.

#	Measure	Status	GMRP Comments on Status
17	<p>Before operating the outfall, the Developer will design and implement a comprehensive aquatic effects monitoring program that is sufficient to determine if the water quality objectives listed in Measure 15 are being met. This program will:</p> <ol style="list-style-type: none"> <li>1. at a minimum, be able to identify any accumulation of arsenic over time in the water, sediment or fish in the receiving environment;</li> <li>2. include appropriate monitoring locations near N'dilo, in Back Bay and in Yellowknife Bay, with a focus on areas in the vicinity of the outfall and areas used by people;</li> <li>3. include the establishment of a baseline for aquatic effects in Back Bay before beginning Project construction and installation of the outfall;</li> <li>4. be developed according to AANDC Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs for Development Projects in the Northwest Territories, June 2009, with corresponding action levels and management response framework.</li> </ol>	Underway	The AEMP Design Plan will be updated prior to operation of the WTP, as required by the Water Licence.
18	<p>Prior to preparing chambers and stopes for freezing, the Developer will conduct a comprehensive Quantitative Risk Assessment evaluating both wet and dry methods for the initial freezing design, with respect to current risks and implications for future removal. This will include an evaluation of potential effects of the proposed freezing and wetting method on the thawing or frozen excavations, and potential impacts of ongoing design changes prior to implementing the Project. The Developer will release a plain language report to the public describing its considerations and the resulting design.</p>	Complete	The Freeze Design Basis Report was finalized in 2016 and included an evaluation of wet versus dry methods, resulting in the selection of the dry method. The plain language report was finalized and distributed to the Giant Mine Working Group, YKDFN Giant Mine Advisory Committee, and email distribution list (June 2019).
19	<p>Considering the results of the risk assessment described in Measure 18, the Developer will not adopt any method of freezing that significantly reduces opportunities for future arsenic removal or other remediation by future technologies.</p>	Complete	The Freeze Design Basis Report was finalized in 2016 and included an evaluation of wet vs dry. The Project is proceeding with the dry method, which combined with a passive freezing approach will allow for reversibility if needed. Closure Objective F2 and associated closure criteria address reversibility in the CRP.

#	Measure	Status	GMRP Comments on Status
20	The Developer will conduct all major demolition and construction activities with the potential to release large amounts of dust or contaminants into the air when wind directions will minimize the chances of dust and contaminants blowing into the City of Yellowknife, Dettah and N'dilo.	Underway	The Dust Management and Monitoring Plan takes into account Measure 20 and outlines mitigations to minimize the generation of dust, particularly when wind is blowing towards Yellowknife, N'dilo, and Dettah. As well, the site wide Air Quality Monitoring Plan is an existing and ongoing program that was designed to adapt to changing activities on site, and incorporates applicable measures and activities to mitigate the risks of exposure to contaminated dust throughout the life of the Project. The Air Quality Monitoring Plan is an appendix to the Dust Management and Monitoring Plan.
21	The Developer will collect dust and contaminant level data from soil and vegetation in the vicinity of major reclamation activities before and after major demolition or construction activities to serve as a baseline for any related adaptive management activities that may follow.	Underway	The GMRP conducts ambient air quality monitoring, as required by Measure 25 and as outlined in the Air Quality Monitoring Plan, during non-snow covered months and when warranted by remediation activities during snow covered months. This allows for additional mitigation and adaptive management options to be implemented in a timely manner. Wildlife surveys will be completed post-remediation which include a vegetation monitoring component.
22	The Developer will conduct a study to determine appropriate depth of the tailings cap and B1 pit cover, in consultation with Environment Canada and responsible regulators, to verify that the depth proposed will ensure the tailings cap and B1 pit cover are not compromised by vegetation growth. The Developer will provide a report of this study to the MVLWB before it issues a water license for the Project.	Complete	During Surface Design Engagement some affected parties preferred the selection of a non-vegetated tailings cover. The selection of a rock cover as outlined in the CRP addresses the concern of the cover being compromised by vegetation growth. As a result of input received during engagement and the selection of a rock cover, this measure has been addressed.
23	The Developer will work cooperatively with responsible regulatory authorities and interested Parties in the development and submission of a Tailings Management and Monitoring Plan prior to receiving regulatory approvals. This plan will not only identify potential issues for the management of tailings but will also identify mitigation measures to prevent problems related to the tailings cap failure, and will include consideration of the B1 pit cover as applicable.	Complete	A Tailings Management and Monitoring Plan (Version 1.0) was developed as part of the Water Licence application and approved. In September 2022, GMRP submitted an updated version (2.0) of the Tailings Management and Monitoring Plan to the MVLWB. Comments from MVLWB led to an engagement process that resulted in a revised version (version 2.1), which was submitted March 31st 2023 and approved in April of 2023. As with all GMRP Management and Monitoring Plans, the Tailings Management and Monitoring Plan will be reviewed annually and updated as required during remediation.

