

WHAT IS EMAB?

EMAB is the independent environmental watchdog for the Diavik Diamond Mine. EMAB makes recommendations to Diavik and the Regulators about water, aquatic life, wildlife, air quality, and mine closure plans. EMAB also makes sure that Diavik uses Traditional Knowledge/Inuit Qaujimajatuqangit (TK/IQ) in their environmental monitoring programs.

EMAB Board members are appointed by the following Parties:

- Yellowknives Dene First Nation (YKDFN)
- North Slave Metis Alliance (NSMA)
- Łutselk'e Dene First Nation (LKDFN)
- Th̓chq Government (TG)
- Kitikmeot Inuit Association (KIA)
- Government of Canada
- Government of the Northwest Territories (GNWT)
- Diavik Diamond Mines Inc (DDMI).

Our 2021/22 Annual Report provides more information on Diavik's Environmental Monitoring Programs and EMAB's recommendations. Go to: emab.ca or contact us for a hard copy.

MONITORING THE REGULATORS

How well do the regulators engage in oversight at Diavik and respond to EMAB recommendations.

Federal Regulators: Environment and Climate Change Canada (ECCC) and the Department of Fisheries and Oceans (DFO):

- ECCC, and especially DFO, are not involved enough in review of plans and reports.
 - › EMAB continues to recommend they be more involved.

GNWT:

- GNWT did thorough reviews related to Diavik's Water Licence Amendment requirements.
- GNWT was much more involved with Diavik's wildlife monitoring in 2021: reviewed 2021 WMP report and reviewed Revised Wildlife Monitoring and Management Plan under the new Wildlife Act.
- GNWT is developing an Air Quality Guideline before investigating Diavik's EAQMP.

Wek'eezhii Land and Water Board (WLWB):

- The WLWB consistently provides detailed reviews of all documents related to Diavik's Water Licence.

HOW TO CONTACT US

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ANNUAL REPORT SUMMARY

Working with
the People for the
Environment

ENVIRONMENTAL MONITORING ADVISORY
BOARD FOR THE DIAVIK MINE

AQUATIC EFFECTS MONITORING PROGRAM (AEMP) - WATER

Diavik's water quality is within the limits set in the Water Licence by the WLWB.

Key Concerns for 2021/2022:

- Nutrient enrichment of Lac de Gras (LDG) in 2021 reached 100%.
- Caused by phosphorus (P) and nitrogen (N) from the mine. It can increase algae and reduce oxygen in the lake.
- Amount of LDG affected by nutrient enrichment varies from year to year.
 - › In 2021, 100% of LDG was affected by chlorophyll *a*.

AEMP - FISH AND AQUATIC LIFE

Key Concerns for 2021/2022:

- Fish closer to the mine were smaller than fish far from the mine. There are larger amount of plankton and benthic invertebrates near the mine.
- Elders at Diavik's TK Fish Camp on Lac de Gras refused to eat the fish caught due to concerns about the condition and health.

WILDLIFE MONITORING PROGRAM (WMP)

Diavik's Wildlife Monitoring Program (WMP) tracks effects of the mine on caribou, grizzly bear, wolverine, raptors, and the vegetation they eat.

Key Concerns for 2021/2022:

- Diavik says there is no Caribou Zone of Influence (ZOI) around the mine. EMAB and GNWT disagree with the conclusion.
 - › EMAB recommended that Diavik use advanced methods for ZOI surveys, such as aerial surveys, satellite collar data, or drones.
- 9-year gap in caribou behavioral data analysis due to difficulty collecting enough data.
- Diavik proposed ending grizzly bear and wolverine hair snagging programs because the populations seem stable. EMAB wants monitoring to continue.
- Vegetation near the mine has much more dust on it than vegetation far from the mine.



ENVIRONMENTAL AIR QUALITY MONITORING PROGRAM (EAQMP)

The EAQMP monitors air emissions and dustfall on the mine site, and a large area surrounding the mine.

Key Concerns for 2021/2022:

- EMAB remains concerned that Diavik stopped Total Suspended Particulate (TSP) monitoring.
- EMAB is also concerned about the amount of time the Minister's review of Diavik's EAQMP is taking. EMAB made the request in 2020 and the review has not started.
 - › GNWT wanted to develop an Air Quality Guideline before doing its review, but the Guideline is still not ready either.
- EMAB recommended Diavik sample yellow haze over the mine on very cold days. Diavik agreed but is waiting for the Air Quality Guideline to be finalized by GNWT.



WATER LICENCE AMENDMENT APPLICATION: PROGRESSIVE RECLAMATION

Diavik applied to amend their Water Licence in October 2021 to allow:

- Taking water from Lac de Gras to fill the pits after they are closed.
- Reconnecting collection ponds with Lac de Gras.

Diavik called the application an administrative change, so did not provide any detailed information on how they would breach the dams, or how the discharge would affect water, fish or other aquatic life.

- EMAB viewed the application as incomplete.
- EMAB was very concerned with Diavik's proposal to allow the runoff to flow freely into LDG.

Key Concerns:

- Decommissioning Criteria and Uncontrolled Discharge of potentially contaminated water into Lac de Gras.
- Lack of a Mixing Zone Research Program or Monitoring Plan for water quality and effects on aquatic health.
- Development of Water Quality Criteria.
- Need for Rapid Response if there is poor water quality.



DRAFT WATER LICENCE

- The Minister did not approve the licence because:
 - › There was no information on predicted environmental impacts, as required by the Waters Act.
 - › Discharge criteria could be changed, since they are in a Schedule to the licence.
 - › The Waters Act requires Effluent Quality Criteria (EQC) in the licence at least as strict as MDMER.

CLOSURE AND RECLAMATION

Diavik will submit its Final Closure and Reclamation Plan (FCRP) near the end of 2022.

Key Concerns for 2021/2022:

- Designs for PKC Closure, Revegetation and the South Waste Rock Pile delayed until FCRP.
- Mixing Zones: Diavik should reduce the size of the proposed post-closure mixing zones and monitor them thoroughly.
- Traditional Knowledge (TK): TK Monitoring Plan for Closure has not been developed yet.
- Wildlife Safety: Concerns about steep, rocky areas, safety of water for wildlife, and potential contamination of vegetation.
- Contaminated Soil: EMAB wants any contaminated soil not meeting agricultural standards to be shipped offsite.
- Processed Kimberlite Containment Facility (PKC): Diavik now plans for the entire surface to slope towards the spillway. More details will be in the FCRP.
- Concern that Long-term Monitoring is not planned to last long enough to track potential problems with closure performance.
- New Security Estimate: EMAB has concerns about the amount for the waste rock pile, PKC and long-term maintenance and monitoring, including TK monitoring.