

#### **Report Card**

What's happening with the environment?

#### Water

All measurements are within licence limits - the main effect is from increased nutrients. The Aquatic Effects Monitoring Program (AEMP) detected several changes in Lac de Gras that need further investigation. The Adaptive Management Plan (AdMP) development is on hold while the WLWB develops guidelines.

#### Notes:

- The new monitoring program provides much more information. Diavik completed 91% of their sampling. They found 17 early warning effects, 8 moderate effects and 4 high level effects for water quality, sediment, and benthic invertebrates. The moderate and high level effects are because of nutrients and some metals found in sediments. Overall they concluded that the main effects are from increased nutrients, although there may be some toxic effect on benthics. The discharge showed no toxic effects when tested on aquatic animals including rainbow trout. Ammonia levels have continued to drop.
- According to the Environmental Agreement and the water licence Diavik is required to find ways to use TK/ IQ in the AEMP. EMAB is working with the Parties to support the development of TK/IQ.
- Further investigation is needed soon to assess whether the effect of increased nutrients on Lac de Gras is more than predicted. If so, Diavik will need to start looking into ways to reduce nutrients.

- Trout showed increased average levels of mercury since the mine began, but Diavik and Health Canada believe this is because they were older, larger trout in the 2008 samples than in the 1996 samples. Increased nutrient levels may affect release of mercury so this will be studied in 2009.
- Diavik considers the metals in sediments are unlikely to pose a toxicological risk and says Lac de Gras seems to have naturally high levels of some of these, such as uranium. This also needs further investigation.

#### Fish

There are some unanswered questions about fish health and consumption.

#### Notes:

- Continuing concern about mercury in fish more study is needed.
- The study to verify whether fish are spawning on shoals near the dike as much as before construction failed and has been terminated.
- Work is starting on the replacement of fish habitat altered or destroyed by the mine development.
- No fish palatability study in 2008.
- Blasting effects study showed no effect on fish or fish eggs.

### What's happening with the environment?

#### Wildlife

All impacts are within predictions except Diavik's effect on caribou coming near the mine. Diavik changed the WMP in 2009, including suspending the grizzly study and cutting back the caribou aerial surveys and did not discuss these with communities or EMAB.

#### Notes:

- Diavik's effects on wildlife are below the levels they predicted before the project started, except that caribou seem to avoid the mine at further distances than were predicted. Most wildlife avoid the mine.
- Diavik's process for revising the WMP in 2008 did not provide enough time for EMAB review or community consultation and some changes were not well-supported scientifically.
- Waste management at the Waste Transfer Area in 2008 was not as good as previous years, and attracted many more gulls and foxes. This may be the result of Diavik moving their waste transfer area to a new site.
- Communities have expressed to EMAB that they remain concerned about effects of the mine on caribou migration routes and caribou health.
- More Aboriginal involvement in wildlife monitoring is needed, including use of TK/IQ. EMAB is working on a TK monitoring study.
- Regional cumulative effects on wildlife, especially caribou, need to be better studied with government taking the lead.

#### Air

Dust levels continue to be higher than predicted. Diavik is working to develop a full air quality monitoring program, but this is not in place yet.

Notes:

- Diavik is verifying the accuracy of its dust monitoring, as EMAB recommended; they have recommended ending the investigation EMAB believes this is premature.
- Diavik has committed to developing a full air quality monitoring program for all air emissions. They are developing a dispersion model, which is the first stage. They hope to complete the model by the end of 2009.

#### Closure

The WLWB has developed a workplan for Diavik to prepare a revised draft Interim Closure and Reclamation Plan.

#### Notes:

 Key closure issues are: quality of run-off from the waste rock and PKC; safety for wildlife; use of TK/IQ; reclaiming roads and restoring natural water flow.

#### LETTER TO READERS

Welcome to the 2008-2009 Annual Report for the Environmental Monitoring Advisory Board (EMAB).

This year has been an especially challenging year as we continued to advocate for the inclusion of Traditional Knowledge/ Inuit Qaujimajatuqangit (TK/IQ) in Diavik's environmental monitoring programs (a requirement of the Environmental Agreement), participated in the revision process of Diavik's revised Interim Closure and Reclamation Plan, and finalized our five-year Strategic Plan.

We held three workshops this year, involving participants from all Aboriginal Parties to the Environmental Agreement (EA): Adaptive Management planning, Closure planning, and Traditional Knowledge in monitoring. In all cases, we were grateful that each participant shared their thoughts and insights. Above all, EMAB wants to ensure that the community perspective is heard on all important issues related to the environment and, specifically, Diavik.

The Environmental Agreement states that all Parties to the EA will work together to ensure that the air, water and land. as well as all life sustained by these, will be protected before, during, and after mining on the East Island of Lac de Gras. This basic principle guides EMAB in all its activities.

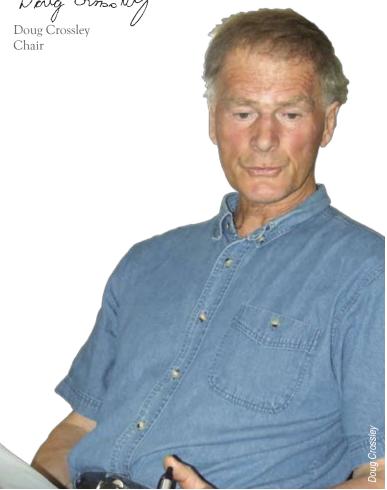
This year, Diavik deducted funds from their contribution, affecting EMAB's ability to carry out our workplan next year. We are determined to work out this disagreement in a fair and timely fashion, as it has taken up a great deal of Board and staff time. We recognize, as does Diavik, that we need to remain at arm's length from all Parties to the EA and that our focus needs to remain on the environment, involving the Aboriginal Parties in all processes, and moving forward with TK/IQ.

All of the topics I've mentioned, and many others, are detailed in this report. If you would like more information, do not hesitate to visit our website (www.emab.ca) or contact our office at 766. 3682.

On behalf of all EMAB members, I would like to thank the eight Parties to the Environmental Agreement, the regulators, and the public, for their active support in all that we do. Protecting the environment is a serious endeavour that must engage us all if we are to be successful.

Thank you.

Doug Crossburg



EMAB Environmental Monitoring Advisory Board

### Contents

What have we done this year?    4      Holivita okiok?    5
D11 xo k'e ayì1 edàts'įlà?
Diavik
Environmental Monitoring Advisory Board (EMAB).10Why was EMAB formed?10Why is the EA important?10What do we do?10How are we funded?11Where are we?11Who are we?12What are our special issues?13What are the communities?13
In the Boardroom.14Budget Dispute14Shutdown Request14EA Review15Strategic Plan15Governance Workshop15
Involving and supporting our communities       16         In the Communities       16         At the Camp       17         Workshops       17         Traditional Knowledge in Monitoring Workshop       17         (Kugluktuk, March 2009)       17         Closure Workshop (Yellowknife, January 2009)       18         Adaptive Management Workshop (Yellowknife, May 2008)       19         Skills and Knowledge: Capacity Funding       19         Lutsel K'e Dene First Nation       19
Yellowknives Dene First Nation       19         North Slave Métis Alliance       19         Environmental Monitoring Training       20
Oversight and Monitoring.       21         Who are the regulators and managers?       21         Water - WLWB       21         Water Use Licence Amendment       22

Concern About Seepage22Aquatic Effects Monitoring Program (AEMP) and Reports22Annual AEMP Reports23Adaptive Management Plan25DIAND AEMP Guidelines Development25Ammonia.26Closure26Water Treatment Plant Expansion27Intervener Funding27Licence Management Recommendations27Inspector.28Fish29No Net Loss29Fisheries Authorization Monitoring29Whitefish30Wildlife30WMP Report - 200832Wildlife Environmental Assessment Prediction Review33Cumulative Effects33Air.35Dust Monitoring35Air Quality Monitoring35Lichen Monitoring35
Reports
Communicating with the public
Work plan for 2009-2010?
Auditor's report
Definitions
Abbreviations
What Happened?
Recommendations

The Environmental Monitoring Advisory Board has a website to keep you updated on important issues. Visit:

www.emab.ca

The Environmental Monitoring Advisory Board welcomes questions and comments. Call us at 766.3682 Email us at: emab3@arcticdata.ca

#### What have we done this year?

We continue to work with the people of the Affected Communities to help protect the environment around the Diavik mine site.

The following summarizes major activities for 2008-2009. Details on all these activities can be found in the following pages.

Strategic plan: After actively consulting with communities, EMAB developed a strategic plan that honoured both the community priorities and the requirements of the Environmental Agreement. The plan is divided into four major categories: Oversight and Monitoring; Aboriginal and Community Involvement; Communications, Relationships Reputation Management and Advocacy; and Leadership and Governance. The Strategic Plan is available at www.emab.ca

**Community involvement:** EMAB held three workshops in 2008-2009 that included participants from all five Aboriginal Parties. In May, we hosted an Adaptive Management Workshop. In light of Diavik's Interim Closure and Reclamation Plan currently being revised and reviewed, we held a Closure Workshop to introduce community participants to closure principles and planning approaches. Finally, in March we held a Traditional Knowledge Workshop in Kugluktuk to work through a study proposal EMAB started developing in September. We also brought organizations that have a stake in environmental monitoring training together to find ways to qualify more Aboriginal people.

**Capacity funding:** EMAB distributed \$120,000 to the Aboriginal Parties through its Capacity Funding Program. The goal is to help the Parties enhance skills and learning in environmental monitoring.

**Budget dispute:** The Environmental Agreement requires Diavik to fund an independent monitoring board: \$600,000 annually, plus the annual consumer price index increase. We submitted our two-year workplan and budget in September. For fiscal year 2009-2010, Diavik withheld \$150,000 and intends to do so again in 2010-2011. EMAB disagrees with this and sees it as compromising EMAB's independence and have asked the Parties to the EA to initiate the dispute resolution process.

**Reviewing reports:** EMAB received 11 plans and reports from Diavik. These reports are required by the water licence, fisheries authorizations, and the Environmental Agreement. EMAB focuses mostly on the Aquatic Effects Monitoring Program report and the Wildlife Monitoring Program reports and, this year we reviewed the Adaptive Management Plan and Diavik's closure plan objectives. We continue to work with Diavik to improve their Environmental Agreement Annual Report and commented on their 2007 report. We met with Diavik staff to discuss ways to further improve the report.

**Communications:** Communication with Aboriginal Parties is one of EMAB's highest priorities. From November 2008 to March 2009, we visited the communities of Lutselk'e, Dettah/ Ndilo, and Kugluktuk. We also participated in a day-long update about the Diavik mine with the North Slave Métis Alliance. This year we invited Diavik environmental staff to present their monitoring results in person, while we presented our assessment of these results. We also invited regulators to attend and answer questions. A communication plan is being drafted, based on the approved strategic plan.