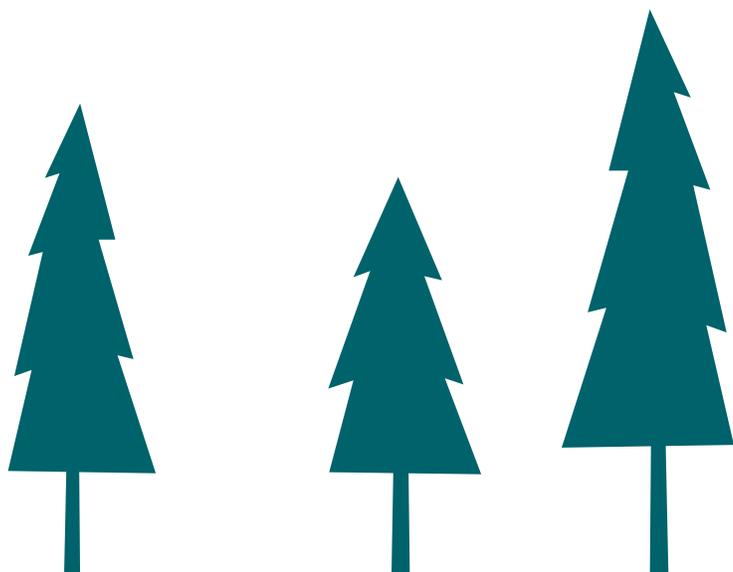
#	Measure	Status	GMRP Comments on Status
24	The Developer will physically prevent all-terrain vehicle access to the tailings cap and B1 pit cover to prevent the surface from being eroded or otherwise compromised. The Developer will monitor the effectiveness of this prevention, and will take any additional management measures as necessary to prevent all-terrain vehicle access.	Future Action Required	The selection of a coarse rock cover will prevent the surface from being eroded or comprised through ATV access. Closure objective T6 addresses this in the Closure and Reclamation Plan.
25	The Developer will work cooperatively with responsible regulatory authorities and interested Parties in the development and submission of an Air Quality Management Plan which incorporates an ongoing air quality monitoring program. This ongoing monitoring program will include all previously identified on-site air quality monitoring stations and one off-site air quality monitoring station near Niven Lake. At a minimum, ambient concentrations of NO2 and PM2.5 will be monitored at the Niven lake site. Total suspended particulate and metal concentrations will be monitoring at the on-site locations. This AQMP will identify action levels and trigger additional management and mitigation activities, if required.	Underway	The GMRP maintains an Air Quality Monitoring Plan (AQMP). The AQMP comprises site perimeter stations and community stations. PM2.5 is measured at the community stations, with the Niven community station also measuring NO2. The AQMP, in conjunction with the Dust Management and Monitoring Plan, identifies action levels which trigger additional management and mitigation measures as required. The AQMP will be reviewed and updated as required as remediation progresses.
26	In conjunction with Measure 10 above, the Developer will consider the results of the comprehensive human health risk assessment, and consult with the YKDFN and City of Yellowknife when determining suitable end uses of the site, to ensure that those proposed uses do not pose a health risk to people, including toddlers.	Underway	<p>The HHERA was completed in 2018. The results were presented to the communities of YKDFN, the NSMA, the City of Yellowknife and other affected parties. The GMRP Engagement Plan outlines the extensive engagement sessions held to inform the Human Health Ecological Risk Assessment, including a Dietary Survey and a Voluntary Country Food Sampling Program.</p> <p>The outcome of the HHERA informed post-closure land use constraints. The GMRP has shared the details of the post-closure land use constraints with GNWT Lands, and the City of Yellowknife. The GMRP will continue to work with its municipal, territorial and federal counterparts to communicate post-closure risks, and their consideration within the Perpetual Care Plan.</p>



Table 26: Giant Mine Environmental Assessment Suggestions Tracking Table (as of March 2024)

