



ANNUAL REPORT 2003/2004



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LETTER TO READERS

Dear Reader,

We have now completed our third year of operations as the Environmental Monitoring Advisory Board. I speak for my fellow Board members when I say a look back over the 2003-2004 year shows that we have come a long way since the establishment of the Board in 2001.

Community is the foundation of EMAB. Besides the federal and territorial governments and Diavik, five Aboriginal groups are Parties to the Agreement. At the heart of the Agreement are provisions for the involvement of the Aboriginal people in the design and implementation of monitoring programs. Fish palatability, water quality, fencing to protect caribou and other animals, and the replacement of damaged fish habitat – these are just a few of the environmental areas that saw all our communities work together to arrive at recommendations.

I would like to thank Ted Blondin and Clem Paul who worked as alternate representatives for the Dogrib Treaty 11 Council and the North Slave Metis Alliance. I would like to welcome John B. Zoe who is now the alternate for the Dogrib. I also welcome to EMAB two new staff: John McCullum, our new Executive Director and Michele LeTourneau, our new Communications Coordinator.

Finally, I would like to thank the Parties to the Agreement, the concerned public, Diavik and the regulators for their active involvement in helping make the Environmental Agreement as effective and efficient as possible.



Robert Turner
Chair



EMAB Chair Robert Turner attended as an observer on behalf of the Board when EMAB's Traditional Knowledge Panel on Fencing visited Diavik.

SUMMARY

The Environmental Monitoring Advisory Board (EMAB) was formed as a requirement of the Diavik Environmental Agreement. EMAB was incorporated under the Societies Act on January 30, 2001, and the first formal Board meeting was held in February 2001. The Board operates independently from Diavik Diamond Mines Inc (DDMI) and the governments of Canada, the Northwest Territories and Nunavut and aims to assist the Parties to the Environmental Agreement in the implementation of a common strategy to address environmental issues related to the mine.

The Board is composed of one representative from: Dogrib Treaty 11 Council; Yellowknives Dene First Nation; Lutsel K'e Dene First Nation; Kitikmeot Inuit Association; North Slave Metis Alliance; Government of the Northwest Territories; Government of Nunavut; Government of Canada; and Diavik Diamond Mines Inc.

EMAB's mandate is to make recommendations concerning management, mitigation and monitoring plans and to identify whether additional monitoring is required.

The participation of the Aboriginal Peoples from the Affected Communities in environmental training and monitoring is required in order to provide a meaningful role for Aboriginal Peoples, as is the incorporation of Traditional Knowledge into study design and understanding of monitoring results.

The Board held 11 official meetings in 2003-04 including meetings in Dettah and at the Diavik site. In addition to Board meetings the Executive Committee met 11 times, the Annual Report Committee met three times and the Personnel Committee met twice. The Board also hosted meetings and workshops to receive information and advice on issues resulting from the Diavik project including public meetings in Dettah, Kugluktuk and Wha Ti.

John McCullum was hired in May as the Executive Director. As part of the implementation plan for EMAB's Communications Strategy the Board created a Communications Coordinator position and Michele LeTourneau filled that position in January 2004. Linda Tourangeau continues with EMAB as Office Manager.

EMAB convened its first two Traditional Knowledge panels, as allowed for in the Environmental Agreement. The first saw elders gather, study and discuss DFO's No Net Loss Policy for fish habitat compensation. The second dealt with fencing at the Diavik mine site. Elders and youth from the Affected Communities also participated in a second annual Fish Palatability and Texture Study.

EMAB held a water quality workshop in Kugluktuk. The Board also participated in two workshops: Board effectiveness and a clause-by-clause review of the Environmental Agreement.

This year EMAB received 13 plans and reports and one required report revision. Regulators considered a request originally submitted by DDMI in June 2003 and revised in December to change the ammonia limits in their water licence, along with supporting technical information.

EMAB participated as an observer on the Diavik Technical Committee, a committee that advises the Mackenzie Valley Land and Water Board on technical matters related to Diavik's water licence.

Issues of particular focus for the Board included: Diavik's application to amend their water licence; the Wildlife Effects Monitoring Program; fish and fish habitat monitoring; the Aquatic Effects Monitoring Program; fencing at the Diavik mine site; and water quality.

EMAB received its third clean financial audit from Michael Odell and Associates.

Okoa Nunalikiyit Taotoktit Katimayit (EMAB) eliyaohimayut pitkhiimakmagit okoa Diavik Nunalikiot Angigotaitigut. EMAB eliyaohima-yuk eloani ovari Katimayit Maligani ovari Januari 30, 2001-mi, ovalo hivoliipakmik katimayit katimahimayut Febyoali 2001-mi elikoktot Diavik Diamond Mines Inc. (DDMI) ovalo kavamatokanik Kanatami, okoalo Nunatiamionit okonanik Nunavut Kavamanitlo ovalo ekayugahoakpaktot Havakatigiiktoni Nunalikitinik Angigotikot ema elivagait pikatigiiklotik oktukhimayut nunalikinikmot oyagakhio-giami.

Okoa Katimayit pikaktot ematot ataohik meetikti: Dogrib Treaty 11 Katimayit; Yelonaimiot Itkiliit Katimayit; Lutsel K'e Itkiliit Katimayit; Kitikmeot Inuit Katima-yiit; North Slave Itkiliagat Katimayit; Nunatiap Kavamanit; Nunavut Kavamanit; Kavamatokat Kana-tamit; ovalo Diavik Diamond Mines Inc.

EMAB-kot havakhaotait pitkoyaohimayut ehomagikmagit monagitjutinik nunanot, ehoinaktailotiklo ovalo taotoklotik opalongaikhimayut ovalo naonaikhihimayut emakak allanik taotutinik piagiakagonakhivlotik.

Okoa havakataoyut okoa Kablonangogitot Inuit nunamiotat tahamani oyagakhioviop haniani nunalikiok-hat taotoktit Kablonangogitot Inuit havaktitaotik, eliogakhimayait Inuit Elihimayatokainik atoklotik taotoktitiniaktot nunamik kanogilitniaktomik.

Okoa Katimayit meetikpaktot 11-nik ovari 2003-04 okoa meetikhotik ovari Dettah-mi ovari Diavik oyagakhiovikmi. Hamalo Katimayit meetikpaktot Atangoyat 11-nik meetikhotik, onalo Okiok Enikmat pingahoiktokhimaplotik meetikpakmiot ovalo Ataniit Meetigivlotik malgoiktokhotik. okoa Katimayit ovalo meetiktivakmiot ovalo nalonaiaivlotik naonaitkotinik ovalo onnojoivaktot elihimaliktamingnik Dettah-mi, Kugluktuktommi ovari Wha ti-mi.

John McCullum havakhaniktaoyuk May-mi Atanikhak. Elaokmat eliogaiyuni opalongaiaotini EMAB Tohaktitaotainik Oktutinik Katimayit eliogagat Tohaktitoatit Havaktikhak onalo Michele Letourneau havakvigilikta ovari Januari 2004-mi. Linda Tourangeau havakhimaktok okonani EMAB-ni Afisimi Havakti.

EMAB atokhimaktait Inuit Elihimayatokait meetiktik, ema angigotikot atogiakakmagit. Okoa hivoliit Inutkoat meetiktitaoyut, ehivgiokhiyut ovalo okaotikaktot DFO-lo Ikaluknik Tamaktailiyit tahiknik akilohiagotikhainik. Ona aipalo havakaktat nuna piholaiyaviliktokhogo Diavik oyagakhiovikmot hoganit Eniknigit okoalo inulgamiit Hanianit Inuit nunalgitelaovaktot aipani Ikaluknik Nigiominaktolikiot ovalo Aniagotinik ehivgiotktot oyagakhiovikmi.

EMAB havakaktotlo emakmik ehivgiokhivlotik Kugluktummi kugamit. Okoa Katimayit ovalo elaovaktot malgokni eliaotivlotik kanok ehivgiokhivlotik Nunalikitinik Angigotinik.

Okiok tatja EMAB pivaktot 13-nik havakhanik ovalo onipkakhnik nutangoktokhanik. Maligalioktit kavamat pilgakhimayunik onipkanik okonanik DDMI-ni June 2003-mi ovalo nutangoktait Desaipami ona Ammonia kovigaknik kiglikaktokhak emakmot laisitik maliklogit, ekayutainiklo ayoknaktolikiot havangitnik nunamot.

EMAB elaovaktotlo taotokhotik Diavik Ayoknaktolikiot Havaktingitnik, katimayit pikaktot emalikionik oniojoiyut Mackenzie Valley Nunalikiot Emalikiot Katimayitot havamingnik okaktot Diavik laisianik.

Onipkagivagait Kaitmayit havangit elaoiyut: Diavikmot apikotait allangoktokha emakmot laisikhat; onalo Hogaanik Kanogilitjutiniaktot Taotiklotik; ikaluknik tahiotainiklo taotoklotik; ona Emmat Kanogilitaoniaktot Taotoktaoniaktot; hogat piholaiyavikhanik; emaklo.

EMAB maniktotiakmata omanga Michael Odellmit and Manilikiyiit.s

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Environmental Monitoring Advisory Board (EMAB)

The Environmental Monitoring Advisory Board (EMAB) was formed as a requirement of the Diavik Environmental Agreement and is intended to provide an integrated and co-operative approach to the environmental management of the Diavik mine. EMAB was incorporated under the Societies Act, on January 30, 2001, and held its first formal board meeting in February 2001. The Board operates independently from Diavik Diamond Mines Inc. and the governments of Canada, the Northwest Territories and Nunavut and aims to assist the Parties in the implementation of a common strategy to address environmental matters associated with the mine.

EMAB translated the Environmental Agreement into plain language this year to help readers better understand it. The sections taken from the EA in the following pages are from that plain language translation.

In September 1998, Diavik submitted its environmental assessment report to the federal government. The submission was based on geotechnical, environmental and socio-economic investigations, public consultation and discussions that took place between 1994 and 1998.

THE COMPREHENSIVE STUDY REPORT (CSR)

Further information that came from the technical review and public consultations formed the Comprehensive Study of the Diavik Diamonds Project in 1998 and 1999. At the end of the Comprehensive Study it was stated that, with the mitigation measures proposed by Diavik, there would be no significant adverse environmental effects. It was also stated that mechanisms were required to make sure monitoring and mitigation measures took place.

ENVIRONMENTAL AGREEMENT

In response to the CSR findings, an Environmental Agreement was developed that established appropriate responsibilities of Diavik and federal, territorial and Aboriginal governments in the cooperative development, on-going review and modification of follow-up programs to mitigate potential mine effects on the biophysical environment. On March 20, 2000, the Environmental Agreement for the Diavik Diamonds Project came into effect. It is a legally binding agreement between Diavik, the Aboriginal Parties affected by this mine, and the Governments of Canada and the Northwest Territories. The agreement requires that an environmental monitoring advisory board be established, operating at arm's length and independent from the Parties to the agreement. It specifies the mandate, composition and functioning of the board, and establishes the Board's responsibility to perform its functions consistently with the purpose and guiding principles of Article 1 of the Environmental Agreement. The board will remain in place until full and final reclamation of the mine.

ARTICLE 1 OF THE ENVIRONMENTAL AGREEMENT

PURPOSE

- To make sure that Diavik and others appropriately implement the requirements related to the steps they will take to lessen the impact of the Project on the environment.
- These steps are listed in Diavik's Commitments and in the Responsible Authorities' conclusions in the Comprehensive Study Report.
- To add monitoring activities. These activities, along with monitoring called for by the licences, leases and permits, will help check that predictions in the Environmental Assessment are right. This extra monitoring will also check that the impact on the environment is reduced and that the Commitments are being carried out.
- To help make sure that monitoring, management and regulation of the mine is done in a way that respects the environment as a whole, meaning the land, water, air and animals.
- To respect and protect the air, land, water, fish, wildlife, and sites of importance, such as burial sites, sacred sites and objects and items of historical and cultural interest found at the sites, as well as cultural resources, and the land-based economy that are necessary to the way of life and well-being of the Aboriginal Peoples.
- To find ways to allow the people of the communities and the larger public to have a say and participate in the environmental side of the mine.
- To give advice and direction to Diavik so that Diavik can manage the mine with all of the purposes of the Environmental Agreement in mind.
- To help increase the usefulness of the environmental monitoring and to help pull together the efforts of everyone involved in the monitoring and regulation of the mine.
- To help make sure that people in the Affected Communities know about the Project.
- To help the Aboriginal Peoples and the public take part in reaching the purposes of the Environmental Agreement.