**Board meetings:** We met seven times and held five teleconferences. The executive committee met 3 times, mostly by teleconference. We try to have at least one Board meeting in a community annually – this year we met in Lutselk'e. We also visit the mine site on an annual basis. Over the course of two meetings, we began a detailed review of the implementation of the Environmental Agreement to identify gaps and weaknesses. We welcomed Grant Beck and Tom Biddulph to the Board.

EMAB Environmental Monitoring Advisory Board

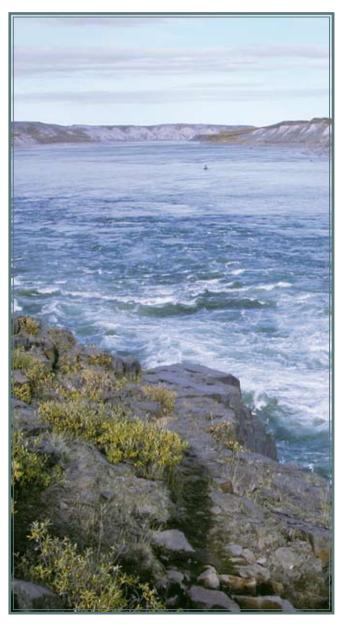
### HOLIVITA OKIOK?

Okiok havakhimmaktogutinuit pikkativutlo okoat OyagakhiokvikmiInukakniithannianioktyogahoakhogo nuna halummaiktailitikhanik hanniani Diavik oyagakhiokviop.

Okoa naotolioklogit hivitoyut havaotivut oyagakhiokvikmi ovani 2008-2009-mi. Titigatiakhimayut tammaita havaat nanninagilagit hapkonani makpiknini.

Oktutit Opalongaiyaotit: Haamani havaagivlogit inuit tohatitakhogit inukaknini, EMAP hanayut oktutikhanik opalongaiyaotinik ehoaktokhat hinakninot hivoliovuktot ovalo okoat atogiakakmata hapkonani Nunalıkotını Angıgotıt. Hapna opalongaiyaot hıtamanothıvıtoyunot aviktoktok havaakhanot: Poigoinitlo Taotutikhatlo: Kablonangogitot koakt Inukaknut Elaoyukhaoyut; Pikatiguktokhat Havakatigut Monagitiutit ovaloAtokoikatigiiklotik: ovalo Hılıkhoktıt okoalo Atokpaotıkhanıklo. Opalongaıyaotıt kagitaoyamiitot ovani www.emab.ca

Inukakniitelaonigit: EMABinuitlomeetikatigiikpaktot 2008-2009-miematot pingahonik ovanı elaobkakhogitinuit tamainit tallimat inukakniit Kablonangogitut Inuit. Ovani May-mi ovagut meetiktitiogut Atogakhanık Monagıtjutıkhanık Meetiotikaktogut. Hamanı havkvik Diavik Omikhimataakhimayuk ovalo Halummaktigotikhanik Opalongiayaktogut hajja nutanggoktigiogut ovalo ehivgioktavut, ova umiktikkat oyagakhıokvık Halummaktıgotıkhaınık Meetiotikaktogut ema elaoyukhat elaopkaklogit oyagakhiokvik umilikkat opalongaiyaktakkot. Kingoliani, ovani Masımı katrımakmıogut Inuit Kaoyimayatokainik Meeiotikaktogut ovani Kugluktumi ehivgiokhivlota EMAP hanaloıktaınık oktogomayaınık ovanı Saptaipami. Ovalo nunakaktot nunamik taotogumayut umiklikat ovagakhiokvik avoikhaivugut taotuktikhanik ovagakhiokvikmik.



#### HOLIVITA OKIOK?

Ayoikhaotikhat maniit: EMAPtonikhaiyut aktigiomik \$120,00 okononga Kablonangogitut Pighainik Halummaktigotikhanik Mannikmik Atoktakhanik. Ona ekayutikhat Inuit Ayoikahotikhak halummaktiginikmik ovalo nuna taotogiami.

**Mannikhainik ehomaaloktut:** Tamna Nunalikotit Angigotit piagiakaktat Diavitkot manikhanik opalongaiklotik omingga elikoktomik taotutikhanik katimayiinik: \$600,000 okiotoagaikpat, hammalo okiok akitonia akittokyumikmat. Ovagut tonihiogut okiok-malgokni havaotikhanik ovalo manikhaanik.

Saptaipami. Ovani maniktoknamim2009-2019-mi, Diavik tutkomayat \$150,00 ovalo tonihiffakniakmiot ovani 201-2011-mi. EMAB ehoigiyat tamna ovalo oa angihimaitamingnik angigomangitmata EMAB elikokmat ovalo apigiyait Inuit okonongaEA ehoigohutiyuyut angiktinahoaklogit.

Ehivgioktait onipkat: EMAB piyait 11 opalongaiyaotit Diavitkot. Okoat ovaloonipkangit onipkat tonivagiakaktot okoat piomavait emalikotit laisiat, ıkalolıkıot angıktakhaıt, ovalo Nunalıkotıt Angıgotıt. EMAB havaakaktot kanogilitjutiniaktonik Emaknot tatutinik Atogakhanik onipaktot ovalo ovalo Hogaanot Taotutinik onipkaktot ovalo, okiok ovagut ehivgioktogut Atogakhanık Monagıtjutınık ova Diavitkot palongaiyaktot okaktaınık ehoakhınahoakhogıt hıvonıkhatık. Oagut havakhımaktavut Dıavıtkotlo ehoakhınahoakhogit Nunaliotit Angigotit Okiok Onipkakhainik ovalo okaotigiyait 207 onipkkakhani. Katımakatıgıyavut Dıavıtkot havaktıngıt okakatıgıvlogit ehoakhıyumıktokhanık onıpkanık.

Tohakatıgııknık: Tohakatıgııkatagıamı inuit meetikpaktot Kablonangogitot okoa EMABhivitogiyat hıvolıoyukhak. Ovnit Novepamit 2008-mi Masımi 2009, ovagut polaktavut inukaknit okoat Lutselk'e, Dettah/ Ndilo, onalo Kugluktuklo. Ovagut elaoniaktogutlo oblok-tamat naonaiklogit Diavitkot oyagakhioktit okoat Yelonaimi Itkiliagat Katimayiit. Okiok ovagut kaitkoyavut Diavitkot nunalikiyiit havaktingit okakovlogit taotutimingnik okakovait metiktonot, lovagutlo ehivgiogavut eniktot okakhogit. Ovagutlo kaitkovavut malikoivit nunalikiviit meetigiaktokovlogit apıkotınıklo kıokovlogıt. Tohakatıgııktaknık opalongiyaktat titigaliktat, angigotikokkovlogo.

meetiktot: sıavaıktokhota Meetiktit Ovagut tallimatigut meetikpaktogut ovalo fonikot meetikpaktogut. Okoa atangoyat katımavııt meetikpaktot 3-nik meetikhotik fonikot. Ovagut ataohikmik meetigahoakpaktogut Katimayiivut homi ınukaknımı nokiotoak – okiokmeetikpaktogut ovanı Lutselk'e-mi. Ovagut polakpaktakot oyagakhiokvik okiotoak. Hamani kaffinik malgoknik malgok meetiktogut, ovalo ehivgioktakkot eliogaktokhak Nunalıkot Angıgıtını naonaıktokhat nehoilgoit okoalo hakoinnigitlo. Ovagut koyagiakot Grant Beck onalo Tom Biddalph meeetiktiofaalikmanik.

#### DII XO K'E AYÌI EDÀTS'ĮLÀ?

Dıavık soombk'è nèk'e eyii ndè wemoo hazho esawodech'à, kota done nàde iła gixè eghàlats'ide.

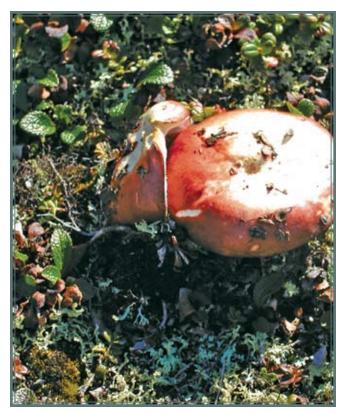
2008-2009 xo k'e ayìı la nechà wek'e eghàlats'įnda wegondı dek'ètł'è. Du wegondı hazho du nįhtł'è yìì dek'ètł'è.

**Jda Gogha Segots'eh?j:** Kỳta dọne xè gogèado tł'àxòỳ EMAB kỳta ayìı dakwełỳ ayìı gigha wet'ara gedi t'à eyits'ǫ edàanì ndè wexòedi ha gedi nàowo wexòedi ghà, dii hanì weghǫ nihtl'è gehtsi. Asìi di kara ts'ỳ łetǫzhè ha: Asìi wenàhodi-le ha honi eyits'ǫ asìi wexòedi; Dọne Sǫłi eyits'ǫ kỳta dọne gixè; Ełexè gots'ede, ełexè eghàlats'ìde, goizì wexòedi eyits'ǫ weghǫ nàdats'et'e-le; eyits'ǫ k'àode eyits'ǫ Wets'ǫ K'ats'edè. Įda Gogha Segots'ehri nihtl'è jǫ weghàada www.emab.ca

**Kỳta dọne gixè:** 2008-2009 k'e EMAB tai et'ah kỳta silai ts'ǫ, dọne xè łegèadì. Tọts'i k'e, asìi xets'eèndi ghọ łegèadì. Diavik edàanì sǫỳmbak'è wedaitį ha ginąda wenįhtł'è weghỳgeda xè achį nàgeètl'è wets'ezhǫ neèhò, kỳta gixè edàanì sǫỳmbak'è wedait'į ha nehǫỳwo dè edàanì wek'e eghàlagìde ha wegondi ghǫ kỳta gixè łets'èadì. Nǫde t'à, Łiwedats'ehtè Zaa k'e EMAB edàanì asìi wexòedi ha gedi t'à wegha sǫỳmba geèke ha nįhtl'è k'e eghàlagìde įlè sii, Det'ǫcho Zaa k'e weghǫ Kugluktuk k'e łegèadì dǫne nàowo ghǫ łegèadì. Eyìxè, kỳta yagola gots'ǫ ame ndè wesawòdèch'à weghǫ nànegìde dǫ łậnegìde, dii hani la k'e eghàlagìde giwǫ t'à dǫne sołį netłǫgǫỳ hoghàgetǫ ha sǫỳmba negìla.