#	Suggestion	Status	GMRP Comments on Status
1	The Developer should consult with surrounding communities, including Dettah, Ndilo and the City of Yellowknife, prior to finalizing its Project design, so that design improvements may be incorporated to address any remaining concerns.	Underway	The extensive engagement completed since the EA is documented in the CRP, Engagement Plan and the Engagement Log. This includes the Surface Design Engagement process and regular ongoing engagement through the Giant Mine Working Group, the YKDFN, Giant Mine Advisory Committee and other engagement venues which are outlined in the Engagement Plan.
2	The Developer should create a monument as a memorial to the impacts of past contamination from Giant Mine on Indigenous communities and the environment.	Underway	The Project has committed to a monument as this was widely supported by affected parties during Surface Design Engagement, however the details of exactly what and where the monument would go were not discussed during Surface Design Engagement. The Project will engage on this with affected parties prior to finalizing the details of the monument and communicate this decision to the public.
3	To encourage widespread learning from and remembering of the experiences of the Giant Mine, the Developer, in conjunction with the GNWT Department of Education, Culture and Employment, should: <ol style="list-style-type: none"> <li>develop an education resource unit on the impacts of Giant Mine on the land and on people, including impacts on Indigenous peoples, and</li> <li>distribute this resource unit for use within the school curriculum across Canada.</li> </ol>	Outside of the Project scope	GMRP worked with a committee comprised of members from the YKDFN, NSMA, GMOB and AN on the initial stages of a Giant Mine education resource. General themes were explored and a draft framework was created to offer for scope development. GMRP supports and encourages a developer to advance an education resource to promote widespread learning on the experiences of Giant Mine. The GMRP is willing to provide support, as needed and requested.
4	The Federal Contaminated Sites Action Program should develop a policy framework and guidance for the perpetual care and management of remediated contaminated sites.	Outside of the Project scope	This suggestion is outside the mandate of the GMRP, however, a Perpetual Care Plan is a requirement under the Environmental Agreement. A Perpetual Care Task Force (the Task Force) has been established to assist in the development of the PCP. The Task Force is made up of representatives from each signatory to the GMRP Environmental Agreement. The GMRP, with significant input from the Task Force, developed a Scope of Work (SOW) which outlines the requirements of version 1 of the Perpetual Care Plan. ERM Consulting has been awarded the work and a number of engagement sessions have occurred to date since onboarding. Version 1 is anticipated July 2027.

#	Suggestion	Status	GMRP Comments on Status
5	To ensure long-term funding throughout the life of the Project, the Developer should create an independently managed self-sustaining trust fund with multi-year up-front funding for the ongoing maintenance of this Project and for contingencies. A third-party expert should independently manage this trust fund. Annual reports on the condition of the fund should be provided to stakeholders and the public.	Outside of the Project scope	Measure 6. A final report as required under Measure 6 was completed in 2019/20. A response to this suggestion is outside the be mandate of the GMRP, however the Project Team will ensure the report is provided to the relevant department(s) in the Government of Canada and continue to work with our counterparts in the federal system to ensure funding is in place throughout the life of the Project.
6	To reduce public concern about the multiple roles of AANDC in this Project and to increase public confidence, AANDC should produce guidelines to clarify reporting structures to ensure that Project inspectors, advisors and managers employed by the federal government can perform their duties objectively and without undue pressure from within the federal government. These should be made available to the public within six months of Ministerial acceptance of this Report of Environmental Assessment.	Outside of the Project scope	A response to this suggestion is outside the mandate of the GMRP, however the existing Treasury Board Values and Ethics Code for the Public Sector is available to the public at <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25049">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25049</a>
7	Based on the results of the health risk assessment described in Measure 10, the appropriate government authorities should remediate garden and playground soils where arsenic concentrations exceed current guidelines for urban soils in Canada.	Outside of the Project scope	The remediation of garden and playground soils is out of scope of the GMRP. The Project continues to cooperate with relevant federal and territorial agencies to share information.
8	The Developer should consider the Trail Human and Environmental Health Committee as a model for the development of the health program.	Complete	The Health Effects Monitoring Program has incorporated lessons learned and similar concepts from that of the Trail BC Monitoring Program.



