

Working with *the People* for the Environment



ENVIRONMENTAL MONITORING ADVISORY BOARD FOR THE DIAVIK MINE



ANNUAL 2023
2024
REPORT



ENVIRONMENTAL MONITORING ADVISORY BOARD FOR THE DIAVIK MINE

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REPORT CARD ON THE ENVIRONMENT

Courtesy of Diavik



PURPOSE

This report card has three purposes:

- Set out broad changes in the environment at Diavik since the mine started.
- Compare changes to predictions Diavik made during the Environmental Assessment of the project.
- Assess how well Diavik and the regulators are managing the changes.

WATER

[see pages 28-30 for more details]

The main way Diavik monitors water and fish in Lac de Gras (LdG) is through the Aquatic Effects Monitoring Program. Water quality at Diavik is within the Water Licence limits, and within the predictions Diavik made.

Highlights for 2023/2024:

- 2023 was an “interim” monitoring year, where Diavik samples water quality, nutrients and plankton in the near-field and mid-field area (far-field stations are only sampled every third year). They also sample at the inlet and outlet for LdG. They do not sample fish or benthics in interim years.
- LdG continues to experience nutrient enrichment as a result of Diavik’s activities:
 - › Nutrient enrichment is caused by an increase of phosphorus and nitrogen in Diavik’s effluent discharge into LdG.
 - › More nutrients in fresh water leads to an increase in chlorophyll *a*, and feeds the growth of algae, which can be harmful to fresh water ecosystems.
- Extent of nutrient enrichment (chlorophyll *a*) is variable in Lac de Gras.
 - › 26% in 2017, 15% in 2018, 0.1% in 2019, 22% in 2020, 100% in 2021, 61% in 2022, and **100% in 2023**

- » Action Level 3 is set at 25% above normal range; the predicted extent in the Environmental Assessment was up to 20% of LdG at Level 3; in 2023 the level reached 18% of LdG, the highest ever and approaching the EA maximum prediction.
- » EMAB will continue to monitor the extent of nutrient enrichment in LdG.
- › EMAB would like Diavik to take samples from all areas of LdG every year. Right now Diavik only samples the far-field every three years.
- Diavik was granted a water licence amendment to breach collection ponds 2 & 7 in 2024, subject to some conditions regarding monitoring and responses. Flow from these ponds is expected to start in spring 2025.
 - › Diavik argued that the discharge from the ponds was not a waste, so didn't need to be regulated in the Water Licence. EMAB disagreed and the WLWB decided to treat the discharge as a waste and to set limits on the quality of the discharge.
- Diavik has begun depositing processed kimberlite into the A418 pit, and is pumping water that emerges as the PK settles to the treatment plant.
- Diavik will submit an application to renew its Water Licence for the closure period by end of 2024.

FISH AND AQUATIC LIFE

[see pages 23-24 and 28-30 for more details]

There are many kinds of aquatic life in LdG . Aquatic life can be useful indicators of aquatic health. They are also food for fish. Diavik measures plankton (microscopic plants and animals that live in the water) and benthics (bugs that live on the bottom of the lake) to assess aquatic health. Monitoring results for fish and other aquatic life are within water licence limits and predictions.



Highlights for 2023/2024:

- There are different types of plankton near the mine compared to farther away, as well as a larger amount of plankton and a higher number of benthic invertebrates, because of increased nutrient levels where the mine discharges treated water. The number and species of benthic invertebrates in a given area can affect fish populations, as fish eat benthics.
- At the 2021 TK Fish Camp, Elders would not eat the fish because they appeared unhealthy and had lots of parasites compared to previous years.
 - › The camp is for Elders to do fish palatability testing to assess whether fish have changed.
 - › Diavik followed up with a study that concluded parasites are normal in LdG. Diavik does not count the number of parasites in each fish.
 - › EMAB remains concerned about the amount of parasites seen in 2021 after the follow-up study.
 - › There will be another TK Fish Camp in 2024.



EMAB photo

WILDLIFE

[see pages 54-58 for more details]

Diavik monitors caribou, grizzly bear, wolverine, raptors and the vegetation they feed on through a Wildlife Monitoring Program (WMP). In general the mine's effects on these animals and plants are within the predictions Diavik made during the environmental assessment. While the Bathurst caribou population has declined from 186,000 animals in 2003 to 6,240 in 2021 (the most recent year Bathurst caribou were surveyed) the contribution of the mine to this drop remains unknown.

Highlights for 2023/2024:

- The Minister approved Diavik's updated Wildlife Management and Monitoring Plan (WMMP) in July 2022, with seven conditions. At the time of writing, all conditions except Condition 1 had been met. See Wildlife Monitoring Program section for more details on the current status of the Plan.
 - › Diavik has dropped caribou behavior monitoring far from the mine from the WMMP, with agreement from GNWT. EMAB disagreed with this.
- Diavik proposed an updated approach to Zone of Influence (ZOI) analysis. EMAB made comments on it.
- There are much fewer caribou around the mine than in the past. This is likely because the number of caribou has declined, and the remaining animals stay further north than they used to.
- Diavik says there is no caribou ZOI around the mine but EMAB and GNWT believe Diavik's analysis is flawed. Previous scientific studies that use aerial survey and satellite collar data show a ZOI around the mine of about 14 km, that varies from year to year.
 - › EMAB recommended that Diavik use more advanced methods for ZOI surveys, such as reinstating the aerial surveys, using satellite collar data, or the use of drones.

- › Diavik analyzed caribou behavior data from 2010 to 2021 but there was not enough data to make solid conclusions about how the mine affected caribou behavior.
- Diavik has discontinued grizzly bear and wolverine hair snagging programs because the populations seem stable.
 - › EMAB recommended Diavik work with the GNWT to develop triggers for future hair snagging programs, to make sure populations remain stable.
 - » GNWT approved the WMMP with both grizzly and wolverine hair snagging programs removed.
- Vegetation near the mine has much more dust on it than vegetation far from the mine. Vegetation near the mine has changed in abundance and type with greater number of species near the mine.

AIR QUALITY

[see pages 58-60 for more details]

Diavik monitors air emissions and dust that falls to the ground through its Environmental Air Quality Monitoring Program (EAQMP). The results are generally within predictions but EMAB has concerns about the way the monitoring is being done and recent changes to the monitoring program.

Highlights for 2023/2024:

- Total Suspended Particulate (TSP) monitoring was removed from the EAQMP in 2020; TSP is a very important variable that is made up of dust and air emissions.
 - › TSP comes from sources like exhaust from mine operations, and dust particles produced from blasting rock and road traffic.
- EMAB disagreed with Diavik removing TSP monitoring, and submitted a request for the Minister of ENR (now ECC) to review Diavik's EAQMP in 2020.

- › ECC concluded that Diavik's EAQMP was inadequate.
- › Diavik proposed to collaborate with EMAB to revise the EAQMP. After an initial attempt EMAB decided not to continue this collaboration. Diavik was required to propose a revised EAQMP to the Minister by July 2024. This has been delayed until November.
- EMAB has recommended Diavik take samples of the yellow haze that blankets the mine on very cold days.

CLOSURE PLANS

[see pages 44-54 for more details]

Diavik's Final Closure and Reclamation Plan was circulated for comment in November 2022; WLWB issued a decision in July 2024. EMAB found the plan needed substantial revisions; the WLWB did not approve the plan, and required Diavik to complete revisions no later than April 2025, and to engage with Parties through two workshops.

Highlights from 2023/2024:

- **Submission of FCRP V1.0:** WLWB gave direction on many of EMAB's concerns:
 - › **Traditional Knowledge:** The FCRP does not include a TK Monitoring Plan. WLWB directed Diavik to submit a Plan for review no later than end of September 2025. Diavik is working with a TK Working Group, and with EMAB, to start developing the Plan.
 - › **Closure Objectives and Criteria:** EMAB did not agree with many of Diavik's proposed closure criteria in the FCRP and made a lot of comments and recommendations for improvements. WLWB did not approve 11 proposed criteria, including for water quality that protects people, wildlife, aquatic life, revegetation; and wildlife safety.
 - › **Waste Discharge from Collection Ponds:** WLWB did not agree with Diavik that the discharge from collection ponds is not a waste, and set

Effluent Quality Criteria (EQCs), which are legally enforceable. WLWB also directed Diavik to address concerns about its proposed “Surface Water Action Level Framework” (SWALF). EMAB concluded that the SWALF does not seem very enforceable.

- › **Mixing Zones:** EMAB would like mixing zones to be as small as possible. EMAB recommended more rigorous monitoring, and to ensure chronic effects to aquatic life are not expected beyond the edge of the mixing zone, and that water is safe for humans and wildlife. WLWB directed Diavik to identify the mixing zone for each discharge, as recommended by EMAB.
- › **Site Restoration and Revegetation:** EMAB’s view is that site restoration and revegetation is inadequate in the FCRP. Diavik’s revegetation design does not meet mining industry standards in Canada. Diavik should be targeting revegetation of at least 70% of the footprint, similar to the amount that was there before development. They should ensure the vegetation is self-sustaining and similar to before the mine. There are a number of TK Panel recommendations related to site revegetation that Diavik has not addressed adequately. Diavik is still not using the recommendations from the University of Alberta Revegetation Study that it commissioned, with the justification that the additional efforts were not seen as “beneficial”. WLWB did not approve Diavik’s revegetation strategy or criteria, and required a longer evaluation period, and contingencies if Diavik’s revegetation approach is not succeeding.
- › **Contaminated Soils:** Diavik is still proposing to bury soils that don’t meet agricultural standards after remediation, instead of shipping them offsite. EMAB does not agree with this approach. WLWB did not approve Diavik’s proposal, and required more details to justify Diavik’s approach before considering it.
- › **PKC Designs:** Diavik is now planning to cover the PKC with a 1.5 m layer of waste rock. They say the PKC will freeze eventually (but could take a long time), and any extra water will drain out via a spillway to LdG. EMAB supports the idea of a dry rock cover and considers it an improvement on leaving a pond in the middle of the facility. But the design is conceptual and has not been proven. Diavik submitted a revised design in October 2024 that was better, but still had many uncertainties. WLWB approved the dry cover concept, and the design drawings and report; they also required Diavik to submit a PKC closure plan addressing several key issues, and to update security estimates to include timelines, monitoring and maintenance (including monitoring and maintenance of the PKC dams).
 - » Diavik’s plan is that the design will not need any long-term maintenance, which EMAB does not think is realistic. Dams must be inspected regularly by law. The WLWB has directed Diavik to address long-term monitoring and maintenance of the PKC dams.
- › **North Waste Rock Storage Area:** The North Waste Rock Storage Area (NWRSA) has been smoothed and re-sloped, with a 4.5 m thick cover. If the cover does not perform as expected, this may impact water quality. If the cover thaws it could result in contaminated runoff, so it needs to be monitored until there is no risk to water around the island. The WLWB has directed Diavik to update climate change predictions for the NWRSA, and to develop plans for responses if criteria are not met.
- › **South Waste Rock Storage Area:** the current design is inadequate and may be unsafe for animals to cross. Diavik should decrease the slope and smooth out the sides. The design is too steep and rocky for wildlife to safely traverse. The WLWB has directed Diavik to slope the SWRSA



TK Camp participants fishing for lake trout on Lac de Gras

the same as the NWRSA unless Diavik provides evidence the Parties support the steep slope.

- › **Performance Assessment and Climate Change:** Diavik should provide a description of the intended content of each Performance Assessment Report in advance, for approval. Diavik will likely need to monitor longer to make sure some closure components are performing as planned. Diavik should use the most up to date climate change predictions as the basis for its designs. Climate change could impact the success of Diavik's closure designs. The WLWB directed Diavik to revise its long-term stability criteria, and to monitor until the WLWB says it can stop or reduce monitoring. WLWB also directed Diavik to clarify plans for post-closure inspections.
- › **Security and Long-term Maintenance and Monitoring:** Diavik says that the mine site is being closed in such a way that no long-term

maintenance or monitoring will be needed. Diavik is proposing short monitoring periods in the range of five years to show closure is proceeding as designed. EMAB believes Diavik's approach is overly optimistic and that adequate security should be held for an appropriate timeframe so any issues can be fixed post-closure. In the case of the PKC and NWRSA, EMAB expects monitoring will be needed for a very long time, particularly taking into account the possible effects of climate change. The WLWB has directed Diavik to propose performance holdbacks that consider what they will have to do if the performance criteria are not met.

- › **Diavik requested some security be returned for its work on the NWRSA Cover. EMAB agreed with the request and the WLWB approved it.**

ABOUT US



EMAB Board and Executive Director in June 2024

HOW EMAB WAS FORMED

The Environmental Monitoring Advisory Board (EMAB or the Board) was created by the Environmental Agreement for the Diavik Diamond Mine. The Environmental Agreement came into effect in March 2000. It was signed by five Aboriginal Parties, the Federal and Territorial governments and Diavik. EMAB is the environmental watchdog organization created by the Environmental Agreement. EMAB makes sure the environment around Diavik remains protected. The Environmental Agreement states EMAB will work independently and at arm's length from Diavik and the other Parties who signed the agreement.

WHY THE ENVIRONMENTAL AGREEMENT IS IMPORTANT

The Environmental Agreement is a legal contract between the Parties. It says what Diavik and the Parties must do to minimize environmental effects of the mine. The Environmental Agreement says Diavik must meaningfully involve the Aboriginal Parties in environmental monitoring at Diavik mine. This includes the use of Traditional Knowledge and Inuit Qaujimaqatuqangit (TK/IQ). The Environmental Agreement sets out EMAB's mandate.

WHAT EMAB DOES

EMAB was set up in 2001 and is in its 23rd year of operations. EMAB's mandate covers four main areas:

- EMAB Oversight and Monitoring
- Aboriginal and Community Involvement
- Communications
- Leadership and Governance

WHO WE ARE

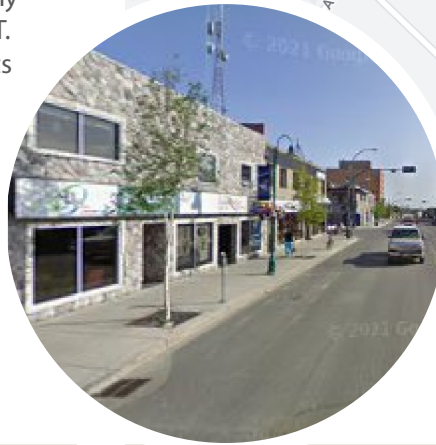
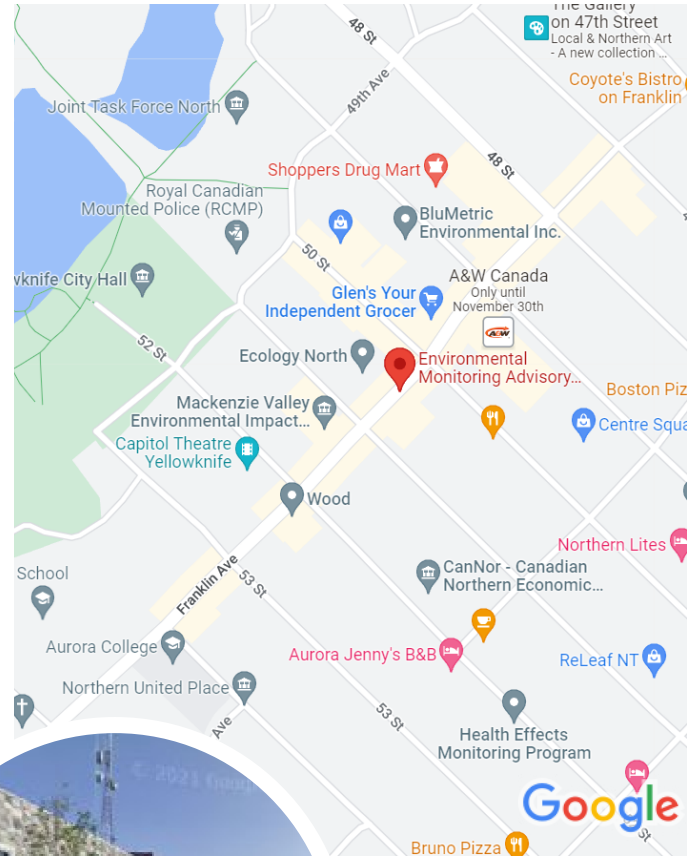
There are eight Parties to the Environmental Agreement. Each Party appoints one Director to the Board. EMAB has two staff members:

- Executive Director
- Environmental Specialist

In December of 2013, the GNWT and the Government of Canada initiated a process to amend the Environmental Agreement as a result of the Devolution process. Their plan was for Canada to remain a Party but with many of Canada's responsibilities transferred to the GNWT. This is an ongoing process. Canada has delegated its authority regarding the Environmental Agreement to the GNWT in the meantime.

WHERE WE ARE LOCATED

Our office is in downtown Yellowknife at 5006 Franklin Ave, suite 204 on the 2nd floor of the 50/50 Mini Mall in Yellowknife.



Phone: **867-766-3682**

Website: **www.emab.ca**

Email: **emab1@northwestel.net**

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CHAIR'S MESSAGE



EMAB photo

EMAB is the watchdog for the environment at the Diavik mine. Our job is to make sure the mine, and the regulators, are doing their best to protect the water, animals, fish and air. We also keep the Parties to the Environmental Agreement for the Diavik mine, and their communities, informed about what EMAB is doing and what is going on at the mine. Board members are appointed by each of their Parties to help protect the environment around the mine.

EMAB goes over Diavik's reports on the mine's effects on the environment to make sure we understand any changes the mine has caused, and make recommendations about ways to improve environmental protection. We talk to our community members, tell them what we've learned about the mine's effects, and future plans, and bring their concerns back to the other Board members.

This year our office closed for a few weeks in late August and early September as Yellowknife was evacuated due to an approaching forest fire. We were very concerned

about the safety of our staff and Board members, and directed staff to follow the GNWT evacuation order. Staff continued to stay on top of issues while working remotely, but with much of the government and regulatory staff also evacuated, no major issues came up.

Diavik will be closing in the next few years. They will stop mining in April 2026 and plan to finish work closing the mine by 2029. Diavik submitted a proposed Final Closure Plan (FCRP) in 2022, and EMAB did a thorough review and made many recommendations. At the end of our review we felt the Final Closure Plan needed quite a bit more work to be good enough to meet community expectations. Communities have told us they want the minesite to be returned as closely as possible to the way it was before the mine started. Communities also told us they want to monitor the mine themselves during and after closure.

We expressed concern about the lack of a TK Closure Monitoring Plan (TKMP) in the FCRP. We acknowledge Diavik has initiated a TK Working Group with the other

Parties to the EA to work on developing the TKMP, and we are working with this group to see if EMAB can help. The WLWB has told Diavik they must submit a TKMP by end of September 2025. We encourage Diavik to put all resources required towards development of a plan that is supported by communities, by the WLWB deadline. WLWB has also directed Diavik to talk to Parties about how the Cultural Water Use Criteria for the A418 pit could be applied to the discharge from collection ponds, and to include this in the upcoming Water Licence Renewal application.

The WLWB did not approve Diavik's FCRP, and Diavik must submit a revised plan by April 2025. EMAB will review the new plan very carefully.

Diavik applied to amend its water licence to allow them to breach the collection ponds that surround the mine, and allow any discharge to flow into Lac de Gras. EMAB was concerned with the safety of the discharge and possible effects on the waters and fish around Diavik, as well as on human and wildlife health; and about the monitoring to assess the effects. The WLWB approved Diavik to breach two of the collection ponds this year, along with direction for improved monitoring. We expect discharge will start in the spring and will be watching to see any effects.

Diavik has put the TK Panel on pause, and there were no Panel meetings this year.

EMAB continues to be concerned about the results of the 2021 TK Fish Camp at Lac de Gras, and follow-up sampling. We look forward to the results of the 2024 TK Fish Camp that will take place in August 2024.

EMAB is nearing the end of our 2019-24 Action Plan. We held a workshop on the Future Role of EMAB in June and issued a report to the Parties to consider. We believe EMAB should continue throughout Diavik's closure and post-closure phases as well as improving on engagement with Affected Communities and looking for ways to assist

the Parties to the EA to cooperate. We plan to continue to focus on technical reviews of plans and reports in our key priority areas while working with communities to keep them informed of EMAB's role, activities and key findings and recommendations.

Diavik had a serious fuel spill in January, of more than 50,000 liters, that took more than a year to clean up. EMAB was quite concerned about this and made a number of recommendations about the spill, and ways to prevent similar spills in future. We also viewed the spill area during a site visit. Diavik has done a careful job cleaning up the spill and we are pleased with their response. Diavik has also assured us that they have investigated other fuel storage areas on site to ensure no similar spills can happen.

EMAB welcomed a new Board member from YKDFN this year: Sean Erasmus replaced Ryan Miller in July. I would like to thank Ryan for his hard work and contributions to EMAB. We also welcomed a new Environmental Specialist, Allison McCabe, in October. EMAB has also been participating with Diavik in a scholarship for environmental students, in memory of Jack Kaniak our long-time Board member for KIA, who passed away unexpectedly in May 2023.