La gha done hoghàgeto soòmba: Kòta done du hanı la k'e hoghàgeto ha EMAB \$120,000 kòta ts'ò agìlà. Edàanì ndè esawòde soò gha kòta done du hanı la ndè wexòedı wegho hoghàgeèto ha guts'àgìdì.

Soòmba wegho ch'à axodi: Ndè wexòedi ha Diavik xo tạạt'e \$600,000 soòmba haàtło done dehkw'e ts'àgedi ha įlè, eyi gha nàowo giìto eyixè sii edàanì asìi dàetì weghà sii soòmba hatło t'à gots'àgedi haįle. Łiwedats'ehtè Zaa k'e nàke xo ts'ò edàanì gola k'e eghàlats'ìde ha ts'edi t'à wegho nihtl'è ts'ehtsi. 2009-2010 Xo k'e, Diavik \$150,000 k'egèadì eyits'o achi 2010-2011 Xo k'e achi hatło k'egedì ha gedi. EMAB dii hanì k'ehogera gigha nezį-le, eyìt'à edàanì goxį whacho k'ehots'era t'à gola wek'e eghàlats'ìdelìì gedi, eyit'à done ładį dii nàowo gogha segele ha gets'eèkè.



#### DII XO K'E AYÌI EDÀTS'ĮLÀ?

Njhtť è weghýts'eda: Diavik njhtť è 11 EMAB ts'ý agỳla. Dii njhtť è ti wenàowo ghà nàowo ts'iìto neèt'à njhtť è gots'ý agehų, łiwe gha k'àode njhtť è ghà sii, eyits'ý edàanì ndè wexòedi ha gedi įlè nàowo weghà sii njhtť è hazhų gots'ý agỳla. EMAB łiwe wexòegihdi njhtť è ghageda eyits'ų tich'adi wexòedi nàowo eyits'ų, dii xo asìi wexets'eèdį njhtť è sii weghàts'įdà eyits'ų edàanì Diavik gits'ų sųýmbak'è wedaitį ha dè edàanì gighàlada ha gedi t'à wedų segogehų. Diavik edàanì ndè wexòedi ha gedi t'à weghų nàowo giìtų sii deèrý gixè nezį ats'ele ha ts'ehdzà eyits'ų gits'ų 2007 xo tąat'e njhtť è gehtsį sii wek'e hayats'įti. Edàanì dii njhtť è deerý nezį ats'įlalìì ts'edi t'à Diavik wecheèke xè łets'èadì.

Edàanì lets'ò yagots'ìde: Edàanì done soli xè gogedo ha EMAB t'ah gigha sìì wet'ara hot'e. November 2008 March 2009 ts'ò, kòta dii hatlo ts'àts'ede Łitsohk'è, T'èrehdaà/ Ndılǫ, eyıts'ǫ Hotenda nèk'e Kugluktuk. Eyıts'ǫ taı dzęż ts'ǫ ayìı wek'e eghàlats'įnda wegondı ghǫ Waàk'ǫ̇́ą gıxè łets'èadì. Dıı xo Dıavık wecheèke dǫne ts'àgèade t'à dǫne xè gogèado, eyıts'ǫ gohxı asìı edàatlǫ wek'ats'ehtǫ wegondı sıı dǫne ts'ǫ̀ hats'edı. Eyıts'ǫ dǫne asìı hogihdı cheeke sıı asìı ghǫ dagogehke ha goxè agèat'ı. Edàanì ełexè gots'ede nàowo eyìı nihtl'è akwelǫ̀ ts'ı̇́tl'è, edàanì ıda gha segots'ele ha nihtl'è weghà ets'įtl'è.

**Done la hogihdi gha gehkw'e łegehdi:** 7 łets'èadì eyits'o 5 fò t'à łets'eàdì. K'àode tai łegèadì, hanìkò fò zo t'à łegèadì. Xo tạạt'e ilà kỳta łets'ehdi ha wets'ehdzà – dii xo k'e Łitsohk'è łets'èadì. Eyits'o xo tạạt'e soòmbak'è gits'àts'edè. Nạàkỳ łets'èadì hò, edàanì ndè wexòedi ha nàowo giìto sii weyìì ayìi t'ah nàowo nàtso-le sii deèaò senàdle ha weghàts'ìnda. Grant Beck eyits'o Tom Biddulph goxè eghàlagìde ajà t'à mahsì gets'iwho.

## EMAB Environmental Monitoring Advisory Board

### Diavik

#### (The following text was contributed by Diavik)

Diavik Diamond Mines Inc., the Rio Tinto company which operates the Diavik Diamond Mine, remains committed to protecting the ecological integrity of the local environment through adaptive management and prevention programs.

As part of its commitment to the environment, Diavik has entered into an environmental agreement with local Aboriginal groups, and the federal and territorial governments. Concluded in March 2000, the environmental agreement formalizes Diavik's environmental protection commitments, establishes reclamation security requirements, and provides transparency and oversight to local communities.

The Diavik Diamond Mine is located on a 20 square kilometre island informally called East Island in Lac de Gras, 300 kilometres by air northeast of Yellowknife, Northwest Territories. The mine plan includes three kimberlite ore bodies (named A154S, A154N, and A418) known as pipes.

Throughout 2008, Diavik continued to advance towards its underground mining phase. Diamond production from underground is expected to begin in first quarter 2010 and continue beyond 2020. Open pit mining is expected to cease in 2012, when Diavik would become an all-underground mine. Total mine life remains within the 16 to 22 years projected in the 1999 feasibility study.

In 2008, construction of the underground mine and its related surface works were well advanced. To prepare for underground mining, Diavik is constructing approximately 20 kilometres of tunnels. With the tunnels, rescue bays, washrooms, ventilation systems, repair shops, raises (vertical tunnels) for ventilation and water removal, pump stations, and storage areas are also being constructed. On surface, Diavik is constructing a new crusher and paste backfill plant, doubling its water treatment and electrical power capacity, increasing fuel storage capacity, and adding accommodations and a mine dry building which includes change rooms.



Pit A154, carved from the lakebed of Lac de Gras, has seen its last days as the mine transitions to an all-underground diamond mining operation.

The Diavik Diamond Mine is a joint venture between Diavik Diamond Mines Inc. (60 per cent) and Harry Winston Diamond Limited Partnership (40 per cent). Both companies are headquartered in Yellowknife, Canada. Diavik Diamond Mines Inc. is a wholly-owned subsidiary of Rio Tinto plc of London, England, and Harry Winston Diamond Limited Partnership is a subsidiary of Harry Winston Diamond Corporation of Toronto, Canada.

#### What is the mine's 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 guite cold with long ice-covered periods, with 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. The population was estimated at 128,000 in 2006 as compared to 186,000 in 2003. Many other animals include the Lac de Gras area in their home ranges, such as grizzly bears, wolves and wolverines. smaller mammals. migratory birds and waterfowl.

#### Who signed the Environmental Agreement?

The Board has one representative from each of the Parties that signed the EA:

- Tlicho Government (TG)
- Yellowknives Dene First Nation (YKDFN)
- Lutsel K'e Dene First Nation (LKDFN)
- Kitikmeot Inuit Association (KIA)
- North Slave Métis Alliance (NSMA)
- Government of the Northwest Territories, Environment and Natural Resources (ENR)
- Government of Canada
- Diavik Diamond Mines Inc. (Diavik)

The Government of Nunavut (GN) has a representative on the Board because the EA recognizes their involvement in trans-boundary issues, such as water quality and wildlife.

For a copy of the Environmental Agreement visit www.emab.ca or contact our office at 867.766.3682

### Working for the environment -Environmental Monitoring Advisory Board (EMAB)

### Why was EMAB formed?

We exist because of a contract called the Environmental Agreement (EA) for the Diavik Diamond Project. The EA came into effect in March 2000.

Since then, federal and territorial government departments, Aboriginal groups and governments, and Diavik have worked together to make sure the environment around the Lac de Gras area remains as unaffected as possible by the Diavik's mining activities.

The EA states that EMAB will work independently and at arm's length from Diavik and the other Parties who signed the agreement. It explains EMAB's mandate and lists who will sit on the Board, and notes that the Board will exist until full and final reclamation of the mine.

### Why is the EA important?

The EA is a legal contract between the Parties that have signed it. It states the commitments that Diavik and the other Parties made to make sure that the effects of the mine on the environment are kept to a minimum. The EA includes the requirement that Diavik meaningfully involve the Aboriginal Peoples in the environmental monitoring of the Diavik mine. This includes the use of Traditional Knowledge and Inuit Qaujimajatuqangit (TK/IQ).

The EA also says that Diavik must comply with all licences, leases, and laws, and explains the steps that may be taken if it does not. It talks about environmental management plans and monitoring programs, and several other issues such as security, enforcement, and closure and reclamation.

Finally, the EA sets out EMAB's mandate.

Lawrence Goulet, appointed to the Environmental Monitoring Advisory Board by the Yellowknives Dene First Nation, studies the Environmental Agreement

during a board meeting.

## What do we do?

The EA lists 13 points that cover a broad range of issues and activities that we need to consider in relation to the Diavik mine and the environment of the Lac de Gras area. We've condensed the full mandate into four categories in our strategic plan:

- Oversight and Monitoring
- Aboriginal and Community Involvement
- Communications, Relationships, Reputation Management and Advocacy
- Leadership and Governance

EMAB Environmental Monitoring Advisory Board

### Working for the environment -Environmental Monitoring Advisory Board (EMAB)

### How are we funded?

Diavik provides an annual payment of \$600 000, plus cost of living increases. For special research or projects that cannot fit within this amount, the EA allows EMAB to submit proposals to Diavik. They must either fund them or explain their reasons in writing for not funding them. EMAB or Diavik can ask the Minister of DIAND to review the proposals to Diavik, the regulators, and the Parties to the EA, as well as the decisions.

We also request funds from the Government of Canada and the Government of the Northwest Territories for specific projects that relate to their mandates.

EMAB is a registered not-for-profit society of the Northwest Territories.

### Where are we?

We have an office in Yellowknife, with three staff:

- Executive Director
- Communications Coordinator
- Administrative Assistant

Our hours are from nine to five Monday to Friday. Anyone can visit our office, which houses a library of materials on environmental matters related to the Diavik mine.



The Environmental Advisory Board (from left to right): Florence Catholique (Vice Chair), Tom Biddulph, Floyd Adlem (Secretary Treasurer), Lawrence Goulet, John Mc-Cullum (Executive Director), Doug Crossley (Chair), and Grant Beck. Absent: Eddie Erasmus and Gavin More.

# What is a commitment?

In the Environmental Agreement, a commitment means a promise made by Diavik, and other Parties, to take steps to lessen the effect on the environment around the mine site, or any duty given to Diavik, or other EA Parties, because of a recommendation, decision, or an authorization, licence, lease, or permit.