#	Suggestion	Status	GMRP Comments on Status
9	<p>During its review of the diversion of Baker Creek, the Department of Fisheries and Oceans should consider the habitat loss of the existing Baker Creek and decide on any habitat design requirements for the diversion to the extent it deems appropriate. Any resulting habitat compensation requirements should be applied on the new diversion.</p>	Complete	<p>The GMRP is working with the Department of Fisheries with respect to habitat loss and compensation. Discussions began in 2018 and continued in 2023.</p> <p>The GMRP calculated habitat loss associated with construction and remediation activities in Yellowknife Bay and Baker Creek as well as predicted habitat gains based on the design of Baker Creek and the Nearshore/Foreshore cover in Yellowknife Bay. These details were engaged on with Rights holders and stakeholders, and submitted to DFO as part of the Fisheries Act Authorization for the full scope of the closure and reclamation activities associated with the GMRP (with some minor exceptions) on March 17, 2023. The Fisheries Act Authorization was approved on April 6, 2024.</p>
10	<p>The Developer should investigate the potential advantages and disadvantages of adding an engineered wetland to the Project to reduce arsenic in surface drainage. This investigation should include possible locations in the channel that formerly contained Baker Creek and in the Baker Creek diversion. On completion, the Developer should make a public report of the results of this investigation and of any resulting changes to Project design. This should be completed before a water license is issued for the Project.</p>	Underway	<p>A Research and Reclamation Plan entitled Passive and Semi Passive Treatment systems is an Appendix to the CRP. This plan outlines research undertaken on engineered wetlands and the proposed further steps to investigate the feasibility and potential effectiveness of applying passive and semi-passive treatment systems on the Giant Mine site. Three phases of the five proposed in the RRP were completed from 2015 to 2019; work was paused for the Water Licence process and approval of the CRP and the design plans. An updated review of the work to date was conducted which concluded that development of an on-site wetland treatment system is technically feasible. However, the review also identified that there are limited areas available on Site for installation of a wetland treatment system and for those areas which are available, the reduction in arsenic is low compared to that of other remediation activities planned for the Site.</p>
11	<p>To manage the risks of airborne exposure of contaminated dust from deconstruction of buildings or other structures on site, the Developer should:</p> <ul style="list-style-type: none"> <li>• prepare a dispersion model of dust plume given typical wind direction and speed</li> <li>• define the meteorological window of opportunity to describe acceptable wind conditions to eliminate the potential for a dust cloud release and transport of surrounding communities.</li> <li>• consult a meteorologist to develop a sound model of weather conditions, to indicate when winds are steady and not gusting, blowing to the north</li> <li>• stop if winds change or any dust controlling equipment fails</li> </ul>	Underway	<p>The Air Quality Monitoring Plan (AQMP) is an existing and ongoing program that was designed to adapt to changing activities on site, and incorporates suitable measures and activities to mitigate the risks of exposure to contaminated dust throughout the life of the Project. The Dust Management and Monitoring Plan includes Action Levels which include a number of potential mitigations and contingencies, up to and including work stoppage.</p>

#	Suggestion	Status	GMRP Comments on Status
12	To prevent impacts on people from potentially harmful contaminant releases from deconstruction of buildings or other structures on site at the Giant Mine site, the Land and Water Board should specify allowable wind directions and wind speeds in degrees, to ensure that contaminated structures are not demolished during blustery multi-directional winds at ground level.	Underway	The Air Quality Monitoring Plan (AQMP) is an existing and ongoing program that was designed to adapt to changing activities on site, and incorporates suitable measures and activities to mitigate the risks of exposure to contaminated dust throughout the life of the Project. The Dust Management and Monitoring Plan includes Action Levels which include a number of potential mitigations and contingencies, up to and including work stoppage.
13	The Developer should investigate options for filling in the pits, in consultation with the City of Yellowknife and YKDFN.	Complete	The option to fill pits was investigated and outlined in the Open Pits Options Assessment Report. Pit filling options were evaluated and engaged on during the Surface Design Engagement, where there was support from most affected parties to fill pits. As outlined in the CRP, the pits will be filled or partially filled.
14	The Developer should consider the baseline conditions for existing fish habitat in Back Bay (including a fish habitat assessment in the area of the foreshore tailings and the aquatic effects baseline required in Measure 17) and develop a foreshore tailings cover design and foreshore tailings monitoring and mitigation plan for review by the Department of Fisheries and Oceans pursuant to habitat provisions of the Fisheries Act.	Underway	Fish Habitat surveys of the foreshore tailing areas, the near shore contaminated sediments and the outfall area in Yellowknife Bay began in 2018 and continued in 2020/21. This work informed the Project's application for Department of Fisheries and Oceans Canada Fisheries Act Authorization. The Fisheries Act Authorization was approved on April 6, 2024.
15	The Developer should consult with the City of Yellowknife in the design of any landfill on the Giant Mine site.	Complete	Engagement sessions occurred with the City of Yellowknife through the Giant Mine Working Group and in the City-GMRP monthly meetings to present the proposed locations and other details of the on-site landfill, resulting in support of the proposed location in the CRP. The Non Hazardous Waste Landfill Design Plan was approved by the MVLWB on April 26, 2022. Construction of the landfill began in 2021.
16	The Developer should consult with Indigenous groups with respect to reduced traditional use cumulatively resulting from the proposed Project in combination with contamination from Giant Mine. This should occur prior to finalizing Project design, so that design improvements may be used to address any remaining concerns.	Underway	The extensive engagement completed by the Project is documented in the CRP, Engagement Plan and Engagement Log. The GMRP has supported Traditional Knowledge studies and continues to incorporate community and Traditional Knowledge across programs and plans, as available.