This will be another busy year coming up for EMAB as the mine gets closer to closing. We will be recommending a budget for the 2025-2027 period to Diavik. We will review a revised closure plan and Diavik's application for a new water licence for closure. We will continue to work with Affected Communities to keep you informed and involved in helping to protect the environment at Diavik. Your views and concerns are very important to our work and I encourage anyone with ideas or concerns to talk to your local Board member or contact EMAB.

Marsi Cho
Charlie Catholique,
Chair



WHAT HAVE WE DONE THIS YEAR?

EMAB works with the people of the Affected Communities to help protect the environment around the Diavik mine.

This is a summary of our activities in 2023-2024, with more detail on the following pages. Readers can also visit our website: www.emab.ca.

EVACUATION:

The EMAB office was closed from August 16 until September 10 following an evacuation order for Yellowknife due to approaching wildfire. This delayed the AGM and put almost all work on hold during the evacuation period.

GOVERNANCE:

The Board continues to follow our Action Plan for 2019-2024. EMAB's emphasis continues on doing technical reviews of Diavik's plans and reports, and making them accessible, particularly to Aboriginal Parties and Affected Communities. We provide these to the Parties for their information and use in making their own interventions to regulators. The plan also recognizes the changed role of the Traditional Knowledge Panel, and EMAB's role in working with the Panel. It highlights the need for tracking collection and use of TK/IQ by Diavik.

COMMUNITY INVOLVEMENT:

EMAB did not hold any community update meetings this year. Our Board members from Affected Communities continue in their role of communicating with communities.



EMAB Board touring the NWRSA in September 2024

OPERATIONS:

EMAB spent \$513,671 in 2023-2024 of a budget of \$635,312, including a carry-forward from the previous year, and additional funds to cover costs for the Natural Drainages Water Licence Amendment. The difference will be rolled over to 2024-25.

REVIEWING REPORTS:

In 2023-2024 EMAB reviewed 13 reports and plans from Diavik, including documents related to a water licence amendment application and Diavik's Final Closure Plan; most of them were also reviewed by technical experts. These reports are required by the water licence, fisheries authorizations and the Environmental Agreement. EMAB focuses on reports that are in our priority areas (water, air, wildlife, closure and TK/IQ).

Two of our main activities this year were to finalize recommendations about Diavik's new application to allow them to break collection ponds and discharge directly to Lac de Gras, and to intervene and participate



EMAB Board on a June 2024 tour of the mine

in the public hearing and follow-up; and to complete our review of Diavik's 7,000 page Final Closure Plan.

EMAB also held a workshop on the Future Role of EMAB and submitted a report to the Parties.

COMMUNICATIONS:

EMAB regularly updated our website. We circulated our annual report in March as well as a two-page annual report summary. People can comment on reports or EMAB recommendations through our Facebook page: facebook.com/EMAB2015.

BOARD MEETINGS:

The Board met six times in 2023-2024 as a combination of face-to-face and conference calls. The Board did a site visit in June.

The Board membership changed during 2023-2024. A new Board member was appointed by YKDFN, Diavik removed its member in December and left its seat vacant, and the Government of Canada seat remained vacant.

WHAT DO WE DO?

REVIEW Diavik's monitoring programs and reports with the help of technical experts.

PROVIDE comments and recommendations to Diavik, the regulators and Parties to the Environmental Agreement.

EVALUATE Diavik and regulators to make sure commitments are kept.

PARTICIPATE in the regulatory process as a reviewer and intervenor.

ADDRESS regulatory gaps including wildlife management, air quality and securities.

COMMUNICATE through workshops, community information sessions, our website and annual report.

ASSESS Diavik's use of TK/IQ in environmental monitoring program design.

SUPPORT participation of Aboriginal Peoples in monitoring Diavik.

LISTEN to community concerns and bring those forward to Diavik.

WHO ARE WE?

There are eight Parties to the Environmental Agreement. Each party can appoint a member to the Board.



Charlie Catholique,
Chair
Łutselk'e Dene First Nation



Marc Whitford
Vice Chair
North Slave Métis Alliance



Violet Camsell-Blondin,
Secretary Treasurer
Tłı̨chǫ Government



Kelly Fischer
Government of the
Northwest Territories



Sean Erasmus
Yellowknives Dene
First Nation

Vacant

- Canada
- Diavik Diamond Mines (2012) Inc.
- Kitikmeot Inuit Association

Jack Kaniak, the Kitikmeot Inuit Association Board member, passed away in May 2023. His seat was filled by William Aglukkaq, the KIA Alternate.

Sean Erasmus replaced Ryan Miller for YKDFN in July 2023.

Gord Macdonald was the Diavik Board member up to December 2023 when Diavik vacated their seat on the Board.

ENVIRONMENTAL SETTING OF DIAVIK MINE

Lac de Gras (LdG) is a large lake, 60 kilometers in length, with an average width of 16 kilometers and 740 kilometers of shoreline. This lake is located roughly in the center of the Slave Geological Province, north of the tree line, and in Canada's Southern Arctic ecozone. The area is cold and dry. LdG is the headwaters of the Coppermine River, which flows 520 kilometers north to the Arctic Ocean. Typical of arctic lakes, it is cold with long ice-covered periods and with little food for fish and other creatures. Fish species include Lake Trout, Cisco, Round Whitefish, Arctic Grayling and Burbot. LdG is also near the center of the Bathurst caribou herd range. The Bathurst caribou population has declined considerably from 186,000 in 2003 to 6,240 in 2021 (most recent GNWT numbers). Since 2016 there has been a noticeable increase in Beverly/Ahiak caribou in the LdG area in the winter and spring. The Beverly herd has also declined from 136,000 in 2011 to 103,000 in 2018 (most recent GNWT numbers). Many other animals include the LdG area in their home ranges, such as grizzly bears, wolves, wolverines, smaller mammals, migratory birds and waterfowl.



Courtesy of DDMI

DIAVIK NOW (Courtesy of Diavik)

Diavik at a glance

- **Four ore bodies: A418 (now complete), A21, A154 South, A154 North (all underground operations).**
- **Spending (2000 to 2023): C \$10.4 billion (\$7.5 billion Northern).**
- **Operations workforce (2023): 1,330 employees (roughly 36% Northern).**
- **2023 rough diamond production: 3.3 million carats.**
- **Reserves: 3.1 million tonnes at 2.2 carats per tonne (31 December 2023).**
- **Total rough diamond production: 144 million carats (2003 to 2023).**



Courtesy of Diavik

In 2023-2024 Diavik completed all required environmental monitoring programs, focusing on water quality in Lac de Gras, wildlife, and dust deposition. All water discharged to Lac de Gras from Diavik was below Water Licence limits for physical, chemical, and nutrient parameters, and was non-toxic to aquatic life. Water sampling was conducted in the lake at varying distances and directions from site and no followup action was required based on results in accordance with the Aquatic Effects Monitoring Program requirements set by the Wek'èezhìi Land and Water Board (WLWB). Wildlife monitoring for barren-ground caribou, grizzly bear, wolverine, and raptors shows that habitat loss is in line with Environmental Assessment projections, and that mitigations to protect these animals is effective. There were no mine-related injuries or mortalities for caribou, grizzly bears, or wolverines. Wolverine monitoring was conducted with the support of a wildlife monitor from Lutsel'ke. Dust deposition rates were highest closest to the Mine infrastructure, and decreased with distance from the Mine. This is consistent with trends from previous years and the predictions from the Environmental Assessment. Dust deposition rates were

all below the Alberta Ambient Air Quality Objectives and Guidelines for non-residential areas. All offsite locations were below the Alberta guidelines for residential areas.

Diavik also completed significant progressive closure activities to close areas of the mine that are no longer in use. The North Waste Rock Storage Area (NWRSA) closure reslope and cover is near complete in the reporting period. The A418 underground workings were fully decommissioned and all hazardous materials removed in preparation for processed kimberlite deposition. Processed kimberlite deposition switched from the Processed Kimberlite Containment Facility (PKC) to the A418 underground workings in accordance with the Water Licence conditions, and work began on the PKC closure rock cover. Diavik also planned and began construction of a 3.3 mega-watt solar farm consisting of 6,624 solar panels on top of the closed areas of the PKC. This will result in an annual reduction in diesel use of approximately 1 million liters and will increase the amount of green energy available to the site through closure. *Text and photo courtesy of Diavik.*



Aerial view of Diavik camp infrastructure

INVOLVING AND SUPPORTING COMMUNITIES

EMAB Photo



Participants at the August 2024 AEMP Traditional Knowledge fish camp

EMAB Board members appointed by Aboriginal Parties are a key link between the Board and Affected Communities. They are able to update community members on EMAB activities and report to the Board on concerns raised by the community. In the past EMAB has set aside a budget to support members to update their communities, but with cuts to EMAB's overall budget and a lack of uptake by Board members, this community consultation budget is now minimal.

EMAB reviewed 13 reports and plans in 2023-2024. All these reviews were forwarded to the Parties to the Environmental Agreement and the land/environment managers for each Party. Technical reviews always include a plain-language summary to make them more useful for general readers, especially in Affected Communities. EMAB also makes these reports available on our website.

EMAB did not hold any community updates in 2023-2024. Following the finalization of EMAB's Action Plan for 2019-24, EMAB added some additional actions to provide more information to communities. In particular EMAB now provides a 1-2 page summary of each Board meeting to the leadership of each Aboriginal Party. EMAB has also developed a 2-page annual report summary which

is available on our website and provided to community members as a brochure.

COMMUNITY INVOLVEMENT IN CLOSURE AND POST-CLOSURE MONITORING

EMAB has a mandate to make recommendations about participation of communities/community members in training and environmental monitoring at Diavik, and has been pursuing Diavik for information on Diavik's plans for community involvement in monitoring during and after closure, to support possible recommendations.

In April 2022 Diavik told EMAB that it plans to work directly with each community, on community involvement in monitoring. Diavik has said that once they finish human resources planning they will engage directly with communities to allow sufficient time to prepare for employment opportunities, and will provide all required training. EMAB will continue to follow-up with Diavik and report back.

Note to readers: Community involvement in monitoring is a separate issue from TK Closure Monitoring, which we report on later in this section.

TRADITIONAL KNOWLEDGE/ INUIT QAUJIMAJATUQANGIT (TK/IQ)

One of EMAB's objectives is to assess the use of TK/IQ in Diavik's monitoring programs. We also request that Diavik provide an annual update on use of TK/IQ at the mine. Staying aware of Diavik's use of TK/IQ in environmental management at the mine is a priority for EMAB. Ensuring that involvement of community members in monitoring is meaningful is also a priority. EMAB has tried various ways to encourage Diavik to take more action to meaningfully involve Indigenous groups. Meaningful involvement of Indigenous groups in monitoring is an EA commitment.

EMAB has been pleased that Diavik has made some efforts to include TK/IQ in closure planning through the TK Panel. Panel recommendations, and Diavik's responses, are included as part of Diavik's closure planning reports and can be found on the EMAB website: www.emab.ca. Full TK Panel reports can also be found on EMAB's website.

In 2011 EMAB became more actively involved in bringing TK/IQ holders together as a Traditional Knowledge Panel, to address issues such as caribou and closure planning. In 2013, Diavik began to take a greater role in facilitating the Traditional Knowledge Panel, with EMAB assessing the results of the work, and Diavik's responses. EMAB also made recommendations to Diavik on ways to more effectively work with the Panel. The Panel had made 256 recommendations as of June 2022, not including recommendations during the TK Fish Camps. Diavik put the TK Panel on "pause" in 2022.



EMAB Photo

WLWB DIRECTION ON USE OF TK IN THE FINAL CLOSURE PLAN

EMAB commented on Diavik's use of Traditional Knowledge in the first version of its Final Closure Plan. The WLWB had directed Diavik to describe how each TK Panel Recommendation was incorporated into the final closure plan, and to give a rationale for each recommendation that was not included. Our assessment was that Diavik did not fulfill the WLWB's direction: it did not do a very good job of including the TK Panel Recommendations in the first version of its Final Closure Plan, or of describing how each recommendation was addressed. For a summary of EMAB's review of how Diavik addressed TK Panel Recommendations in its Final Closure Plan see page 45 of our 2022-23 Annual Report, or see all our recommendations on our website, emab.ca.

WLWB addressed incorporation of TK/IQ into closure planning in its Reasons for Decision on the first version of Diavik's Final Closure Plan (*see pages 44-52 for a complete summary of the decision*). **WLWB directed Diavik to report on how it addressed TK Panel recommendations on revegetation in its Revegetation Plan, and on re-sloping the South Waste Rock Storage Area.**

The WLWB also directed that Diavik engage with Parties on the Cultural Water Use Criteria (see 2022-23 Annual Report, p. 40-42) and how they could be applied to mixing zones from collection pond discharges, and other water quality related components, and to include application of cultural use criteria in the upcoming water licence renewal.

TK CLOSURE MONITORING PLAN AND TK WORKING GROUP

EMAB commented on the lack of a TK Monitoring Plan (TKMP) in the first version of the Final Closure Plan (FCRP) despite having had years to develop it. In its FCRP



submission, Diavik said it had relinquished control of the development of the TK Closure Monitoring Plan to a TK Working Group set up by the Parties to the EA in January 2023. Diavik stated it "had hoped a submission would be ready in 2023 however recognizes this will be delayed based on progress to date made by the group. At a minimum Diavik expects the plan will be submitted at least 6 months prior to closure which will allow sufficient review timelines."

In its Reasons for Decision on the FCRP, **the WLWB stated that the onus is on Diavik to ensure the Plan is submitted with time for review and revisions, and has directed Diavik to submit a TK Closure Monitoring Plan no later than September 30, 2025.**

As discussed in our 2022-23 Annual Report, the TK Working Group (TKWG) was established in January 2023. The TKWG's objective is to develop a TKMP through discussions and collaboration involving all Parties and indigenous communities. EMAB asked to observe the TKWG meetings and receive meeting notes, but was not allowed.



Photo: Jack Kaniak

Lake trout parasite observed at the 2021 fish camp



Photo: Jack Kaniak

Participants at the 2021 Fish Camp

EMAB's understanding is that the TKWG met 12 times during 2023 and up to April 2024 to discuss the TKMP. They developed a draft Framework for TK Monitoring and a job description for a TK Coordinator to develop the Plan. In September 2023 the TKWG asked EMAB to consider whether the Plan could be developed and implemented through EMAB. EMAB asked a number of questions about

the idea, including whether the work could be done by a TK Panel set up under the Environmental Agreement. In response, the TKWG provided a "vision" and possible approach and organizational structure. EMAB continued to note that communication would be more useful and efficient if EMAB observed the TKWG meetings, and requested an opportunity to address the group.

EMAB spoke to the TKWG in January 2024 where all participants agreed that it would be good for the TKWG to work through EMAB. EMAB invited the TKWG to attend our Board meeting in April 2024. Discussions included facilitating TK Monitoring as part of EMAB's role after closure, need for funding and resources for EMAB to do this work given its small size and budget, need to develop the TKMP before talking about implementation, and need for EMAB to have more information before agreeing to "buy in" to the approach.

EMAB's Chair and ED met with Diavik and another member of the TKWG following the April meeting to discuss expectations for the TKWG becoming a TK Panel under EMAB. They noted that their objective is that the TKWG would be dissolved and EMAB would take over the role. EMAB was disappointed to hear that the TKWG had not considered the TK Panel recommendations. EMAB consulted with the TK Panel facilitators at our June meeting and discussed issues needing resolution before EMAB would agree to take over the TKWG. On August 1, 2024 EMAB sent a letter to Diavik and the TKWG saying the Board believed a TK Panel could develop a draft TKMP and outlining Principles and Considerations that EMAB wanted addressed in development of a TK Monitoring Plan, along with a draft workplan and budget. Key points were:

- Plan should be community-driven.
- Involve Elders, harvesters and youth in the TK Panel, including previous Panel members.
- Consider previous TK Panel Recommendations on TK Monitoring.

- Develop Terms of Reference, including TKWG draft Framework.
- Need for Workplan and Budget approved by Diavik, and for a way to address unanticipated costs.
- Engagement with each Affected Community, and a final verification by representatives from all Affected Communities.

Discussions are ongoing with Diavik and the TKWG regarding development of the TKMP. We will provide an update in next year's annual report.

TK PANEL IN 2023-2024

No TK Panel meetings took place during 2023-2024. The TKWG has suggested the Panel could play a role in developing and implementing the TK Closure Monitoring Plan.

EMAB has expressed concerns about Diavik's governance of the TK Panel, particularly in relation to the independence of the Panel, as discussed in last year's report. The Board again recommended to Diavik the importance of ensuring the Panel's decision-making process is transparent and independent. We highlighted the need for the Panel to be involved in any decisions that affect it, including choice of facilitators. Diavik stated that it has always tried to keep the TK Panel recommendations independent, and committed to advise the Panel in advance if any changes to facilitation are being considered.

2021 TK FISH CAMP

EMAB reported on Diavik's 2021 Traditional Knowledge Fish Camp in our 2021-22 and 2022-23 annual reports. EMAB was concerned that the camp participants all refused to eat the fish caught during the camp because of their unhealthy appearance and number of parasites and cysts, and that only six of 51 participants agreed to taste tea made with the water.



Diavik arranged for a special study to follow-up fish sampling after the 2021 TK Fish Camp. Diavik sampled lake trout in August 2022 and February 2023. They included one of the participants from the 2021 TK Fish Camp to observe the sampling. Diavik provided the final report to EMAB in January 2024 with the requirement that EMAB not distribute it. There was no fish tasting, but we were told by the one community observer that the fish were in similar condition to the 2021 TK Fish Camp.

The main conclusions of the follow-up report were that the fish were in overall good health, that mercury levels in the trout were in the range of previous samples, and that all the fish had parasites. Unfortunately, data collection



Cooked lake trout for taste testing at the 2024 Fish Camp

from the TK Fish Camps and the follow-up study did not investigate the number of parasites found in each fish, and so they were unable to compare number of parasites over time.

EMAB has recommended that Diavik begin counting the number of parasites in the muscle and organs of each fish, as well as identifying the type of parasites.

Proposal to Diavik for Workshop to review 2021 TK Fish Camp results using TK and western science

EMAB prepared a proposal to Diavik for additional funds to convene a workshop for Elders and western scientists

to discuss the results of the 2021 TK Fish Camp and develop explanations for the observations about fish health at the camp, and differences from previous camps, and to develop ways to enhance and improve future monitoring of fish. EMAB submitted the proposal in July 2023 and Diavik rejected it in September, saying that the workshop would largely duplicate the results of the Verification session and Follow-up study.

2024 TK FISH CAMP

EMAB continued to be concerned about the process and reporting on the 2021 TK Fish Camp and made a number of recommendations to Diavik including:

- Not do anything that might influence the independence of TK Fish Camp participants.
- Invite an EMAB staff member to attend the fish camps and planning sessions.
- Implement EMAB recommendations from EMAB review of the TK Fish Camp component of the 2022 AEMP report, including quantitative monitoring of parasite load in each fish.
- Follow previous EMAB recommendations regarding maintaining TK Panel independence.

In response, Diavik invited EMAB's Environmental Specialist to attend the planning session for the 2024 TK Fish Camp, held at the mine site July 2-4, 2024. She observed that throughout the planning session Diavik staff and consultants stated repeatedly that none of the participants' concerns or observations from the 2021 TK Fish Camp were related to the mine. This approach goes against EMAB's recommendation for Diavik to not do anything to influence the independence of the fish camp participants.

Diavik did not accept EMAB's recommendation to count the number of parasites in each fish, and disagreed that any of its activities might have influenced the independence of TK Fish Camp Participants.

OVERSIGHT AND MONITORING

EMAB Photo

Processed kimberlite being deposited into the A418 pit

EMAB monitors Diavik and regulators to make sure they are doing a thorough job protecting the environment around the Diavik mine, and are keeping the promises they made in the Environmental Agreement.

Most of EMAB's focus is on Diavik's environmental monitoring programs and reports, and on the way the regulators handle them. When EMAB notes concerns coming from regulators we take that as a signal that we need to know more about the issues. These issues are outlined in the following pages.

Each year we do our own reviews of the Wildlife Monitoring Program report and the AEMP report. We also review reports on Air Quality and on Closure and Reclamation. We review other reports and documents on a case-by-case basis.

WHO ARE THE REGULATORS AND MANAGERS?

- **Wek'èezhìi Land and Water Board (WLWB)** is responsible for the issuance of Diavik's water licence and land use permits and the technical review of all documents required under the licence and permits. The WLWB is a regional panel under the Mackenzie Valley Land and Water Board.
- **Canada**
 - › **Department of Fisheries and Oceans (DFO)** reviews some of the reports submitted under the water licence and all the reports submitted under the fisheries authorizations.
 - › **Environment and Climate Change Canada (ECCC)** reviews the reports required by the water licence focusing on water and air quality as well as section 36 of the Fisheries Act.