### The Board

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 participants in all aspects of environmental monitoring, and mitigation measures associated with Diavik.

#### What happens when EMAB makes recommendations?

In the years since its creation in 2001, EMAB has made 60 recommendations. We get involved and make recommendations when regulators raise issues, or when regulators and Diavik disagree on an issue. We also make recommendations when the regulators or the mine are not addressing an issue we think is important. The Environmental Agreement says our recommendations are to be taken seriously and given full consideration. Parties, including Diavik, must respond within 60 days. They must accept our recommendations or give us reasons why they did not.

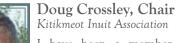
Before making a formal recommendation, we try to resolve an issue through dialogue.

EMAB made 11 recommendations in 2008-2009 and continues to follow up on recommendations from previous years. These are outlined throughout this report and are summarized at the end.

If there is an issue that interests you and you would like more information, contact us at 867.766.3682 or visit www.emab.ca

### Working for the environment -Environmental Monitoring Advisory Board (EMAB)

### Who are we?



I have been a member of EMAB since 2002. EMAB, with the support KIA, has been a strong advocate of finding means to incorporate Traditional Knowledge/

Inuit Quayumajatuqanqit (TK/IQ) in the environmental monitoring programs at the Diavik operation. KIA was pleased to have Kugluktuk selected as the host location for the recent EMAB Traditional Knowledge in Environmental Monitoring Workshop. I have also worked with KIA staff at several workshops on closure and reclamation. It is critical to ensure that Diavik's closure plan is adequate so that the environment is protected when the mine closes.

Diavik's funding decisions continue to be a concern as they relate to our ability to meet our responsibilities in an independent and effective manner. I am hopeful that the situation can be resolved in order to allow us all to focus on the environment at and around the mine site.



#### Florence Catholique, Vice Chair Lutsel K'e Dene First Nation

I have been involved with EMAB since the beginning as the Lutsel K'e Dene First Nation (LKDFN) representative. This Board was set up to allow the Aboriginal Parties to the Environmental Agreement to have a better

understanding of the environmental aspects of the Diavik mine. Our key concerns have been water, wildlife, air quality, and the inclusion of Traditional Knowledge in monitoring. More recently, we have been involved in the process of reviewing an updated closure plan. We continue to await the training of our people in the environmental monitoring programs as stated in the Environmental Agreement.



#### Tom Biddulph Diavik

I have been involved with the Diavik Diamond Mine since 2006 and with Rio Tinto since 1992. My appointment to EMAB as Diavik's representative in 2008 has given me a greater understanding and appreciation

of the issues of importance for the Communities, and also the shared responsibility all Parties to the Environment Agreement have in enhancing the effectiveness of Diavik's environmental programs. EMAB provides an important role in reviewing Diavik's environmental programs and assisting the Parties in delivering a cooperative approach to environmental monitoring and management.



### Grant Beck

North Slave Métis Alliance

I have lived in Yellowknife all my life and will continue to live here. Since childhood, I have hunted in the area and I want to be sure wildlife is managed well, especially caribou. As an employee of the City of Yellowknife's

Engineering Department, I was superintendent in water works for many years and have a lot of interest in water issues. I wanted to contribute my background and expertise to the management of the environment, especially caribou and water related issues. As the NSMA member, I hope to make a difference.



#### Eddie Erasmus Tlicho Government

I have represented the Tlicho Government in many capacities, including serving as one of several negotiators for the Tlicho Agreement. I am the Director of Tlicho Lands Protection Department. In all my duties, the land and its

resources have always been of great importance to me. This is also true of my duties on EMAB. The role of an independent watchdog in relation to the environment and mining development is critical to the careful guardianship of the land and its resources for future generations.

### EMAB Environmental Monitoring Advisory Board

### Working for the environment -Environmental Monitoring Advisory Board (EMAB)



#### Lawrence Goulet Yellowknives Dene First Nation

I am proud to be an ongoing member of EMAB. As someone who continues to be active on the land, as my father was, I know the value of carefully monitoring what happens with the mines and the regulators. Sitting on

EMAB is important for my family and my community, today and for the future.



## Floyd Adlem

I have been a member of EMAB for several years as the representative for the Government of Canada. In that time I have seen EMAB grow into a more and more active participant in the protection of the Lac de Gras area.

I've been in the North for over 30 years, and in that time I've seen the evolution of environmental responsibility. Boards like EMAB serve a critical role in ensuring that mining in the North is done responsibly.



#### Gavin More

ENR, Government of the Northwest Territories

I have represented the Government of the Northwest Territories as an EMAB member for two years. I have spent over eight years in the North working in the environmental assessment and regulatory field, and am

currently the Manager of Assessment and Monitoring in the Department of Environment and Natural Resources. My section has been responsible, since the inception of the Mackenzie Valley Resource Management Act, for coordinating GNWT and ENR participation in relation to all three of the territories' diamond mines. This has included the regulatory, environmental assessment, and environmental agreement processes. In my capacity as an EMAB member, I hope to promote responsible management and sustainable development of the NWT's resources. The Government of Nunavut does not currently have a representative on the Board.

### What are our special issues?

Water, fish, wildlife, and air - those areas matter most to us.

Early on, we realized just how many environmental issues there are and how comprehensive our mandate is. We knew that some areas were of highest priority and needed our complete focus. Thanks to the fact that the Aboriginal representatives communicate with their communities and understand their concerns, we were able, right from the start, to establish priorities.

This report is full of information about the work we did in the areas of water, fish, wildlife, and air.

### What are the communities?

The communities we support (Affected Communities in the EA) are those that belong to the Aboriginal Parties who signed the EA:

- Behchoko
- Wekweeti
- Gameti
- Whati
- N'dilo
- Dettah
- Lutselk'e
- Kugluktuk
- Métis of the North Slave

Talking with community members, and with people in the communities who have a direct interest in wildlife harvesting, fish and water quality issues, is one of our top priorities.

When there is a need for information on an environmental issue we often turn to Elders and community members who have experience and knowledge. We have terms of reference in place to form Traditional Knowledge panels. These panels bring together Elders from all five Aboriginal Parties to discuss an issue and share their valuable knowledge with us.

"I would like to thank EMAB for their continued work on issues related to the Diavik Diamond Mine. Their input into the water licence renewal process, the Aquatic Effects Monitoring Program, the Adaptive Management Program and their involvement of Aboriginal people in monitoring continues to illustrate the commitment of the Board to protect both the environment and its support of responsible economic development. I would like to thank EMAB for the opportunity to review and provide comments on their 2007-2008 Annual Report. Best wishes to the Board and staff for the upcoming year." Trish Merrithew-Mercredi **Regional Director General** Northwest Territories Region Department of Indian and Northern Affairs

#### Funding – from the Environmental Agreement

4.8 (e) After the first two years, the Advisory Board's budget will be for two year periods, unless the Advisory Board and DDMI agree on a shorter or longer period. The Advisory Board's budget for a period shall be determined as follows:

(i) At least 180 days before the expiry of the then current budget period, the Advisory Board shall prepare a recommended budget for the next budget period, based on a plan of anticipated work for that period and a review of past work and financial experience;

(ii) The Advisory Board shall make best efforts to ensure that the amount of DDMI's contribution to the budget for any two year period shall not, without the agreement of DDMI, exceed DDMI's contribution to the budget for the preceding two year period by a percentage which is greater than the percentage change in the Consumer Price Index published by Statistics Canada over that two year period. For this purpose, the budget for the second year shall be considered \$600,000.

(iii) DDMI and the Advisory Board shall jointly review the plan of anticipated work and the recommended budget, and shall attempt to agree on a budget for the period;

4.8 g) Any funds provided by DDMI, Canada, or GNWT in a budget period that are not expended in that period shall be applied to fund the costs of the Advisory Board in accordance with the budget for the succeeding budget period, provided that funds are designated for a program that continues into a new budget period may be used for that program.

#### IN THE BOARDROOM

### Budget Dispute

As noted on page 11, Diavik is EMAB's primary funder as set out in the Environmental Agreement. Every two years, EMAB submits a budget and work plan to Diavik for discussion.

On September 29th, 2008, we submitted our budget and work plan for 2009-2011, based on our approved strategic plan. We met several times with Diavik in an attempt to reach agreement. Diavik accepted the budget but decided that they would deduct \$300,000 of EMAB's unrestricted assets from their contribution.

As an independent board, we believe it is up to EMAB to decide how to use these funds to best carry out the commitments in the EA, and have planned to use the disputed funds in the next two years. We intend to:

- Pursue the inclusion of Traditional Knowledge in environmental monitoring.
- Continue to be involved in closure planning.
- Organize a Wildlife Cumulative Effects Workshop.
- Review Party satisfaction regarding the implementation of the Environmental Agreement.
- Pursue the creation of an Air Quality Monitoring Program, which Diavik committed to in the Environmental Agreement.

After numerous discussions, the issue remained unresolved. Diavik held back \$150,000 for 2009-2010 and stated they would do the same in 2010-2011. We then formally recommended to the Parties to the EA that they initiate dispute resolution, as per Section 16 of the EA.

It is EMAB's position that we are accountable to all Parties equally, and that in order for us to be independent and to operate at arm's length as the Environmental Agreement envisions, we need to control our budget. This includes reallocating funds to projects as the need arises. Diavik has stated that if we do not



Florence Catholique and Tom Biddulph at an EMAB meeting.

expend funds exactly as originally planned the money should go back to them.

EMAB must be able to respond to changing circumstances. For example, when we submitted our budget in September we did not budget for review of Diavik's Closure Plan. In December the WLWB laid out a workplan for development of the closure plan to be submitted in 2009. If EMAB was not able to reallocate its budget we could not review the plan.

Indian and Northern Affairs Canada, a signatory to the Environmental Agreement, is investigating the funding issue. EMAB continues to encourage all Parties to provide their input on this matter.

### Shutdown Request

In March of 2009, Diavik announced that it would have two sixweek periods of reduced activity: July 14 to August 25, 2009, and December 1, 2009 to January 11, 2010. Production of diamonds would cease and numerous temporary lay-offs would occur. EMAB immediately requested, and received, assurance from Diavik that there would be no effect on environmental protection, management and monitoring.

### In the boardroom

There will be the continued creation of:

- Waste: hazardous material, food, garbage
- Mine water discharged into Lac de Gras
- Dust and emissions
- Effects on wildlife

On March 31, 2009, Diavik requested that EMAB shut down all operations to coincide with these two six-week periods. During a dedicated teleconference, we fully considered and discussed the request and concluded that it was not feasible for EMAB to cease operations for 12 weeks of the year. It is our responsibility to the Parties to continue our work, uninterrupted, throughout the life of the mine, to closure and reclamation.