"The Environmental Monitoring Advisory Board continues to do a high-quality job of tracking the environmental effects of the Diavik Diamonds Project, and providing recommendations to help safeguard the land, water and wildlife. The Department of Indian Affairs and Northern Development looks forward to continuing to work with all independent monitoring boards to improve their efficiency and effectiveness through a one-window approach to regional and project monitoring."



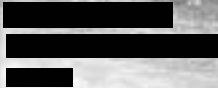
"Management of the valuable natural resources of the Northwest Territories is a shared responsibility between governments and users. EMAB is an effective tool in overseeing the environmental management of the Diavik Project and ensuring the Aboriginal people and community residents are involved in designing and undertaking monitoring programs using scientific, traditional and local knowledge."

– Peter Vician, Deputy Minister, RWED, GNWT



"After over a decade of effort and investment, Diavik has finally become an operating mine. Through the hard work of many people, the mine is showing itself to be world class in all respects, from its quality diamonds to its exceptional engineering, from its comprehensive environmental systems and practices to its significant socio-economic benefits. With the adoption of best practices, including ISO 14001 environmental certification, we intend to remain a world-class operation. With EMAB growing with us, contributing its knowledge and a new standard of community transparency, we are sure to become a world-class example of sustainable development."

– Joe Carrabba, President, Diavik



"EMAB adds a third party perspective on behalf of Canadians by reviewing and monitoring the manner in which proponent and government fulfill their responsibilities."

– Julie Dahl, Area Chief, Habitat, Fish Habitat Management, Western Arctic Area, Department of Fisheries and Oceans, Government of Canada

GUIDING PRINCIPLES

- Adaptive environmental management.
- Sustainable development.
- Plan and bring about measures to protect the environment and reduce negative effects on the environment. This is to be done using the best appropriate technology that is cost effective.
- Precautionary Principle, which means that when there are threats of serious or irreversible damage, lack of full scientific certainty will not be used as a reason for postponing reasonable measures to prevent environmental degradation.
- Encourage further development of the abilities and resources of the Aboriginal Peoples to participate in mine-related environment issues.
- Recognize the unique and valuable environment of the Lac de Gras area.
- Use Traditional Knowledge and scientific information where it is appropriate.
- Help the Parties work together on environmental issues that have to do with Diavik.

WHAT IS EMAB'S MANDATE?

As an arm's length board, EMAB will remain independent from the Parties and follow the purpose and guiding principles described in Article 1. In addition, EMAB will:

- Help the Parties cooperate as they work towards the purpose and as they carry out the guiding principles in Article 1.
- Act as a watchdog:
 - by keeping an eye on the regulatory process of the organizations that keep track of environmental rules (like the water licence); and
 - by making sure that everything in the Environmental Agreement is done.
- Review:
 - Environmental Plans and Programs related to the mine;
 - Annual Reports;
 - Environmental Protection Measures;
 - reports about compliance and/or the monitoring of the project; and
 - other reports and information about the quality of the environment.
- Make recommendations after the review of reports to make sure that the purposes and guiding principles are met. These go to:
 - Diavik;
 - the Minister of Indian Affairs and Northern Development; or
 - any other party or group that has the responsibility to regulate or manage the matter in the report.
- Make recommendations on issues relating to access for purposes of wildlife harvesting.
- Make recommendations on the participation of each of the Aboriginal Peoples and the Affected Communities in training initiatives and monitoring programs that deal with Environmental Quality.
- Make recommendations about the need for and design of Traditional Knowledge and other studies. Where appropriate EMAB helps manage and carry out these studies.
- Find and develop ways to provide information to Affected Communities and the public on Environmental Quality.
- Report to the Parties and the public on EMAB's activities and on how it's doing its job.
- Set up a public library where anyone can find reports and studies about the environmental aspects of the mine.
- Participate in hearings, the dispute resolution process as described in this Agreement and other legal processes.
- Offer a meaningful role for each of the Aboriginal Peoples in the review and carrying out of Diavik's environmental monitoring plans.

"The Environmental Monitoring Advisory Board (EMAB) is an excellent example of an independent watchdog the NSMA can rely on to clearly voice our concerns and provide unbiased information about Diavik, regulatory agencies and the cumulative impact of industry on our lands as a whole. Through EMAB the NSMA has been able to maintain an active role in monitoring and mitigating impacts resulting from industry in our region. EMAB has not only provided the logistical support needed to ensure Aboriginal communities are consulted on all aspects of the Diavik Diamond Project but have also provided capacity building, technical expertise and research development to further our endeavour to protect the environment for future generations."

– North Douglas, President, North Slave Metis Alliance

"We are happy with the continual communication with the Board through our own representative. We are assured that our unique concerns and issues are being raised and addressed."

"This year, we encountered a situation whereby Diavik's water licence required an amendment. As written in the Environmental Agreement, EMAB is mandated to participate as an intervener in regulatory processes. However, as it was decided the Parties to the Agreement the interveners would intervene. Funds for such an intervention were not available from industry or from government. In situations like this, I will strongly support the Board in making sure that intervention funding be secured for us from Diavik for any further amendment to any licence or lease."

"Another area that needs more work and attention is training and capacity building for Aboriginal people, signatories to the Environmental Agreement, in the area of monitoring the effects of the mine on the environment. I hope to see more of that in the coming year."

– Archie Catholique, Chief, Lutsel K'e Dene First Nation

HOW IS EMAB FORMED?

The Board is formed of one representative from each of the Parties to the Environmental Agreement:

- Dogrib Treaty 11 Council
- Yellowknives Dene First Nation
- Lutsel K'e Dene First Nation
- Kitikmeot Inuit Association
- North Slave Metis Alliance
- Government of the Northwest Territories
- Government of Canada
- Diavik Diamond Mines Inc.

The Government of Nunavut has representation on the Board, as the Environmental Agreement recognizes their involvement in transboundary issues relating to water quality and wildlife.

WHAT ARE THE BOARD'S OBJECTIVES?

The Board's objectives are to provide community input and advice to DDMI and regulators, with the overall intent of minimizing mine-related environmental impacts.

With participation and contribution from Aboriginal Peoples and Affected Communities, the Board plans to build a strong relationship with Diavik to ensure communities are full participants in all aspects of environmental monitoring and mitigation measures associated with the mine.

HOW DOES EMAB WORK?

The Board has an office in Yellowknife staffed with the Executive Director, the Communications Coordinator and the Office Manager. This office houses a library of materials on the Diavik mine and is open to the public. Materials, such as the annual report, are produced at this office. Initiatives, such as caribou monitoring and traditional knowledge workshops, are planned and implemented here, with some meetings and workshops rotating among the communities.

Diavik, the Government of Canada, and the Government of the Northwest Territories provided start-up costs for the first two years. Diavik now solely provides the current annual budget of \$600,000. For funding that is not available within the agreed-to budget, Diavik has agreed to review proposals from EMAB and either fund them or explain their reasons for not funding in writing. EMAB or DDMI can ask the Minister to review the proposals or the decisions. The Board is registered as a "not-for-profit" society in the Northwest Territories.

WHO ARE THE BOARD MEMBERS?



The Board in Lutsel K'e :

Back row, from left: Doug Crossley, John McCullum, Floyd Adlem and Bob Turner

Front row: Lawrence Goulet, Johnny Weyallon, Florence Catholique and Erik Madsen

Missing: Doug Doan and John Morrison

WHY SIT ON THE BOARD?



Robert Turner

North Slave Metis Alliance
Chair

It is very important to have an independent body to monitor government regulators as well as industry to ensure our environment is protected for future generations.



Floyd Adlem

Government of Canada
Vice Chair

Monitoring the development and operation of Diavik Diamond Mines Inc. and including the communities in that process is an important aspect of protecting the northern environment.

The Environmental Monitoring Advisory Board members represent a broad cross-section of northern society, with experience ranging from years in corporate and public service, in the North and around the world, to life spent close to the land.

This diversity brings with it challenges and opportunities, as we search for ways to build strong relationships with each other and with our regulatory and company partners. We will continue to work to ensure that communities are full participants in all aspects of environmental monitoring and mitigation measures associated with Diavik.

"Yellowknives Dene First Nation participation on EMAB has been helpful because the Board provides insight and communicates to our people and the communities affected by the Diavik mine about environmental issues and activities at the Diavik site that may affect the Land, Water, Wildlife, Fish and Weledeh Yellowknives People"

– Darrell Beaulieu, Chief, Yellowknives Dene First Nation, Ndilo

BOARD MEMBERS

WHY SIT ON THE BOARD?



Doug Doan

Resources, Wildlife and Economic Development, GNWT
Secretary-Treasurer

The challenge of bringing information and understanding of the Diavik project's effect on the environment to the communities is ongoing. As the GNWT representative on EMAB, I am pleased to see continual progress on this. This work supports the GNWT's commitment to help communities participate in the shared responsibility for environmental management.



Lawrence Goulet

Yellowknives Dene First Nation

It is important for me to represent Yellowknives Dene First Nation because of the need to protect our wildlife, land, water and air. EMAB is a good tool for keeping an eye on the mine and how it affects the environment.

Sqòmbak'e Dene First Nation gígha gode segha wet'àràa hq't'e, tich'adi, dè, tì eyits'q yat'aa w ha ts'lwq. EMAB gixè eghàlats'ide-ha nezì wexè sqòmbak'e yagola hogudì eyits'q dè hog hq't'è.



Florence Catholique

Lutsel K'e Dene First Nation

This year proved another interesting year. The Board gained more knowledge on environmental issues. Yet, we still need to do more work in the partnership area, with industry and government. I would like to see more hands-on environmental training in the field and at the mine site, where our own young people train alongside the environmental monitoring staff. I am sure there are areas where we can assist each other to make Diavik Diamond Mines Inc. a company outstanding in honouring its unique Environmental Agreement. This alone could have a bearing on their joint venture partners acquiring a better understanding of our culture and moving towards being more supportive of our causes.

Florence Catholique, (Łutsel k'e dēne xa) ʔedēri ghai k'e t'así ła nı́ʔı. Board nı́ k'e t'aʔúnt'e sí dagháre yenerı́nı. ʔeła ʔeghádáláıda sí ʔeke bek'e ʔeghádáııda xaʔa. Dene gódhe tsamba k'e ʔeghádálana sí nezu hanelkan hurésʔı t'a tsamba k'e nı́ hałnı xa ʔeghádálana xél. ʔełts'ıdı xa dúwéle sá, Diavik Diamonds Inc. yakı thukún xa, ʔerıłt'ıs bek'éyá. ʔeder t'á Diavik Dene xél ʔeghalana sı, nuwe ch'ānı chu newe ts'éda renı xa.



Johnny Weyallon

Dogrib Treaty 11 Council

It is important to monitor what happens to our land and water, and animals, too. We want to make sure that Diavik and the regulators are doing their job right.

Gonèk'e dagot'ì eyits'ò ù eyits'ò tìch'adì wexoidì wet'àràà hòt'e. Diavik sòmباك'e eyits'ò a: dòò nezì delaa gìghalageda ha ts'ùwò hòt'e.



Doug Crossley

Kitikmeot Inuit Association

I feel it is important that development activities in the North provide employment and entrepreneurial opportunities for Northern residents. However, this has to be done while safeguarding the environmental integrity of the Lac de Gras area and beyond. Over the first years of operations, EMAB has been able to work effectively with Diavik while occasionally challenging the company on compliance issues related to the Environmental Agreement.

(Kitikmeot Inuit Katimayinit): Ovanga ehomagiaga hivitoyuk oyagakhioktit havagomakpata Okioktaktomi havaktiokhaokmata inuknik ovalo nanminikaktonik havakviknik Okioktaktomionot inuknot. Kihime, hamana maligiakaktok atoklogo nunanik havagomayunit kayagilotik nunamik havaktokhaokmata nuna halumaiktaillogi ovani Lac de Gras-mi ovalo ahianilo. Hamani hivolikni okioni havakkaaliktoni aolalikmata oyagakhioktit, EMAB havakpaktot ehoaktomik pikatigivlogit Diavik-kot elaani ayoknagaloakhoni oyagakhioktit maliktokhaokmata nunanik atotiaklotik Nunalikiniko Angigotikot.



Erik Madsen

Diavik Diamond Mines Inc.