- **Government of the Northwest Territories (GNWT)**
 - › **Environment and Climate Change (ECC)**

On April 1, 2023 the Department of Environment and Natural Resources and the Department of Lands were joined into a new Department of Environment and Climate Change. ECC includes the mandates of the two former departments, and is responsible for environmental protection (including air and water quality) and provides detailed reviews of reports in these areas. It also has regulatory responsibility for wildlife, including monitoring under the Wildlife Act. It also proposes better ways to monitor effects of Diavik on wildlife. The Minister approves Diavik's Type A water licence.
 - › ECC has an inspector assigned to Diavik. This inspector updates the Board regularly to keep us aware of what is happening at the site. The inspector is also responsible for ensuring Diavik meets the terms of its water licence, land use permits and land leases.
 - › **Wek'èezhii Renewable Resources Board (WRRB)** is a wildlife co-management authority established by the Tłı̄chō Agreement. The WRRB is responsible for managing wildlife and wildlife habitat (forests, plants and protected areas) in the Wek'èezhii area. It reviews reports submitted under the Water Licence.

TECHNICAL DOCUMENTS EMAB RECEIVED FOR REVIEW IN 2023 - 2024

Report Name	Date Received	Regulatory Instrument
Waste Management Plan - Version 6	May 1, 2023	Water Licence
Wildlife Management and Monitoring Report (WMMR) (Annual, 2022)	May 1, 2023	Wildlife Act
Waste Rock Management Plan - Version 11.1	June 12, 2023	Water Licence
2022 Seepage Survey Report	June 15, 2023	Water Licence
Response to Information Request - Sewage Sludge	July 12, 2023	Water Licence
2022 Environmental Air Quality Monitoring Report	July 12, 2023	Environmental Agreement
Draft 2022 Environmental Agreement Annual Report	July 18, 2023	Environmental Agreement
Water Licence Amendment - Natural Drainages - Undertakings #18 and #19	July 31, 2023	Water Licence
Processed Kimberlite Containment Facility (PKCF) Closure Design Report	Sept 22, 2023	Water Licence
Water Licence Amendment - Natural Drainages - Draft Licence	Oct 20, 2023	Water Licence
2022 Environmental Agreement Annual Report	Oct 22, 2023	Environmental Agreement
2022 Aquatic Effects Monitoring Report	Oct 30, 2023	Water Licence
Final Closure Plan - Security - Updated Supporting Information - 2022 North WRSA Reclamation Completion Report	Jan 24, 2024	Water Licence
Water Management Plan - Version 17	Jan 25, 2024	Water Licence

ECC LEGISLATION UPDATE

EMAB has reported on two legislative initiatives by GNWT's Department of Environment and Climate Change (ECC) that started in 2017:

- Changes to the Waters Act as it relates to Diavik's water licence, and
- Changes to the Environmental Protection Act, including enacting air regulations.

The GNWT is now taking a new approach, intending to amend both the Waters Act and Waters Regulations in phases, in response to requests from Land and Water Boards, the NWT/NU Chamber of Mines, and some Indigenous Governments.

This phased approach will include targeted amendments to the Waters Regulations before looking more fulsomely at the Waters Act and then finally reviewing the Waters Regulations once more to ensure any changes to the Waters Act are appropriately addressed.

The goal is to provide additional clarity and certainty. GNWT has said the legislation work will consider options for regulating air and the outcome of the cooperative approach to legislative development will determine the appropriate legislation in which air quality will be regulated (e.g., Waters Act or Environmental Protection Act). GNWT has not yet set timelines for this work.



THE ENVIRONMENTAL AGREEMENT AND THE WATER LICENCE

The water licence and the Environmental Agreement both contain requirements for the AEMP. Most of the water licence requirements are more detailed than those in the Environmental Agreement. The WLWB cannot make Diavik meet any of the Environmental Agreement commitments unless they are also in the water licence. In the Environmental Agreement Diavik said it would do its best to involve Aboriginal People in designing monitoring programs, and that all its monitoring programs would include activities to:

- Consider TK/IQ.
- Establish or confirm thresholds or early warning signs.
- Trigger adaptive mitigation measures.
- Provide ways to involve each of the Aboriginal Peoples in the monitoring programs.
- Provide training opportunities for each of the Aboriginal Peoples.

EMAB is working with Diavik to help it meet its commitments as described throughout this annual report.

AQUATIC EFFECTS MONITORING PROGRAM

Diavik's Aquatic Effects Monitoring Plan (AEMP) monitors:

- Dust
- Water quality
- Eutrophication indicators
- Sediment quality
- Plankton
- Benthic invertebrates
- Fish health

Diavik submits many different reports for the AEMP. These include Re-evaluation Reports, Design Plans, and Annual Reports. EMAB submits recommendations on Diavik's AEMP reports. Below is a summary of the highlights for this year. The report documents are on the ORS, and EMAB's reviews are on the on our website at www.emab.ca.

2022 AEMP ANNUAL REPORT

The WLWB distributed the 2022 AEMP Report for review on October 30th, 2023. EMAB had our technical consultants at North-South Consultants review it. We submitted 30 comments and recommendations to the WLWB. Comments and recommendations were also submitted by the GNWT-ECC. The WLWB approved the 2022 AEMP Report, with revisions required, on May 24, 2024. Below is a summary of our key recommendations and WLWB decisions. For a complete copy of our review, visit our website at www.emab.ca.

NEGATIVE RELATIONSHIPS BETWEEN METALS AND NUTRIENTS

In previous AEMP reports, Diavik investigated both the "positive" and "negative" relationships between metals and nutrients in sediments, and particle size and total organic carbon. In the 2022 AEMP report, Diavik only looked at positive relationships.

EMAB Photo

EMAB RECOMMENDATION: Diavik should explain why it stopped looking at negative relationships between metals and percent fine particles/total organic carbon, as in past reports.

WLWB DECISION: DDMI must investigate positive and negative relationships between concentrations of metals and nutrients in sediments and particle size (percent fines) and total organic carbon in future AEMP Annual Reports.

PARASITES IN LAKE TROUT

The participants at the 2021 TK Fish Camp were concerned about the number of fish with parasites and the number of parasites per fish. Diavik counts the number of fish that have parasites, but does not count the amount of parasites found in each fish. Participants were also concerned with the overall unhealthy appearance of fish (fish with big heads and skinny bodies).

EMAB RECOMMENDATION: Diavik should count the number of parasites per fish in future TK Camps by slicing the fillets in ¼ inch slices and counting each parasite seen. The number of parasites per fish should be counted for at least 20-30 fish.

WLWB DECISION: Require Diavik to engage with participants as part of the 2024 TK Camp to understand how to address concerns regarding parasite loads.

CHLOROPHYLL *a* AND PHYTOPLANKTON DATA

Chlorophyll *a* is a pigment found in phytoplankton (small aquatic plants). When samples are taken for both chlorophyll *a* and phytoplankton from the same location, we expect the results will be very closely aligned. However, since 2021, Diavik's reported results have shown a disconnect between the two, indicating there might be an issue with the data or methods used.

POSITIVE AND NEGATIVE RELATIONSHIPS

A positive relationship means that when one thing increases, so does the other (e.g., as the percent of fine particles in sediment increases, phosphorus in sediment also increases). A negative relationship is when two things move in opposite directions (e.g., as the percent of large particles in sediment increases, the amount of nutrients in sediment decreases).



Lake trout at the 2024 TK Fish Camp

EMAB RECOMMENDATION: Diavik should explain the disconnect between the chlorophyll and phytoplankton data reported by DDMI.

WLWB DECISION: Diavik can address concerns regarding the chlorophyll *a* and phytoplankton datasets in the upcoming 2020-22 AEMP Re-evaluation Report



DDMI staff demonstrating how to sample for benthic invertebrates



TK Camp participant beside one of DDMI's dustfall gauges

AEMP DESIGN PLAN 6.1

On January 18th, 2023, Diavik submitted Version 6.1. EMAB reviewed it, but had no comments. GNWT-ECC made four comments. The WLWB approved Design Plan 6.1 on April 27, 2023 with no revisions, but provided additional direction to Diavik for the 2020-22 AEMP RER.

2020-2022 AEMP RE-EVALUATION REPORT

Diavik submitted the 2020-22 AEMP Re-evaluation Report in December 2023. Diavik submitted a revised version on May 8'24 following a conformity check by WLWB. EMAB had our technical consultants at North-South Consultants review it. We submitted 41 comments and recommendations to the WLWB. Comments and recommendations were also submitted by the GNWT-ECC. At the time of writing the WLWB had not issued its decision on the report. The full report documents, and list of EMAB recommendations can be found on wlwb.ca.

Summary of Key Comments and Recommendations:

- Include Total Nitrogen in cumulative effects assessment.
- Only reduce water quality sampling depths if water column is shown to be fully mixed.
- Recommendations for revisions to action level assessment for mercury in slimy sculpin and Lake Trout, including examining ecological significance and human health assessment.
- For TK Fish Camp reporting, clarify that Diavik has not been counting number of parasites per Lake Trout, and count them in future; clarify reasons community members would not approve the 2021 TK Fish Camp video; clarify that 2021 TK Fish Camp participants observed more parasites per Lake Trout than in previous years.

SPILL REPORT FOR DIAVIK DIAMOND MINE 2023 - 2024

EMAB notes that there were 28 spills reported in 2023-24.

This is more than the previous two years combined (22-23 – 11 spills; 21-22 – 13 spills).

Spill No.	Date	Commodity	Quantity		Source
2023202	16-May-23	Wastewater (sewage, mine tailings)	50	L	Pipe Leaks
2023212	21-May-23	Petroleum - fuel oil (jet A, diesel, turbo A, heat)	300	L	Unknown Cause
2023265	18-Jun-23	Petroleum - fuel oil (jet A, diesel, turbo A, heat)	100	L	Fitting Leak
2023264	18-Jun-23	Petroleum - fuel oil (jet A, diesel, turbo A, heat)	100	L	Fitting Leak
2023273	21-Jun-23	Other	50	L	Overflow Event
2023277	23-Jun-23	Chemicals (including transformer oils)	2000	L	Other
2023326	30-Jul-23	Petroleum - fuel oil (jet A, diesel, turbo A, heat)	200	L	Breakage
2023339	11-Aug-23	Other	50	M ³	Overflow Event
2023356	19-Aug-23	Other	75	M ³	Breakage
2023367	30-Aug-23	Petroleum - lubricating oil (lube, hydraulic)	110	L	Breakage
2023378	05-Sep-23	Other	18000	L	Fitting Leak
2023379	06-Sep-23	Other	5000	L	Breakage
2023387	10-Sep-23	Other	10000	L	Breakage
2023392	11-Sep-23	Other	200	L	Fitting Leak
2023396	13-Sep-23	Wastewater (sewage, mine tailings)	2000	L	Other
2023446	23-Oct-23	Petroleum - lubricating oil (lube, hydraulic)	100	L	Breakage
2023470	14-Nov-23	Other	45000	L	Breakage
2023499	18-Nov-23	Other	8650	L	Pipe Leaks
2024002	19-Nov-23	Wastewater (sewage, mine tailings)	80	L	Overflow Event
2023530	27-Dec-23	Other	1680	M ³	Breakage
2024007	09-Jan-24	Other	400	M ³	Breakage
2024020	16-Jan-24	Petroleum - fuel oil (jet A, diesel, turbo A, heat)	54200	L	Overflow Event
2024032	27-Jan-24	Other	15	M ³	Breakage
2024040	04-Feb-24	Wastewater (sewage, mine tailings)	5000	L	Breakage
2024061	01-Mar-24	Chemicals (including transformer oils)	950	L	Breakage
2024071	15-Mar-24	Other	12	M ³	Breakage
2024072	17-Mar-24	Other	120	M ³	Damage due to weather
2024074	19-Mar-24	Wastewater (sewage, mine tailings)	200	L	Pipe Leaks

SOURCE: GNWT-ECC SPILL DATABASE

UNDERGROUND SPILLS

In 2023, there was a 40% decrease in the number of underground hydrocarbon spills and a 20% decrease in the volume of hydrocarbons spilled compared to 2022. These spills are considered to have an effect on the hydrocarbon contamination in sediments in the North Inlet.

Volume (litres) and Number of Underground Hydrocarbon Spills

2018		2018		2020		2021		2022		2023	
Volume	# of spills	Volume	# of spills	Volume	# of spills	Volume	# of spills	Volume	# of spills	Volume	# of spills
1385 L	113	1955 L	121	1256 L	62	1617 L	59	534 L	35	425 L	21

JANUARY 2024 FUEL SPILL LOCATION



BACKGROUND

On January 16, 2024, there was a 54,000-litre fuel spill at Diavik. It happened during the transfer of fuel from one tank to another at the A21 Mine Air Heater Area (see map on preceding page). Normally, the fuel transfer system automatically shuts off once the day tank is full. However, the system did not work properly, and the fuel overflowed into the surrounding area. EMAB was concerned that the fuel could get into LdG during freshet. The spill has been contained to the area where the tanks were located, and did not enter LdG.

EMAB RECOMMENDATION: Diavik, as a signatory and partner in the Environmental Agreement for the Diavik Diamonds Project, should provide timely information to EMAB on the fuel spill.

DDMI RESPONSE: Diavik acknowledges this recommendation and will communicate with EMAB future updates when appropriate.

EMAB RECOMMENDATION: Provide a copy of any spill updates and a copy of the final clean-up plan.

DDMI RESPONSE: DDMI sent EMAB regular updates on the spill after June 2024. EMAB was also given a copy of the final clean-up plan.

EMAB RECOMMENDATION: DDMI should involve people from communities as independent monitors.

DDMI RESPONSE: It is not feasible to implement this recommendation for safety reasons. Diavik also has the appropriate resources for monitoring and cleanup available onsite who are trained and competent in site processes. We can confirm that the Government of the Northwest Territories Environment and Climate Change (GNWT-ECC) Lands Inspector and Inspectors from Environment and Climate Change Canada (ECCC) have been actively engaged in the monitoring and cleanup plans and provide updates in their inspection reports.

At the June 2024 Board Meeting, EMAB was pleased to have Diavik COO Matt Breen update the Board on the status of the spill clean-up and answer everyone's questions, and assure us that Diavik would be more transparent on updating us on the cleanup. He also informed us that Diavik had reviewed all of its fuel storage facilities, and would make sure they were all lined and bermed in future.

Because the spill took place in an un-lined, un-bermed area during fuel transfer, and spills during fuel transfers are not covered under the federal Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulation, EMAB also made a recommendation to ECCC to change the regulations to prevent a similar spill from happening in the future.

At the time of writing, Diavik was still cleaning up the spill. They had recovered much of the fuel by:

- Drilling 77 holes and pumping free diesel out of the holes.
- Excavating contaminated rock and soil from the spill site.
 - › The larger rock is going to the landfill while soil and smaller rock will be treated in a lined area of the waste transfer area by landfarming.
- Diavik also placed absorbent "socks" in a nearby pond to soak up any fuel that entered the water.



Looking south at mine air heater fuel spill site in August 2024

WHAT IS LANDFARMING ?

Hydrocarbon contaminated soils are put in long, narrow piles, in a lined area, so that naturally occurring bacteria can “eat” the fuel, cleaning the soil. The piles of soil are turned every week or so, to make sure there is plenty of oxygen for the bacteria. The piles are sampled regularly to assess the level of contamination and effectiveness of the bacteria. The bacteria are only active during the warmer months

EMAB members did a site tour in June 2024 that included the spill site.

NEXT STEPS

In Spring 2025, Diavik will apply chemical nutrients to the spill area to treat any remaining fuel that can't be dug up. This is similar to landfarming where the nutrients feed the bacteria, which then eat the fuel.

EMAB continues to receive regular updates on the spill clean-up from the Inspector.

WATER LICENCE AMENDMENT: NATURAL DRAINAGES

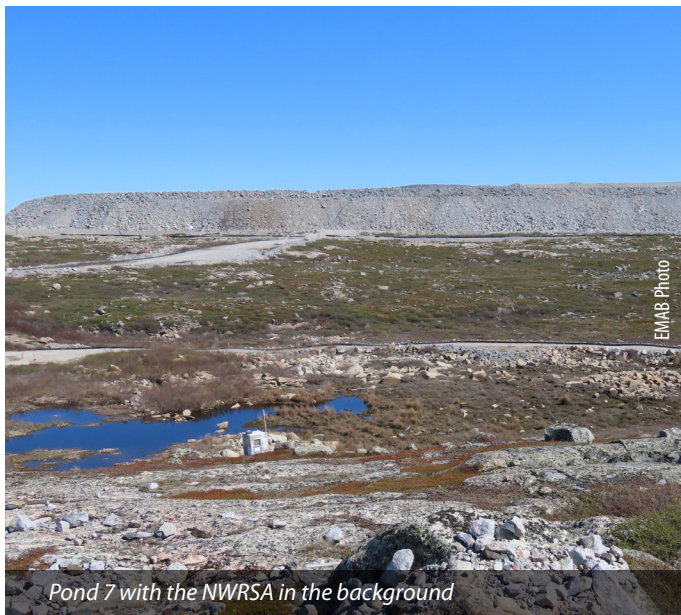
Diavik applied to amend its water licence in December 2022, two months after the FCRP was submitted. Much of the information in the water licence amendment (WLA) overlapped with the FCRP, complicating the review process.

The main purpose of Diavik's amendment application was to allow progressive reclamation of the mine by restoring 'natural drainages' on site. Diavik proposed to breach the collection ponds that surround the mine, and allow runoff from the ponds to flow untreated directly into Lac de Gras, instead of being pumped to the North Inlet for treatment and discharge. Diavik argued throughout the amendment process that the pond runoff is not a “waste” as defined in the Waters Act, so it did not need to be regulated. Instead, Diavik proposed a “Surface Water Action Level Framework” (SWALF) to respond to water quality and toxicity triggers. EMAB and all other Parties did not agree with Diavik's claim that the runoff was not a waste. EMAB made 117 comments on the WLA.

As part of the amendment process, the WLWB held a Technical Workshop on March 6-8, 2023 and a Public Hearing from May 30 – June 1, 2023; more details on the Workshop and Hearing can be found in last year's annual report.

EMAB reported on the WLA in last year's report, but the proceeding was still ongoing. In this year's report we report on some key undertakings, our review of the draft water licence, and WLWB decisions on some key EMAB recommendations. In addition WLWB required two follow-up reports after the decision: a revised SWALF, and a Special Effects Study on the mixing zone plume.





UNDERTAKINGS RE: EFFLUENT QUALITY CRITERIA

At the time of writing last year's report, response to Undertakings #18 and #19 from the Public Hearing had not been completed. These undertakings were directed to the GNWT and Diavik, – GNWT was directed to re-calculate proposed EQCs for Diavik, and Diavik was directed to identify and propose adjustments to any EQCs it felt would not be achievable. Both GNWT and Diavik responded to their assigned undertakings in July 2023.

EMAB contracted Arcadis to review both sets of responses, and found that the proposed EQCs by both GNWT and Diavik were protective of aquatic life, except for Diavik's proposed EQC for uranium. EMAB suggested that it would be helpful for ECCC to provide toxicity data on uranium from data from ECCC's Mine Effluent Reporting System (MERS) and from the Metal and Diamond Mining Effluent Regulations (MDMER) database to assess uranium EQCs.

This information could help support Diavik in raising its uranium EQC and to help EMAB and other Parties ensure aquatic life is protected even if uranium is higher than recommended by the GNWT.

EMAB RECOMMENDATION: EMAB is of the opinion that insufficient information has been presented to approve the updated Diavik proposed concentrations for uranium for all ponds. Each catchment area will have different water quality parameters and therefore toxicity, and EQCs for each pond, or the EQC for the most sensitive pond should be adopted. There is also insufficient information available currently to determine whether the proposed EQC would be protective of more sensitive species that could be present.

GNWT RESPONSE: Note in response to TG comment #1, the GNWT has noted support for a request to ECCC to provide paired uranium and acute toxicity test data on both rainbow trout and *Daphnia magna* to help evaluate whether a less stringent EQC may be acceptable (i.e., above the CCME acute limit of 0.033 mg/L without being acutely lethal to aquatic life).

ECCC responded to this request in March 2024 by providing a list of mining effluent sample data containing different concentrations of uranium (from different mines all over Canada) that were not toxic to aquatic life. EMAB contracted Arcadis to review the dataset to confirm the results supported a higher EQC for uranium than proposed by the GNWT while still protecting aquatic life. Arcadis concluded the data supported a higher uranium EQC than proposed by the GNWT, but cautioned there were several limitations with the data (e.g., the data provided by mining companies could not be verified, data was from all kinds of different mines across Canada, and detection limits varied a lot between the different samples). Arcadis recommended that if Diavik planned to modify the EQCs that they rely on site-specific toxicity tests for more than one aquatic species.

The WLWB noted that because ECCC provided the uranium data after the decision on the Amendment had already been made, that the data could be considered by Diavik and Parties “as Closure Criteria are advanced and to inform the Renewal proceeding.” Diavik’s Water Licence Renewal Application is expected in late 2024.