Later, Diavik requested that the Minister of Indian and Northern Affairs Canada shut down EMAB operations for those two periods based on a clause in the EA.

The Minister has not yet responded to Diavik's request.

#### **EA Review**

This year, we began an extensive review of the Environmental Agreement. We are discussing the EA clause by clause to determine if the commitments, as agreed upon by all Parties to the EA, are being honoured.

We will be completing this work next year. We also hope to engage the Parties to the EA in a discussion about their own satisfaction regarding EA implementation.

### Strategic Plan

In June of 2008, EMAB formally approved its five-year strategic plan.

The plan is based on an extended community engagement process and our mandate as outlined in the Environmental Agreement. We also engaged a consultant to lead us through the process of writing the plan to make sure we included all the necessary elements.

EMAB's vision is: Working with the people for the environment of the Diavik mine

EMAB's mission is: To monitor and provide guidance to Diavik and regulators to ensure that the Diavik Diamond Mine is developed, operated and reclaimed in a manner that:

- Protects the environment
- Advocates for Aboriginal Involvement
- Respects the public interest
- Protects the way of life and well-being of Affected Aboriginal Communities

We have four major objectives:

- Oversight and monitoring
- Aboriginal and community involvement
- Communications, relationships, reputation management and advocacy
- Leadership and governance

A communication plan has also been drafted, based on the strategic plan.

The strategic plan is available on our website (www.emab.ca) and at our office.

### Governance Workshop

With the help of a facilitator, EMAB reviewed its roles and responsibilities in relation to the Environmental Agreement and the Parties that signed it. We reviewed the roles and responsibilities of the Board members, and specifically, of the Chair. Staff also took part in this workshop.

"The Diavik business is going through a period of significant change as we transition from an all open-pit mining operation to an all underground mining operation. The key aspect of this business transition is a reduced diamond production rate and a significant increase in operating costs due to the complex underground mining methods. This transition has been exacerbated by significant changes in the global economy which has negatively impacted demand and prices for diamond product. Throughout these changes, Diavik will continue its commitment to the North and to the health and safety of our workers and the protection of the environment. It is pleasing to see the willingness of all Parties to the Environment Agreement to work together in seeking to deliver effective environmental management programs. We look forward to our continued close and cooperative partnership with EMAB." Kim Truter President & Chief Operating Officer Diavik Diamond Mines Inc.

#### Traditional Knowledge

There are many ways to define Traditional Knowledge (TK) and Inuit Qaujimajatuqangit (IQ), 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 Department of Environment and Natural Resources applauds EMAB's strong focus on ensuring Traditional Knowledge about the natural environment is taken into consideration in all environmental management actions and decisions related to the Diavik diamond mine." Gary Bohnet, Deputy Minister Environment and Natural Resources Government of the Northwest Territories

#### Involving and supporting our communities

#### In the Communities

During the 2008-2009 fiscal year we visited several communities. It was a pleasure to meet with people, explain what EMAB is all about, and listen to concerns. Each community welcomed us kindly and with much warmth.

We visited the communities of Lutselk'e, Dettah/Ndilo, and Kugluktuk. We also participated in a day-long update about the Diavik mine with the North Slave Métis Alliance. This year we invited Diavik environmental staff to present their monitoring results in person, while we presented our assessment of these results. We also invited ENR, DFO, DIAND and EC staff to join us. Our intention was to make sure that EMAB and Diavik continue to work together and to help Diavik have access to community members.



Yellowknives Dene First Nations community update.



EMAB Chair, Doug Crossley, updates the KIA community of Kugluktuk.



EMAB Vice Chair, Florence Catholique, updates her community of Lutselk'e.

#### Involving and supporting our communities

### At the Camp

For the summer of 2008, Diavik took over most organizational aspects of the Community-Based Monitoring camp. One camp was held – the Water Quality Monitoring Workshop. As in past years, participants learned the basics of water, benthic invertebrate, and sediment sampling. EMAB members and staff helped on logistical aspects: choosing community participants and briefing them, organizing transportation and accommodation in Yellowknife, and working with the consultants that led the camp. EMAB member Florence Catholique attended the camp, representing the Board.

#### Workshops

EMAB holds workshops that bring together community members, regulators, experts and others to reach a better understanding of Diavik-related environmental issues.

#### Traditional Knowledge in Monitoring Workshop

(Kugluktuk, March 2009)

EMAB has been following up recommendations from communities that Diavik do more to meet its commitments to use TK/IQ in its monitoring. In the fall, we developed a draft proposal for TK monitoring with the help of Allice Legat from the Wek'èezhii Renewable Resources Board. The study we're proposing involves Elders and harvesters working with local, trained researchers to monitor caribou and fish at camps around Lac de Gras.

We held a workshop on the proposal with community participants in March in Kugluktuk. The participants made a number of recommendations:

- Each Aboriginal Party would have its own camp to avoid language issues and to keep the size manageable.
- There would be at least two camps held at different times of the year while caribou migrate through the area.



Jonathan Mackenzie, of the Yellowknives Dene First Nation, collects mud from the bottom of Lac de Gras at the Water Quality Monitoring Workshop.



Participants at the Water Quality Monitoring Workshop learn standard operating procedures to collect viable samples.

"The Kitikmeot Inuit Association, as one of the original Signatories to the Environmental Agreement for the Diavik Diamond Project, continues to work closely with EMAB to help best ensure maintaining the environmental integrity of Lac de Gras and the land at and around the Diavik Mine site.

KIA staff has been actively involved with the current Interim Closure and Reclamation Plan process with a primary intention of ensuring long term care and closure solutions for maintaining the water quality of the Coppermine River water system.

KIA is concerned with recent reductions to the EMAB operating budget and feel strongly that the Board must have adequate resources to effectively carry on their monitoring and watchdog role for the Diavik project.

KIA was pleased to serve as the hosting Aboriginal Party for the March 2009 Traditional Knowledge/Inuit Qaujimajatuqanqit in Environmental Monitoring Workshop (TK/ IQ) held in Kugluktuk., which was intended to generate community and Party input on the inclusion of TK/IQ in Diavik's wildlife and water monitoring programs."

> Charlie Evalik President Kitikmeot Inuit Association

#### Involving and supporting our communities

- Each Aboriginal Party would set up a steering committee of Elders and harvesters to manage the project.
- Researchers would be youth with good language skills chosen by Elders. They would be trained in research techniques.
- The camps would be around Lac de Gras, but not close to the mines: head of Coppermine river, mainland south and northeast of Diavik and by Yamba Lake and Point Lake.



Marion Bolt and Joseph Niptanatiak, attending EMAB's Traditional Knowledge in Environmental Monitoring Workshop, discuss how Elders and youth working together is important in the sharing of Traditional Knowledge.



Eddie Erasmus, Tlicho Government EMAB member, and Elders Francis Williah and Michel Louis Rabesca, at the Traditional Knowledge in Environmental Monitoring Workshop in Kugluktuk.

The participants agreed to take the revised proposal back to their Aboriginal Party to find out whether they supported it and were ready to move forward.

#### **Closure Workshop**

(Yellowknife, January 2009)

In 2006, Diavik submitted an Interim Closure and Reclamation Plan (ICRP). In late 2008, the Wek'èezhii Land and Water Board directed the company to revise the plan, as occasionally required by the water licence. In order to help prepare the Aboriginal Parties to review the new version EMAB held a workshop in January.

This workshop introduced participants to:

- Principles of mine closure and reclamation
- Definitions of closure objective and closure criteria

Community participants had the opportunity to talk about closure objectives and share initial ideas on what they would like to see happen when Diavik closes. Participants also discussed how communities could best be involved in the review of Diavik's ICRP.



In the spirit of cooperation, and in order to fully discuss basic closure principles, EMAB invited regulators and Diavik staff to the Closure Workshop.

## EMAB Environmental Monitoring Advisory Board

#### Involving and supporting our communities



EMAB's Closure Workshop included community members from all five Aboriginal Parties to the Environmental Agreement.

The workshop was coordinated with a visit to the Diavik mine site so participants could view the various mine components.

EMAB would like to acknowledge DIAND's contribution of \$40 000.

#### Adaptive Management Workshop

(Yellowknife, May 2008)

The Adaptive Management Plan (AdMP) is a way to recognize and act on a negative change in Lac de Gras as determined by the Aquatic Effects Monitoring Program. We had the opportunity to conduct a technical review of Diavik's draft plan, but we also wanted communities to have the opportunity for input. The two-day workshop in May allowed community participants to:

- Review concepts of adaptive management
- Go over the results of our technical review with our reviewer

• Comment on the plan and raise any concerns they had related to adaptive management

EMAB also invited other reviewers to share their analysis at the workshop.

The WLWB decided to develop guidelines for mines to develop AdMPs. Once those are completed, Diavik's plan will be reviewed in the context of the guidelines.

## Skills and Knowledge: Capacity Funding

### Lutsel K'e Dene First Nation

LKDFN held a winter fish monitoring program with community youth as part of the school's cultural programming using capacity funds. A portion of the funds went towards community and Elder consultation. Finally, the EMAB member, Florence Catholique keeps an office in her community where she does EMAB-related work.

### Yellowknives Dene First Nation

YKDFN staged a week-long workshop for youth: "Importance of Environmental Monitoring." Youth learned about water, fish, and wildlife monitoring. The week included presentations, instruction, and hands-on experience on the land.

### North Slave Métis Alliance

Capacity funds were used to support NSMA staff in reviewing and summarizing documents, providing information to NSMA members, holding Environmental Committee meetings and facilitating community involvement in community-based monitoring. Funds also support NSMA members in increasing their knowledge of Diavik environmental issues.

#### **Capacity Funding**

Capacity Funding was established in 2001 by a motion of the Board as a way of supporting the Aboriginal Parties in building capacity in their communities. This is an optional program. The Board agreed to: "provide a budget of up to \$30,000 to be allocated to each Aboriginal Party to the agreement." The Board reviewed and improved the program in 2008.

The program priorities are:

Developing environmental monitoring projects that build capacity at the community level;

Developing processes, systems and supports for communicating with communities;

> Gathering feedback from communities on environmental monitoring issues, concerns, activities and recommendations; and

> > Developing the capacity of Board Members to represent the Board and provide advice and support to the Parties and communities.

#### Involving and supporting our communities

#### **Environmental Monitoring Training**

EMAB followed up its recommendation for organizations with a training mandate to assess whether current training for environmental monitoring is good enough. We brought together representatives from Education, Culture and Employment, GNWT; Aurora College/BEAHR; Snap Lake; Ekati; and, Diavik to talk about courses being delivered and needs of mining companies.