I have been involved with the mine since the baseline studies, the original community meetings, the environmental assessment process, the construction and now the operation of the mine. Diavik believes that with my first-hand knowledge of the project I can continue to lend assistance in providing direction for EMAB. I look forward to contributing to the Board by helping to focus its attention to areas that are important to the communities in a cost effective manner.



John Morrison

Government of Nunavut

It is important for the Government of Nunavut to closely observe any activity that could potentially affect the environmental integrity of Nunavut watersheds and wildlife. In this specific case, that would be the Coppermine River and the caribou herds.

Environmental Setting

Lac de Gras is a large lake roughly in the centre of the Slave Geological Province, north of the tree line, and in Canada's Southern Arctic ecozone. The area is cold and dry. The lake is the headwaters of the Coppermine River, which flows 250 kilometres north to the Arctic Ocean. Lac de Gras is typical of arctic lakes in being quite cold with long ice-covered periods, and little food for fish and other creatures. Fish species include lake trout, Cisco, round whitefish, Arctic grayling and burbot. Lac de Gras is also near the centre of the range of the Bathurst caribou herd and large numbers of the herd, now estimated at a population of 185,000, can be seen in the area during spring and fall migration. Many other animals include the mine site in their home ranges, such as Grizzly Bear, wolves and wolverines, smaller mammals, migratory birds and waterfowl.

Located on a 20 square kilometre island in Lac de Gras, the Diavik mine is approximately 300 km by air northeast of Yellowknife, the capital city of the Northwest Territories, in northern Canada.

Diavik expects to mine four diamond ore bodies, commonly called kimberlite pipes, over a 20-year mine life. The pipes are small compared to the world average, but they contain a higher than average content of attractive, high quality and readily marketable diamonds.

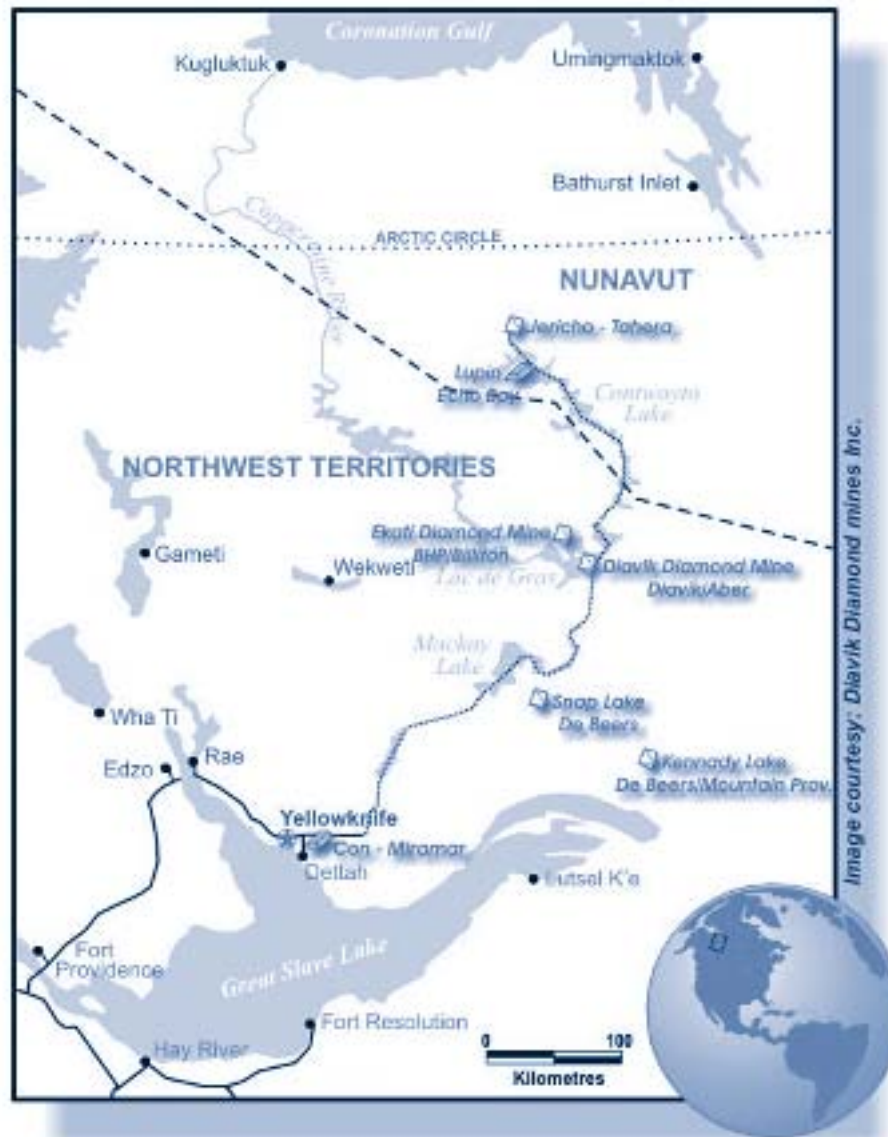
The Diavik mine plan called for a two-year period to reach full production. After this start-up period, Diavik expected kimberlite processing to reach 1.5 million tonnes each year, with an anticipated diamond production peak of over six million carats annually. By mid-2003, the mine had ramped up to full production, well ahead of schedule. By year-end, Diavik had mined approximately 26 million tonnes of waste rock and nearly 1.3 million tonnes of kimberlite ore. Diamond production was approximately 3.8 million carats. To take advantage of the strong marketplace, Diavik has raised its production target for 2004 to 8.2 million carats of rough diamonds.

Diavik expects to produce approximately 107 million carats of diamonds over the mine's life, using a combination of open pit and underground mining methods. In addition to the already completed A154 dike, DDML plans to build two more water diversion structures from shore to surround the diamond-bearing pipes and allow mining.

The mine's physical plant is located on East Island and includes a kimberlite processing plant, permanent accommodation complex, maintenance shop, three 18-million litre diesel fuel storage tanks, boiler house, sewage treatment plant and powerhouse. Elevated arctic corridors carry services and provide enclosed walkways that connect all major buildings. In addition, there is a drinking water treatment plant, and a wastewater treatment plant.



WHERE IS DIAVIK?



WATER MANAGEMENT SYSTEMS AT DIAMIK

There are four systems managing water at the mine site:

1) DRINKING WATER AND SEWAGE

- Diavik draws drinking water from Lac de Gras and treats it with small amounts of chlorine.
- Sewage goes through the sewage treatment plant. Diavik treats it then pumps it out to the processed kimberlite containment facility (PKC).

2) PIT WATER AND DIKE SEEPAGE WATER

- Diavik pumps water from the bottom of the pit, as well as water that leaks through the wall of the dike and is collected in seepage wells, into the North Inlet. In the future, if the water collected in the seepage wells meets licence criteria Diavik can pump it directly into Lac de Gras.
- Diavik dammed off the North Inlet from the lake and uses it to hold the large amounts of water coming from the pits.
- Diavik measures water quality, removes sediment from the water and controls pH at the water treatment plant.
- Once the water leaves the water treatment plant it goes out through a long pipe along the bottom of the lake called a diffuser. The diffuser is blocked off at the end and has many holes in it so the water is forced out along the way and mixes with the lake water.
- There is a large pond near the middle of the island and south of the North Inlet called the sedimentation/clarification pond (or sed pond). It was used to contain the last of the water that was pumped from inside the dike once it got too muddy to go straight into the lake.
- Once the clarification pond is empty it will be used to store type 3 rock from the pits.



All Water from North Inlet goes out through the water treatment plant.



Pit A154S (foreground) and Pit A154N



North Inlet, dammed off from the rest of Lac de Gras, showing barge and dam.



Outflow from process plant to processed kimberlite containment facility.



The clarification/sedimentation pond (sed pond) is a temporary water-storage area for high sediment water pumped from the diked area. In the distance type 1,2 and 3 rock is piled



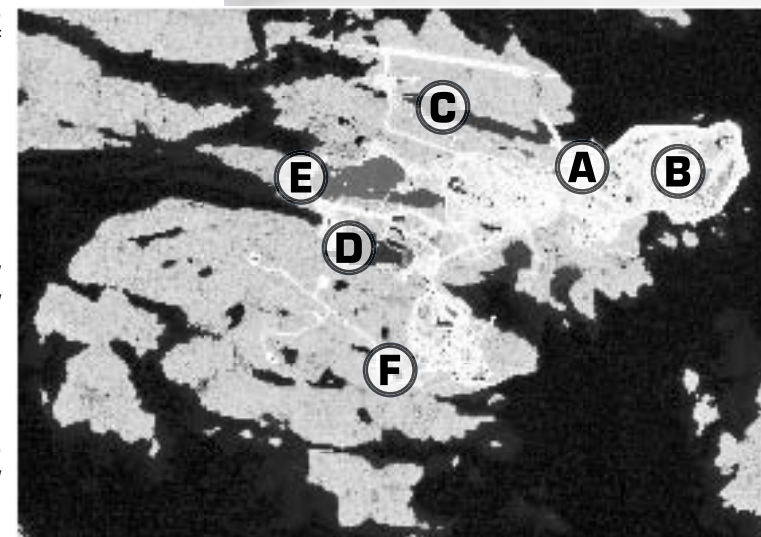
After water from pond #12 is tested and meets water licence criteria, it can be pumped to Lac de Gras

3) PROCESSING PLANT

- The processing plant uses water to separate the diamonds from the kimberlite ore that Diavik mines.
- There is a pond called the PKC in the middle of the island. Diavik created this pond by building dikes or dams at either end of a small valley. As the pond gets bigger, Diavik will raise the dikes to hold the water.
- The processing plant draws its water from the PKC and returns the used water back to the PKC.
- Diavik's goal is to use only water from the PKC for processing, so that it is being recycled all the time, instead of drawing water from the lake.

4) DRAINAGE DITCHES AND COLLECTION PONDS

- Any seepage from the PKC, the waste rock, the facilities around of the mine, including run-off from melting snow or rain is designed to be caught by a series of drainage ditches and channelled into engineered collection ponds.
- Diavik tests the water from all ponds and if they meet licence criteria they can be discharged directly to Lac de Gras.



BOARD OPERATIONS

“The Kitikmeot Inuit Association is mandated to ensure that Inuit rights as identified through the Nunavut Land Claim Agreement are protected to ensure continuity of the resources and quality of life for the beneficiaries and the communities we serve.

“When it becomes a matter of working with industry and development initiatives on Aboriginal land, KIA is especially concerned with ensuring the integrity of the water resources potentially impacted through development projects and the continuity of our wildlife resources that are so important to the Inuit people.

“It is with these regulated requirements in mind that we have encouraged and supported the role of EMAB and the progress being made through this body to safeguard the potential effects of the Diavik Diamond Project on the surrounding environment.”

– Charlie Evalik, President, Kitikmeot Inuit Association

The Board held 11 official meetings in 2003-04 including meetings in Dettah and at the Diavik site. They held the Annual General Meeting in Yellowknife. These meetings covered a range of topics, all discussed throughout the report. In addition to Board meetings, the Executive Committee met 11 times, the Annual Report Committee met three times and the Personnel Committee met twice. The Board also hosted meetings and workshops to receive information and advice on issues resulting from the Diavik project including public meetings in Dettah, Kugluktuk and Wha Ti.

The Board took part in a Board Effectiveness Workshop in November in Wha Ti with a facilitator from the Banff Centre for Executive Leadership. This workshop meshed with a number of other initiatives the Board has been pursuing related to strategic planning, including development of the Communications Strategy last year and the creation of a Communications Coordinator position.

As part of its preparation for strategic planning, the Board dedicated the bulk of one meeting to a complete review of the Environmental Agreement (EA). The EA allows for a Traditional Knowledge panel and a Scientific Knowledge panel. The Board developed terms of reference for EMAB Traditional Knowledge panels and set up two TK panels on replacing damaged fish habitat and on fencing. EMAB is developing a similar terms of reference for a scientific expert panel.

The Board adopted a Code of Conduct and a Conflict of Interest policy outlining the responsibilities of members and staff. The Board also reviewed its committee structure and adopted Terms of Reference for the Executive Committee and a new Strategic Planning Committee while determining that a number of other committees were no longer required. The Board is also developing a Board orientation manual.

The Board has continued to improve its operations through revisions to the Operations Manual, as well as previous policies and procedures regarding decision-making processes, communications, personnel, capacity building, contracting and Board administration. Board members found this process useful in coming to agreement on consistent policies. The new manual has helped us increase our efficiency by providing policy direction that relieves the Board of many administrative decisions.