COMMENTS ON DRAFT WATER LICENCE

In October 2023, the WLWB circulated a draft Water Licence that presented options for how the final licence could look. It was a complex and challenging review with only a two-week review period. EMAB made 58 comments aligned with our intervention, and updates following the Public Hearing. TG, Deninu Kue, GNWT-ECC and ECCC also made comments.

Key EMAB Comments on the Draft Licence:

- Discharge from any collection pond is a waste unless and until data collected over a sufficient time period shows that it isn’t.
- EQCs are needed to regulate the discharge of waste from each pond.
- The proposed SWALF is not adequate to regulate the discharges from the collection ponds and ensure safety of water for humans, wildlife and fish.
- Diavik’s proposed monitoring of the discharges is not as rigorous or extensive as EMAB believes is prudent to ensure adequate understanding of the water quality and potential effects on humans, wildlife and fish within a 100-meter mixing zone.
- Detailed monitoring of the discharge is needed, particularly for the ponds that are decommissioned first, and in the early years of discharge from all ponds
 - › where the discharge enters Lac de Gras to ensure drinking water for humans and animals is safe.
 - › within a 100-meter mixing zone to characterize the quality of the runoff and effects on aquatic life and ensure the discharge will not cause adverse effects on aquatic life in the receiving waters.

- › Sampling must address the likely intermittent nature of the discharge.
- Any approval of collection pond breaching should be limited to Ponds 2 & 7 to allow findings from these ponds to inform future pond breaching approvals through the upcoming closure water licence renewal.

CLOSING ARGUMENTS

After submitting comments on the draft WL, Parties submitted Closing Arguments. EMAB’s Closing Arguments re-stated our key points about the application and addressed changed recommendations resulting from the discussions at the hearings, including undertakings and responses, and additional information provided by ECCC and Diavik. EMAB’s position in the Closing Arguments was aligned with EMAB’s position throughout the WLA application - that the runoff is a waste and needs to be regulated with EQCs; that only a small number of ponds should be breached to verify Diavik’s predictions about the runoff; that monitoring needs to be more thorough; that cultural use criteria should be included for discharges, and that the SWALF should have more stringent action levels and responses.



Construction of the Pond 2 breach in September 2024

WLWB DECISION ON NATURAL DRAINAGES WATER LICENCE AMENDMENT APPLICATION

On March 19, 2024, the WLWB circulated a Reasons for Decision approving the licence amendment and providing additional direction and requirements for Diavik. Below is a summary of key EMAB recommendations on the WLA, and the final decisions by the WLWB.

ONLY BREACH PONDS 2 & 7

EMAB RECOMMENDATION: To only consider allowing the breaching of Ponds 2 & 7, rather than all ponds, to collect data to assess environmental effects and verify predictions.

WLWB DECISION: To authorize Discharges only from collection ponds 2 and 7.

DISCHARGE IS A WASTE

EMAB RECOMMENDATION: Designate the discharge from ponds as waste and take samples where the discharge enters Lac de Gras to better understand its impact on the water quality and aquatic, human and wildlife health.

WLWB DECISION: There is insufficient evidence at this time to determine that the Discharges from collection ponds will not be a Waste and to regulate these discharges as Waste.

EMAB RECOMMENDATION: Diavik should provide all information required in Decommissioning Plan description for each pond before any approval.

WLWB DECISION: The Board decided not to include Decommissioning Plan requirements in the Licence.

SET DISCHARGE LIMITS

EMAB RECOMMENDATION: Diavik should establish specific limits for all potentially harmful substances in each pond and ensure they don't exceed those limits.

WLWB DECISION: To require EQC and toxicity testing be applied to Discharges from collection ponds 2 and 7.

INCLUDE TK MONITORING

EMAB RECOMMENDATION: If Diavik wants approval to breach the ponds, they must include plans for TK Monitoring. Additionally, if Diavik claims that meeting AEMP Benchmarks (environmental standards) also meets cultural criteria, they need to provide evidence to support this claim. EMAB is concerned that Diavik might use this as a reason to not do cultural criteria monitoring.

WLWB DECISION: To require DDMI to propose how the application of cultural criteria to the re-establishment of natural drainage may be included in the Licence and/or via a management plan with its Renewal Application. As part of the development of this proposal, the Board requires DDMI to further engage with Parties prior to the Renewal.



MEET DRINKING WATER GUIDELINES

EMAB RECOMMENDATION: Add Drinking Water Guidelines back into SW1.

WLWB DECISION: The Board is not approving the SW1 and SW2 Closure Criteria at this time, and is requiring DDMI to engage further with Parties to develop appropriate Closure Criteria.

MEET AEMP BENCHMARKS

EMAB RECOMMENDATION: Add back meeting AEMP Benchmarks at the mixing zone edge to closure criteria for SW2.

WLWB DECISION: The Board is not approving the SW1 and SW2 Closure Criteria at this time, and is requiring DDMI to engage further with Parties to develop appropriate Closure Criteria.

SNP MONITORING

EMAB RECOMMENDATION: Conduct a plume survey to show how the discharge mixes with the surrounding water.

WLWB DECISION: The licence requires DDMI to conduct a Specific Effects Study to characterize the overland flow and runoff plume of discharges from collection ponds 2 and 7.

EMAB RECOMMENDATION: Remove the minimum 5 m sampling depth.

EMAB RECOMMENDATION: Have more sampling locations.

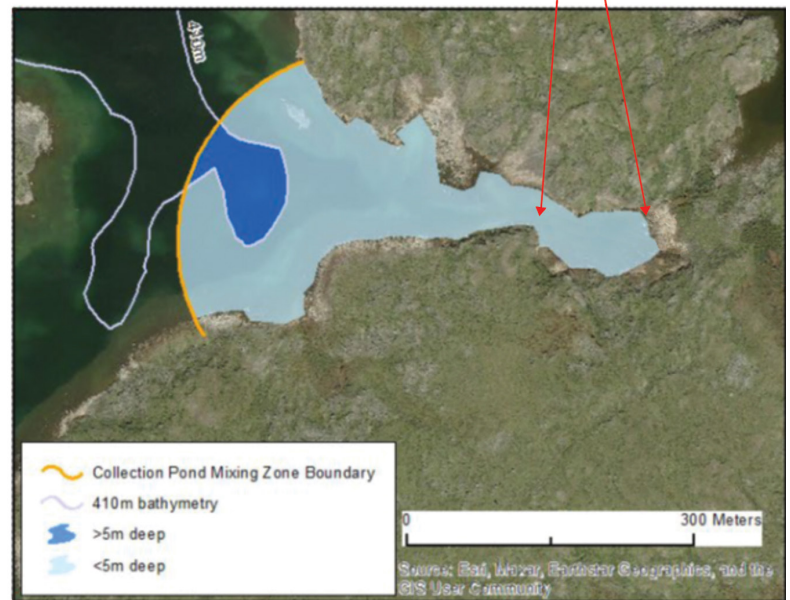
- Where the stream enters LdG (where people and animals are most likely to drink water).
- At the edge of the mixing zone as defined by the plume survey, or 100 meters away from the discharge point.

WLWB DECISION: The Board did not accept EMAB's recommendation. The Board accepted the GNWT-ECC's recommendation for SNP sampling stations: "Actual location to be as close to DDMI's modeled Arc 1 as feasible for each catchment but to be determined in the field; required to be at least 100 m from the point of discharge into Lac de Gras and have a minimum of 5 m water depth". The Board acknowledged that the Specific Effects Study may help inform future updates to the SNP.

EMAB RECOMMENDATION: Any changes to monitoring plan must be approved by WLWB.

WLWB DECISION: The Board requires DDMI to monitor until cessation or reduction of monitoring is approved (e.g., in consideration of the Performance Assessment Report).

Example of EMAB-proposed additional sampling locations



MORE TOXICITY TESTING

EMAB RECOMMENDATION: Do toxicity testing on more species – fish, benthics, algae/aquatic plants.

WLWB DECISION: At this time, the Board has decided to not require additional chronic toxicity testing for ponds 2 and 7. The Board notes that toxicity testing requirements can also be reconsidered during the upcoming Licence renewal.

SURFACE WATER ACTION LEVEL FRAMEWORK

The SWALF is the mechanism Diavik proposes to monitor the collection pond drainage, and respond to the results. EMAB did not view Diavik’s proposed SWALF as adequate to protect water around East Island for aquatic life, animals, or people. The WLWB did not approve the proposed SWALF, and directed Diavik to create a revised SWALF specifically for Ponds 2 and 7. The results from these ponds will inform the next SWALF design, which is expected to be submitted in the upcoming Water Licence Renewal submission (expected at the end of 2024).

SWALF: TRIGGERS AND ENFORCEMENT

EMAB RECOMMENDATION: Add triggers, and monitoring, where discharge enters LdG, and edge of mixing zone (not Arc 1).

WLWB DECISION: The Board requires DDMI to discuss how it considered sampling limitations in the next version of the SWALF.

EMAB RECOMMENDATION: Add AEMP Benchmark triggers at edge of mixing zone (not Arc 1).

WLWB DECISION: The Board has not required AEMP-based triggers [at the edge of the mixing zones] at this time but if a need is identified in the future, such triggers may be revisited.

EMAB RECOMMENDATION: Add Drinking Water Guidelines triggers where discharge enters LdG.

EMAB RECOMMENDATION: Integrate Cultural Use Criteria into SWALF.

WLWB DECISION: Though not a replacement for TK, the Board notes the Licence includes a requirement to annually report an estimate of the times of year when water in mixing zones does not meet aquatic life and drinking water guidelines, as inferred from monitoring data (i.e., Schedule 1, Condition 1(cc)(v)) to help assess potential for impacts to cultural use.





The Board is of the opinion that the upcoming Renewal provides an opportunity for further discussion on the inclusion of cultural criteria applying to the re-establishment of natural drainage in the Licence and/or via a management plan; the Board requires DDMI to propose how the application of cultural criteria to the re-establishment of natural drainage may be included in the Licence and/or via a management plan with its Renewal Application. As part of the development of this proposal, the Board requires DDMI to further engage with Parties prior to the Renewal.

EMAB RECOMMENDATION: Explain how SWALF would be enforced.

WLWB DECISION: An additional requirement to cease Discharge based on the SWALF AL 3 triggers was added to the Licence to enhance enforceability of the SWALF.

SWALF: RESPONSES

EMAB RECOMMENDATION: Add trigger/response that stops the discharge, to avoid any harmful effects while the cause is investigated. This is particularly important when there is chronic toxicity (at the IC20 level) at the edge of the true mixing zone.

WLWB DECISION: The Board notes that an additional requirement to cease Discharge based on the SWALF AL 3 triggers, was added to the Licence to enhance enforceability of the SWALF.

SWALF: ENVIRONMENTAL TRADE-OFF STUDY

In the SWALF, Diavik proposed an Environmental Trade-off Study should be done if there are no practical mitigations for unacceptable water quality. This study would determine the costs and benefits of releasing the discharge compared to treating the water forever. EMAB is concerned that such a study could impact the closure goals and objectives.

EMAB RECOMMENDATION: Diavik needs to clarify how the Environmental Trade-off Study will be conducted, including the factors to be considered, the stakeholders involved, the timeframe, and the decision-making process.

WLWB DECISION: To not approve the proposed SWALF and require DDMI to submit an updated version of the SWALF, without Action Level triggers and responses that reference unapproved Closure Criteria SW1 and SW2.

To require DDMI to discuss how it considered in the next version of the SWALF the items discussed under 'Consideration of Parties Recommendations for the Next Version of the SWALF'.

IMPLEMENT CLOSURE AEMP BEFORE DISCHARGING

EMAB RECOMMENDATION: To implement the Closure AEMP before 2025 for any ponds that are scheduled to be breached before that time.

EMAB RECOMMENDATION: Collect AEMP data before any discharges take place. This data will be compared with the results obtained after the discharge starts to assess its impact.

EMAB RECOMMENDATION: Sample all components in C3 bay and gather at least one year of data before any discharge occurs.

WLWB DECISIONS:

- To approve the proposed AEMP monitoring as submitted for collection ponds 2 and 7 as an interim transitional AEMP and to require that the Applicant submit an updated map and summary table to include transitional AEMP information related to only collection ponds 2 and 7 for conformity by Board staff within 30 days of the issuance date of the amended Licence;

- To require EQC and toxicity testing be applied to Discharges from collection ponds 2 and 7 as detailed in sections 6.7.4 to 6.7.6;
- To direct DDMI to submit the updated AEMP Design Plan within six months of Issuance date of the amended Licence, which will undergo public review and Board approval. The updated AEMP Design Plan is required to incorporate information for closure/post-closure monitoring and the transition from operations to closure/post-closure conditions, as well as consider further development of Closure Criteria under the FCRP as discussed in section 6.9.1;
- The Board agrees that an updated AEMP Design Plan is necessary prior to the full Decommissioning of the Collection Pond System.

HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

While the RFD on the Natural Drainages licence amendment touched on the HHERA, the Decisions on it were included in the RFD for the FCRP, so we have covered it under that section.

See pages 47- 48 for details.



Birch growing in Diavik's revegetation test plots in June 2024

REVISED SWALF

One of the Decisions on the Natural Drainages Amendment required Diavik to submit a revised SWALF for Ponds 2 and 7. Diavik submitted the revised SWALF on May 7, 2024. EMAB submitted 12 comments. GNWT-ECC, YKDFN, TG, and ECCC also made comments.

EMAB RECOMMENDATION: Action Level 1 triggers appear reasonable.

WLWB DECISION: No changes to the Action Level 1 triggers are needed at this time.

EMAB RECOMMENDATION: The SWALF should be revised to require three samples, each taken one month apart, to meet the reconnection criteria before requesting Inspector approval because of potential variability in water chemistry.

WLWB DECISION: The Decommissioning of ponds 2 and 7 is to help inform the FCRP and inform future monitoring requirement through the SNP, AEMP, and Specific Effects Study for all other collection ponds. The Board notes that setting unachievable sampling requirements serves no purpose because no information will be obtained; therefore, the Board is of the view that allowing Diavik to progress with the Decommissioning of ponds 2 and 7 will help obtain information that will aid in developing meaningful monitoring requirements.

EMAB RECOMMENDATION: Mitigation options be implemented in response to Action Level 1 exceedance rather than only being identified.

WLWB DECISION: Requiring implementation of mitigation in response to an early warning at Action Level 1 does not reflect current practice under other frameworks (e.g., Aquatic Effects Monitoring Program [AEMP]) and does not require that mitigations be implemented at Action Level 1 at this time.

SPECIFIC EFFECTS (PLUME) STUDY

On July 16, 2024, Diavik submitted the Specific Effects Study Design Plan – Decommissioned Ponds 2 and 7 Discharge Characterization for review. EMAB made 14 comments. TG, ECCC, and GNWT-ECC also made comments. At the time of writing, a decision had not been made.

EMAB RECOMMENDATION:

Revise the objectives of the SES Design Plan to reflect the WLWB RFD and include the following:

- To characterize the effluent plume to assist with establishment of SNP monitoring stations.
- To confirm/validate modeling predictions.



Pond 2 breach progress in August 2024

EMAB Photo

- To clarify the level of conservatism of the model.
- To provide information on the characteristics of the mixing zone (sizes and water quality within the mixing zone).
- To provide information to help inform future Decommissioning, including but not limited to providing data to refine and calibrate water quality modeling in the event that monitoring results indicate modeling predictions were inaccurate.

DDMI RESPONSE:

The SES was designed to address Schedule 7 Condition 1 (k); it characterizes overland flow and the plume from the discharges. The WL Conditions do not stipulate that the SNP stations be established based on the outcome of the SES, in fact that would be impossible as the SES report will not be complete prior to breaching and therefore not be available prior to setting up the SNP stations.

The results of the SES can be used to validate the conservative nature of the water quality model. The SES design outlines that the report will provide information on mixing zone size and water quality.

DDMI will not be calibrating or re-running the predictive water quality model unless the monitoring data indicates that there were systemic, critical flaws in the model that resulted in a significant under prediction of the effect on Lac de Gras and where updated modelling would be required to inform adaptations to the closure plan. At this late stage in the closure planning process focus has shifted from prediction and design to execution and monitoring of actual results to inform adaptive management through the SWALF if required.

EMAB RECOMMENDATION: Sample weekly or biweekly during freshet. Add commitment to conduct an SES plume study opportunistically (in addition to the monthly program) to ensure that discharge events are captured, notably if zero discharge is observed during routine monitoring.

DDMI RESPONSE: The SNP program already incorporates weekly sampling of the discharge. As noted in the SES the decision to perform the monthly SES monitoring will be driven by weather and safety considerations observed during the weekly sampling. Therefore, it is DDMI's expectation that the SES monitoring will be somewhat opportunistic (as recommended by EMAB). Increasing the frequency of the SES program to be weekly or bi-weekly is not supported by DDMI and more resource intensive field investigations would only be supported if justified as a response under the approved SWALF.



Pond 7 and surrounding area

EMAB Photo

CLOSURE AND RECLAMATION

This year, EMAB received and reviewed the WLWB's Reasons for Decision on the first version of Diavik's Final Closure Plan (FCRP). EMAB also reviewed a revised version of Diavik's Processed Kimberlite Containment Facility (PKC) Closure Design that Diavik submitted in response to comments and recommendations on the FCRP. EMAB also reviewed Diavik's request for return of security for the North Waste Rock Storage Area after they completed the cover.

FINAL CLOSURE AND RECLAMATION PLAN

EMAB reported on Diavik's Final Closure and Reclamation Plan Version 1.0 (FCRP) in our 2022-23 EMAB Annual Report. At the time of writing last year's report the WLWB had not made a decision on the Plan. The WLWB circulated the 147-page Reasons for Decision (RFD) on Diavik's FCRP on July 19'24. The FCRP as a whole was not approved, although certain sections of it were. The WLWB directed Diavik to complete all revisions to the FCRP by April 15'25, and to hold two Closure Workshops with Parties before submitting the revised Plan: one on Water Quality, and another on revegetation strategy, dust, SWRSA, contaminated soil and sediments, and buildings left on-site after closure.

EMAB made over 300 comments on the Plan and identified several areas that needed improvement, including the lack of a Traditional Knowledge monitoring plan, site-wide closure criteria, and revegetation. Below is a summary of EMAB's key concerns and recommendations along with the WLWB's decisions regarding each one.

PERFORMANCE ASSESSMENT CRITERIA

Diavik's water licence requires that Diavik submit a Performance Assessment Report (PAR) once Diavik

determines that the closure objectives and criteria have been met. Currently, Diavik proposes performance assessment periods between two and five years long. EMAB's view is that these timeframes are too short to assess whether closure has been successful for a number of closure components.

The WLWB noted that the Diavik water licence wording on Performance Assessment Reporting does not follow Standard Water Licence Conditions which says that multiple Performance Assessment Reports (PAR's) may be required for long-term closure objectives. The Board has directed Diavik to propose revisions to PAR water licence conditions in the upcoming Water Licence Renewal, and to provide a rationale if it is different than the LWB Standard Water Licence Condition.

EMAB RECOMMENDATION: Diavik should revise the time frames identified for achievement of closure criteria to more accurately reflect the time to observe and confirm acceptable outcomes, and reduce uncertainty about ongoing, long-term performance of each closure facility and element.

WLWB DECISION: The Board has approved the initial proposed assessment periods for submission of the PARs, but requires revisions to long-term stability criteria. The Board requires DDMI to monitor until stopping or reducing monitoring is approved by the Board (e.g., in consideration of the PAR). The Board also requires DDMI to propose revisions to the current Performance Assessment Report Licence Condition. If different than the LWB Standard Water Licence Condition, provide rationale.

EMAB RECOMMENDATION: Diavik should provide details of what will be included in the performance assessment reports (PAR) for the FCRP. The information contained in the performance assessment reports should also be indicated to be subject to board approval.

WLWB DECISION: Provide clarity on the expectations of post-closure inspections and what will be provided as documentation to achieve the design criteria.

EMAB RECOMMENDATION: DDMI should update their climate change projections and account for the updated predictions in the proposed performance assessment period.

WLWB DECISION: Revise FCRP Table 1 to include monitoring duration and propose anticipated timeframes to determine long-term stability for all relevant closure criteria.