The meeting was useful and showed that:

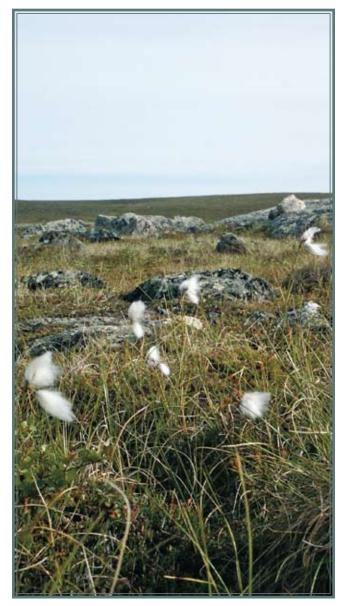
- GNWT has an occupational certification for environmental monitoring similar to an apprenticeship

   certification requires 1800 hours worked and a competency test.
- The BEAHR course currently being offered does not provide enough skills to work as an environmental monitor at a mine or allow for certification.
- It would be helpful to develop a course that can take students from the BEAHR level to starting the NRTP program at Aurora College.
- NRTP is being reviewed to provide better environmental monitoring skills.

The NWT Mine Training Society (MTS) and DIAND attended the second meeting. MTS was putting together a proposal to develop environmental monitoring training. EMAB supported the proposal and it was approved, but the funds were received too late to complete the work, so were sent back.

Diavik decided to adopt GNWT environmental monitoring certification as a requirement for its Environment Department staff.

EMAB will continue to follow this issue.



EMAB Environmental Monitoring Advisory Board

#### Oversight and monitoring

EMAB monitors Diavik and the regulators to make sure they are doing a good job protecting the environment at Lac de Gras around the Diavik mine, and that they, and all the other Parties to the Environment Agreement, are keeping the promises they made.

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

Each year we do our own reviews of the Aquatic Effects Monitoring Program report and the Wildlife Monitoring Program report. Sometimes we do a separate review of an issue that is a high priority to EMAB and the Parties, like air quality monitoring, or the mine closure plan.

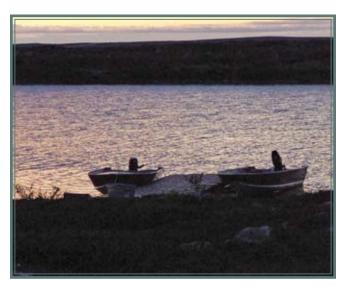
#### Who are the regulators and managers?

- Wek'èezhii Land and Water Board (WLWB) is responsible for the Diavik water licence and the technical review of all documents required under the licence. The WLWB is a regional panel under the Mackenzie Valley Land and Water Board. Staff are not technical experts; they coordinate the review of documents.
- Department of Fisheries and Oceans (DFO) reviews some of the reports submitted under the water licence and all the reports submitted under the fisheries authorizations.
- Department of Indian Affairs and Northern Development (DIAND) reviews reports required by the water licence and the land leases. DIAND has an inspector assigned to Diavik. This inspector attends our meetings to keep us aware of what is happening at the site. The inspector is also responsible for ensuring Diavik meets the terms of its water licence and land leases.

- Environment Canada (EC) reviews the reports required by the water licence focusing on water and air quality. They can call on experts from across Canada when needed.
- Environment and Natural Resources (ENR), a department of the Government of the Northwest Territories, is not a regulator; they are a Party to the EA and have responsibility for wildlife. They review and comment on the Wildlife Effects Monitoring Program reports. They use available information to try to look at regional effects of the mines. They also propose better ways to monitor effects of Diavik on wildlife, air, and water.

### 1. WATER - WLWB

EMAB monitors regulators' responses to reports under the water licence and reviews some plans and reports directly. EMAB meets with WLWB staff from time to time to keep updated and share information.



#### The Environmental **Agreement and** the water licence

The water licence and the EA both contain requirements for the Aquatic Effects Monitoring Program (AEMP). Most of the water licence requirements are more detailed than those in the EA. In the EA Diavik said it would do its best to involve Aboriginal People in designing monitoring programs, and that all its monitoring programs would include activities to:

- consider TK.
- establish or confirm thresholds or early warning signs,
- trigger adaptive mitigation measures,
- provide ways to involve each of the Aboriginal Peoples in the monitoring programs, and
- · provide training opportunities for each of the Aboriginal Peoples.

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

- we are working with the Parties to further develop a proposal for a TK monitoring program
- we are working with Diavik and a number of other organizations to improve training and certification in environmental monitoring
- we are continuing to encourage Diavik to develop more ways to involve Aboriginal Peoples in monitoring programs.

#### OVERSIGHT AND MONITORING

number of plans that are important to EMAB:

- An adaptive management plan for responding to effects detected in Lac de Gras
- A closure and reclamation plan
- Plans for testing effects of Diavik's discharge on hyalella in Lac de Gras
- Development of a whitefish testing protocol
- Development of a proposed nitrate limit

### 1.1 Water Use Licence Amendment

Diavik requested an amendment to its water licence to allow for increased water use from Lac de Gras on August 18, 2008. They said there wasn't enough water in the PKC area to keep the process plant running. They plan to build a pipeline from the North Inlet to the PKC to get process water, but it will not be completed until later in 2009. EMAB accepted Diavik's reasoning and suggested that if the WLWB agreed to the increase that it be temporary until the pipeline is completed. The WLWB approved the increase from November 2008 until the end of 2009. Actual water use from August 2008 through March 2009 increased by roughly 170,000 cubic metres or about 20% more than the same period the previous year.

### **1.2 Concern About Seepage**

Diavik's seepage report for 2008 showed that some seepage, likely from the PKC, was pooling on the ground at both the east and west ends of the PKC. Some of the seepage on the east end entered Lac de Gras over two days. When tested it was above water licence limits for zinc, aluminium, ammonia and nickel. EMAB wrote the WLWB expressing concern about this and asking to know how much seepage got into Lac de Gras and how Diavik planned to make sure the problem does

The renewed water licence (2007) required Diavik to prepare a not recur. Diavik later estimated that between 120 and 130 cubic metres of seepage entered Lac de Gras on two separate occasions.

> Diavik has installed two sumps to catch any seepage from the PKC and to pump it back to the PKC. These will be in place at least until the leak in the PKC can be found and fixed.



A sump installed to pump back seepage from the PKC.

### **1.3 Aquatic Effects Monitoring Program** (AEMP) and Reports

Diavik implemented the revised AEMP for the second year in 2008. EMAB is very pleased with the data collection and analysis under the new program and remains confident in its ability to give an early warning of changes in Lac de Gras.

Following the 2007 sampling season, the first year of the revised AEMP, Diavik requested that the number of samples required in the summer be reduced. This was because they had only been able to collect about half of the required samples. EMAB opposed this request in our submission to the WLWB, as did

## EMAB Environmental Monitoring Advisory Board

#### Oversight and monitoring



Winter sampling for Lac de Gras water quality.

everyone else who commented on it. The WLWB rejected the request in June 2008. Diavik was able to obtain about 91% of the samples required in 2008.

### 1.3.1 Annual AEMP Reports

EMAB relies on regulators to identify issues in monitoring reports. We noted that Environment Canada did not submit comments on the 2007 AEMP report and encouraged them to provide comments on the 2008 report. We also noted that DFO's comments on the 2007 AEMP report were submitted too late for the WLWB to take them into account and encouraged DFO to improve in this area. We are pleased to confirm that EC and DFO both submitted comments on the 2008 AEMP report.

Diavik's 2008 AEMP report was similar to the 2007 report with improvements in some areas of analysis. The 700-plus page report included detailed analysis by Golder Associates (hired by Diavik) on dust, water, sediment, benthics, and plankton, as well as special reports on mercury and other metals in trout, historical plankton analysis and a review of eutrophication indicators. The results of all these reports were brought together



The slimy Sculpin, a small bottom feeding fish, is used to test for presence of contaminants.

in a "weight-of-evidence" report. Diavik provided a summary report covering each appendix and describing any follow-up actions they planned.

The results revealed 17 early warning effects, eight moderatelevel effects and four high-level effects. Overall, the various effects show that nutrients from the mine discharge are changing Lac de Gras.

One issue that concerned EMAB in 2007 was that Diavik detected mercury in slimy Sculpin near its discharge into Lac de Gras. This year Diavik followed up by sampling trout from Lac de Gras and analyzing the flesh, liver and kidney for mercury. While the average amount of mercury in flesh increased from 0.185 ug/g in 1996 to 0.345 ug/g in 2008, there were older, larger fish in the 2008 sample, and Diavik was not able to compare the mercury levels from 2008 to those in 1996 to find out if mercury has increased in trout.

#### The Aquatic Effects Monitoring Program (AEMP) – a primer

The 2007 AEMP design does not rely on baseline data. One of the main problems with the original AEMP is that it relied on baseline data that was inadequate. The new AEMP compares water, benthics, and small fish near the mine to three places in the lake that are not affected by the mine, called reference areas. Four samples are also taken in a line from the place where the mine discharges to each of the reference areas. The number of sampling locations has doubled, and sampling will take place more often during the open water season. All the data are compared statistically so that any conclusions are scientifically defensible. This means that we now have confidence that the AEMP will be able to give us an early warning of any change in Lac de Gras. If the data show a change then Diavik will do further studies to find out whether the mine is the cause, and how far the effect reaches from the mine, and propose actions to make sure Lac de Gras is not harmed.

#### Mercury

Mercury was detected in trout in 1996 during baseline studies at just under the subsistence consumption guideline of 0.2 micrograms/gram and Diavik predicted in the environmental assessment that levels would remain below this. Mercury was also found in fish tissue sampled during the fish palatability community based monitoring camp. Amounts increased from 2002 to 2004 (in micrograms/gram: 2002 – 0.124; 2003 – 0.193; 2004 – 0.298). Oversight and monitoring

As in previous years, EMAB contracted North-South Consultants (N-S) to review the report and assess the data, and any conclusions and follow-up actions that might be required. In general, North-South thought the sampling, analysis and assessment were well done, improving on last year's effort, which was also good.

EMAB and North-South commented on a number of key issues:

- Nutrient enrichment seems to be the main effect occurring, as was predicted in the Environmental Assessment. This process may be happening faster than was predicted and Diavik should project the trend into the future to assess whether it may exceed its predictions.
- Diavik followed up the finding of mercury in slimy Sculpin in 2007 with a study of trout last year. They concluded that "The fish tissues analyses from 1996, 2005, and 2008 indicate that there has been no increase in the concentration of metals, including mercury, over that period. Therefore, according to the study design document, there has not been an effect on the usability of lake trout." N-S and EMAB disagreed with this statement because the study concluded that the three sets of data could not be compared due to differences in sampling, and so Diavik's conclusion is misleading. N-S proposed an alternate analysis procedure that would allow a determination of whether levels are increasing and EMAB recommended Diavik use it.
  - Diavik did not find mercury in the discharge, sediment or benthic creatures.
  - It appears that the levels predicted by Diavik in the environmental assessment (0.185 ug/g) may be being exceeded.
  - One theory that needs to be assessed is whether there is a link between increased nutrient levels

and increasing mercury. DFO will do a study to look at this possibility.