## APPENDIX E – ADDITIONAL INFORMATION ON MONITORING PARAMETERS

### E.1 Air Quality Monitoring Program

The GMRP team is committed to maintaining air quality parameters below the protective thresholds set by the Ambient Air Quality Monitoring Program and listed below.

Table 27: AAQMP Air Quality Criteria (SLR Consulting (Canada) Ltd, 2021)

Analyte	Source <sup>7</sup>	Averaging Period	Guideline / Standard Concentration ( $\mu\text{g} / \text{m}^3$ unless otherwise specified)
Total suspended particulates	[3]	24 hr	120
	[3]	Annual	60
Particular matter less than 10 $\mu\text{m}$ (PM10)	[1]	24 hr	50
Particular matter less than 2.5 $\mu\text{m}$ (PM2.5)	[2]	24 hr	28
		Annual	10
Nitrogen dioxide	[3]	1 hr	213 (ppb)
	[3]	24 hr	106 (ppb)
Arsenic (As)	[1]	24 hr	0.3
	[4]	Annual	0.011
Iron (Fe)	[1]	24 hr	4
Lead (Pb)	[1]	24 hr	0.5
Nickel (Ni)	[1]	24 hr	0.2
Antimony (Sb)	[1]	24 hr	25
Asbestos as fibre > 5 $\mu\text{m}$ in length	[1]	24 hr	0.04 fibres/cm <sup>3</sup>
Site Perimeter – Total suspended particulates Risk Based Action Level*	[4]	15-minute	333
Site Perimeter – PM10 Risk Based Action Level*	[4]	15-minute	159

\* Derived from toxicological references for the hypothetical on-site worker/trespasser, chronic criterion based on protection against an incremental carcinogenic risk of  $1 \times 10^{-5}$  (Health Canada, 2004) using the Health Canada Inhalation Unit Risk Factor.

<sup>7</sup> SOURCES: [1] Ontario Ambient Air Quality Criteria (December 2016), [2] Canadian Council for Ministers of the Environment (2015) Canadian Ambient Air Quality Standards, [3] Guideline for Ambient Air Quality Standards in the Northwest Territories (February 2014), [4] Health Canada 2004.



### E.2 Water Quality Monitoring

The GMRP team undertakes effluent and water quality monitoring in and around the Giant Mine site via different programs to report on surface water, groundwater and underground minewater. These programs track parameters such as the volume of water pumped or discharged, water quality, and the performance of the ETP.

Parameters tested at all stations include standard general parameters (e.g., temperature, pH, conductivity, hardness), major ions, nutrients, and

total and dissolved metals and metalloids. There are also specific station requirements for other tests such as cyanide, sulphide, hydrocarbons, and radium-226. Samples collected at SNP 43-1 must meet federal requirements under MDMER as well as the discharge criteria defined in the GMRP Water Licence MV2007L8-0031.

The figures below highlight the locations of surface water quality monitoring stations as well as groundwater monitoring wells and well status.

Figure 31 : Surface Water Quality Monitoring Stations



Figure 2 : Groundwater Monitoring Wells and Well Status



## APPENDIX F – CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

This appendix summarizes more detailed information on climate conditions at site as well as detailed tracking for GHG emissions.