SECURITY AND RECLAIM ESTIMATE

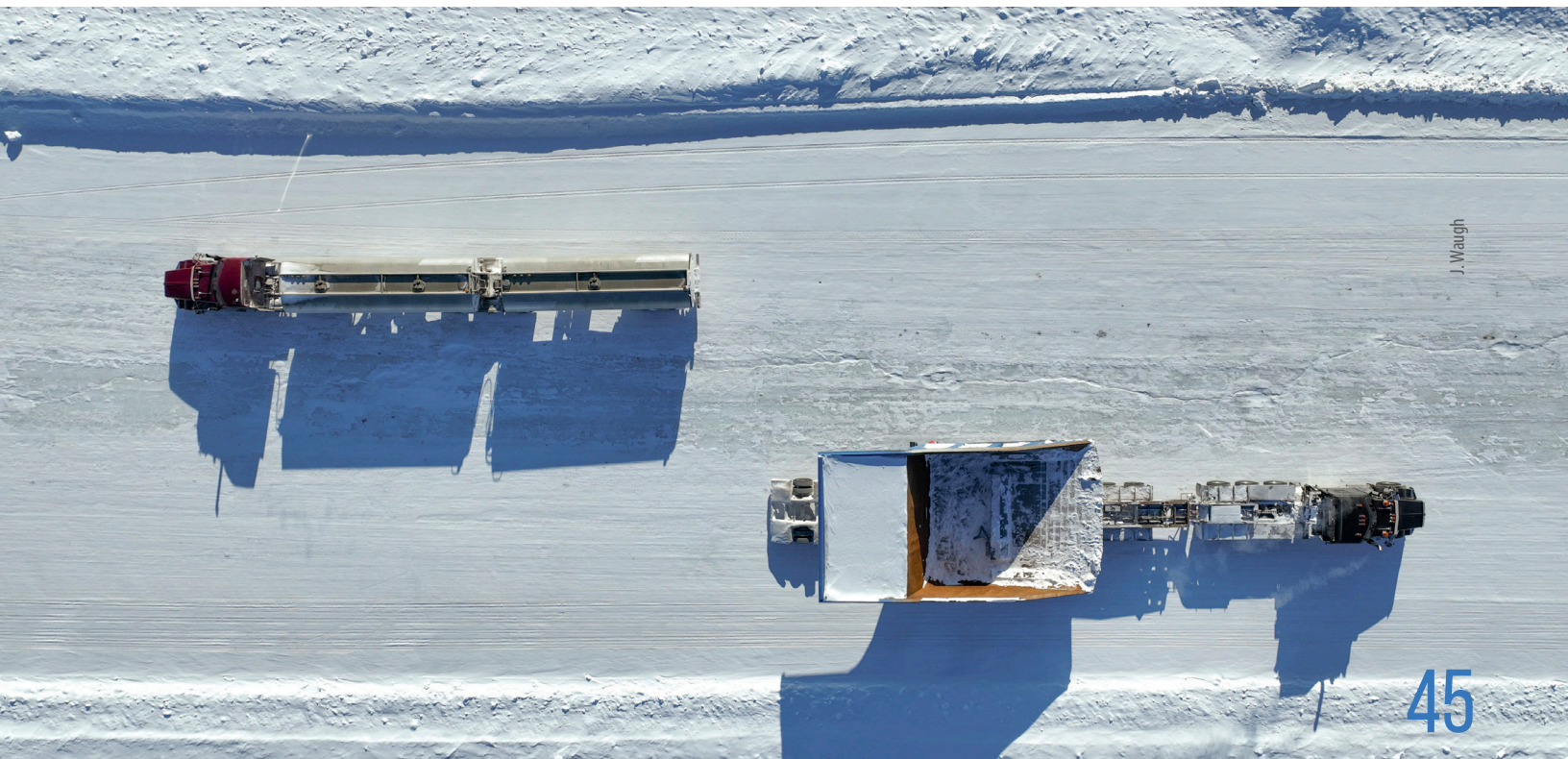
EMAB's view is that Diavik should update their security estimates to account for long-term maintenance and monitoring, especially for the NWRSA and PKC. Diavik states their designs will not require any maintenance after closure, but EMAB does not think this is realistic

given uncertainties with the designs and climate change impacts on the mine components that require frozen conditions to perform. Maintenance and monitoring could be very expensive, given how remote Diavik is, and the costs involved getting equipment to the site after closure. Additionally, DDMI's FCRP only assessed holdback amounts for performance criteria related to stability, but no other criteria (such as revegetation, water quality from the PCKF, etc.). The WLWB directed Diavik to update the security estimate (see below).

EMAB RECOMMENDATION: Diavik's proposed holdbacks are likely too low.

WLWB DECISION:

- DDMI must propose performance holdbacks that consider contingencies if each performance criterion were not to be met.
- Update RECLAIM to reflect revised monitoring durations in Appendix VI of the FCRP.



J. Waugh

TRADITIONAL KNOWLEDGE

DDMI did not include a Traditional Knowledge Monitoring Plan (TKMP) with submission of the FCRP, stating the program had not yet been finalized. Instead, they submitted a 1-page overview of a "Closure Watching" program that lacked specifics and did not directly tie into the TKMP. EMAB was very concerned over the delays in developing the Plan, the lack of a clear workplan or timeline for developing a Plan, and the lack of community input outlined in the proposed "Closure Watching" program outlined in the FCRP.

EMAB RECOMMENDATION: DDMI should explain the relationship between the "Communities-Traditional Knowledge 'Closure Watching' Program" and the TKMP, if any. DDMI should identify all community recommendations regarding the proposed Closure Watching program.

EMAB RECOMMENDATION: DDMI should submit a detailed workplan for development of the TK Monitoring Plan through the TK Working Group of the Parties, including resources required and a timeline for completion. This should be submitted as soon as possible for WLWB approval.

EMAB RECOMMENDATION:

It may be helpful for WLWB to define some basic principles for the TKMP, including:

- Must meet the requirements of WLWB Revision #8 to the ICRP V4.1.
 - › Revision #8 directed DDMI to include a proposed Traditional knowledge Monitoring Plan in the FCRP, and include an engagement log that identifies how recommendations made through engagement were considered and incorporated, or provide rationale for those not incorporated. The WLWB also stated the level of detail provided in this Plan should provide the Board confidence that Traditional

Knowledge has been integrated into the post-closure monitoring program and evaluation of successful closure.

- Must involve all Affected Communities in the development and implementation of the TKMP.

DDMI RESPONSE: As EMAB is aware the Closure TK Monitoring Program is being developed with a collective of Indigenous Organizations and was not ready to be included in the FCRP.

WLWB DECISION: DDMI must submit the Traditional Knowledge Watch Program to the Board no later than six months prior to closure (by end of September 2025).

ENGAGEMENT

DDMI held four FCRP information sessions for participants from March – Sept 2022. However, EMAB expected DDMI would contact EMAB ahead of the information sessions, and did not consider the information sessions as EMAB-specific engagement given the large number of parties involved.



Blueberries growing at the TK Camp

EMAB RECOMMENDATION: EMAB recommends that in future WLWB provide specific direction as to its expectations for engagement to ensure acceptable engagement occurs.

DDMI RESPONSE: DDMI has made significant efforts to engage with EMAB on the FCRP, as was directed by the WLWB. For engagement to be successful and meaningful it must involve two willing parties. DDMI provided EMAB with ample opportunity for follow-up discussions on any FCRP items.

WLWB DECISION: The Board directs DDMI to report on efforts to improve ongoing communication and engagement challenges with EMAB as part of the 2025 Annual Water Licence Report required by Part B, Condition 5 of the Water Licence.

CLOSURE OBJECTIVES AND CRITERIA

EMAB's view is that in general, DDMI's proposed closure criteria are not strong enough to protect people, wildlife, and the environment, especially regarding aquatic life, water quality, revegetation and wildlife safety. There were 11 Site-Wide Closure Objectives Diavik proposed for the Mine after closure, e.g., "SW1 - Surface runoff and seepage water quality that is safe for humans and wildlife" and "SW9 - Landscape features (topography and vegetation) that match aesthetics and natural conditions of the surrounding natural area." Each Objective had corresponding criteria to assess whether each Objective is met.

WLWB DECISION: Out of the 18 closure criteria proposed by Diavik, the WLWB has approved 7. The remaining 11 unapproved closure criteria will be discussed as part of the Closure Workshops to occur before the submissions of Diavik's revised FCRP in April 2025. The main revisions DDMI must make to its closure criteria include ensuring long-term chemical stability, monitoring success of revegetation, ensuring monitoring goes on for long enough, and including back-up plans in the event criteria aren't being met.

HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

DDMI included a Human Health and Ecological Risk Assessment (HHERA) in both the FCRP and Natural Drainages water licence amendment submissions. The purpose of the HHERA is to assess potential impacts on people, wildlife, and aquatic life from chemicals in the environment following closure of the mine. While the RFD on the Natural Drainages licence amendment touched briefly on the HHERA, the Decisions on the HHERA were discussed in greater detail in the RFD for the FCRP.

EMAB RECOMMENDATION: Reduce the size of mixing zones where water from different sources comes together and ensure that there are no harmful effects observed at the edge of these mixing zones.

WLWB DECISION: The Board recommends DDMI include a discussion of the HHERA assumptions related to land users and concerns related to waters in the mixing zones remaining safe to drink at the FCRP workshop.



Willow growing at the TK camp

WLWB DECISION: In the Licence Renewal, the Board requires DDMI to provide a map showing catchment-specific mixing zone distances based on the minimum required dilution factor as provided in FCRP Appendix X-20, Table 20.

EMAB made a number of detailed comments on Diavik's HHERA. The WLWB stated "The Board does not typically approve HHERAs but may provide direction for changes and may require the re-submission of an updated version, particularly if updates and corrections may help avoid potential confusion or carrying forward invalid information."

SITE RESTORATION AND REVEGETATION

EMAB's view is that DDMI's proposed revegetation strategy in the FCRP is inadequate. DDMI's plans included revegetating less than 20% of the mine footprint, and did not commit to using plants found naturally in the area. They also stated they would consider revegetation successful if seeds sprouted – they did not consider long-term survival of plants, which is important to consider especially in a harsh tundra environment where seeded plants could easily die before becoming established. EMAB also noted that DDMI should be storing sewage sludge on-site to use as a fertilizer for plants during revegetation, as recommended in the University of Alberta report Diavik had contracted.

EMAB RECOMMENDATION: DDMI should revise the criteria for SW5 to establish vegetation that is similar in cover and communities to what was present before the mine was developed, and that meets industry standards for revegetation.

DDMI RESPONSE: DDMI does not support EMAB's proposed revision to the criteria for SW5.

WLWB DECISION: The Board did not approve any of the closure criteria for SW5, and required Diavik to propose criteria that evaluate long-term success of revegetation. The Board also requires that the

revegetation strategy be discussed at a Workshop prior to resubmission, and that Diavik provide clear, specific justification for each part of its revegetation strategy. Diavik must also propose contingencies if revegetation doesn't meet criteria.

EMAB RECOMMENDATION: Diavik should also use the treated sewage as a soil amendment, including sewage that has been disposed in the landfill, or demonstrate why this is not possible or desirable. This is in keeping with TK Panel Recommendation 8.33, which Diavik said was in progress.

DIAVIK RESPONSE: Placing treated sewage on the final surface is also not necessary, seeding without a soil ameliorant is viable and is not desirable as it has been identified as a wildlife attractant and there are concerns for contact with people.

WLWB RESPONSE: The WLWB issued an Information Request to Diavik including: requesting a rationale for disposing of sewage sludge in the landfill, and options for storing the sludge to use for revegetation.



EMAB Chair and Board members inspecting the future Pond 2 breach site in September 2024

The Board has not required DDMI to store sewage sludge, but requires that the revegetation plan should include back-up plans which identify actions to be taken if vegetation is not on track to meet closure criteria. DDMI is to ensure that any identified back-up plans are feasible and note that this may influence stockpiling materials (e.g., sewage sludge) leading up to closure.

WASTE DISCHARGE FROM COLLECTION PONDS

EMAB was concerned with Diavik's plans to breach its collection ponds and let the discharge flow directly into LdG. DDMI stated any discharge from the collection ponds was not a waste, and proposed a "Surface Water Action Level Framework" (SWALF) to regulate the discharge. The WLWB decided the discharge is a waste, and set Effluent Quality Criteria to regulate the discharge (see the Natural Drainages Water Licence Amendment section *pages 34-43* for more details).

WLWB DECISION: The Board did not approve the SWALF (which was submitted as part of both the FCRP and Water Licence Amendment Application) in its decision on the WL on March 19'24. DDMI submitted a revised version on May 27'24 and the Board approved it on June 28'24. They noted that Diavik may wish to submit a revised SWALF with its Water Licence Renewal Application, expected in late 2024.

CONTAMINATED SOILS

DDMI's proposed plan for contaminated soils is to bury them on site. Through EMAB's community consultations and Closure workshop, EMAB is aware that communities object strongly to contaminated material being buried on site. EMAB is also aware that Diavik's consultation with communities on this topic resulted in at least three of the Aboriginal Parties stating contaminated materials should not be buried at the mine site.

EMAB RECOMMENDATION: EMAB recommends that Diavik treat any contaminated soil to the CCME Agricultural soil standard. If landfarming is unable to bring the soil to this standard, the contaminated soil should be shipped offsite.

DDMI RESPONSE: Requiring contaminated soil to be treated to the strictest criteria (CCME Agricultural), and if it didn't meet the criteria after treatment, requiring it to be shipped off site could have an immense financial and environmental impact (both related to trucking soil to Alberta) without any explanation of why the DDMI recommended on-site management strategies are inadequate or with unacceptable risk.

WLWB DECISION: The Board did not approve the on-site disposal of hydrocarbon contaminated soils. The Board also stated if DDMI still wants to propose on-site disposal going forward, they must provide details including estimated seepage water quality under non-frozen conditions, possibility of infiltration through rock landfill cover, soil leaching, the limitations of landfarming soil, historical water quality, and a cost-benefit analysis for shipping soils offsite vs. burying, among several other requirements.



Landfill at DDMI in September 2024

WHAT IS THE PKC FACILITY?

The PKC Facility is where Diavik's tailings are dumped after the diamonds are taken out of the kimberlite. The tailings (called fine processed kimberlite or PK, similar to sand) are over 50 metres deep and are contained in a dammed area. For many years the PKC was sloped towards the center, where a pond formed that changed size depending on the time of year and the mine's activities. There is a thick layer of very fine PK under and around the pond area that is like quicksand, called slimes. Any person or animal walking on it would sink in. Diavik re-designed the PKC to prevent water ponding on the facility. The new design directs water towards a sump in the NW corner of the facility, where it is discharged to a collection pond.



A418 pit being filled with processed kimberlite slurry

PKC DESIGN

The FCRP proposed a new design concept for the PKC using a "dry" cover (solid rockfill) to create a safe and more stable surface to walk on. The previously approved design was for a "wet" cover where PK slimes would be covered by a pond, leaving the concern that people and animals could get stuck.

The PKC is divided into two zones. Zone 1 is made up of processed kimberlite and surrounds the inner Zone 2, which is made up of a softer, slime-like extra fine processed kimberlite that is like quicksand. Now that PK is being deposited in the A418 pit, Diavik expects water in the PKC to drain out. Diavik proposed covering Zone 1 with a 1.5 m layer of waste rock. Zone 2 has a lot of extra-fine PK that is too soft to support a cover. Diavik plans to wait for it to freeze before trying to place a cover. Freezing could take a long time. They also plan to dig a trench that would collect any water and direct it to a spillway that would discharge to LdG.

EMAB's view was that the PKC closure design was not ready for approval, with many concerns:

- Placing the cover on PK slimes in the middle of the PKC. Possibility of slimes migrating up through the cover.
- The stability of the cover over the slimes.
- PK will settle over time; this will likely affect the cover and the spillway.
- The quality of water running off the PKC, and predictions about seepage.
- Climate change not adequately taken into account.

Diavik stated that the final PKC Design would likely change over time, and did not need to be approved by the WLWB. WLWB clarified that any final engineering design must be approved by the Board.

EMAB was concerned that Diavik had not included any long-term maintenance activity, and had said the closed mine will not require any maintenance. EMAB was also concerned the proposed monitoring periods were not long enough. The PKC

dams will need to be inspected and maintained as long as they contain PK.

In August Diavik submitted a revised PKC Closure Design in response to reviewer comments and recommendations (page 53).

DEPOSITION OF PROCESSED KIMBERLITE INTO A418 PIT

In April 2023, DDMI started depositing PK into the recently closed A418 Pit instead of the PKC. All hazardous material was removed from the pit before PK started to be deposited but inert material was left. This clean-up was signed off by the Inspector. Processed kimberlite will continue to be deposited in the pit until it reaches the 9295 level, which is near the bottom of the pit. Then, the pit will be flooded with lake water. Once the pit shows the water quality in the pit is safe and clean, the pit will be reconnected with the lake. The pit lake is expected to have a “chemocline” where PK and potentially harmful water forms a layer at the bottom of the lake, with a layer of clean water at the top. Diavik predicts the top 40 metres will meet AEMP benchmarks and be safe for aquatic life. Reconnection will be completed through siphoning lake water into the pit then breaching the A418 dyke once monitoring shows the water quality is safe for fish.

EMAB COMMENT: Clarify if and how it will be determined if Diavik's expectation that fish use of the pit lakes will be restricted to the upper 40 m of the water column. If no actions are taken to confirm this expectation, EMAB recommends that a study be done to assess presence and use of water depth greater than 40 m by fish if water monitoring demonstrates that AEMP benchmarks are not met below the 40 m depth,

WLWB DECISION: The Board already decided in the PK to Mine Workings water licence amendment that AEMP benchmarks only have to be met in the top 40 metres. The Board stated it is confident that once the minimum pre- and post-breach monitoring durations are established, the monitoring in the pit

lakes will be good enough to determine unanticipated effects and appropriate response action and adaptive management can be implemented, if needed.

WASTE ROCK PILES

DDMI's design of the North Waste Rock Storage Area (NWRSA) includes a frozen cap to keep the waste rock, and any runoff, from entering the environment. EMAB was concerned that the NWRSA could seep contaminated water if the cover starts to thaw (e.g., in the event of future climate warming).

Diavik's design for the South Waste Rock Storage Area (SWRSA) was changed to leave the rock steep and ungraded, except for a smoothed ramp for caribou to cross. EMAB wants the pile smoothed and graded in the same way as the NWRSA to ensure wildlife safety.



Pipe depositing processed kimberlite slurry into the A418 pit

EMAB RECOMMENDATION: The climate scenarios case studies for the cover designs climate change prediction ranged from 1970 to 2060, which is 37 years from now. The predictions do not go far enough in the future to consider closure and post-closure 100 years in the future. In addition, this prediction was completed in 2008. Fifteen years later, there is more information known; updated, more accurate climate change scenario predictions are available.

EMAB RECOMMENDATION: Updated thermal modelling of the NWRSA cover should incorporate predicted precipitation changes from the Diavik Diamond Mines Climate Change Assessment (Golder, 2021). These predictions should be applied to the till design layer of the thermal cover, and water management designs of the NWRSA.

DDMI RESPONSE: Closure work on the NWRSA, excluding small life-of-mine regions, is now complete. Monitoring of instrumentation in the NWRSA cover has started and will inform an assessment of performance moving forward. Updated thermal modelling from a performance perspective will be considered by DDMI if deemed beneficial to performance assessment processes.

WLWB DECISION: The Board requires DDMI to provide updated climate change modelling in the final Performance Assessment Report (PAR) to demonstrate stability of components for the designs that promote freezing (i.e. North Waste Rock Storage Area [NWRSA], Processed Kimberlite Containment Facility [PKC], and Landfill), and to include triggers and thresholds for responses.

EMAB RECOMMENDATION: Revise the FCRP to include reclamation measures for the SWRSA that are consistent with the TK Panel recommendation i.e. re-slope the entire pile to allow easy, safe passage for caribou, and revegetate the waste pile.

WLWB DECISION: Final SWRSA slope must be the same as the NWRSA unless Diavik provides evidence that the Parties support the proposed steeper slope.

NORTH INLET

The sediments in the North Inlet (NI) are contaminated with hydrocarbons. Diavik has plans to use bacteria to clean up the hydrocarbons, and then reconnect the NI with LdG when the sediments are safe for fish. If the sediments can't be cleaned up, Diavik plans to connect the NI to the lake hydraulically, so only water (not fish or aquatic life) could pass through. EMAB commented that leaving contaminated sediments in place and hydraulic-only connection is not in alignment with the closure goal "Land and water that is physically and chemically stable and safe for people, wildlife and aquatic life".

WLWB DECISION: Other back up plans besides hydraulic-only connection (e.g., dredging) for reconnecting North Inlet with LdG must be discussed at a workshop. Closure criteria and sediment quality criteria must also be discussed at the workshop.

NEXT STEPS

EMAB will participate in WLWB workshops on closure, and review and provide comments on DDMI's revised FCRP 1.1 once received.



Board members visiting the PKC during a June 2024 site visit

PROCESSED KIMBERLITE CONTAINMENT FACILITY DESIGN UPDATE

In August 2023, DDMI submitted an updated PKC Design Plan. The new PKC design proposes improved drainage channels; a geotextile cover over Zone 2, in between the PK and rock cover, to prevent PK from migrating upward; and buttresses for the dams to make them more stable if the dams thaw. DDMI requested approval of this design and revised construction schedule (i.e., ability to start construction of all remaining PKC closure components) in January 2024.

EMAB reviewed the new design. Overall, it is an improvement on the old design, but there are still uncertainties that EMAB is concerned about. EMAB contracted two expert consultants, Slater Environmental and geotechnical expert Dr. Jean-Marie Konrad, to review the plan. EMAB staff also completed an internal review. EMAB made 15 comments on the Design Update. Other parties who reviewed the plan include DKFN, TG, ECCC, GNWT, and the WLWB.