The Board hired two new staff in 2003-04. John McCullum is now the Executive Director. As part of the implementation plan for EMAB's Communications Strategy the Board created a Communications Coordinator position and Michele LeTourneau has been filling that role since January 2004. Linda Tourangeau continues with the Board as Office Manager.

Communications is a critical element of EMAB's responsibilities. This year EMAB focused much of its attention on implementing the Communications Strategy. A key element was creating a Communications Coordinator position to develop a concrete communication plan and implement the Strategy. EMAB filled this position in January. EMAB staff also carried out other recommendations in the Communications Strategy: they re-designed the brochure, developed a new report-tracking system, set up a website, and updated and improved its PowerPoint presentation.

COMMUNITY CONSULTATIONS

EMAB hosted meetings in three communities in 2003-2004: Dettah, Kugluktuk and Wha Ti. In Kugluktuk, 23 people from the community attended and shared their concerns with the Board. Most of the discussion concerned Diavik's proposed changes to the ammonia limits in its water licence. This led to a discussion on what other mines have encountered regarding ammonia and how they dealt with it. People also raised the possibility of an environmental disaster at the Diavik site. Participants asked: What would EMAB do in the event of a disaster? This led to a discussion on whether or not EMAB needed more authority. As a watchdog organization, EMAB's main task is to keep track of issues that arise and how regulators handle them, and then make recommendations where it has concerns. Finally, people raised the issue of fencing around the dike at the mine site.

The meetings in Dettah and Wha Ti did not attract any people from those communities.

www.emab.ca

The authors of EMAB's Communications Strategy suggested that a web site would be a good way to meet the informational needs of organizations and individuals that EMAB cannot visit regularly. Such a web site would have information on EMAB activities and essential documents. In October, EMAB launched its website – www.emab.ca. A visitor to the website can find the Environmental Agreement, past annual reports, links to the Parties to the Agreement and other information. EMAB plans to add a section on activities, such as Traditional Knowledge panels and workshops in the near future.

Public Library

As a public watchdog, one of EMAB's responsibilities is to ensure that people have access to information regarding Diavik as it relates to the environment.

The Environmental Agreement states that EMAB is required to "provide an accessible and public repository of environmental data, studies and reports relevant to EMAB's mandate."

Anyone can search for information at EMAB's offices in Yellowknife, where staff maintain the library. Most materials are in both hardcopy and digital form.

Office hours are from 9 a.m. to 5 p.m., Monday to Friday.

Annual General Meeting

EMAB's AGM was held in Yellowknife on September 24, 2003. Robert Turner was acclaimed as Chair and Floyd Adlem as Vice-Chair. Doug Doan was re-elected as Secretary-Treasurer.

ABORIGINAL INVOLVEMENT

Traditional Knowledge

There are many ways to define Traditional Knowledge (TK), but generally it means knowledge that Elders hold from experience and is passed down to them through the generations. It is continuous and grows. Interpretation of knowledge is important. Traditional Knowledge is not just the past, but the future combined with the past.

The Environmental Agreement says:

- 4.9 (b) *The Advisory Board may from time to time establish two panels of experts as follows:*
- (i) *One panel to assist in the application and consideration of traditional knowledge; and*
 - (ii) *One panel to assist in the application and consideration of other types of scientific knowledge.*

The meaningful involvement of Aboriginal people in all aspects of monitoring Diavik's environmental commitments, and their implementation, is what makes the Environmental Agreement exceptional. It is what sets it apart from previously negotiated EAs. EMAB is dedicated to ensuring that as each year passes, Aboriginal involvement is enhanced.

TRADITIONAL KNOWLEDGE PANEL ON NO NET LOSS

The implementation of the DFO policy for the management of fish habitat has been a challenging issue for EMAB. (For a full description of the policy see page 42.)

EMAB wants to find a way that Diavik can implement DFO's policy in a manner that is workable given the realities of the Northern environment. It is important that Aboriginal people support the implementation.

EMAB felt that this issue was a perfect opportunity to get advice from a Traditional Knowledge panel made up of elders from each of the Aboriginal communities affected by the Diavik mine. The panel would help EMAB gather specific and important knowledge about fish habitat from the elders' point of view. (When the Board refers to Traditional Knowledge, it includes the Inuit equivalent Inuit Qaujimajatuqangit.)

EMAB ensures that translators are available to speakers of Chipewyan, Innuinaqtuun, and Dogrib during its workshops and panels. Isadore Zoe (right) from Wha Ti, with Harry Simpson and Eddie Camille, often works in the capacity of Dogrib translator.

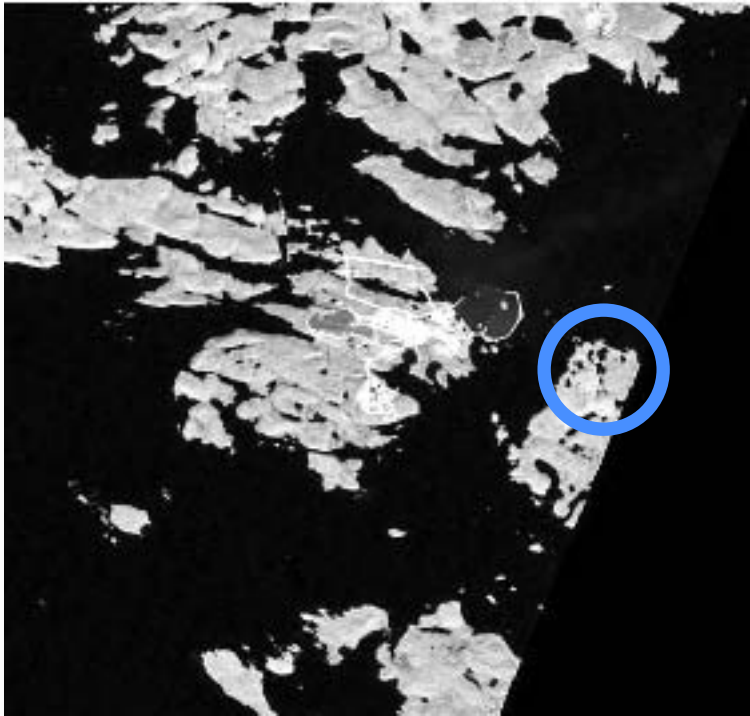


ABORIGINAL INVOLVEMENT

In a preliminary report, the panel noted that if EMAB considers other locations for habitat compensation, it is important to remember that water is fundamental to sustainability of life. Lakes and rivers need to remain clean in order to keep animals abundant and healthy. The traditional importance of fish, both spiritually and as a food source, must be recognized and respected. Contaminated water can have a negative effect on traditional medicine, as plants, berries and other natural substances used in traditional healing cannot be used to make medicine when they are contaminated.

This was the first Traditional Knowledge panel ever established by EMAB and the Board thanked the elders for coming to the workshop to share their knowledge and ideas regarding fish habitat compensation.

The panel's final report is still in review and will be available in the near future.



Three lakes on the mainland to the east of Diavik were approved by DFO for habitat enhancement.

TK Panel on No Net Loss

Participants:

Albert Boucher, Lutsel K'e
J.B. Rabesca, Lutsel K'e
Alfred Baillargeon, YK Dene
Paul Mackenzie, YK Dene
Frank Camsell, NSMA
Fred Turner, NSMA
Frank Ikpakohak, KIA
Isaac Klengenberg, KIA

Translators:

Sara Basil, Chipewyan
Isadore Zoe, Dogrib
John Komak, Innuinaqtuun

ABORIGINAL INVOLVEMENT

TK Panel on Fencing

Participants:

Harry Simpson, Dogrib

Eddie Camille, Dogrib

J.B. Rabesca, Lutsel K'e (involved in original 1999 consultations)

Pete Enzoe, Lutsel K'e

Alfred Baillargeon, YK Dene (involved in the original 1999 consultation)

Lawrence Goulet, YK Dene

George Mandeville, NSMA

Frank Camsell, NSMA

Aimee Abegona, KIA

Tommy Pigalak, KIA

Translators:

Isadore Zoe, Dogrib

Bertha Catholique, Lutsel K'e

TRADITIONAL KNOWLEDGE PANEL ON FENCING

EMAB noted that Diavik had not yet fulfilled the fencing requirements at the Lac de Gras mine site as outlined in the CSR. The fencing requirements originally identified were to protect wildlife, specifically caribou, grizzly bears and other mammals.

EMAB assembled a Traditional Knowledge panel as part of a three-step approach to dealing with the fencing issue. (See page 46 for more details on this issue.)

Members of the of the Traditional Knowledge panel visited the Colomac mine site to see existing fencing and to discuss with staff how well it works. Then the group of elders travelled to the Diavik site and saw the areas proposed for fencing in 1999 at an elders meeting in Dettah, which were included in the CSR.

On day three the panel reviewed:

- the CSR, Section 9.4.1 as it applies to caribou;
- recommendations of the March 8-9, 1999 Elders Workshop as they apply to caribou movements and attempts to ensure the safety of the caribou herds; and
- caribou monitoring programs now being used in the Diavik mine area.

The elders discussed the following questions:

- What areas need to be fenced?
- What type of fencing should Diavik use?
- Is the existing fencing good enough?



Tommy Pigalak, Aimee Abegona, George Mandeville, and Frank Camsell – four of 11 Traditional Knowledge panelists on fencing at Colomac Mine.

ABORIGINAL INVOLVEMENT

The elders recognized two issues. They identified that there should be exclusion fencing that prevents animals from entering areas dangerous to them. They noted that Diavik should consider diversion fencing to cause herds to change direction, encouraging them to miss the site entirely. Finally, the panel suggested that the Colomac model be used as much as possible, including method of post installation, fence fabric (chain link), ground flaps, escape gates, general plan, and the avoidance of "inside corners," which can be used by wolves to trap caribou.

They also determined where to erect exclusion fencing, in order of priority:

- Open pits (current and future)
- PKC (Processed Kimberlite Containment area)
- Fuel storage areas (tank farm plus any other drum storage areas)
- Explosives storage areas

Finally, the panel made several general recommendations to EMAB:

- More monitoring, especially this year when decisions need to be made about fencing.
- Representatives of the panel should inspect exclusion fence once it is installed.
- The panel needs to see more of the area and infrastructure when there is less snow, during peak migration, and with more access to areas of concern.
- A TK panel should monitor habitat destruction more closely.

The panel indicated that they would be taking information on fencing back to their communities with great happiness that at last people seem to be listening to their concerns.



Translator Isadore Zoe with Harry Simpson and Lawrence Goulet closely looking at fencing near the tailings pond at Colomac Mine



A mine employee explains how the fencing curves up and down hills around the eight-kilometre perimeter.

ABORIGINAL INVOLVEMENT

FISH PALATABILITY AND TEXTURE STUDY

As documented in the CSR, concern was expressed by Aboriginal groups that Diavik's mining activities might adversely affect the texture and taste of fish in Lac de Gras. Diavik, in cooperation with DFO and Aboriginal partners, developed and conducted a fish palatability and texture study at the mine site in 2002. Participants also took scientific samples and sent them for analysis to monitor fish populations and fish health.

On August 13-14, 2003, the study was conducted again at the request of the Aboriginal groups. Representatives of each Aboriginal Party, including youth, elders, women and fishermen, were chosen to participate alongside Diavik scientists. The study design was drafted, revised, and agreed to by all involved.

Thirty-two lake trout were collected in five nets. All participants assisted in weighing and measuring the fish. Scientific requirements included taking photographs of fish, observing visually for sex, stage of maturity, and tissues were removed for metal analysis. Stomach contents were also recorded, along with visible parasites. Aging structures were collected. Observations on fish weight, length, fertility and general health were also recorded.

Fish Palatability and Texture Study

Participants:

Johnny Weyallon - Dogrib
Leon Weyallon - Dogrib
Louis Whane - Dogrib
Elizabeth Michel - Dogrib
Florence Catholique - Lutsel K'e
Ronnie Bull - Lutsel K'e
Ernest Boucher - Lutsel K'e
Madeline Drybones - Lutsel K'e
Adeline Mackenzie - YK Dene
Maria Therese Doctor - YK Dene
Noel Doctor - YK Dene
Mike Francois - YK Dene
Fred Turner - NSMA
Peter Turner - NSMA
Marcel Lafferty- NSMA
Kris Johnson - NSMA
Janell Dautel - NSMA
Gerry Atatabak - KIA
Miranda Atatabak - KIA
Allen Niptanatiak - KIA
Jimmy Hanak - KIA



Participants catching fish.