### Climate Conditions at Site

#### Wind

- Wind speed is measured and reported by ECCC at the Yellowknife A station (ECCC 2025). In 2024, the hourly wind speed ranged from 0 (lowest non-zero wind speed was 3 km/h) to 47 km/h, with an average of 13 km/h. Daily maximum wind gust speed is also reported at the Yellowknife A station (ECCC 2025). In 2024, the range in maximum gust speed was 31 to 64 km/h, with the average maximum gust speed being 39 km/h.

#### Temperature and Precipitation

- Climate in the North has been changing over the last several decades. Some of these changes include average annual air temperatures and patterns of precipitation in the region. Air temperature is measured and reported at the Yellowknife A station by ECCC (2025). The average annual temperature in 2024 was  $-2.8^{\circ}\text{C}$ .
- The range in monthly precipitation (snow and/or rain) from January to December 2024 was 0.6 to 37.1 mm, with a total annual precipitation of 227 mm.
- The 2024 annual precipitation amount is less than the long-term average (i.e., 1943 to 2024) of 294 mm (ECCC 2025).



## Streamflow

- Streamflow data were collected at five hydrometric stations: Pocket Lake, Trapper Creek, A2 Pit Diversion, Upper Baker Creek, and Baker Pond / Lower Baker Creek. Flows ranged from 0.000 (dry conditions), observed at all stations other than Lower Baker Creek, up to 0.403 m<sup>3</sup>/s at Lower Baker Creek in 2024. Additional streamflow data for Baker Creek were available from the Water Survey of Canada (WSC) Station at the outlet of Lower Martin Lake (07SB013 – Baker Creek at Outlet of Lower Martin Lake) (WSC 2025), which reported flows ranging from 0.000 to 0.289 m<sup>3</sup>/s in 2024.
- The streamflow peak during freshet took place at the end of May and was consistent with historical peak timing. The streamflow magnitude was slightly below historical lower quartile throughout 2024. On July 19, the WSC began to report a streamflow of zero. A streamflow of zero was reported for the rest of 2024.
- Additional details on monitoring data are included in the 2024 Annual Water Licence Report.

## Permafrost

- Permafrost is at risk of degradation in the North. As outlined in the Closure and Reclamation Plan, permafrost conditions are evaluated regularly on-site including Site inspections and formal investigations. This information is used in two ways: 1) care and maintenance activities to confirm if infrastructure monitoring or repairs are needed (for example, a sinkhole on a road), and 2) incorporated into the engineering design of project components. In terms of care and maintenance, some minor repairs are needed around UBC Bridge on a regular basis due to traffic and sinkage (due to settlement).
- Investigations and data collection and analysis continued in 2024, to assess permafrost extents along Baker Creek. The latest results combined with those from previous years indicated permafrost in Reach 3 and 5. The GMRP is evaluating options and mitigations for the design for Baker Creek based on these results.

## GHG Emissions

Table 28 provides the summary of monthly consumption on site and Table 29 provides the summary of GHG emissions summary for the year.