The WLWB approved parts of the revised plan on March 1, 2024, with some additional directives:

SUMMARY OF KEY EMAB RECOMMENDATIONS.

EMAB RECOMMENDATION: DDMI's closure schedule should include site activities beyond 2028, as it could take a long time for PK to freeze.

EMAB RECOMMENDATION: DDMI should provide evidence that the geotextile fabric that will be placed on top of the PK and under the rockfill cover will be suitable for the conditions that are expected in the PKC cover.

EMAB RECOMMENDATION: The WLWB should require DDMI to develop a monitoring and maintenance plan to ensure the PKC cover remains free-draining over the long term (more than 100 years). As PK could settle over time, resulting in ponding over the cover. The WLWB should also require that security be in place to cover the costs of the long-term monitoring and maintenance.

Courtesy of DDMI



EMAB RECOMMENDATION: There is uncertainty about the amount and quality of seepage from the PKC, but DDMI's modeling assumed no seepage will occur. DDMI should re-visit its modeling to account for potential seepage and its effects on LdG.

WLWB DECISION: WLWB approved the dry cover concept for the PKC and approved the design drawings and report and allowed Diavik to continue building the PKC cover as progressive reclamation.

WLWB required Diavik to submit a revised PKC closure plan with 13 revisions, including timelines, monitoring and maintenance of the PKC and dams, and adaptive management responses where criteria are not being met.

WLWB required DDMI to update security associated with closure of the PKC that addresses:

- (a) Timelines for freezing of Zone 2 and implications to active closure of site
- (b) Long-term monitoring and maintenance of PKC
- (c) Long-term monitoring and maintenance of PKC dams

REQUEST FOR RETURN OF SECURITY FOR NWRSA PROGRESSIVE RECLAMATION

Following the submission of the FCRP, DDMI submitted a Reclamation Completion Report (RCR) for the NWRSA on Jan 24'24 to support the return of security for reclamation work completed to date.

EMAB COMMENT: The information provided in the RCR appears to be adequate to support the return of security proposed for completed progressive reclamation.

WLWB DECISION: The Board has approved the requested return of security associated with the North WRSA.

WILDLIFE MANAGEMENT AND MONITORING PROGRAM

The Environmental Agreement requires Diavik to monitor the effect of the mine on wildlife.

Diavik has been monitoring wildlife since 2002.

In 2019, new Wildlife Act Regulations came into effect that required Diavik to submit a Wildlife Management and Monitoring Plan (WMMP) for approval by the Minister of ECC. DDMI submits a Wildlife Monitoring and Management Report annually that follows the objectives and programs described in the WMMP. In October 2023 GNWT-ECC began using the WLWB Online Review System as the way to submit comments and recommendations on Diavik's annual Wildlife Management and Monitoring Program reports.

The study area for Diavik includes the East Island of LdG (where the mine is located), the West Island, and an L-shaped, 1,200 km² portion of the mainland south of the mine. The main species studied are barren-ground caribou, grizzly bear, and wolverine, as well as the plants these animals eat.

REVISIONS TO WILDLIFE MANAGEMENT AND MONITORING PLAN (WMMP)

In July 2022, ECC approved Diavik's WMMP with seven conditions to be addressed in a revised Plan within 90 days. Diavik submitted a revised plan in October 2022. EMAB and TG provided comments. On October 20, 2023, ECC informed DDMI that two conditions were still outstanding - Condition #1 had been only partially met, and Condition #6 remained unmet. ECC directed DDMI to address both outstanding conditions by December 31, 2023. Condition #6 was resolved in March 2024 following discussions between EMAB, ECC, Diavik, and TG. Condition #1 remains outstanding at the time of writing.

CONDITION #1 – ZOI ANALYSIS

Condition #1 directed DDMI to submit a detailed description of their proposed Zone of Influence (ZOI) analysis methods at least 6 months prior to the submission of the comprehensive WMMP report in 2023. The ZOI is important because it identifies how far from the mine caribou are affected by Diavik. In ECC's October 20, 2023 letter, ECC stated they were mostly satisfied with DDMI's proposed ZOI analyses submitted in February 2023. ECC noted that they, as well as EMAB and TG, had additional comments and recommendations that DDMI must address before the condition is approved (note that TG's comments were delayed due to the wildfire evacuation in summer of 2023). ECC did not include a timeline in their letter. DDMI's 2023 WMMR (submitted June 27, 2024) incorrectly indicated Condition 1 had been fulfilled. On July 8, 2024, EMAB staff contacted ECC to inquire further and found that DDMI had never

submitted the revised WMMP as directed, and that Condition 1 was unmet. DDMI stated they would submit the revised WMMP (with ZOI analysis) by July 30, 2024. EMAB will review Diavik's submission when we receive it.

CONDITION 6 – CARIBOU BEHAVIOUR

Condition #6 directed DDMI to collaborate with EMAB on improving the caribou behaviour monitoring program (using both group scans and focal observations) to determine if caribou behaviour changes with distance from the mine. This Condition is a result of DDMI's decision to replace visual caribou behaviour monitoring with GPS collar data only, without consulting EMAB. ECC held a meeting with EMAB, DDMI, and TG on December 4, 2023 to resolve the condition. DDMI stated that there were logistical and safety concerns with doing the visual scans, as they involve staff going out in very cold weather via helicopter or snowmobile to look at caribou. EMAB



suggested using audiloggers – small devices that can be attached to a GPS collar that collect an audio recording and the speed and direction the animal is going. This could be a way to collect meaningful behaviour data without the need for DDMI staff to do far-field scans in potentially unsafe conditions. EMAB's intern Megan Perra, a PhD student at State University of New York, attended the meeting to explain this approach. (see section below)

Parties did not reach consensus on whether group-scan behaviour monitoring should continue near and far from the mine, or whether collar-based monitoring is an adequate replacement for group scans. As follow-up, EMAB and TG both agreed to provide their views and rationale for DDMI to continue near-mine group-scan behaviour monitoring for the remainder of the operations phase and into the closure phase, including the monitoring questions that it would be used to address, as well as providing further input on caribou behaviour monitoring.

A second meeting was held on January 31, 2024 to try to come to a final decision. No Party had changed their position and at the end of the Jan 31st meeting, ECC proposed that DDMI drop the far-field monitoring but continue with near-field monitoring to compare pre and post closure. ECC also noted that the audilogger approach should be considered.

On March 5, 2024, ECC directed DDMI to revise the WMMP by including near-mine group behaviour scans to address a new wildlife effects monitoring objective of comparing near-mine caribou behaviour during operations, closure and post-closure phases of the mine. ECC also directed DDMI to continue using collar data to see whether caribou behaviour changes with distance to the mine.





Caribou at Diavik

AUDIOLOGGER RESEARCH

EMAB's intern, Megan Perra, will attach audiloggers to 20 new GPS collars on caribou from the Bathurst, Bluenose East, and Beverly herds in 2024, 2025, and 2026. The purpose of the project is to see caribou react to different disturbances in their environment, like predators, insects, and human activities, especially near the Diavik mine. EMAB suggested that Diavik look closely at audilogger data as an alternative to far-field group scans.

The collars will be put on in March each year and drop off automatically in September. The audiloggers can record for 50-60 days and capture all the sounds around the animal – from chewing to digestive noises to environmental sounds (such as vehicles) and trotting, to give a picture of what the caribou is doing. The collars also have an accelerometer in them that records fine movement detail such as when the caribou leans down to feed. Researchers collect the audiloggers when they fall off and are able to look at all the data they collected while the animal was wearing it.

Audiloggers are useful because:

- They show how caribou react to sudden noises, like mining activity, by measuring their movements and posture in real time.
- They help to compare the behavior of caribou close to the mine and those further away.
- They provide insights into caribou health by tracking their eating habits and digestion.

Group scans focus on the Diavik area, as using vehicles like skidoos or helicopters can scare the animals away. Combining audiloggers with group scans helps us gather data on caribou behavior, whether or not the collared ones are near the mine

This project is part of the NWT Cumulative Impact Monitoring Program and is funded by several organizations, including the National Science Foundation.

2022 WMMP REPORT

Diavik submitted their 2022 Wildlife Monitoring Report to ECC on May 1, 2023. EMAB had MSES complete a technical review of the report. EMAB submitted four recommendations. ECC also provided comments.

EMAB RECOMMENDATION: Can DDMI clarify how much new data was available for analysis since the 2022 Addendum was completed? How many times did geo-fenced collared caribou come within 3 km of the mine? How many collared caribou came within 30 km of the mine?

DIAMIK RESPONSE: A total of 78 collared caribou came within 30 km of the mine between November 2021 and December 2022. Further, 21 caribou came within 3 km of the mine between November 2021 and December 2022.

EMAB RECOMMENDATION: We recommend continuing the collection of ground-based behaviour data to support the inferences about behaviour made from the geo-fenced collar data.

DDMI RESPONSE: DDMI will meet with the GNWT-ECC and EMAB regarding the status of behaviour monitoring by DDMI.

2023 WMMP REPORT

Diavik submitted their 2023 Wildlife Monitoring and Management Report to ECC on July 4, 2024. EMAB had Roam Ecology complete a technical review, and submitted six recommendations. At the time of writing the review process was still ongoing, and Diavik had not yet responded. ECC also provided one recommendation.

EMAB RECOMMENDATION: Has DDMI examined within-individual variation in movement behaviour metrics with distance from the mine? Please discuss if individual caribou movement metrics vary with distance from the mine.

EMAB RECOMMENDATION: We recommend displaying a summary of annual amounts of waste rock and number of people on site (e.g. Camp Population – Appendix L) in order to more clearly understand interannual variation in these mine activity indices.

EMAB RECOMMENDATION: The methods used for the near mine behaviour scans is adequate, but we recommend exploring the potential use of other data collection tools (e.g. audiloggers on caribou collars) to collect far from the mine behaviour data.

ENVIRONMENTAL AIR QUALITY MONITORING PROGRAM

Diavik's Environmental Air Quality Monitoring Program (EAQMP) started in 2012. The program is required by the EA, but is not required by the water licence, or reviewed/approved by the WLWB. Diavik submits an EAQMP report annually to EMAB and the GNWT for review.



Bearberry growing at the TK camp

2022 EAQMP ANNUAL REPORT

EMAB received Diavik's 2022 EAQMP Report in July 2023. EMAB had Arcadis complete a technical review of the annual report, and submitted one recommendation to Diavik in November 2023. We are not aware of any other comments on the 2022 EAQMP. EMAB's recommendation on Diavik's 2022 EAQMP is on our website: www.emab.ca.

SUMMARY OF KEY EMAB RECOMMENDATIONS

Diavik calculates air emissions as part of the EAQMP for both Environment and Climate Change Canada's (ECCC) National Pollutant Release Inventory (NPRI) and Greenhouse Gas Reporting Program (GHGRP). Diavik shares the results of their calculations in the report, but does not show the inputs or calculations that led to that result. Therefore, EMAB is unable to verify the accuracy of Diavik's reported numbers.

EMAB RECOMMENDATION: Diavik should show all its work in deriving the numbers for NPRI and GHG calculations (inputs and calculation methodology).

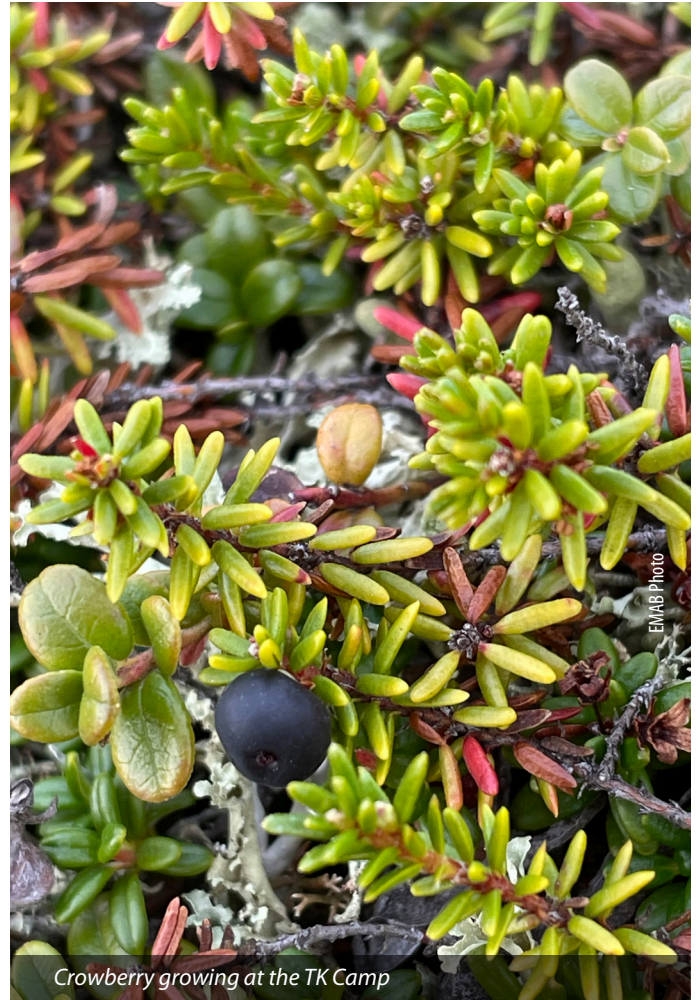
DIAVIK RESPONSE: Diavik has already provided sufficient information to EMAB regarding the NPRI and GHG calculations.

MINISTERIAL REVIEW OF EAQMP

EMAB requested the Minister investigate Diavik's Air Quality Monitoring Program (EAQMP) on July 31, 2020. Our technical analysis showed the program was inadequate. The Minister committed to reviewing Diavik's EAQMP in response to EMAB's concerns. EMAB's main concern was Diavik's removal of the total suspended particulate (TSP) monitoring component.

In 2021, GNWT-ECC informed EMAB they would develop an Ambient Air Quality Monitoring Guideline for diamond mines in the NWT, so there would be clear criteria to

compare to Diavik's monitoring program. After the Guideline was completed, the GNWT compared Diavik's EAQMP against the Guidelines and found the Plan inadequate in July 2023. The GNWT were going to issue a Minister's Report. Then, Diavik approached EMAB for collaboration on updating the EAQMP, to improve the program to avoid a Ministerial review of the EAQMP. Diavik also sent a letter to the GNWT requesting the Minister's Review be paused to provide time for EMAB and Diavik to work together to revise the EAQMMP.



Crowberry growing at the TK Camp

EMAB Photo

EMAB initially agreed to collaborate on Jan 9'24, and provided Diavik with suggestions on how to improve the Plan. Diavik responded stating they were still awaiting confirmation on whether EMAB was willing to collaborate, and did not respond to any of EMAB's suggestions.

Given how long the EAQMMP review had been ongoing, the lack of meaningful response to our Jan 9th letter, and the lack of a clear path forward, EMAB declined further collaboration with Diavik, and recommended Diavik revise the EAQMMP to meet the GNWT Guidelines. The GNWT proceeded with the Ministerial review. After comparing Diavik's EAQMMP with the Guideline, the EA, and the CSR the Minister determined it was inadequate (Minister's Report-Diavik Environmental Air Quality Monitoring and Management Plan Version 2, May 9th, 2024), and directed Diavik to make the following revisions:

1. Start monitoring TSP and fine particulate matter, and provide solid data to prove monitoring TSP is unnecessary.
2. Complete dustfall monitoring more often (every 30 days).
3. Start monitoring NO₂, and encouraging monitoring of SO₂; use proper sampling methods as required by the Guideline.
4. Report weather data, including data completeness statistics.
5. Improve reporting.
6. Consider updating its 2012 "dispersion model" to verify assumptions.

The GNWT gave Diavik 60 days to respond by either revising the current EAQMMP, submitting a replacement EAQMMP, or providing a detailed reply why it believes the EAQMMP does not need to be revised or replaced. The GNWT had several meetings with Diavik, and granted three extensions for completion of the revised Plan. Now, Diavik must submit the revised EAQMMP by November 15, 2024. When it is submitted EMAB will review it and provide comments.

YELLOW HAZE

EMAB has raised concerns about the yellow haze over Diavik during the cold winter months for several years. In March 2020, EMAB recommended Diavik sample the yellow haze. Diavik responded that they were unaware of a yellow haze phenomenon, and that they have not seen a yellow haze over the mine. Diavik noted that they monitor air quality and effects of air emissions on vegetation and have not found any significant effects.

EMAB's technical experts at Arcadis have reviewed the issue. They say it's likely that the yellow haze is due to air pollution related to combustion (nitrogen oxides from vehicle exhaust, generators, boilers etc.) during temperature inversion conditions.

WHAT ARE TEMPERATURE INVERSIONS ?

Temperature inversions happen during calm periods in the winter, where heat from the sun warms the air near the ground. Overnight, the ground temperature drops, and the warm air is replaced with cold air. The warmer air rises and acts like a lid, trapping the cool air, and any pollution, like vehicle exhaust. This layer of warmer air is called an inversion layer.

EMAB recommended Diavik sample for nitrogen dioxide (NO₂) and do a visual confirmation to know which sampling dates took place during a yellow haze event. This way Diavik can compare data from yellow haze events to data from when there is no yellow haze.

While the Ministerial decision directed Diavik to start monitoring NO₂ and SO₂ (the gases that are suspected to be responsible for the yellow haze), it did not address visual confirmation monitoring as EMAB had previously recommended.

EMAB **will follow up** with GNWT-ECC and Diavik to recommend that, in addition to monitoring NO₂ and SO₂, photos of the mine should be taken on sampling days, to see if there is a pattern between detected NO₂/SO₂ levels and the visual presence of yellow haze.

ENVIRONMENTAL AGREEMENT ANNUAL REPORT

As part of the EA, Diavik must submit an Annual Report to the Parties, the Government of Nunavut, and EMAB. The Environmental Agreement Annual Report (EAAR) must be approved by the Minister. The purpose of the EAAR is to summarize the mine's activities and results of the environmental monitoring programs from the past year.

Diavik submitted their draft 2022 EAAR on July 17, 2023. EMAB reviewed the report and submitted 15 comments and recommendations. All comments and recommendations can be found on EMAB's website.



EMAB Photo

Lac de Gras from the TK Fish Camp site

KEY EMAB COMMENTS AND RECOMMENDATIONS:

- EMAB strongly recommends that Diavik place special emphasis on these outstanding issues regarding the Traditional Knowledge Fish Camp in the 2022 EAAR. Transparently addressing these matters and demonstrating proactive measures to resolve them will communicate Diavik's dedication to honoring Traditional Knowledge and fostering positive relationships with the involved communities.
- The 2022 WMMP states that Diavik plans to discontinue group scans for caribou behavior monitoring in 2023. EMAB disagrees with Diavik's proposal to end the group scans. EMAB recommends that any alternative methods, such as geofence collar analysis, should take place in addition to the existing behavior monitoring requirement. It is EMAB's understanding that ECC has not approved Diavik's proposed discontinuation of caribou behaviour monitoring – this should be noted in the report.
- EMAB recommends Diavik elaborate on its discussions with EMAB regarding the TK Panel Governance.
- The draft 2022 EAAR discusses the discontinuation of TSP monitoring and states that "In 2019, Diavik determined that continued TSP monitoring was not a valuable component of the air quality monitoring initiatives at the Diavik mine". EMAB is still in disagreement with Diavik's stance on TSP monitoring, and believes TSP monitoring should be mandatory

Diavik sent back a revised EAAR on October 19, 2023 to EMAB and the Minister. EMAB stated that most of our comments had been adequately addressed while noting three outstanding items.

MINISTER DECISION: On January 18, 2024 the Minister determined that the 2022 EAAR was satisfactory.

REPORT CARD ON DIAVIK AND THE REGULATORS

EMAB's mandate includes oversight of the regulatory process. This section summarizes how Diavik and other Parties have responded to EMAB recommendations. It also summarizes the level of engagement of the various regulators responsible for the Diavik file.

WATER LICENCE

Diavik's responsiveness to EMAB recommendations last year has been good with respect to issues related to its water licence, including closure planning. Diavik has responded promptly and thoroughly to EMAB's recommendations as made through the WLWB review process.

Regulator responses to Diavik's requests and reports has been variable (see Table of Reviewer Responses below).

Since 2015 EMAB has been expressing concern about the involvement of two key federal government departments in the review of monitoring reports and management plans related to Diavik's Water Licence. EMAB's view is that both the Department of Fisheries and Oceans, and Environment and Climate Change Canada have an important role to play in providing oversight on Diavik's impact on the air and water in the Diavik mine area. EMAB has recommended ECCC, and DFO in particular, be more active in making comments and recommendations. EMAB continues to be disappointed by DFO's lack of substantive comment on reports that bear on the health of fish and fish habitat.

EMAB sent a letter to DFO in March 2024 stating that their perspective is valuable in assessing Diavik's aquatic management and monitoring, and encouraging them to provide comments on all management and monitoring plans and reports that relate to potential concerns or impacts on fish health or fish habitat related to the Diavik

mine, regardless of whether these might result from a "deleterious substance" or not. We also noted our view that it is an important part of the co-management system that DFO contribute their expertise to the review process for plans and reports required by the water licence. We did not receive a response from DFO.