Participants taking fish samples for analysis.

ABORIGINAL INVOLVEMENT

Fish were selected for cooking and evaluating. They were observed before and during cleaning to determine if they looked normal and healthy. Participants then cooked the fish in a variety of ways: directly on the grill over the fire, boiled, wrapped in foil and one fish was fried in butter. No additional seasonings were added. During cooking and tasting, the groups were asked to rate the fish based on how they looked and tasted in relation to fish from their home communities. A numbering system was established, ranging from 1 to 5. Each community group filled in one set of forms. There was space available on the forms for additional comments.

The general consensus was that while the fish tasted different from fish they were used to eating, the Lac de Gras fish were good to eat. No concerns in fish quality or condition were noted.

The Fisheries Authorization requires the taste testing to be done every five years, but participants have recommended that the study be done yearly for the next two years, and every other year after that.

The study was a good example of how traditional and scientific knowledge can be combined, and how scientists and community members can work together towards a common goal. A report on the study is now available at EMAB's Yellowknife office.

The study will be repeated again in the summer of 2004 at what is now a permanent Traditional Knowledge Camp near the mine site.



Participants tasting fish.



Participants going out to catch fish.

In the CSR:

Fisheries:

The RAs conclude that there will be no significant adverse environmental effects on fisheries in Lac de Gras. Diavik will be required to modify its Aquatic Effects Monitoring Program in accordance with the environmental agreement and/or the Fisheries Act (FA) authorization. However, given concerns raised by the Aboriginal people, a follow-up program that will be specified in the Environmental Agreement and/or the FA authorization will require Diavik to:

- i) collect baseline information regarding the palatability and texture of fish in Lac de Gras; and*
- ii) undertake periodic monitoring of fish flesh for palatability and texture.*

ABORIGINAL INVOLVEMENT

Capacity Funding

The Capacity Funding Program was established in 2001 by a motion of the Board as a way of supporting the Aboriginal Parties in building capacity in their communities. The Board agreed to:

“provide a budget of up to \$30,000 to be allocated to each Aboriginal Party to the agreement for the fiscal year ending March 31, 2002, to assist in:

- Creating opportunities for community and public input and participation*
- Facilitating effective communication about the Diavik Project with Affected Communities*
- Facilitating effective participation of the Aboriginal Peoples*
- Providing and implementing an integrated and co-operative approach to achieving the purposes of Article 1 of the Environmental Agreement*
- Promoting capacity-building for the Aboriginal Peoples respecting Project-related environmental matters and to*
- Allow their respective representative to adequately participate on the Board.”*

from EMAB Motion #3-01-11-20

CAPACITY FUNDING

LUTSEL K'E DENE FIRST NATION

EMAB's Lutsel K'e member, in cooperation with the Lutsel K'e Dene First Nation office, coordinated various activities for the youth and elders of Lutsel K'e during the 2003/04 fiscal year. EMAB's funding enabled the two groups to participate in activities where they could interrelate and communicate about land and water skills with the use of traditional language in cultural settings. The two camps, held in the summer of 2003, were a success.

EMAB funding partially enabled the Lutsel K'e Dene Band Elders Advisory Committee to act as a resource in cultural, environmental, and traditional teaching activities. During the course of the year, the Elders were used as advisors, teachers and assistants in the area of environmental and Traditional Knowledge. The work produced helped gain understanding of the monitoring of the environmental impacts of the mine.

Finally, EMAB funding also allowed the Lutsel K'e Board member to have an office at the WLEC Department.

YELLOWKNIVES DENE FIRST NATION

With the help of EMAB's funding, YKDFN was able to further their efforts in several areas. One primary goal has been to augment community knowledge of Diavik's ongoing monitoring and obtain input on community values and concerns that should be brought forward to EMAB. YKDFN was also able to retain assistance to review Diavik plans and monitoring information with YKDFN membership, program managers, and council, to ensure broad community input into Diavik's ongoing environmental management.

The YKDFN board member received community guidance on training, monitoring and traditional knowledge issues and was able to engage Diavik in addressing those issues collaboratively through EMAB. He was also able to facilitate collaborative monitoring and traditional knowledge use as it relates to wildlife management.

NORTH SLAVE METIS ALLIANCE

The capacity funds provided were largely used to support office administration so that the NSMA representative on EMAB could fully carry out his duties. The EMAB member kept the general membership of the NSMA informed of activities. This included presentations to the Annual Gathering at Old Fort Rae and the Annual General Meeting, as well as at Board meetings.

KITIKMEOT INUIT ASSOCIATION

During the 2003/04 fiscal year, KIA was able to get their Water Quality Monitoring Program underway. A community resource person was engaged to begin a work plan for the project.

Also with EMAB funding, and assistance from Diavik water quality staff and from the Sustainable Development Environmental Services Officer in Kugluktuk, required equipment for basic water quality monitoring was purchased. The goal is to monitor water quality at various sites along the Coppermine River.

In September, there was a strong Kugluktuk participation at the Water Quality Monitoring workshop.

LEARNING and WORKING TOGETHER

Providing training to Board members continues to be an important element of Board development. Training for community members is equally important to the environment as it relates to Diavik. The more we learn how to do, the more we can do.

WATER QUALITY WORKSHOP

Twenty-four participants, including EMAB members, representatives from communities and resource people, attended the water quality workshop. The four resource people in attendance were: the Board's water quality consultant Wanda Goulden (Komex Environmental Ltd.); Gord MacDonald (Diavik Diamond Mines Inc.); Bart Blais (DIAND – Water Resources); and Julian Kanigan (DIAND – Water Inspector).

The three-day workshop held in Kugluktuk was intended to inform participants on:

- water quality issues and sampling/monitoring of water quality (environmental and drinking water);
- how water quality is monitored in relation to mines and particularly diamond mines;
- designing a water quality monitoring program for Diavik;
- specific issues regarding water quality in relation to the Diavik project;
- results of Diavik's water quality monitoring and what they mean; and
- Diavik's application to amend their water licence to increase ammonia limits.

Towards the end of the workshop, participants put forth several general recommendations, which in turn aided EMAB to formulate recommendations to pass on to various regulators, Diavik, and to the Parties to the Environmental Agreement. (See pages 48-50)

However, regarding community consultations by EMAB, participants felt that many of the processes that the Board is involved in – for example, the review of the proposed amendments to Diavik's water license – do not allow for sufficient consultation between the Board members and their communities. Participants felt that, as a result, the communities are not able to provide informed opinions on various issues. In addition, the need for translation and the ongoing need to deal with capacity challenges must be acknowledged.

Participants also noted that EMAB and regulators such as the MVLWB needed to take into account, in designing their processes and timelines, the time and effort necessary to consult and discuss in a meaningful way with communities.



LEARNING and WORKING TOGETHER

Participants suggested:

- that EMAB and Diavik should continue to offer enhanced opportunities for community-based monitoring;
- that the Parties to the Environmental Agreement should work together over the coming months to prepare a proposal for a water quality monitoring project at the on-site TK camp at the Diavik mine;
- that EMAB and Diavik should consider ways to provide support (equipment, expertise, funding) to Kugluktuk's proposed community water quality monitoring program;
- that EMAB and Diavik should explore ways that community-based monitoring and Traditional Knowledge might be used in Diavik's future water quality monitoring activities to complement the current approach; and
- that EMAB and Diavik should consider ways that training can be provided to community members to enhance capacity to monitor and manage their environment.

Participants agreed that there are many benefits to holding EMAB events such as the water quality workshop in the communities, and that the Board should continue this practice with future events. Several communities indicated their interest in hosting such events.

BOARD EFFECTIVENESS WORKSHOP

The Board identified its main tasks for the coming years at a Board Effectiveness Workshop in Wha Ti during the month of November. With the help of an expert from Banff Executive Leadership Inc., five Board members and the Executive Director discussed issues central to EMAB's existence.

The Board recognized the need for a five-year strategic plan, which would enable them to be more effective, efficient and accountable. Members determined that a community engagement process was integral to developing clear priorities and that the Board members need to consult with their communities and determine what part of EMAB's extensive mandate needs the most attention.

As a first step toward community engagement and strategic planning, the Board decided to hold a two-day workshop focused on a plain language version of the Environmental Agreement. The Board discussed meanings and priorities. A board calendar was drafted for the coming year clearly laying out the steps for community engagement, among many other activities.

Board members also decided they would dedicate time to reviewing and developing policy, fine tuning EMAB's Operations Manual and a Code of Conduct for themselves, and together they developed terms of reference for EMAB committees, such as the Executive Committee and the Strategic Planning Committee.

Finally, members determined that more and better communication with communities was integral to any strategic planning that would occur.



EMAB members at the board effectiveness workshop held in the Dogrib community of Wha Ti (from left): Doug Crossley, KIA; Doug Doan, RWED; Robert Turner, NSMA; and Lawrence Goulet, Yellowknives Dene.

LEARNING and WORKING TOGETHER

ENVIRONMENTAL AGREEMENT WORKSHOP

This workshop, structured as a clause-by-clause study allowed Board members to develop a consistent understanding of each clause of the EA and identify a few clauses that Board members interpret differently. The process also identified questions about some clauses and their implementation for EMAB to follow up. Staff will be producing a plain language summary of the Environmental Agreement, as well as establishing plain language definitions for integral environmental concepts such as sustainable development, precautionary principle and adaptive environmental management.

CANADIAN ARCTIC RESOURCES COMMITTEE WORKSHOP

In February, CARC organized meetings entitled Initiating a Northern Research Network to Assess and Respond to Increasing Development Pressures in the NWT. EMAB partially funded Lutsel K'e Dene First Nation representative Florence Catholique to attend.

The meeting focused on environmental training, partnering on such training, and the possibility of accessing funds for academic research. As Florence noted, the Environmental Agreement refers to EMAB seeking partners to build capacity for monitoring by Aboriginal people.

Florence's focus was on building capacity for communities to participate in monitoring the effects of the mine on the environment, to explore the options in training and partnering, and to gather information on what level and caliber of community people the university might be interested in.

Outcome:

- A group of 20 people set up subcommittee to assist community needs in joining up with university students.

Lutsel K'e has offered to be a host community.

REPORTS

In 2003-2004 DDMI submitted 13 plans and reports, as well as one required revision, to regulators, the Parties, EMAB members and the EMAB Public Registry. Regulators also considered a request originally submitted by DDMI in June 2003 and revised in December to change the ammonia limits in their water licence, along with supporting technical information.

WHAT DID EMAB DO?

EMAB focused on the comments and concerns of the government regulators and other expert reviewers, as well as the role each plays in review, comment and follow-up. When EMAB noted critical comments or comments that contradicted each other, that was an indication that the issue merited further investigation. Such issues are outlined in the following pages.

The Board gave particular attention to the Wildlife Effects Monitoring Program (WEMP) and the Aquatic Effects Monitoring Program (AEMP), and reports on fish and fish habitat monitoring. Experts were hired for an annual review of the WEMP and AEMP.

EMAB substantially revised its report tracking system and as a result requested status reports from DFO and MVLWB to confirm that they were still reviewing reports shown as outstanding. EMAB noted again this year that several reports submitted by DDMI had not completed the review process. DFO and MVLWB confirmed a number of outstanding reports and provided some explanation as to why certain reports have been in review for so long. EMAB was also able to confirm that some reports that Diavik thought required approval did not. EMAB contracted a technical expert to review Diavik's application to change their water licence and review the issues with the Board.

DDMI produces many plans and reports as part of the regulatory process. The information and recommendations from the environmental assessment process documented in the Diavik Comprehensive Study Report formed the basis for the conditions in these various permits and licenses.

Specific regulators are responsible for specific licences and permits:

- *MVLWB – plans and reports related to the water licence*
- *DFO – plans and reports related to fisheries authorizations*
- *DIAND – plans and reports related to land leases*

The Environmental Agreement also requires reports, such as the Environmental Agreement Annual Report.

These reports are an important part of the environmental management of the mine and the regulators and EMAB carefully review them. The reports tell us whether:

- *DDMI is meeting its commitments,*
- *the mitigation measures are working, and*
- *the predictions about the effects of the mine were accurate.*

The DIAND inspector provides inspection reports covering the land leases, Land Use Permits and the water licence.

