

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 Qaujimagatuqangit (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)
- Tłıchq Government (TG)
- Kitikmeot Inuit Association (KIA)
- Government of Canada
- Government of the Northwest Territories (GNWT)
- Diavik Diamond Mines Inc (DDMI).

Our 2022-23 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 has been more active this year in making comments and recommendations. ECCC made comments on two reports, intervened at a Water Licence Amendment Proceeding, and participated in a Technical Session.
- EMAB continues to be disappointed by DFO's lack of participation on reports that impact fish health and habitat. In June 2023, EMAB and DFO met to discuss this issue. DFO told EMAB to express any concerns to DFO in writing.

GNWT:

- ECC commented on every water licence report and fully participated in the Natural Drainages Water Licence Amendment proceeding, as well as reviewing Diavik's closure wildlife monitoring and closure air quality monitoring plans.

Wek'eezhii Land and Water Board (WLWB):

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

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HOW TO CONTACT US

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ANNUAL REPORT SUMMARY

2022
2023

Working with
the People *for the*
Environment

ENVIRONMENTAL MONITORING ADVISORY
BOARD FOR THE DIAVIK MINE

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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 2022-23:

- Nutrient enrichment of Lac de Gras (LdG) reached 61% in 2022.
 - › Nutrient enrichment is caused by phosphorus (P) and nitrogen (N) from the mine. It can increase algae and reduce oxygen in the lake.
- The portion of LdG affected by nutrient enrichment varies each year and is an ongoing concern. In 2021, nutrient enrichment was 100%.

AEMP - FISH AND AQUATIC LIFE

Monitoring results for fish and aquatic life are currently within licence limits and predictions.

Key Concerns for 2022-23:

- There are larger amounts and varieties of plankton and benthic invertebrates near the mine.
- Elders at Diavik's 2021 TK Fish Camp on LdG refused to eat the fish caught due to concerns about fish health and condition, including the number of parasites. Diavik followed up with a report that concluded parasites are normal in LdG, but elders remain concerned.

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 2022-23:

- Diavik's Zone of Influence (ZOI) analysis is flawed. They say there is no ZOI around the mine, but previous studies show a ZOI of about 14 km.
- Diavik has still not collaborated with EMAB, as required by ECC.
- Grizzly bear and wolverine hair snagging programs were discontinued.
- Vegetation is more abundant and diverse near 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 2022-23

- Diavik is no longer monitoring total suspended particulates.
- Diavik is still not sampling the yellow haze that blankets the mine on very cold days.
- Instead of revising the EAQMP to meet ECC's Air Quality Guideline, Diavik asked EMAB to collaborate on the revision of the EAQMP.



WATER LICENCE AMENDMENT APPLICATION: PROGRESSIVE RECLAMATION

- The Minister approved a revised version of the licence to allow Diavik to use water from LdG to fill the pits after closure, but not to allow breaching the collection ponds that are currently used to collect runoff around the mine (see previous year's annual report for details).

WATER LICENCE AMENDMENT APPLICATION: NATURAL DRAINAGES

In December 2022, Diavik re-applied to amend its WL to allow breaching of the collection ponds. In the application, Diavik states runoff from collection ponds is not a waste, and does not need to be treated or regulated with effluent quality criteria (EQC's) before draining into LdG. Instead, Diavik proposes to manage the discharge with a "surface water action level framework" (SWALF).

Key Concerns:

- Runoff is a waste and should be regulated with EQC's.
- The SWALF is not strict enough and will be hard to enforce.
- Diavik should have more monitoring locations and monitor more frequently.

FINAL CLOSURE AND RECLAMATION PLAN

Diavik submitted a Final Closure and Reclamation Plan (FCRP) alongside the WLA in December 2022. Breaching collection ponds was also a major component of the FCRP.

EMAB found the FCRP generally inadequate. We made over 300 recommendations, including concerns about breaching collection ponds.

Key Concerns:

- Closure objectives and criteria are inadequate to ensure a safe and healthy environment for people and wildlife after closure.
- Traditional knowledge not adequately considered; FCRP is lacking required TK Monitoring Plan.
- Revegetation plans are inadequate and below industry standards in Canada. Diavik is proposing to revegetate only 20% of the mine footprint and has not committed to using native and site-appropriate species.
- PKC Design – The new design is to drain the surface of the PKC into LdG, cover it with a 1.5 m layer of waste rock and let the PK freeze solid underneath. EMAB is concerned because this is a conceptual design with many uncertainties about the stability of the cover and the quality of the discharge from the PKC.
- Contaminated soil – EMAB does not agree that Diavik bury contaminated soils on site.
- Climate change – EMAB's assessment is that the FCRP designs did not adequately consider the most recent climate change predictions.
- Diavik doesn't plan to monitor closure for long enough. They are planning to monitor for only five years after closure. EMAB believes some parts of the mine should be monitored much longer.