DFO did not comment on any of the five documents listed in the Table of Reviewer Responses.

EMAB notes that DFO has an ongoing process to implement the amended Fisheries Act and it is our hope that this renewed interest will also result in greater DFO engagement in reviewing reports from Diavik under their Water Licence.

This year ECCC commented on one of the reports listed.



Board member inspecting pond near MAH fuel spill area in June 2024

Report	Reviewer Responses			
	ECCC	DFO	ECC	EMAB
FCRP – Updated security information	No comment	No comment	Commented	Commented
2022 AEMP Report	Commented	No comment	Commented	Commented
PKC Updated Design	No comment	No comment	Commented	Commented
Water Licence Amendment – Natural Drainages Undertakings and draft licence	Commented	No comment	Commented	Commented
2020-22 AEMP Re-evaluation Report	No comment	No comment	Commented	Commented

The Inspector visited the Diavik mine site twelve times during the year. The Inspector made one presentation to EMAB throughout the year on the results of the inspections. The Inspector did not comment on any water licence reports.

ECC Waters commented on all the reports we looked at and fully participated in follow-up to the Natural Drainages Water Licence Amendment Proceeding. We commend their continued thorough and substantive reviews of the Diavik Water Licence plans and reports.

Similarly, the WLWB consistently provides detailed reviews of all documents submitted by Diavik for review.

We note that the WRRB has made submissions on a number of water licence report reviews stating that they had no comments.

Photo: Pond 2 Breach Progress

WLWB has reduced the time period for reviews, which has occasionally made it difficult for EMAB to engage consultants, provide adequate time for consultants to undertake technical reviews, receive and review technical reviews from consultants and approve them for submission to WLWB. In general the WLWB has accommodated EMAB where review period extensions

were required, but in some cases the review periods have been too short to allow EMAB to make an adequate response. EMAB is particularly concerned that shorter review periods also make it more difficult for organizations with limited capacity to make comments, particularly small communities.

WILDLIFE MONITORING

In October 2023 GNWT started using the WLWB Online Review System as the way to submit comments on annual Wildlife Management and Monitoring Program reports, as they had committed the previous year. We hope this will address the occasional issue of lack of timelines for responses. Diavik has responded to these reviews in a timely manner.

- Diavik did not respond to comments from EMAB, TG and ECC on their proposed ZOI analysis methods as directed by ECC; however ECC did not provide a timeline for Diavik's response.
- Diavik did not approach EMAB to collaborate on improving the caribou behavior monitoring program as directed by ECC as Condition 6 of its approval of Diavik's WMMP. Diavik did participate in a meeting convened by ECC in December 2023 to discuss the program.

ECC-Wildlife involvement with Diavik's wildlife monitoring was improved in 2023.

- ECC reviewed the 2022 WMMP report.
- ECC followed up on Diavik's ZOI Analysis Methods a year after they were submitted, and followed up on Diavik's required WMMP revisions again in March 2024 and July 2024.

AIR QUALITY MONITORING

Diavik's response to EMAB's recommendations on the air quality monitoring report continued to be satisfactory in 2023-2024, following implementation of EMAB's new recommendation tracking system. Diavik submitted the 2022 EAQMP report and EMAB's review is discussed earlier in this report. EMAB made 3 recommendations and Diavik's response was within the 60 day period required by the EA.

EMAB is not aware of ECC making comments to Diavik on the 2022 EAQMP report.

As reported in previous EMAB Annual Reports, EMAB requested the Minister investigate whether Diavik's Air Quality Monitoring Program was adequate. This request was made in July 2020. ECC finalized an Air Quality Guideline in early 2023 and has completed a draft of its investigation of Diavik's air quality monitoring program. EMAB initially accepted Diavik's offer to collaborate with them on revisions to the air quality monitoring program, and submitted a number of suggestions. Diavik's response did not address any of the suggestions and EMAB decided not to collaborate further, and stated that the Ministerial review should continue. GNWT has met with Diavik a number of times and has extended Diavik's response deadline three times, most recently to November 15, 2024. In EMAB's view these revisions to the EAQMMP have been delayed far too long and we hope that Diavik will submit a satisfactory revised EAQMMP by the November 15th deadline.

INSPECTOR'S AUTHORITY TO GIVE DIRECTION

ECC's new approach to legislative updates means that any change to section 67(1) of the Waters Act will continue to be delayed. We believe the changes previously proposed by ECC would resolve our concern about possible limitations on the Inspector's authority to give direction to Diavik in the current wording of the Act. We trust that ECC will advance this change as soon as reasonably possible (see 2016-17 Annual Report for details on this issue).



COMMUNICATIONS

ANNUAL GENERAL MEETING (AGM)

Each fall, we hold our AGM in our Yellowknife office boardroom. Parties to the Environmental Agreement are invited to attend and provide input on EMAB's activities and direction. In 2023, EMAB's AGM took place in October. We held our AGM through a combination of virtual and in-person participation. The Executive were: Charlie Catholique -Chair, Marc Whitford- Vice Chair (elected in February 2024) and Violet Camsell-Blondin - Secretary-Treasurer. Jack Kaniak was Vice-Chair until May of 2023, when he passed away.

EMAB DIRECTORS

EMAB Directors are one of the main ways EMAB communicates with Affected Communities. Our Directors are responsible for updating communities on what is going on at Diavik and bringing any concerns and questions about the environment at Diavik back to EMAB.

COMMUNITY MEETINGS

As discussed in the section on Involving and Supporting Communities, EMAB holds public updates in the communities of the Aboriginal Parties. The goal is to keep people informed and allow them to ask questions and voice opinions and concerns. We did not hold any community updates in 2023-2024.

PUBLIC LIBRARY

EMAB is responsible for making sure that people have access to materials that relate to the Environmental Agreement. Anyone interested can visit our office and access plans and reports, expert reviews, correspondence,



Board meeting minutes, maps and images. Our office hours are 9:00 a.m. – 5:00 p.m. Monday to Friday. Much of our information is also available on our website, www.emab.ca.

WEBSITE

EMAB's website is another way for EMAB to reach out to the people. We use our website to post our comments and recommendations on Diavik's WMMP and EAQMP reports. We also post EMAB Annual Reports, Diavik's EAARs, meeting minutes and correspondence. FCRP/ICRP and AEMP comments can be found on the WLWB public registry. You can visit us at our website, www.emab.ca and our Facebook page, facebook.com/EMAB2015.

ANNUAL REPORT

EMAB circulates its annual report and a plain language summary to all Parties to the Environmental Agreement, as well as key leaders in the Affected Communities and throughout the NWT.

BROCHURE AND POSTER

EMAB has a brochure and poster summarizing our work. These are available on request.

EMAB GOVERNANCE AND OPERATIONS

Courtesy of Diavik Diamond Mine

The Board met six times in 2023-2024 as a combination of face-to-face meetings and teleconferences. The Annual General Meeting took place October 10, 2023. The Board passed 30 email motions over the year.

Jack Kaniak, the Kitikmeot Inuit Association (KIA) member passed away in May 2023 - alternate KIA member William Aglukkaq filled the vacancy, during the period until KIA appoints a new member. Yellowknives Dene First Nation appointed Sean Erasmus to the Board in July 2023, replacing Ryan Miller, who became the Alternate. Gord Macdonald was the Diavik Diamond Mines member until December 2023, when Diavik decided to declare its member and alternate positions vacant. The Government of Canada member position remained vacant.

EVACUATION

On August 16, 2023 the GNWT declared an evacuation order for Yellowknife due to approaching wildfires. Staff

immediately evacuated as ordered, and all work in the office ceased. During the evacuation period staff checked email and dealt with time-sensitive items. With the WLWB and GNWT largely shut down, and staff located in Alberta, and Yellowknife evacuated, the AGM and meeting planned for early September was postponed until early October. The evacuation order was lifted on September 6 and the office re-opened September 11.

BUDGET AND FINANCE

EMAB's budget for 2023-2024 was \$635,312; EMAB spent \$513,671 during the year. We received an initial payment of \$563,100 as well as a carry-forward of \$34,588 from the previous year. We also received \$61,212 of additional funds to cover unanticipated costs for the Natural Drainages Water Licence Amendment review, follow-up technical reviews of the Final Closure and Reclamation Plan, and a technical review of a revised PKC Closure Design.

EMAB negotiates its budget with Diavik every two years, for the following two years. At the end of the two-year period we must return any surplus to Diavik, except as agreed with Diavik. The Environmental Agreement says that EMAB will try to keep any budget increases to the rate of inflation. EMAB recommends a budget to Diavik that we both have to agree on. If we can't agree Diavik submits its own proposed budget to the Minister and he can choose EMAB's or Diavik's. EMAB will recommend our two-year budget for 2025-2027 to Diavik in September 2024.

DIAVIK SITE VISIT

Board members and staff toured the Diavik site in June 2023. We were able to see a great deal of work on:

- Progressive reclamation of the North Waste Rock Storage Area where much of the cover had been placed and smoothed.
- Work on the cover on the PKC (about a quarter of the area had been covered) and construction of the new spillway.
- The locations of many of the proposed collection pond dam breaches.
- The South Country Rock pile (sides are very steep and rough, not good for caribou access).
- The pipeline directing processed kimberlite from the processing plant to the A418 pit.
- The storage area for contaminated soil (some landfarming to treat the contamination has started).

ACTION PLAN / FUTURE ROLE OF EMAB

EMAB finalized and adopted an Action Plan for 2019-24 during 2019. Much of the plan aims at continuing EMAB's ongoing approach of focusing on technical reviews of key Diavik plans and reports, and keeping Affected Communities and others informed about activities at Diavik, and any issues or concerns. Some key changes to the plan include:

- Providing 1-2 page meeting summaries to Parties; these are now sent after each meeting.
- Continuing assessment of Diavik response to TK Panel recommendations; this is ongoing.
- Developing a 1-page summary of the role of EMAB Board members; this is ongoing.
- Addressing potential for conflict of interest at Board meetings through a broader COI policy; EMAB worked with a legal expert, and finalized the policy in 2022.

EMAB conducted a workshop on the Future Role of EMAB in June 2023, that provided recommendations going forward, and will contribute to updating the Action Plan past the completion of operations at the mine. There were four main recommendations:

- EMAB should continue throughout Diavik's closure and post-closure phases until Diavik fulfills its responsibilities under the EA.
- EMAB should focus on improving engagement with Affected Communities.
- EMAB should seek out more opportunities to convene or assist the Parties to cooperate.
- EMAB should support work to establish a TK Monitoring Plan for closure.

EMAB finalized the report in February 2024 and forwarded the report in March to the EA Working Group established by the Parties.

ENVIRONMENTAL AGREEMENT

The Environmental Agreement (EA) applies while the mine is producing diamonds, and until full and final reclamation and abandonment, including completion of post-closure monitoring and maintenance. Once the mine stops production, in early 2026, the Minister can consult with the Parties and decide to reduce Diavik's duties under the EA as much as he feels is reasonable. The Minister can also set a schedule for winding EMAB down at that time.

EMAB's view is that the Board should continue to operate until closure is completed successfully. Board members are thinking about how EMAB's role will change during closure. We have contacted the Parties to find out whether they agree that EMAB should continue. So far four Parties have said they support EMAB continuing and we have not heard back from the other four.

In August 2022 Diavik requested the Minister start consultations on what will happen with EMAB and the EA after production stops. The Minister said his consultation will start after Diavik finishes producing diamonds, and suggested that Parties could make proposals about changes to the EA for discussion, before then.

In January 2023 Diavik invited the Parties to meet to discuss possible changes to the EA after closure, and especially to discuss a TK Monitoring Plan for Closure. The discussions led to forming two Working Groups:

- A TK Working Group to develop a TK Monitoring Plan for Closure with Diavik organizing the first meeting.
 - › The TKWG has met several times since and are developing a Terms of Reference and a job description for an Executive Director and a Framework for TK Closure Monitoring
- An EA Working Group (EAWG) to consider possible updates to the EA.
 - › EMAB has forwarded our report on the Future Role of EMAB to the EAWG.

GNWT proposed amendments to the EA in 2013 to reflect the transfer of powers from Canada to GNWT under devolution. This process appears to be on hold and GNWT is considering whether to continue to pursue it.

OPERATIONS

Mohannad Elsalhy was EMAB's Environmental Specialist until October; Allison McCabe replaced him in October 2023. John McCullum has been the Executive Director since November 2015.

EMAB's Operations Manual was reviewed and updated.

WHAT ARE EMAB'S PLANS

Our priorities for 2024-25 are Diavik's closure plan developments and the follow-up to Diavik's Natural Drainages Water Licence Amendment, including the revised Surface Water Action Level Framework and plume studies for breaching Collection Ponds 2 & 7. Another priority will be Diavik's Water Licence Renewal Application, expected in late 2024 or early 2025. Diavik's current water licence expires at the end of 2025. EMAB will continue to work with Diavik and the other Parties to plan for the transition from operational mine to closure. Other planned activities include the following.



Board chair inspecting pond near MAH fuel spill site

EMAB Photo

OVERSIGHT AND MONITORING

- Review Diavik's upcoming Water Licence Renewal Application. Diavik has indicated it plans to submit a Water Licence Renewal application for the closure period towards the end of 2024-25. EMAB will review this application in detail and participate in any proceeding to assess the application and make recommendations about the licence.
- Continue to participate in ENR Ministerial investigation of adequacy of current Environmental Air Quality Monitoring Program.
- Continue to track Wildlife Management and Monitoring Program revisions submitted to ENR by Diavik.
- Continue participation in GNWT initiative to develop regulations for the Public Lands Act.
- Continue participation in ECC initiative to revise environmental legislation including the Waters Act and Environmental Protection Act.
- Continue to monitor and participate in development of GNWT policy on security and long-term liability and monitoring for closed mine sites.
- Continue monitoring the January 16, 2024 fuel spill clean-up.

Review the following reports:

- 2023 AEMP Annual Report.
- 2023 Annual WMMP Report.
- 2023 EAQMP Report.
- FCRP Revisions.
- 2023 EAAR.

ABORIGINAL AND COMMUNITY INVOLVEMENT

- Engage Communities through Board members and community update meetings.
- Assess implementation of TK Panel Recommendations including assessment of Diavik response and follow-up.

- Provide recommendations on development of TK Closure Monitoring Plan.
- Observe 2024 TK Fish Camp.

COMMUNICATIONS

- Annual Report
- Website
- Public Registry
- Facebook Page
- Meeting Summaries

GOVERNANCE

- Hold regular meetings.
- Oversee EMAB operations.
- Review and continue to implement Action Plan for 2019-24, taking into account outcome of workshop on Future Role of EMAB.
- Prepare and submit recommended two-year budget for 2025-2027.



TK Fish Camp participants processing lake trout

AUDITED FINANCIAL STATEMENTS

Statement I

ENVIRONMENTAL MONITORING ADVISORY BOARD
Statement of Operations
For the year ended March 31, 2024

	2024 Budget	2024 Actual	2023 Actual
Revenues			
Diavik Diamond Mines Inc.	\$ 563,100	\$ 573,100	\$ 484,711
Transfer to deferred revenue - annual surplus	-	(75,655)	144,987
Transfer to (from) deferred revenue	61,212	(51,212)	61,777
Contributions repaid (repayable)	(12,375)	51,212	(61,777)
Interest income	11,000	12,011	3,898
	<u>622,937</u>	<u>509,456</u>	<u>633,596</u>
Expenditures			
Amortization	-	4,215	3,484
Administration, Schedule 1	70,905	68,391	72,930
Management services, Schedule 2	213,810	213,684	216,471
Governance, Schedule 3	130,915	116,982	124,140
Oversight and monitoring, Schedule 4	170,077	101,678	211,822
Involving and supporting communities, Schedule 5	26,530	-	-
Communications, Schedule 6	10,700	8,721	8,233
	<u>622,937</u>	<u>513,671</u>	<u>637,080</u>
Deficit before transfer of capital items	-	(4,215)	(3,484)
Other item			
Transfer to tangible capital asset fund	-	4,215	3,484
Surplus for the year	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>



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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of

Environmental Monitoring Advisory Board

Opinion

We have audited the financial statements of Environmental Monitoring Advisory Board, which comprise the statement of financial position as at March 31, 2024, and the statements of operations, changes in net assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other schedules and supplementary information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the organization as at March 31, 2024, and its results of operations and its cash flows for the year then ended in accordance with Accounting Standards for not-for-profit Organizations (ASNPO).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the organization in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with ASNPO, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the organization's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the organization or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the organization's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

INDEPENDENT AUDITOR'S REPORT, continued

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the organization's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the organization's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the organization to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

EPR Yellowknife Accounting Prof. Corp.

Yellowknife, NWT

October 16, 2024

EPR Yellowknife Accounting Professional Corporation

Chartered Professional Accountants

Statement II

ENVIRONMENTAL MONITORING ADVISORY BOARD
Statement of Changes in Net Assets
For the year ended March 31, 2024

	Operating Fund	Tangible Capital Asset Fund	Total 2024	Total 2023
Balance, opening	\$ -	\$ 14,051	\$ 14,051	\$ 17,535
Surplus	-	-	-	-
Amortization	(4,215)	-	(4,215)	(3,484)
Transfer from operating fund	4,215	(4,215)	-	-
Balance, closing	\$ -	\$ 9,836	\$ 9,836	\$ 14,051

Statement IV

ENVIRONMENTAL MONITORING ADVISORY BOARD
Statement of Cash Flows
For the year ended March 31, 2024


	2024	2023
Operating activities		
Surplus	\$ -	\$ -
Change in non-cash working capital items		
Decrease (increase) in prepaid expenses	615	(4,269)
(Decrease) increase in accounts payable and accrued liabilities	(69,481)	81,794
Increase (decrease) in deferred revenue	143,366	(60,375)
(Decrease) increase in contributions repayable	(61,777)	61,777
Increase in cash	12,723	78,927
Cash, opening	746,448	667,521
Cash, closing	\$ 759,171	\$ 746,448

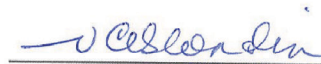
ENVIRONMENTAL MONITORING ADVISORY BOARD
Statement of Financial Position
As at March 31, 2024

Statement III

	2024	2023
ASSETS		
Current		
Cash	\$ 13,945	\$ -
Prepaid expenses	4,932	5,547
Restricted cash (Note 3)	745,226	763,179
	764,103	768,726
Tangible capital assets (Note 4)	9,835	14,050
	\$ 773,938	\$ 782,776
LIABILITIES		
Current		
Bank indebtedness (Note 5)	\$ -	\$ 16,731
Accounts payable and accrued liabilities (Note 6)	47,637	117,117
Deferred revenue (Note 7)	716,466	573,100
Contributions repayable (Note 8)	-	61,777
	764,103	768,725
NET ASSETS	9,835	14,051
	\$ 773,938	\$ 782,776

APPROVED ON BEHALF OF THE BOARD

 Member

 Member

1. ORGANIZATION AND JURISDICTION

Environmental Monitoring Advisory Board (the "Board") is a not-for-profit organization established as a requirement of the *Diavik Environmental Agreement*. It aims to provide a meaningful role for Aboriginal People in the review and implementation of environmental monitoring plans with respect to the Diavik Diamond Mine site in the Northwest Territories. The Board will be in place until full and final reclamation of the mine is complete.

The Board is exempt from income tax under section 149(1)(l) of the *Income Tax Act*.

2. SIGNIFICANT ACCOUNTING POLICIES

The Board applies the Canadian accounting standards for not-for-profit organizations.

(a) Financial instruments

The Board initially measures its financial assets and liabilities at fair value. The Board subsequently measures its financial assets and financial liabilities at amortized cost, except for securities quoted in an active market, which are subsequently measured at fair value.

Financial assets measured at amortized cost include cash and restricted cash. Financial liabilities measured at amortized cost include accounts payable and accrued liabilities.

At the end of each reporting period, management assesses whether there are any indications that financial assets measured at cost or amortized cost may be impaired. If there is an indication of impairment, management determines whether a significant adverse change has occurred in the expected timing or the amount of future cash flows from the asset, in which case the asset's carrying amount is reduced to the highest expected value that is recoverable by either holding the asset, selling the asset or by exercising the right to any collateral. The carrying amount of the asset is reduced directly or through the use of an allowance account and the amount of the reduction is recognized as an impairment loss in operations. Previously recognized impairment losses may be reversed to the extent of any improvement. The amount of the reversal, to a maximum of the related accumulated impairment charges recorded in respect of the particular asset, is recognized in operations.

(b) Fund accounting restricted

The Board uses fund accounting to segregate transactions between its Operating Fund and Tangible Capital Asset Fund. The Operating Fund accounts for the Board's operating and administrative activities. The Tangible Capital Asset Fund reports the assets, liabilities, revenues and expenses related to tangible capital assets.

(c) Tangible capital assets

Tangible capital assets are recorded at original cost plus any costs of betterment less accumulated amortization and excludes any assets not in current use. Amortization is calculated when the tangible capital assets are ready in use by the declining balance at rates set out in note 4.