BOARD OBSERVATIONS

EMAB records indicate that several reports had not completed the review process by March 31, 2004. Five of these reports were not required until March 31, 2004.

Reports In Review At March 31, 2004

REPORT	SUBMITTED	REGULATOR
North Inlet Fish Salvage Report	Jan. 2002	DF0
Slimy Sculpin Baseline Metals Study	July 2002	DF0
Design Specs and Monitoring Plans - Fish Habitat Compensation		
Streams	Aug. 2002	DF0
Inside Dikes	Aug. 2002	DF0
Lake Trout Habitat Utilization Study	Nov. 2002	DF0
A 154 Metal Leaching Study Results	Dec. 2002	DF0
Sediment Deposition Study - Dike A154	Dec. 2002	DF0
A 154 Fish Salvage Study Report	Dec. 2002	DF0
A 154 Dike As-built Report	Aug. 2003	MVLWB
PKC Phase 2 Construction As-Built Report	Nov. 2003	MVLWB
Fish Palatability Testing 2002 and 2003	Feb. 2004	DF0
Aquatic Effects Monitoring Program Tech. Report 2001 - revised	Nov. 20/02	MVLWB
Aquatic Effects Monitoring Program Tech. Report 2002 - revised	Sept. 2003	MVLWB
Aquatic Effects Monitoring Program Tech. Report 2003	March 2004	MVLWB
Water Management Plan – ver.3	March 2004	MVLWB
Mgmnt Plans - Operations	Mar. 2004	MVLWB
Hazardous Materials Management Plan ver.5	Oct. 2002	MVLWB
Hazardous Materials Management Plan ver.6	Mar 31/03	MVLWB
Hazardous Materials Management Plan ver.7	Mar 31/04	MVLWB
Operations Phase Contingency Plan ver. 5	Oct. 2002	MVLWB

BOARD OBSERVATIONS

Reports Approved in 2003-04 or Not Requiring Review

REPORT	SUBMITTED	REGULATOR
Blasting Effects Mitigation Plan	Sep. 2001	DFO
PKC Containment Facility As-Built design	Nov. 2002	MVLWB
Winter Dissolved Oxygen Survey - 2002	Dec. 2002	DFO
Collection Pond As-built report	Dec. 2002	MVLWB
2002 Environmental Agreement Report	June 2003	EMAB
Dam Safety Inspection Report	July 2003	MVLWB
Winter Dissolved Oxygen Survey - 2003	Oct. 2003	DFO
Waste Transfer Area Operating Plan	Nov. 2003	MVLWB
North Inlet As-built report	Nov. 2003	MVLWB
Metal Concentrations in Sediment, Benthic Invertebrates - initial assessment	Jan. 2004	MVLWB
Wildlife Effects Monitoring Report - 2003	March 2004	EMAB
Dust Monitoring Effects Program and Habitat Assessment - 2003	March 2004	EMAB
Waste Management Plan Operational Phase ver. 7	Mar 31/04	MVLWB
Seepage Reports	Mar 31/04	MVLWB
Water Licence Report	Mar 31/04	MVLWB



Yellowknives Dene elder Alfred Baillargeon looking out onto a wintry Lac de Gras from the water treatment plant at the Diavik site.

BOARD OBSERVATIONS

Established on September 14, 2000, prior to the formation of EMAB, the Diavik Technical Committee (DTC) is made up of water experts and regulators that advise the Mackenzie Valley Land and Water Board on technical matters related to Diavik Class A Water Licence Number N7L2-1645.

The members provide expert technical opinions and recommendations to the MVLWB on the acceptability of all development reports and plans submitted related to the water licence, and to assist the MVLWB in fulfilling its mandate and recommending acceptance or written approval of the reports or plans.

EMAB acts as an observer and does not participate in DTC decisions, although the Aboriginal Parties to the Environmental Agreement do have official standing with the committee.

EMAB contracts experts when regulators express differing opinions about reports, when EMAB wants an independent perspective or when they require additional information to explain complex technical reports.

DIAVIK TECHNICAL COMMITTEE

There were six meetings of the DTC last year. Four of these were devoted to a proposed amendment to the ammonia limits in the water licence. DTC also reviewed the Aquatic Effects Monitoring Program report for 2002 and the revised report for 2001.

Ammonia

DTC members thoroughly reviewed Diavik's application to amend the ammonia limits in its water licence. As of March 31, 2004, there had been no decision on the application, although a hearing was scheduled and a mediation process had begun to resolve outstanding issues.

Aquatic Effects Monitoring Program

The DTC thoroughly reviewed the 2002 AEMP report and directed Diavik to revise the report. Diavik submitted the revised version in September 2003; the DTC has not yet discussed it. The DTC also discussed the revised 2001 AEMP report but has not yet decided whether to recommend it for approval. During review of the AEMP reports DTC members raised a number of questions about the AEMP and its ability to meet the objectives set for it.

What did EMAB do?

- a) EMAB considered these questions and recommended that the MVLWB commission an independent review of the AEMP.
- b) EMAB expressed concern in February 2003 that the DTC had not reviewed several documents received from Diavik. In a letter dated April 3, 2003, EMAB formally requested MVLWB's assurance that a timely assessment of reports would occur.
- c) EMAB expressed concern about possible effects on the quality of report reviews after DIAND informed the Board their water resources staff would no longer be able to attend DTC meetings due to funding cutbacks, and requested assurances that water resources staff would continue to participate.

Response/Outcome

- a) The MVLWB has agreed to an independent review, to be completed by June 2004.
- b) EMAB received a letter from the MVLWB on May 21, 2003 stating that the DTC had met May 16, would be meeting again June 26, and that a DTC discussion meeting would take place June 11 on the AEMP for 2002 as well as the revised 2001 AEMP report.
- c) DIAND assured EMAB that staff would continue to attend DTC meetings, and they would meet all commitments and responsibilities relating to the review of reports.



EMAB at the Diavik site with Scott Wytrychowski, the mine's Environmental Manager.

MAJOR ISSUES

Ammonia at the Mine

Ammonia, which is made up of Nitrogen and Hydrogen, comes in two forms. Un-ionized ammonia has the formula NH_3 while ionized ammonia has the formula NH_4 . The amount of ammonia in each of the two forms depends on the temperature and pH (acidity) of the water they are in. Where temperature and pH are low, as in Lac de Gras, There tends to be very small amount of un-ionized ammonia compared to ionized. Un-ionized ammonia is much more harmful to fish than ionized.

Ammonia breaks down in the environment fairly quickly to nitrite (NO_3) and finally to nitrate (NO_2). Both of these chemicals can also be harmful to fish.

Ammonia is produced in a mine during blasting. Standard explosives are made of a mixture of ammonium nitrate and fuel oil. This mixture dissolves very easily in water. Any leftover explosive that might be on the rock after the blast will end up in the water that runs over the rock - this could be rain, melting ice or snow, or leakage from the dike around the pits. All this water is pumped out of the pit as minewater, to the North Inlet.

WATER LICENCE AMENDMENT - AMMONIA

Summary

The MVLWB issued a water licence to DDML on August 16, 2000. The water licence was amended in September 2002 to change phosphorous and pH limits.

In May 2003, Diavik told EMAB that ammonia levels in the minewater from the open pits were rising above predicted levels and that the mine might need to apply for an amendment to their water licence if levels continued to rise. Diavik applied for an amendment June 26, 2003. Diavik requested a change in the way ammonia was limited. At that time the licence set limits on total ammonia concentration in any sample taken – 2.0 mg/l average with 4.0 mg/l max for any sample. Diavik proposed setting a limit of 1.0 mg/l on the un-ionized ammonia only.

Diavik's amendment application also included a new requirement to pass the monthly toxicity test on fish, a review of management practices for explosives, pit water and water throughout the site and reviewing possible treatments to remove ammonia.

The DTC met several times to go over the Diavik application amendment and MVLWB scheduled a hearing, which they then cancelled because there were no written interventions submitted. The MVLWB referred the application back to the DTC for a recommendation.

After many discussions, Diavik revised their application in December and a new hearing was scheduled. Diavik requested a mediation process, as allowed for by the MVLWB rules of procedure, to work out issues among the stakeholders in a less formal meeting. The MVLWB agreed and they scheduled a mediation session for April 1, 2004.



Ammonium Nitrate is one of the components of the explosives used at the mine.

The Process

DTC members had a few questions and concerns regarding the initial application:

- Could Diavik keep ammonia levels below current licence limits by improving management practices and/or treating the ammonia?
- Was it a good idea to change the licence to limit only un-ionized ammonia, considering the low temperatures and pH of Lac de Gras?
- Should there be any changes to the ammonia limits?

The DTC had four meetings to discuss the application. There was a lot of discussion about whether the guidelines for safe levels of ammonia for fish were accurate for a situation like Lac de Gras.

Diavik was able to provide more information about the unexpectedly high levels of ammonia and water entering the pit: there was a fracture zone in the rock at the bottom of the pit that Diavik had not found when they made their original predictions. This allowed much more water to go into the bottom of the pit than Diavik had predicted. They are looking at ways to keep this water out of the pit.

There was also discussion about the possibility of treating the ammonia. It was agreed that studies that are more detailed would be needed to find out if this was possible for the Diavik mine. Some members felt that if limits were increased Diavik would have less incentive to meet their limits.

Most members concluded that a limit on total ammonia would be better than Diavik's proposal to regulate only un-ionized ammonia. The DTC rejected the application to regulate only un-ionized ammonia. Diavik sent a strong protest to the MVLWB and asked to revise the application rather than start the process over. The MVLWB agreed and Diavik submitted a revised application on December 19, 2003 proposing a limit of 20 mg/l on total ammonia. They continued to propose a pass requirement on monthly toxicity tests and a review of management practices as in the original application. Diavik informed the MVLWB in the application that they were studying ways to allow their water treatment plant to control pH as an additional way of lowering possible harmful effects of ammonia.

The MVLWB set a hearing date of March 23 and 24, 2004 and various groups filed a number of formal interventions.

Temporary Measures

To keep ammonia levels below licence limits, Diavik pumped water from its sedimentation (sed) pond into the North Inlet to dilute the ammonia. When Diavik pumped out the diked area around the two open pits to allow mining, some of the water had too much sediment to go directly into Lac de Gras, so it was stored on land in the sed pond to allow the sediment to settle out. There was enough water in the sed pond to dilute the ammonia until December 2003.

MAJOR ISSUES

What Did EMAB Do?

EMAB discussed the ammonia amendment application. They agreed that this was a highly technical issue, and decided to contract two independent experts, Komex International and Aquatic Environments, to review the application, provide comments and give a plain-language briefing to EMAB. All EMAB members and the Parties to the Environmental Agreement received copies of the reviews.

Following the experts' briefings, EMAB submitted their reviews to MVLWB indicating that prior to a decision several critical questions needed answers. EMAB also contracted Komex to review the revised application and provide a response. EMAB also decided to document the process used to review the application and to provide written comments to the MVLWB after the final decision, with the intention of improving the process. EMAB also took the position that in order to fulfill the intent of the Environmental Agreement all Parties must have the opportunity to participate fully in any processes to change regulatory instruments for the Diavik project.

EMAB made the following recommendation:

MOTION 03-04-01-21

That DDMI and DIAND provide sufficient capacity funding for Aboriginal peoples to fully participate in Diavik's water licence amendment hearing on March 23/24, 2004.

EMAB sent this recommendation to Diavik and DIAND on January 29, 2004.

Response/Outcome

Diavik responded quickly noting that they would not provide additional funding. As of March 31, 2004 DIAND had not responded. A follow-up letter on the need for intervener funding under the MVRMA was sent to the Minister of DIAND on February 27, 2004; EMAB has not yet received a response.

The DTC met again in January to discuss the revised application and the upcoming hearings. On February 19, Diavik requested that the MVLWB appoint a mediator to bring the various parties together before the hearing. The MVLWB appointed Dr. Laura Johnston to act as mediator. The Board scheduled the mediation for April 1 and postponed the hearing until the mediation was complete.

REVIEW OF WILDLIFE EFFECTS MONITORING PROGRAM

Background

The Wildlife Effects Monitoring Program (WEMP) is a requirement of the Environmental Agreement. Its purpose is to assess predictions made during the environmental assessment:

- Were they accurate?
- Do mitigation measures work properly?
- Are other mitigation measures required?

Diavik submits an annual report on the WEMP at the end of March. They presented the 2002 WEMP to EMAB in September 2003.

What Did Emab Do?