- In the Comprehensive Study Report (CSR) the GNWT agreed to follow the subsistence guideline for mercury levels in fish of 0.2 ug/g but decided not to issue a warning when the trout study was released and levels in Lac de Gras were above this. EMAB will follow up.
- Health Canada accepted Diavik's position that the increases in average mercury concentration were due to older, larger fish being caught in 2008.
- Diavik found their regular dust gauges did not give the same results as the ones using the standard methods. They recommended removing the standard ones but did not recommend any change to the monitoring program. EMAB said this decision was premature.
- EMAB suggested that Diavik should include all recommendations made by its consultants in the main report and provide reasons for implementing them or not.
- EMAB suggested Diavik should systematically address each of the effects found as to whether or not follow-up was required, with reasons.
- There is still no TK component in place. EMAB continues to encourage Diavik to work on this and has developed a proposal for community driven TK monitoring (see page 17).

While EMAB did not agree with all the statements made in the report, we continue to be very pleased with the quality of the reporting, including the detailed appendices.

In addition to EMAB, DIAND, EC and DFO made comments to the Wek'èezhii Land and Water Board for consideration in approving the report.

#### Oversight and monitoring

#### 1.3.2 Adaptive Management Plan

One of the requirements of the AEMP was that Diavik submit an Adaptive Management Plan (AdMP) for approval by the WLWB. This plan sets out how to determine management responses to effects detected by the AEMP. Diavik submitted a draft plan in August 2007 and the WLWB gave direction for reviewing Diavik's AdMP in February 2008. EMAB requested an extension of the review period to allow us to have a technical review done and hold a workshop with community participants to go over the review results, and the results of technical reviews by others. The WLWB asked for comments on BHP Billiton's Ekati Mine's AdMP at the same time so EMAB worked with Ekati's Independent Environmental Monitoring Agency to undertake a joint technical review of the two AdMPs.

EMAB held a workshop May 14 & 15, 2008 to review the Diavik AdMP with our expert consultant, Karen Munro from Jacques-Whitford/Axys along with EMAB and community participants from each of the Aboriginal Parties. On the second day we brought in other experts who had done technical reviews for DIAND, DFO and the Tlicho Government. After



Sampling water quality in the A154 pit.

all the discussions the workshop participants decided that the draft needed some significant additions and changes. EMAB reviewed the report and recommended that the WLWB provide direction to Diavik to revise the AdMP with additional required information and details, and provide an opportunity to the parties to review the revised document. The additional information required included:

- Ways to engage Parties to the EA in adaptive management decisions
- Clear management objectives
- Clear triggers and thresholds to initiate adaptive management
- Timelines for responses
- Identification and evaluation of management options

The final report on the workshop, including detailed recommendations, is available on the EMAB website (www. emab.ca).

After reviewing comments and recommendations from EMAB and other reviewers, the WLWB decided that it would develop a guidance document for all AdMPs and work with Diavik to revise the draft AdMP to meet the intent of the guidelines. EMAB plans to participate in the review of these guidelines when they are released.

### 1.3.3 DIAND AEMP Guidelines Development

DIAND has been working on the development of guidelines for the preparation of AEMPs since 2005. Following a technical workshop in 2006 and consultation with communities, DIAND released draft AEMP guidelines in September 2008 as background for a workshop in October. EMAB reviewed the draft guidelines and was concerned that they focused almost entirely on scientific monitoring with very little guidance on

#### Oversight and monitoring

use of TK in monitoring. EMAB raised the issue of the need for background research on the use of TK in monitoring. The intent was that this information would provide guidance to mines and assist them in including TK in the development of monitoring programs and in actual monitoring.

EMAB is pleased with DIAND's response of establishing a small working group to oversee preparation of background research on use of TK in aquatic monitoring to complement the scientific guidance, and has participated actively in the working group.

### 1.4 Ammonia

EMAB continues to track developments in management of ammonia at Diavik. We are pleased that an Ammonia Management Plan is in place and observe that levels in 2008-09 ranged from 0.02 to 2.83 mg/l., well below the maximum allowable of 12 mg/l in any sample and an average of 6 mg/l over time.

EMAB was very pleased with an initiative by DFO to set up a funding partnership for a study on whitefish sensitivity to diamond mine effluent compared to the rainbow trout that are currently used to assess toxicity. This study would apply directly to Diavik. Contributions have been committed by DFO, DIAND, EC, Ekati, De Beers, and Diavik and the study is expected to have some preliminary results later in 2009.

The new water licence also required Diavik to develop a method for doing chronic toxicity testing on hyalella azteca, a small bug in the water. After Diavik submitted the results it was agreed that this kind of testing is not feasible and the WLWB told Diavik to develop some other means to test for toxicity of ionized ammonia. Diavik has proposed using another type of benthic creature instead and the WLWB is considering the proposal.

#### 1.5 Closure

During our strategic planning EMAB included closure planning as a priority. We decided to hold a workshop on closure and reclamation planning in January to familiarize Board members and community participants with the principles and process, as well as to give them a chance to think about closure of the Diavik mine.

Our timing worked out well because the WLWB set a workplan for reviewing Diavik's draft Interim Closure and Reclamation Plan (ICRP) starting early in 2009. They were able to schedule the review so that EMAB's workshop coordinated with a tour of the site for community participants just before the start of the review process. They directed Diavik to submit draft closure objectives for each component of the mine (waste rock piles, open pits, infrastructure etc.) followed by a WLWB workshop in early February to review the objectives with community and government participants.

EMAB held its workshop on January 13 and 15 (Diavik site tour took place on the 14th) and received valuable input from community participants.



A computer-generated image of what the Diavik site will look like after closure.

### Oversight and monitoring

EMAB made a number of recommendations following the workshop:

- To Diavik:
  - That Diavik include consultations on the draft ICRP in each Affected Community prior to submission to the Wek'èezhii Land and Water Board.
  - That Diavik take the January 2009 Closure workshop participants to visit the mine site in late May or early June to provide a better understanding of the closure components.
- To the WLWB:
  - That the Wek'èezhii Land and Water Board clearly define vision/goal, objectives and criteria for closure plans, and the differences between them.

We also strongly encouraged all Parties to participate in the WLWB workshop.

All available EMAB members attended the WLWB closure objectives workshop and EMAB submitted comments on the draft closure objectives that were developed following the workshop.

The WLWB will revise the objectives again following this input. They have directed Diavik to hold a workshop on closure options and criteria for carrying out the objectives. Diavik will then carry out community consultations and develop the draft ICRP for review. EMAB is pleased with the approach taken by the WLWB and plans to fully participate in all aspects of this review. We will continue to encourage Diavik to provide for strong community participation in development of the draft ICRP.

### 1.6 Water Treatment Plant Expansion

Diavik has completed construction of the expansion to its water treatment plant and hopes to have it up and running in summer 2009. The WLWB directed that Diavik provide locations for sampling sites for the new discharge point four months in advance of starting up. It was later determined that sample locations could only be established once the plant started running. A 30-day review period was set in place by the WLWB.

Diavik will also do a study under the ice next winter to find out how the effluent mixes with Lac de Gras water to make sure they take samples at the right places.

EMAB has observed the approval and follow-up process for this expansion and is satisfied that adequate planning and safeguards are in place to protect Lac de Gras.

### 1.7 Intervener Funding

EMAB continues to promote the need for intervener funding to be made available to allow meaningful and effective participation of Aboriginal Parties and others in hearings and review processes under the MVRMA.

When the report of the Northern Regulatory Improvement Initiative (NRII) came out last year EMAB reviewed it and found that the issue of participant funding under the MVRMA was not addressed. We brought this to the attention of the Minister along with two options that could be used.

### 1.8 Licence Management Recommendations

Over the last several years, EMAB has raised a number of issues we felt could enhance the management of Diavik's water licence, and each year we report on progress on those that remain outstanding. We are hopeful that the MVLWB initiative from 2008 to establish working groups to develop consistent procedures will address some of these.

### Diffuser and Mixing Zone

The diffuser is a long pipe leading from the water treatment plant to the bottom of the lake. The end of the pipe is closed, and there are many small holes in the pipe near the end. The treated discharge is forced through the holes and mixes quickly with the lake water. The mixing zone is a 120 metre circle centred on the diffuser.

#### Two possible approaches to intervener funding

EMAB recommended two approaches the WLWB could take regarding intervener funding:

- The WLWB recommend to the Minister that intervener funding is needed
- The WLWB recommend that the Minister provide authority for the Board to award costs for participation in hearings from the proponent, including advancing of funds.

#### Oversight and monitoring

We addressed some of these issues in our comments to the Minister on the NRII report. We encouraged the Minister to consider some other areas we felt were missing from the report and have not been addressed through other mechanisms:

- The need for permanent funding for the WLWB to have access to technical expertise as required. As noted in previous annual reports, we feel that the WLWB was able to make progress on some difficult issues concerning the Diavik water licence by turning to independent technical experts for advice and assistance. To our knowledge this recommendation remains outstanding, although DIAND has stated that ensuring adequate resources to all boards is a priority. EMAB was also pleased that the WLWB plans to establish a pool of technical experts it can draw on for reviews and that it plans to use internal technical experts to assist the Board with decision-making.
- The need for a mechanism to make changes to water licences between hearings that can be initiated by the public, including publicly available criteria for determining whether a change is in the public interest. We are hopeful that the MVRMA working groups will address this.

We also raised questions about the Diavik Technical Committee with the WLWB. They stated that the combination of publicly available technical reviews and their intention to hold public workshops as needed to address specific issues eliminates the need for the DTC at this time.

#### 1.9 Inspector

The new inspector has been in place for just over a year. EMAB relies on the inspector's reports as a key source of information about compliance with authorizations, implementation of mitigation measures, and the details of on-the ground operations at the mines, including any environmental issues.

The inspector updates the Board at each meeting on the key results of monthly inspection reports, particularly focusing on possible effects on water quality such as:

- Where spills may occur
- Chemical and fuel storage areas
- Contaminated water storage areas
- Water discharge locations

In 2008-09 the inspector expressed concern about seepage and leaks from several of the collection ponds and the PKC. She has given direction to Diavik to fix these problems.

She also expressed concern about the increasing trend of frequency and volume of hydraulic oil spills in the pits. She is satisfied with Diavik's plans to deal with this problem.