(d) Revenue recognition

The Board follows the deferral method of accounting for contributions. Restricted contributions are recognized as revenue in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and its collection is reasonably assured. Contributions which are not expensed in the current year are set up as deferred funding to be used in the future year when services are provided and goods acquired or refundable contributions that must be repaid to the contributor. Interest income is recognized on the basis of the time funds are in the account and interest is accrued.

ENVIRONMENTAL MONITORING ADVISORY BOARD
Notes to the Financial Statements
March 31, 2024

2. SIGNIFICANT ACCOUNTING POLICIES, continued

(e) *Unexpended funds*

On January 16, 2011 an Arbitration Award findings resulted in a change in accounting policy for the recognition and treatment of unexpended funds. Previously the Board classified the unexpended funds as unrestricted net assets. Beginning in 2011, unexpended funds are classified as net unexpended contributions repayable or deferred revenue. The Board may not accumulate unrestricted net assets from unexpended Diavik Diamond Mines Inc.

(f) *Allocated expenses*

The Board allocates expenditures according to its activities. Expenditures are allocated to Administration, Management Services, Board, Science Program, Involving and Supporting Communities and Communication.

(g) *Cash and cash equivalents*

Cash and cash equivalents consist primarily of cash in chequing account and restricted cash.

(h) *Use of estimates*

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. By their nature, these estimates are subject to measurement uncertainty. The effect of changes in such estimates on the financial statements in future periods could be significant. Accounts specifically affected by estimates in these financial statements are prepaid expenses, accounts payable and accrued liabilities, deferred revenue and contributions repayable..

3. RESTRICTED CASH

Restricted cash represents cash received from Diavik Diamond Mines Inc. that is intended for a specific purpose or represents the amount to repay.

	<u>2024</u>	<u>2023</u>
Carried forward funding	\$ 166,191	\$ 190,079
Cash received in advance for the 2023/2024 fiscal year	-	573,100
Cash received in advance for the 2024/2025 fiscal year	<u>579,035</u>	<u>-</u>
	<u>\$ 745,226</u>	<u>\$ 763,179</u>

ENVIRONMENTAL MONITORING ADVISORY BOARD
Notes to the Financial Statements
March 31, 2024

4. TANGIBLE CAPITAL ASSETS

	<u>2024</u>		<u>2023</u>	
	<u>Cost</u>	<u>Accumulated amortization</u>	<u>Net</u>	<u>Net</u>
Office equipment	\$ 33,017	\$ 32,749	\$ 268	\$ 382
Furniture and fixtures	24,209	23,785	424	606
Computer equipment	81,575	72,432	9,143	13,062
	<u>\$ 138,801</u>	<u>\$ 128,966</u>	<u>\$ 9,835</u>	<u>\$ 14,050</u>

5. CASH (BANK INDEBTEDNESS)

The bank indebtedness balance represents the excess of outstanding cheques over the balance in the operating account as of the year-end date.

	<u>2024</u>		<u>2023</u>	
Cash in bank	\$ 26,320	\$ 24,192		
Outstanding cheques in excess of cash	(12,375)	(40,923)		
	<u>\$ 13,945</u>	<u>\$ (16,731)</u>		

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	<u>2024</u>		<u>2023</u>	
Trade accounts payable	\$ 35,285	\$ 103,347		
Accrued payroll	11,179	7,529		
Government remittance	1,170	6,241		
	<u>\$ 47,636</u>	<u>\$ 117,117</u>		

7. DEFERRED REVENUE

	<u>Balance, opening</u>	<u>Received</u>	<u>Recognized</u>	<u>Repaid</u>	<u>Balance, closing</u>
Diavik Diamond Mines Inc.	\$ 573,100	\$ 579,035	\$ (497,446)	\$ 61,777	\$ 716,466

ENVIRONMENTAL MONITORING ADVISORY BOARD
Notes to the Financial Statements
March 31, 2024

8. CONTRIBUTIONS REPAYABLE

	<u>2024</u>	<u>2023</u>
Diavik Diamond Mines Inc.	\$ -	\$ 61,777

9. ECONOMIC DEPENDENCE

The Board is dependent upon funding in the form of contributions from Diavik Diamond Mines Inc. Management is of the opinion that if the funding was reduced or altered, operations would be significantly affected. Under the Environment Agreement, \$6M of funds is held to ensure that Diavik Diamond Mines Inc. meets all of its obligations

10. FINANCIAL INSTRUMENTS

Interest rate risk

Interest rate is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Board's financial assets that are exposed to interest rate risk consists of cash and restricted cash. The cash flow from variable rate financial instruments fluctuate as market rates of interest change. The risk has not changed from the prior year.

Credit risk

Credit risk is the risk that a third party to a financial instrument might fail to meet its obligations under the terms of the financial instrument. The Board does have credit risk in cash with a chartered bank in excess of the insurable limit throughout the year. Furthermore, the Board has a concentration risk as the full balance of cash is maintained with a single federally regulated financial institution. This risk has not changed from the prior year.

Liquidity risk

Liquidity risk is the risk that the Board cannot repay its obligations when they become due. The Board does have a liquidity risk in the accounts payable and accrued liabilities. the Board reduces its exposure to liquidity risk by ensuring a budget process is in place and through monitoring of expenses. This risk has not changed from the prior year.

11. COMMITMENTS

The Board is committed to a lease of office space until December 31, 2024. The Board has the option to renew the lease for an additional one-year period ended December 31, 2025 with the same terms and conditions. The lease is payable \$2,470.95 per month per GST and will increase each year by 2%. Future minimum lease payments total \$23,350.48 for fiscal year 2024-2025 and \$31,133.97 for fiscal year 2025-2026.

ENVIRONMENTAL MONITORING ADVISORY BOARD
Schedules of Expenditures
For the year ended March 31, 2024

SCHEDULE OF ADMINISTRATION

Schedule 1

	2024 Budget	2024 Actual	2023 Actual
Audit fees	\$ 8,400	\$ 9,481	\$ 7,726
Bank charges and interest	890	1,125	1,088
Bookkeeping fees	4,500	5,316	4,074
Capital equipment	1,250	-	1,470
Insurance	4,525	5,235	4,498
Janitorial	2,300	1,365	1,371
Office supplies	2,750	2,368	2,970
Postage and freight	550	207	426
Printing and photocopy	1,900	2,128	1,965
Professional fees	1,250	-	3,618
Rent	32,740	32,865	32,251
Repairs and maintenance	1,800	2,010	2,518
Technical support	550	-	-
Telephone and internet	7,300	6,291	8,955
	\$ 70,905	\$ 68,391	\$ 72,930

SCHEDULE OF MANAGEMENT SERVICES

Schedule 2

	2024 Budget	2024 Actual	2023 Actual
Employee benefits	\$ 19,730	\$ 22,678	\$ 15,320
Employer's costs - CPP, EI, WSCC	15,580	14,793	16,811
Professional development	5,500	-	895
Salaries	173,000	176,213	183,445
	\$ 213,810	\$ 213,684	\$ 216,471

ENVIRONMENTAL MONITORING ADVISORY BOARD
Schedules of Expenditures
For the year ended March 31, 2024

SCHEDULE OF GOVERNANCE			Schedule 3
	2024 Budget	2024 Actual	2023 Actual
Accommodations	\$ 9,203	\$ 10,453	\$ 10,812
Annual general meeting	6,072	6,072	1,621
Board of directors training	1,150	-	-
Executive Committee	5,400	5,368	9,070
Honoraria and teleconference	28,696	28,916	33,118
Meeting expenses	1,150	2,019	1,046
Per diems	5,700	5,430	5,710
Preparation	48,044	41,163	47,368
Transportation	12,000	7,261	15,215
Strategic Planning	10,000	10,285	-
Board equipment	1,300	15	180
Schedule #3 expense #17	2,200	-	-
	\$ 130,915	\$ 116,982	\$ 124,140

SCHEDULE OF OVERSIGHT AND MONITORING			Schedule 4
	2024 Budget	2024 Actual	2023 Actual
Aquatic Effects Monitoring Program	\$ 37,000	\$ 12,338	\$ 32,164
Air Quality Management Program	7,200	7,182	6,972
Interim Closure and Reclamation	57,113	44,073	107,642
Other Reviews and Reports	26,624	28,388	45,597
Traditional Knowledge Panel Review	-	-	2,508
Wildlife Monitoring Plan	15,200	9,697	16,939
Water Licence Amendment	5,700	-	-
Mercury in lake trout review	11,240	-	-
Reclamation completion reports	10,000	-	-
	\$ 170,077	\$ 101,678	\$ 211,822

SCHEDULE OF INVOLVING AND SUPPORTING COMMUNITIES			Schedule 5
	2024 Budget	2024 Actual	2023 Actual
Board member consultation honoraria	\$ 3,340	\$ -	\$ -
KIA	6,750	-	-
Lutsel Ke	6,075	-	-
NSMA	1,990	-	-
Tlicho	3,350	-	-
YKDFN	2,565	-	-
Staff attend an annual assembly	2,460	-	-
	\$ 26,530	\$ -	\$ -

ENVIRONMENTAL MONITORING ADVISORY BOARD
Schedules of Expenditures
For the year ended March 31, 2024

SCHEDULE OF COMMUNICATIONS

Schedule 6

	2024 Budget	2024 Actual	2023 Actual
Advertising, public relations and promotions	\$ 1,900	\$ 799	\$ 1,504
Annual report	8,800	7,292	6,099
Website maintenance	-	630	630
	\$ 10,700	\$ 8,721	\$ 8,233

EMAB RECOMMENDATIONS

EMAB RECOMMENDATIONS TABLE APRIL 1, 2023 - MARCH 31, 2024

Response to Information Request - Sewage Sludge

EMAB submitted 5 recommendations to Diavik via the WLWB on the Response to Information Request - Sewage Sludge. Highlights can be found on pages 48-49. The complete list of recommendations can be found on the WLWB Public Registry.

2022 AEMP Annual Report

EMAB submitted 30 recommendations to Diavik via the WLWB on the 2022 AEMP Annual Report. Highlights can be found on pages 28-29. The complete list of recommendations can be found on the WLWB Public Registry.

Water Licence Amendment - Undertakings #18 and #19

EMAB submitted 21 recommendations to Diavik via the WLWB on the Water Licence Amendment: UT #18 -#19. Highlights can be found on pages 35-36. The complete list of recommendations can be found on the WLWB Public Registry.

Water Licence Amendment - Decommissioning – Draft Licence

EMAB submitted 68 comments to Diavik via the WLWB on the WL Amendment - Decommissioning - Draft Licence. Highlights can be found on page 36. The complete list of recommendations can be found on the WLWB Public Registry.

Processed Kimberlite Containment Facility (PKCF) Closure Design Report

EMAB submitted 14 recommendations to Diavik via the WLWB on the PKCF Closure Design Report. Highlights can be found on page 53. The complete list of recommendations can be found on the WLWB Public Registry.

FCRP - Security - Updated Supporting Information - 2022 North WRSA Reclamation Completion Report

EMAB submitted 6 recommendations to Diavik via the WLWB on the 2022 North WRSA Reclamation Completion Report. Highlights can be found on page 54. The complete list of recommendations can be found on the WLWB Public Registry.

2022 Environmental Agreement Annual Report

EMAB submitted 20 recommendations to Diavik on the DRAFT 2022 EAAR. At the time of writing, Diavik has not yet submitted their final report. Highlights can be found on page 61. The complete list of recommendations can be found on our website: www.emab.ca.

2022 Environmental Air Quality Monitoring Program Report

EMAB submitted one recommendation to Diavik on the 2022 EAQMP Report and Yellow Haze issue. Highlights can be found on page 59.

EMAB's recommendation and Diavik's response is listed below. EMAB's technical review of this document can be found on our website: www.emab.ca.

EMAB Recommendation	Diavik Response
<p>DDMI-EAQ-36: Include details of the NPRI and GHG calculations, or a reference to an external document containing such details, to allow for validation of methods and quantities reported.</p>	<p>It is DDMI's understanding that it has provided sufficient information to EMAB regarding the calculations used in both Environment and Climate Change Canada's (ECCC) National Pollutant Release Inventory (NPRI) and Greenhouse Gas Reporting Program (GHGRP) reporting programs. DDMI re-iterates that NPRI workbooks (with embedded calculations and emission factors) and GHGRP calculations and emission factors are defined and provided by ECCC for both programs. The methodology used by DDMI for greenhouse gas reporting is entering diesel amounts by equipment types (e.g., power generation, mobile, stationary etc.) into ECCC workbooks and defined calculations and combining total outputs. In 2022, DDMI provided EMAB the workbook it uses from the NPRI Toolbox for large stationary diesel engine emissions (i.e., diesel power plant emissions). The reported greenhouse gas emissions from this workbook alone, as communicated by DDMI in its response, accounts for over 80% of Diavik's total greenhouse emissions for NPRI reporting. It is unclear to DDMI why EMAB continues to question the validity of emissions derived from Environment and Climate Change Canada provided workbooks and calculations.</p>

2022 Wildlife Monitoring and Management Program Report

EMAB submitted four recommendations to Diavik on the 2022 WMMP report. Highlights can be found on page 58.

EMAB's recommendations and Diavik's responses are listed below. EMAB's technical review of this document can be found on our website: www.emab.ca.

EMAB Recommendation	Diavik Response
<p>EMAB-WMMR-1: Can DDMI clarify how much new data was available for analysis since the 2022 Addendum was completed? How many times did geo-fenced collared caribou come within 3 km of the mine? How many collared caribou came within 30 km of the mine?</p>	<p>An additional 13 months of data were included in the 2022 WMMR, compared to the Addendum (i.e., Exploratory Collared Caribou Movement Analysis; WSP 2022b). The Addendum (WSP 2022b) included telemetry up to the end of November 2021 whereas DDMI included telemetry data up to 31 December 2022 in the 2022 WMMR. Section 4.2.1.1 of the 2022 WMMR summarizes sample sizes of data included in the 2022 WMMR. Telemetry data were collected from 115 collared caribou between November 2021 and December 2022. A total of 78 collared caribou came within 30 km of the mine between November 2021 and December 2022. Further, 21 caribou came within 3 km of the mine between November 2021 and December 2022.</p>
<p>EMAB-WMMR-2: Can DDMI please clarify what is to be inferred if the mean for a particular sample group (e.g., speed of Bathurst caribou in Spring) is “within two SD of the Reference Group for each herd and season” (WSP Golder 2023; pg. 33).</p>	<p>Standard deviation was used to infer the natural range of variation (NRV) among caribou in each sample group. Standard error measures the precision of the estimated population mean whereas standard deviation measures the dispersion, or variability, of a population. Understanding whether sample groups fall within the natural range of variation of the Reference Group is important for understanding whether the sample group is moving differently than the Reference Group. It is important to note that these types of comparisons were based on observed values, whereas conclusions in the report were based on modeled values. Modeled values are subjected to more rigorous statistical testing</p>
<p>EMAB-WMMR-3: We recommend continuing the collection of ground-based behaviour data to support the inferences about behaviour made from the geo-fenced collar data.</p>	<p>DDMI will meet with the GNWT-ECC and EMAB regarding the status of behaviour monitoring by DDMI.</p>
<p>EMAB-WMMR-4: Please discuss how sample sizes varied across all distance buffers.</p>	<p>Sample sizes are presented in Table 17 in the 2022 WMMR. Most group scan surveys (i.e., approximately 40%) were completed within 500 m of the mine. Another 32% of group scan surveys were completed further than 15 km from the mine. The remaining 28% of group scan surveys were completed between 500 m and 15 km from the mine.</p>

2021 Traditional Knowledge Fish Camp

EMAB submitted five recommendations to Diavik following participant concerns with the results of the 2021 fish camp. EMAB's recommendations and Diavik's responses are listed below. Highlights can be found on page 23.

EMAB Recommendation	Diavik Response
<p>Diavik, and its contractors, should not do anything that might influence the independence of TK Fish Camp participants with respect to fish camp activities and reporting.</p>	<p>DDMI's primary focus continues to be on delivering accurate and evidence-based information to the AEMP TK Camp participants and to the communities. This includes providing facts, such as the scientific results that indicate the health of the Lac de Gras fish is normal and/or not different from previous years. DDMI maintains that it is appropriate to communicate accurate evidence-based information to the camp participants and communities. Providing factual information is important and does not threaten the independence of participants with respect to camp activities and reporting. It is not an attempt to influence, but to inform. It remains unclear to DDMI why EMAB recommends some facts should be withheld from the participants. DDMI requests EMAB explain why it believe these types of facts should be withheld so that DDMI can properly consider this recommendation moving forward.</p>
<p>For continuity, contract Natasha Thorpe and Joanne Barnaby to facilitate and report on the fish camp.</p>	<p>DDMI appreciates EMAB's interest in maintaining continuity in facilitation, however facilitation of the AEMP TK Camp is dependent on many factors, some of which are outside of DDMI's control, including contractor availability and interest.</p>
<p>Invite an EMAB staff member to attend the TK Fish Camps, including any planning sessions.</p>	<p>DDMI would be happy to discuss the option of inviting an EMAB staff member to attend.</p>
<p>Diavik should implement EMAB's recommendations on the TK Fish Camp in our review of the 2022 AEMP, especially quantitative monitoring of lake trout parasite loads for each fish, with parasites identified and counted in all affected organs, and muscle.</p>	<p>As planning for the 2024 AEMP TK camp is well underway, DDMI is respectfully unable to implement the additional EMAB recommendations for the 2024 camp.</p>
<p>"Follow the recommendations regarding TK Panel independence that EMAB made to Diavik in our letters of March 1, 2023, October 27, 2022 and May 3, 2022, including:</p> <ul style="list-style-type: none"> • The Panel must be independent of Diavik. Diavik's role is to support the Panel, not to set direction. Any actions that have the potential to affect the Panel's decisions or deliberations should be initiated or approved by the Panel. • Diavik should not provide input to the Panel's deliberations unless requested by the Panel. • Diavik should not be directly involved in Panel meetings or preparation or verification of Panel reports except where the Panel requests information. • For greater clarity, the Panel should be independently facilitated and should have approval of its facilitators. This is not a decision that Diavik can make independently of the Panel's approval. • EMAB takes an interest in how the Panel is administered, and ensuring the Panel members are independent of Diavik, and plans to attend any future meetings of the Panel. 	<p>We remind EMAB that while there is some overlap in participants, the AEMP TK Camp is distinct from the TK Panel.</p>

TABLE OF ACRONYMS

Acronym	Definition
AEMP	Aquatic Effects Monitoring Program
AGM	Annual General Meeting
CAR	Comprehensive Analysis Report
CCME	Canadian Council of Ministers of the Environment
CES's	Critical Effects Sizes
CIRNAC	Crown-Indigenous Relations & Northern Affairs Canada
CSR	Comprehensive Study Report
DFO	Department of Fisheries and Oceans
EAAR	Environmental Agreement Annual Report
EAQMP	Environmental Air Quality Monitoring Program
ECC	Environment and Climate Change (GNWT)
ECCC	Environment and Climate Change Canada
EEM	Environmental Effects Monitoring
EMAB	Environmental Monitoring Advisory Board
EPA	Environmental Protection Act
EQC	Effluent Quality Criteria
FCRP	Final Closure and Reclamation Plan
FF	Far-Field
GHGRP	Greenhouse Gas Reporting Program
GNWT	Government of the Northwest Territories
ICRP	Interim Closure and Reclamation Plan
KIA	Kitikmeot Inuit Association
LdG	Lac de Gras
LKDFN	Lutselk'e Dene First Nation
MDMER	Metal and Diamond Mining Effluent Regulations
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
NCRP	North Country Rock Pile (aka WRSA – see below)
NI	North Inlet

TABLE OF ACRONYMS

Acronym	Definition
NF	Near Field
NPRI	National Pollutant Release Inventory
NSC	North South Consultants
NSMA	North Slave Metis Alliance
NWRS	North Waste Rock Storage Area (aka NCRP or WRSA)
PHC	Petroleum Hydrocarbons
PK	Processed Kimberlite
PKC	Processed Kimberlite Containment Facility
PKMW	PK to Mine Workings
QAPP	Quality Assurance Project Plan
RER	Re-evaluation Report
SEC	Slater Environmental Consulting
SGP	Slave Geological Province
SNP	Surveillance Network Program
SOI	Substance of Interest
SWRSA	South Waste Rock Storage Area
TG	Tłıchq Government
TK/IQ	Traditional Knowledge / Inuit Qaujimajatuqangit
TSP	Total Suspended Particulates
TTG	Technical Task Group
WTA	Waste Transfer Area
WLWB	Wek'èezhìı Land and Water Board
WMMP	Wildlife Management and Monitoring Program
WMP	Wildlife Monitoring Program
WMR	Wildlife Monitoring Report
WMMR	Wildlife Management and Monitoring Report
WRRB	Wek'èezhìı Renewable Resources Board
YKDFN	Yellowknives Dene First Nation
ZOI	Zone of Influence



Working with
the **People** *for the*
Environment

HOW TO
CONTACT US

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THE DIAVIK MINE**

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