The board invited experts from RWED and the Canadian Wildlife Service to attend and comment. The Board also contracted MSES Consultants to review the report and provide their expert opinion as to the methodology and conclusions, and to review how Diavik implemented EMAB's recommendations for changes to the program. Because Diavik finalized the revised Wildlife Effects Monitoring Program in November 2002 and implemented it in December of 2002, the 2002 WEMP report reflected the changes to a very limited degree.

Participants raised a number of questions about the presentation including:

- Timing of the report – Diavik should release the report early enough so that there is reasonable time to address issues by changing the next year's monitoring program.
- The distribution of the report may not be wide enough; in particular communities want a chance to review and respond to it.
- How the data to monitor cumulative effects of development in the area is used, what form it should be in and who is responsible for cumulative effects monitoring.

Specific elements of the program also raised a number of detailed questions.

MSES made many technical comments regarding the report. The main point of the review was that the Wildlife Effects Monitoring Program and report provide good data. However, the report should go further and interpret the data so that Diavik's predictions about impacts on wildlife can be tested. Diavik provided a point-by-point response and stated that it was "not within the intended scope of the annual monitoring report" to statistically verify impact predictions.

EMAB decided to delay making any recommendations about the WEMP until the submission and presentation of results of the 2003 WEMP in April 2004 because this would provide the opportunity to review a full year of information from the revised program.



MAJOR ISSUES

No Net Loss

Canada's Fisheries Act makes destruction of fish habitat illegal, so to allow for projects that will affect fish habitat, DFO has developed a Policy for the Management of Fish Habitat or "No Net Loss." When a project destroys or damages fish habitat, the company must offset the loss by replacing or creating an equal amount of fish habitat. Ideally, the habitat will be in the same area as the project and will be the same kind of habitat as was destroyed. If this is not possible then the policy allows for habitat creation away from the site or increasing habitat for the affected fish species. This could be by fixing up damaged habitat somewhere else, or by increasing the productivity of existing habitat.

FISH and FISH HABITAT MONITORING

Background

This issue dates back to the earliest days of EMAB. As part of the environmental assessment process for the Diavik project DFO approved general proposals by Diavik to do some work in three lakes on the mainland near Diavik's mine site, as well as on two lakes on the island itself. The project does not affect these lakes, but Diavik's research says that these lakes could support more fish if Diavik did some work on them. The work would involve changing the shape of the lakes using heavy equipment, for example, to dig around the streams connecting the lakes or put some fill near the shore to create shallow spawning areas. This is an example of making up for loss of fish habitat resulting from the development and operation of the mine.

What Did Emab Do?

EMAB has been working to find a way to accommodate the holistic approach of Aboriginal people in the No Net Loss principle used by DFO to balance out the effects of major projects like the Diavik mine.

EMAB made significant progress on this issue this year. DFO agreed to fully consider proposals for off-site compensation, and not to require Diavik to proceed with previously authorized work on undisturbed lakes on the mainland near Lac de Gras.

EMAB has taken the position that untouched lakes should not be disturbed as a way of compensating for destroyed habitat and passed the following motion in February 2003:

MOTION #03-02-12-13

The Environmental Monitoring Advisory Board for the Diavik project does not support the modification of fish habitat in undisturbed lakes in order to satisfy the DFO "No Net Loss" policy. EMAB recommends that approval for the DDMI proposal to modify the fish habitat in lakes e14, e17, m1, m2, m3 be delayed and other community identified options to create or enhance the required fish habitat units in previously disturbed, impacted or modified off site areas be investigated in order to satisfy the "No Net Loss" requirements.

EMAB also brought together a Traditional Knowledge panel in late January to discuss the No Net Loss issue and provide advice to EMAB. This first-ever TK panel is discussed in detail on page 22. The panel members were still in the process of approving their report as of March 31.

EMAB also contacted DFO senior officials to start discussions to broaden DFO's policy regarding destruction of fish habitat so that it takes a more holistic approach. EMAB has told DFO that the priorities of Aboriginal people cannot truly begin to be addressed because of the obstacle created by DFO's artificial separation between fish habitat and fish management. EMAB received a response from DFO on this issue in mid-February encouraging the Board to follow up with Yellowknife staff. EMAB is now considering its next steps.



Fish salvaging – where fish are moved from one lake to another – at the Diavik site.

AQUATIC EFFECTS MONITORING PROGRAM REPORTS

Background

The Aquatic Effects Monitoring Program (AEMP) is a requirement of Diavik's water licence and its purpose is to measure the effects of the discharge from the mine on the water and the fish and other life forms in the lake. Diavik submits an annual report on the AEMP at the end of March each year. They presented the 2002 AEMP report to the DTC in June 2003.

DTC members reviewed the 2002 AEMP report along with the revised report from 2001 (the revised version of the 2001 report was submitted in November 2002). They made a number of criticisms of the report, similar to those made in 2001. They also questioned the methodology and rationale behind parts of the program itself. In the end, they recommended the 2002 report be revised and did not recommend the revised 2001 report for approval.

DTC raised the following issues about the report:

- problems with some lab results;
- need to clarify sampling procedures;
- discrepancies in reporting of data, data handling and combining of samples; and
- numerous editorial errors.

They asked fundamental questions about the adequacy of the entire AEMP, particularly focusing on the number of samples taken and the analytical methods. DFO again recommended an independent review of the AEM program design.

EMAB sent a letter in July 2002 to the MVLWB supporting the "***suggestion that the AEMP undergo a thorough and independent review by an expert in this field under the auspices of the MVLWB.***" EMAB did not receive a response to this suggestion.

What Did Emab Do?

EMAB discussed the comments made during the DTC review of the 2002 AEMP. They decided that the ongoing concerns expressed by DTC members about the AEMP raised serious questions about the ability of the program to accomplish its objectives.

Following the discussion, EMAB made the following recommendation to the MVLWB on July 23, 2003:

EMAB recommends that the MVLWB contract an independent expert to undertake a thorough review of the AEMP to determine whether it is able to satisfy the core objectives of:

- confirming baseline findings;
- testing and confirming impact assessment predictions;
- detecting change in number and distribution of species;
- providing the data necessary to revise model predictions; and
- determining DDMI's contribution to cumulative effects of human disturbance in the Lac de Gras Area.

The review should include the rationales provided by DDMI for exclusion of specific items in the water licence in section 2.3 of the July 2001 AEMP, specifically part K, item 1(vii)- exclusion of the required evaluation of eutrophication monitoring tools, and part K, item L – exclusion of a control site.

Response/Outcome

On February 11, 2004, the MVLWB agreed to an independent audit of the AEMP to evaluate its effectiveness in specific areas, such as:

- Are enough samples taken to show if the water quality is changing and if there are changes in the small creatures living in the water and in the lake bottom?
- Can the AEMP show changes over time, including since the mine was built?

Can the AEMP show whether the predicted effects (in the CSR) on the water and the animals and plants that live in it are taking place?

MVLWB staff informed EMAB that they would issue a Request for Proposals in early April 2004 with results of the audit expected by June.



MAJOR ISSUES

Section 9.4.1 of the Diavik Comprehensive Study Report states that:

“The follow-up program to be specified in the Environmental Agreement or land lease will also require Diavik to:

at a minimum, fence areas including the open-pits, fuel and explosive storage areas and the processed kimberlite containment area; the type of fencing remains to be determined. Fencing and diversion must be adaptive. Should monitoring determine that deflection is required, deflection methods will be tested.”

FENCING AT DIAVIK

Background

Following a site visit in May 2003, EMAB members noted that the open pits were not fenced in. EMAB reviewed the Environmental Agreement and the leases, as well as the CSR, and confirmed that there were fencing requirements set out in the CSR.

What Did Emab Do?

EMAB followed up with a letter to Diavik requesting fencing plans.

After receiving Diavik's response EMAB made the following recommendation to the company and DIAND:

EMAB recommends that DDML and Responsible Authorities immediately implement the fencing requirements detailed in the Diavik Diamond Project Comprehensive Study Report Section 9.4.1 clause i).

Diavik has indicated that the timing is good to discuss the fencing issue now that the mine construction is completed and infrastructure is in place.

EMAB then initiated a three-phase plan to develop fencing recommendations:

- Convene a TK panel to review the information, visit the site and make recommendations to EMAB.
- Convene a workshop involving scientists, community members and others to review existing studies and information and make recommendations to EMAB.
- Consider both sets of recommendations and develop EMAB recommendations destined for Diavik and regulators.

EMAB accomplished the first phase of the plan in March. The TK panel visited the Colomac mine to tour the fencing around the tailings pond, and then visited the Diavik mine to view the various areas that require fencing. The panel report includes detailed recommendations on type of fencing and methods for installing it. More detail on the panel can be found on page 24.

EMAB expects the second and third phases to take place in September 2004.



Caribou on the barrenland.



MAJOR ISSUES

WATER QUALITY

Background

Water quality is important to Aboriginal people and is a high priority for EMAB. Ensuring that the quality of water remains viable is a great concern.

What Did Emab Do?

EMAB held a water quality workshop in Kugluktuk in September 2003. The workshop included Board members along with participants selected by each of the Aboriginal Parties. With assistance from government experts, the federal inspector, Diavik experts and EMAB's water quality expert, the workshop reviewed water quality monitoring of the Diavik project, and results to date. The workshop began by informing participants about water quality sampling and analysis techniques to give them a better understanding of the complexity of monitoring in isolated northern locations with ultra-clean, low-nutrient water.

In addition to reviewing Diavik's water sampling system and the AEMP, participants spent a lot of time reviewing the ammonia issue and Diavik's proposed amendment to ammonia limits in its water licence. Participants also heard a presentation on the Coppermine River Cumulative Effects Monitoring program and that DIAND had recently cut the water quality-sampling portion of the program.

EMAB reviewed the workshop report and made a number of recommendations as follows:

Reinstatement Of Coppermine River Water Quality Monitoring Program

EMAB recommends that DIAND reinstate the Coppermine River Water Quality Monitoring Program (letter of October 14, 2003 to DIAND Regional Director).

Responsibility For Kugluktuk Water Supply

EMAB recommends the Parties address the question of responsibility in the case that Kugluktuk's water supply becomes contaminated due to upstream mining activity including the Diavik mine (letter of January 7, 2004 to Parties to the Environmental Agreement).

Community Based Water Quality Monitoring

EMAB recommends the Aboriginal Parties to the Environmental Agreement develop a joint proposal for community based water quality monitoring of the Diavik mine at the Diavik TK camp. EMAB recognizes that different Parties have different priorities, and that short-term research programs may not meet all the Parties' community based water quality monitoring needs (letter of January 7, 2004 to Aboriginal Parties to the Environmental Agreement).

EMAB recommends that DDMI work directly with the community of Kugluktuk to determine appropriate ways that DDMI can fulfill its commitment to provide expertise and possible donations of equipment to the Kugluktuk community based water quality monitoring program, and that these commitments be formalized in writing when the details are arranged, and that EMAB receive a copy of the written commitments (letter of January 7, 2004 to Diavik).

EMAB recommends that DDMI work with EMAB to explore ways that community based monitoring and traditional knowledge be used in Diavik's future water quality monitoring activities to complement the current approach (letter of January 7, 2004 to Diavik).

EMAB recommends that DDMI work with EMAB to examine ways to provide training to community members to build capacity for water quality monitoring of the Diavik mine (letter of January 7, 2004 to Diavik).



MAJOR ISSUES

Appropriate Northern Water Quality Standards

EMAB recommends government water quality experts provide a written assessment as to whether water quality standards developed in southern Canada are suitable for the unique situation at Lac de Gras eg. the ultra-clean water and extreme temperatures (letter of January 7, 2004 to DIAND, DFO, EC and MVLWB).

Continue Site Visits

EMAB recommends that Diavik Diamond Mines Incorporated continue and expand its program to provide for site visits to the mine by community members and elders from the Aboriginal Communities to familiarize them with the site and associated activity as well as with environmental management and monitoring activity. DDMI is commended for their work in this area to date (letter of January 7, 2004 to Diavik).

Response/Outcome

DIAND responded to EMAB's recommendation to reinstate the Coppermine River Water Quality Monitoring Program on March 16, 2004. They said that the program had been scaled back to monitor only water quantity, that funds had recently been secured to monitor water quality at the outlet of Lac de Gras, and that they are requesting long-term funding to continue this work.

EMAB has not received any other responses to these recommendations.