Table 28: Summary of Monthly Consumption for 2024-25 Fiscal Year

		Month												Annual (FY)
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
<b>Indirect Emissions</b>														
<b>Purchased Electricity</b>	<b>Unit of Measure</b>	<b>Monthly Usage (kWh)</b>												
Purchased Electricity	kWh	414,000.0	468,000.0	306,000.0	373,500.0	310,500.0	319,500.0	315,000.0	274,500.0	288,000.0	301,500.0	279,000.0	261,000.0	3,910,500.0
<b>Direct Emissions</b>														
<b>Fuel Combustion (for heating or otherwise)</b>		<b>Fuel consumed</b>												
<b>Fuel Type</b>	<b>Unit of Measure</b>													
Natural Gas	m <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Propane	L	61869.0	19614.1	0.0	122.0	140.0	0.0	2007.5	0.0	0.0	1,205.0	544.0	3,697.0	89197.8
Diesel Fuel	L	97,275.0	58,472.3	50,570.0	66,091.0	96,221.6	86,383.3	74,741.6	111,013.7	93,765.8	192,214.0	250,033.0	290,261.0	1,467,042.0
Gasoline	L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Mobile Transportation</b>		<b>Fuel consumed</b>												
<b>Vehicle Type</b>	<b>Fuel Type (Unit of Measure)</b>													
Light-Duty Vehicle (excluding trucks SUVs and minivans)	Gasoline (L)	0.0	0.0	0.0	0.0	0.0	950	234	192.5	658	279	132	628	3073.7
	Diesel (L)	0.0	0.0	0.0	0.0	0.0	0.0	840	873	591	1,098	3,094	3,060	9556
	Propane (L)	0.0	0.0	0.0	0.0	0.0	0.0	950	0.0	0.0	0.0	0.0	0.0	950
	Natural Gas (kg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Light-Duty Truck (<3,900 kg GVWR, including SUVs and minivans)	Gasoline (L)	894.8	5615.0	0.0	5133.0	796.0	3213.3	4557.0	5016.8	3718.9	4,219.0	5,156.0	6,770.0	45,090.0
	Diesel (L)	11,333.0	23,220.4	9,410.0	29,114.0	23,980.2	18,510.2	24,412.5	23,030.6	13,428.5	11,001.0	10,905.0	11,792.0	210,137.4
	Propane (L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Natural Gas (kg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heavy Duty Truck (>3,900 kg GVWR)	Gasoline (L)	32.0	32.0	32.0	0.0	32.0	32.0	40.0	0.0	45.0	0.0	0.0	0.0	245.0
	Diesel (L)	5,746.0	15,963.5	0.0	60,665.0	38,215.0	32,799.0	27,060.0	19,836.0	2,918.0	406.0	1,248.0	1,277.0	206,133.5
Off-Road Vehicle/ Construction Equipment (including ATVs and snowmobiles)	Gasoline (L)	0.0	50.3	49.2	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193.5
	Diesel (L)	18,918.0	65,995.7	14,423.0	157,501.0	12,1205.0	90,505.3	76,867.6	59,946.8	11,828.0	8,716.0	6,460.0	5,729	638,095.1
<b>Mobile Air Conditioning</b>		<b># in fleet</b>												
Vehicles (including haul trucks and construction equipment)		58.0	78.0	84.0	117.0	88.0	112.0	77.0	70.0	56.0	47.0	41.0	73.0	76 (Avg)

Table 29: GHG Emission Summary for 2024-25 Fiscal Year

GHG Emission Summary	Total Emission (Kg CO <sub>2e</sub> )												
	Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>Indirect Emissions</b>													
Purchased Electricity	140,693.8	159,045.1	103,991.0	126,930.2	105,520.3	108,578.9	107,049.6	93,286.0	97,873.9	102,461.8	94,815.4	88,698.2	1,328,944.3
<b>Direct Emissions</b>													
<b>Stationary Fuel Combustion by fuel type</b>													
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Propane	95,773.2	30,362.6	0.0	188.8	216.7	0.0	3,107.6	0.0	0.0	1,865.2	841.3	5,722.6	138,078.2
Diesel Fuel	263,128.9	158,167.6	136,791.9	178,776.2	260,279.4	233,666.8	202,176.0	300,292.1	253,636.5	519,938.1	676,339.2	785,156.0	3,968,348.6
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Mobile Transportation by Vehicle Type</b>													
Light-Duty Vehicle (excluding trucks, SUVs and minivans)	0.0	0.0	0.0	0.0	0.0	2,338.9	4,354.0	2,880.7	3,249.3	3,714.7	8,855.1	9,982.5	3,5375.5
Light-Duty Truck (<3,900 kg GVWR, including SUVs and minivans)	33,477.6	78,028.0	25,943.3	93,074.1	68,099.4	59,049.8	78,675.0	76,012.6	46,301.4	40,855.5	42,929.9	49,401.3	691,848.5
Heavy Duty Truck (>3,900 kg GVWR)	15,808.6	43,784.1	76.0	166,100.8	104,708.7	89,879.7	74,185.3	54,310.9	8,096.4	1,111.6	3,417.0	3,496.4	56,4975.8
Off-Road Vehicle/ Construction Equipment (including ATVs and snowmobiles)	56,602.6	197,579.8	43,271.6	471,382.1	362,645.4	270,791.9	230,074.2	179,360.8	35,389.3	26,078.2	19,328.3	17,140.2	1,909,644.5
<b>Mobile Air Conditioning</b>	2,073.5	2,788.5	3,003.0	4,182.7	3,146.0	4,004.0	2,752.7	2,502.5	2,002.0	1,680.2	1,465.7	2,609.7	32,210.7



Crown-Indigenous Relations  
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