WORKPLAN and BUDGET FOR 2004/05

EMAB'S PRIORITIES FOR 2004-05 ARE TO:

- Prepare a strategic plan with major emphasis on engaging Aboriginal communities in the strategic planning process;
- build capacity, increase awareness and support meaningful participation of Aboriginal peoples in environmental monitoring activities related to the Diavik project;
- monitor environmental effects of the Diavik project while focusing on issues surrounding wildlife, particularly caribou, fish and water;
- monitor regulators to ensure plans and programs are thoroughly reviewed and necessary follow-up is done;
- further implementation of the Communications Strategy;
- more use of Traditional Knowledge panels and implement an Expert Scientific panel

In addition to its day-to-day mandate of monitoring the Diavik project and the regulators, and communicating with communities regarding the project, EMAB has a number of major initiatives planned for 2004-05.

Strategic Planning and Community Engagement – EMAB will work with its Parties, focusing on Aboriginal Parties, to engage their communities in developing a strategic plan that fulfills EMAB's mandate while emphasizing identified priorities. EMAB will consult with communities in the fall of 2004 in order to gain a better understanding of community priorities regarding the environment as related to Diavik.

Traditional Knowledge – EMAB will continue asking its highly successful Traditional Knowledge panels to provide advice on appropriate issues. EMAB also hopes to make greater use of Diavik's Traditional Knowledge camp for such activities as water quality monitoring and caribou migration monitoring.

Fencing – EMAB will host a technical workshop on fencing for the Diavik mine for scientists, community representatives, Diavik representatives and others in order to receive suggestions for implementing the requirements as laid out in the Comprehensive Study Report. EMAB will then take these, along with those of the Traditional Knowledge panel from March of 2004, and develop a set of recommendations to send to Diavik regarding fencing at the mine site.



WORKPLAN and BUDGET FOR 2004/05

Research – The Board continues to track talks on development of a single regional monitoring agency for the Slave Geological Province. These discussions entered a new phase following the MVEIRB Report and Reasons for Decision on the Environmental Assessment of the Snap Lake project in July 2003. The Minister of DIAND ratified the report in October 2003 and included a requirement that all parties work toward consolidating the Environmental Agreements for the Diavik mine, the Ekati mine and the Snap Lake mine into one. Discussions on the Snap Lake Environmental Agreement have been taking place and are expected to include a similar requirement. The Board continues to support continuation of initiatives to collect environmental baseline information and implement cumulative effects monitoring in the Slave Geological Province as a means to improve decision-making and environmental assessment.

Monitoring – EMAB will continue to work with regulators to ensure timely, rigorous review for environmental management plans, environmental monitoring programs and reports while making sure that documents submitted by Diavik are of the highest possible quality. EMAB also looks forward to the results of the MVLWB's independent review of the AEMP.

Water Quality – EMAB will continue to monitor the decision process on the application by Diavik to amend the ammonia limits in its water licence and will submit comments intended to improve the amendment process in the future.

Fish Habitat Compensation (No Net Loss) – EMAB has made significant advances in finding ways to offset fish habitat losses caused by the Diavik project without disturbing pristine lakes. EMAB is now working on exploring more holistic approaches that consider the fish as well as their habitat as part of the range of possibilities for compensating for effects of development on fish.

Implementation of the Communications Strategy – EMAB has implemented a number of the recommendations in the Communications Strategy and plans to complete this process in 2004-05. The strategic planning process will help to fine-tune and even re-direct the Communications Strategy, particularly in relation to communities and communications tools. We will also develop a plain language summary of the Environmental Agreement.

WORKPLAN and BUDGET FOR 2004/05

Capacity Building - EMAB will continue its capacity funding programs to support Affected Communities in participating in monitoring the Diavik project. With the recent creation of the Communications Coordinator position, EMAB will be able to provide additional support to Aboriginal Parties in developing and implementing projects to build capacity in Affected Communities. The Communications Coordinator will also assist in communicating complex issues to communities and in making sure that EMAB hears, understands and addresses community concerns.

Organizational Development – the Board will hold training sessions and workshops with Board members and alternates. The Board will continue to systematize its procedures and review bylaws and policies to improve efficiency and effectiveness. The Board also plans to meet with regulators to review the Environmental Agreement and increase awareness of the roles of EMAB and others.

EMAB anticipates six Board meetings over the coming year and plans to continue rotating meetings among the Affected Communities. EMAB is now using Board teleconferences more frequently; these offer greater efficiency for routine items as well as improving cost efficiency and reducing time demands on Board members.

BUDGET

EXPENSES

Administration	77,100
Capital Cost	0
Management Services	242,200
Board	96,200
Sub-Committees	11,200
Community Capacity Building	150,000
Strategic Planning	64,200
Projects	118,700
Contingency	10,400

TOTAL	770,000
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Note: EMAB will be submitting its two-year workplan and budget to Diavik in September 2004.

AUDITORS' REPORT

To the Board of Directors of the Environmental Monitoring Advisory Board

I have audited the balance sheet of the Environmental Monitoring Advisory Board as at March 31, 2004 and the statements of fund balances and cash flows for the year then ended. These financial statements are the responsibility of the Environmental Monitoring Advisory Board. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of the Environmental Monitoring Advisory Board as at March 31, 2004 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Charles Jeffery

Charles Jeffery
Chartered Accountant
Yellowknife, Northwest Territories
June 4, 2004

Environmental Monitoring Advisory Board

Statement of Financial Position

For the year ended March 31, 2004	March 2004	March 2003
	\$	\$
Assets		
Current assets		
Cash	813,401	292,879
Recoverable costs	-	1,113
Employee receivable - Linda Tourangeau	2,900	-
	816,301	293,992
Capital assets (Note 3)	28,878	32,844
	845,179	326,836
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	762	10,110
Deferred revenue - Diavik Diamond Mines Inc. (Note 5)	600,000	-
	600,762	10,110
Net Assets		
Investment in capital assets	28,878	32,844
Unrestricted net assets	215,539	283,882
	244,417	316,726
	845,179	326,836

Approved by the board of directors:

Director

Director

Environmental Monitoring Advisory Board

Statement of Operations

For the year ended March 31, 2004

		March 2004	March 2003
		\$	\$
Revenue			
Diavik Diamond Mines Inc		600,000	604,588
Government assistance			
Government of the Northwest Territories		-	50,000
Department of Indian Affairs and Northern Development		3,000	30,013
Interest income		15,242	9,706
		618,242	694,307
Operating Expenditures	Schedule		
Administration	1	83,733	82,325
Management services	1	162,004	147,190
Capacity building (Note 2)		86,372	111,268
Capital asset purchases		8,410	7,146
Equipment purchases		2,260	-
Project expenditures			
Board Development	2	28,727	19,948
Caribou Workshop	3	-	5,017
Communication Strategy	4	-	25,188
Cumulative Effects	5	-	32,842
Executive Committee	6	10,412	20,559
Fisheries Workshop	7	-	11,018
Personnel Committee	8	7,153	2,850
Professional Development	9	-	16,663
TK Workshop	10	-	26,049
TK Panel NNL	11	27,947	-
TK Panel Fencing	12	31,447	-
Kugluktuk Water Quality Workshop	13	83,111	-
Technical Expertise	14	15,749	-
Board Meetings	15	139,260	174,000
		686,585	682,063
Excess revenue over expenditure (expenditure over revenue)		(68,343)	12,244

Environmental Monitoring Advisory Board

Notes to Financial Statements

For the year ended March 31, 2004

	March 2004	March 2003
	\$	\$

The Environmental Monitoring and Advisory Board ("the Board") is a not-for-profit organization established as a requirement of the Diavik Environmental Agreement. The Board is exempt from income tax in accordance with section 149(1)(l) of the Income Tax Act.

The aim of the Board is to provide a meaningful role for Aboriginal Peoples 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.

1 Significant accounting policies

The financial statements have been prepared in accordance with Canadian generally accepted accounting principles. Because a precise determination of some assets and liabilities depends on future events, the presentation of financial statements for a period necessarily involves the use of estimates which have been made using careful judgment. Actual results could differ from those estimates and approximations. The financial statements have, in the opinion of management, been properly prepared within reasonable limits of materiality and within the framework of the significant accounting policies summarized below.

(a) Capital assets

Capital Assets are recorded at cost less accumulated amortization. Amortization is calculated using the declining balance method at the following rate:

Office Equipment	30%
Computer Equipment	30%
Furniture and Fixtures	30%

(b) Revenue recognition

The Board follows the deferral method of accounting for contributions. Under this method, restricted contributions are recognized as revenue when the related expenditures are incurred. Restricted contributions received but for which the related expenditures have not been incurred are reported as deferred revenue.

Unrestricted contributions are recognized as revenue when received, or when receivable if the amount can be reasonably estimated and collection is reasonably assured.

Contributions from the Department of Indian Affairs and Northern Development are labelled - Comprehensive Funding Arrangement (CFA). When Operating Revenues exceed Expenditures no portion of the Excess Revenue over Expenditures is refundable to the Department of Indian Affairs and Northern Development.

(c) Economic dependence

The Board is dependent on its funding from Diavik Diamond Mines Inc. The Board may not be viable without these contributions.

(d) Financial instruments

The company's financial instruments consist of accounts receivable and accounts payable. These financial instruments might expose the company to interest rate and credit risks. In the opinion of management, the financial statements and accompanying notes contain the relevant information to reasonably assess these risks.

Environmental Monitoring Advisory Board

Notes to Financial Statements

For the year ended March 31, 2004

	Budget 2004	March 2004	March 2003
		\$	\$
2 Capacity funding expenditure			
Yellowknives Dene First Nations	30,000	30,000	26,545
North Slave Metis Alliance	30,000	26,373	26,373
Lutsel K'e Dene	30,000	29,999	28,366
Dogrib Treaty 11		-	29,984
Kitikmeot Inuit Association		-	-
	90,000	86,372	111,268

3 Capital assets				
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
NXTEC AMD XP 1700 & HP Deskjet printer	3,131	1,597	1,534	2,191
Various computer equipment	1,609	821	788	1,126
Board room furnishings	1,070	546	524	750
Recording equipment	1,336	681	655	936
Digital imager	5,350	3,515	1,835	2,622
Toshiba Satellite Pro 4240	4,676	3,072	1,604	2,291
Computers	22,687	14,905	7,782	11,899
Proxima DS2 projector	1,605	1,054	551	786
Doug Crossley's computer	3,257	977	2,280	-
Two nomadic displays	5,153	1,546	3,607	-
Board room furnishings	1,873	1,230	643	918
Other office equipment and office furnishings	20,627	13,552	7,075	9,325
	72,374	43,496	28,878	32,844

4 Net change in non-cash working capital balances		
Operating resources provided by:		
Increase in deferred contributions	600,000	-
Decrease in recoverable costs	1,113	-
Decrease contributions receivable	-	25,254
Decrease in purchase deposit	-	321
	601,113	25,575
Operating resources applied to:		
Decrease in accounts payable	(9,348)	(9,129)
Increase in employee receivable	(2,900)	-
Increase recoverable costs	-	(198)
	(12,248)	(9,327)
Net Change in Non-Cash Working Capital	588,865	16,248

5 Deferred contributions

Deferred revenue consists of the funds contributed by Diavik Diamond Mines Inc. for the 2004-2005 operating year. This amount will be recognized as revenue over the 2004-2005 operating year as goods and services are acquired.

ABBREVIATIONS

AEMP	Aquatic Effects Monitoring Program
AGM	Annual General Meeting
BHPB	BHP Billiton Inc.
CEAMF	Cumulative Effects Assessment and Management Framework
CIMP	Cumulative Impacts Monitoring Program
CSR	Comprehensive Study Report
DDMI	Diavik Diamond Mines Inc.
DIAND	Department of Indian Affairs and Northern Development
DFO	Department of Fisheries and Oceans
DTC	Diavik Technical Committee
EA	Environmental Agreement
EC	Environment Canada
EMAB	Environmental Monitoring Advisory Board
ENGO	Environmental Non-Government Organization
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
IEMA	Independent Environmental Monitoring Agency
KIA	Kitikmeot Inuit Association
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
NSMA	North Slave Metis Alliance
RWED	Resources, Wildlife and Economic Development
SEMA	Socio Economic Monitoring Agreement
TK	Traditional Knowledge
WEMP	Wildlife Effects Monitoring Program
WKSS	West Kitikmeot Slave Study Society
YKDFN	Yellowknives Dene First Nation



NOTES:





Environmental Monitoring Advisory Board

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