Jennifer Potten, the DIAND inspector, shares information with EMAB members on how Diavik is ensuring that they are in compliance with their water licence.

### Oversight and monitoring

EMAB keeps track of Diavik's compliance with the water licence. There were some non-compliance events in 2008-09:

- On May 22, 2008 high-sediment water flowed into a small lake on the East Island due to pond construction activities by Diavik. The sediment levels were about five times higher than allowed in the licence. Diavik took action to stop this. The inspector did not press charges but stated that she felt Diavik should have been prepared for this, that this was a clear violation of the NWT Waters Act and that future discharges of this kind would not be tolerated.
  - For about three hours late on May 26, 2008, continuing to early on May 27, 2008, untreated discharge went into Lac de Gras from the water treatment plant because:
    - » alarms had been suppressed due to a power outage.
    - » there was no operator present and a float valve got stuck.
  - Diavik estimates about four million litres of untreated effluent went into Lac de Gras. Diavik has taken action to make sure this doesn't happen again. The inspector decided not to press charges.
- As discussed earlier, seepage, apparently from the PKC, flowed into Lac de Gras at least twice in summer of 2008.

## 2. FISH – DFO

EMAB monitors DFO's reviews of reports from Diavik on its fisheries authorizations.

### 2.1 No Net Loss

Two community habitat enhancement projects have been identified to help compensate for loss of fish habitat during construction of the Diavik mine. The projects are in Kugluktuk and Lutselk'e:

- Char monitoring in Kugluktuk
  - Planning to build 6 bridges in 2009 while training local young people to do the work and monitor the results.
- Culvert replacement in Lutselk'e is in the very early stages. The plan is to do the work with the community and involve the community in monitoring results.

Work on the M-lakes habitat enhancement on the mainland SE of Diavik is in the planning stages. The University of Alberta and DFO are designing a monitoring program. They will collect baseline information in summer 2009 and construction work is planned for winter 2009 or winter 2010.

### 2.2 Fisheries Authorization Monitoring

- Dike monitoring DFO contracted a statistician to review the monitoring design. They will try to coordinate this with AEMP monitoring.
- Shoal habitat after years of discussion about a suitable monitoring program to determine whether trout returned after construction to use the shoals near the dike for spawning, the study was wound up without useful results.

#### What is a fisheries authorization?

Anyone who wants to carry out work that might result in the harmful alteration, disruption or destruction of fish habitat must receive permission from the Minister of Fisheries and Oceans. If an authorization is given, it includes a description of the work that must be done to make up for any loss of fish habitat. That includes monitoring to measure the damage that is taking place.

#### Oversight and monitoring



### 2.3 Whitefish

A partnership was formed with contributions from DFO, DIAND, Ekati, De Beers and Diavik to set up a study to determine how sensitive round whitefish are to the mine discharges compared to the standard test species, rainbow trout. EMAB is pleased at this positive step and congratulates DFO for taking this initiative.

### 2.4 Blasting Effects Study

EMAB has been monitoring the blasting effects study and notes that DFO completed its review this year. The study did not find that any fish died due to blasting or that it had any effect on the hatching of fish eggs.



## 3. WILDLIFE

The Wildlife Monitoring Program (WMP) studies the effects of Diavik on wildlife and vegetation in the area around the mine. Much of EMAB's focus during the year was on revisions to the WMP.

Diavik prepares a report on wildlife monitoring every year. Every three years they do a comprehensive statistical analysis on the data gathered to identify trends. The last comprehensive report was produced last year. The report provides excellent and very useful information, but uses complex statistics that need further explanation to be understood by non-technical people. EMAB requested that Diavik provide a plain-language translation for the Board and community members. When Diavik declined, EMAB contracted its wildlife consultant to prepare a two-page plain language summary of the report.

### 3.1 WMP Revisions

Diavik proposed to change the Wildlife Monitoring Program. EMAB had some difficulty working effectively with Diavik's several initiatives.

EMAB Environmental Monitoring Advisory Board

### Oversight and monitoring

#### May 2008

Diavik told EMAB it planned to update the WMP. EMAB stated our plan to work with them to ensure strong Aboriginal involvement in any re-design and to facilitate the inclusion of TK into the design. Diavik said it would prepare a document on possible changes for discussion.

#### September 2008

Diavik told us that they wanted to decrease the frequency of the various parts of the monitoring program, so that one component (such as caribou) would be monitored one year and a different component would be monitored another. At the same time they would develop a way to monitor each component using TK. They said there was enough information to justify these decreases and asked EMAB for input on how often each component should be monitored. They also said they would be asking communities for input on these suggestions. EMAB requested that Diavik provide a detailed explanation of the proposed changes before it engaged in discussion on them.

#### November 2008

EMAB made a recommendation to Diavik that they provide specific proposals for changes, and scientifically defensible evidence that these changes were justified so they could be reviewed by communities and technical experts. We also recommended they develop options for adaptive responses to the increased zone of influence the mine was having on caribou, compared to the initial environmental assessment.

#### December 2008

Diavik responded that EMAB and the communities should tell them why each part of the WMP should be carried out every year, as well as asking for any suggested changes to the WMP and any ideas for types of TK monitoring that could be included in the WMP. EMAB discussed possible responses and decided that continuing to exchange letters was not moving towards any solution. Diavik also requested a meeting of the three diamond mines (Diavik, Ekati and Snap Lake) with ENR to review the WMPs and look for ways to improve the information collected while addressing safety, efficiency and coordination. The meeting took place on December 17. EMAB attended the meeting along with participants from the monitoring boards for Ekati and Snap Lake.

At the meeting Diavik presented some ideas for changes to the WMP for 2009, including:

- Suspending the grizzly studies due to safety concerns
- Developing a cooperative caribou monitoring program with Ekati and possibly monitoring every second year
- Cutting wolverine track surveys to once per year
- Cutting waterfowl monitoring to just during peak migration

We noted that Diavik did not mention these ideas in its letters to EMAB or during its presentations to communities on monitoring.

The mines and ENR agreed to set up working groups on birds, caribou, bears, and wolverine that would meet to discuss ideas, then report back to the larger group.

Following the meeting EMAB, IEMA and SLEMA sent a joint letter to ENR and the mines reminding them that any changes to the WMPs would have to meet the requirements of the individual environmental agreements and would require consultation with the Parties.

#### March 2009

Diavik and Ekati sent a joint letter proposing:

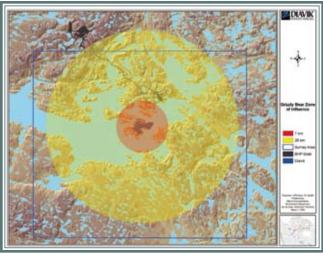
- changes to Diavik's part of the caribou aerial surveys,
- cutting back on the area surveyed,

# What is the WEMP?

The Wildlife Effects Monitoring Program is a requirement of the Environmental Agreement.

The program studies the effects of the mine on wildlife and looks at caribou, bears, wolves, wolverines, birds and plants. The WEMP measures these areas to evaluate predictions about changes in such areas as population and migration. Diavik submits a report every March on the results of the program for that year. This program was created so that if a change happens to wildlife Diavik will know and can do something about it.

#### Oversight and monitoring



The mine's zone of influence on caribou as predicted and the current zone of influence.

- shortening the time period covered, and
- decreasing the amount of data gathered.

They set a deadline of six days for an EMAB response to allow them two weeks to make any changes to the required wildlife research permit application. EMAB was not able to develop a formal response in this short a time, but did pass on some suggestions from our wildlife consultant.

#### April 6, 2009

Diavik submitted its wildlife research permit application unchanged and at the same time provided EMAB a letter listing the proposed changes to the WMP that were included in the application. EMAB was not satisfied with the lack of justification for the changes or with the lack of consultation with EMAB and with communities on the proposed changes. We wrote to ENR and Diavik expressing our concerns and encouraging Diavik to amend its application to improve the adequacy of the 2009 program. We also strongly encouraged a better process for proposing revisions to the WMP in future. Diavik has responded saying they don't plan to amend their application.

It appears that Diavik had already developed a number of proposed changes in December based on their presentation at the ENR/diamond mines meeting, but would not put them in writing with justification for EMAB to review.

We are disappointed with Diavik's approach and have strongly encouraged them to engage in a more open, transparent, and inclusive process for WMP revisions in future – one that will allow EMAB and communities to effectively comment on proposed changes.

#### 3.2 WMP Report - 2008

Wildlife consultant Management and Solutions in Environmental Science (MSES) reviewed the 2008 WMP report for EMAB and provided its assessment of the methods and results. They have reviewed the annual WMP report for EMAB since 2004. MSES attended Diavik's presentation of the report to EMAB, along with invitees from the Wek'èezhii Renewable Resources Board and federal and territorial government wildlife experts.

MSES concluded that the report is useful in providing information about the predictions made during Diavik's environmental assessment about the effects of the mine on wildlife and improves understanding of those effects. They said "Overall, we recommend that EMAB accepts the 2008 WMR."

Much of the MSES analysis focused on the recommendations made by MSES and EMAB in the past for improving the data collected through the WMP, and on the need for making changes to the monitoring based on the results:

• Caribou – the zone of influence appears to be larger than predicted (different studies give different results ranging from 11 km to 30 km with the most current

EMAB Environmental Monitoring Advisory Board

### Oversight and monitoring



A section of the new Waste Transfer Area at the mine site.

analysis pointing to about 14 km). EMAB and MSES have pointed out the need for more intense work inside the ZOI.

- Vegetation there seems to be less lichen closer to the mine than far away, which could also affect caribou. This needs further investigation.
- Grizzly seem to be avoiding the mine.
- Waste management was less successful in 2008 than before, attracting more scavengers such as gulls, ravens and foxes.

EMAB continues to be pleased with the monitoring and looks forward to working cooperatively with Diavik to revise and improve the WMP for 2010.

## 3.3 Wildlife Environmental Assessment Prediction Review

Diavik is using the data collected to date to assess the accuracy of the predictions it made during the project approval process. The predictions were Diavik's "best guess" based on existing information from the area and other similar situations. So far they have looked at caribou and found that:

- the area around the mine that caribou tend to avoid

   called the zone of influence or ZOI is larger than
   predicted so that there is a greater loss of habitat
   available to caribou;
- the data collected on caribou behaviour inside the ZOI needs to be improved before this prediction can be assessed;
- effects on caribou migration patterns are as predicted;
- mine-caused caribou deaths are negligible, as predicted; and that
- the information being collected is adequate to test the predictions, except for behaviour inside the ZOI.

Diavik will assess the other predictions the same way. EMAB believes this information will help in deciding which areas of the WMP should be changed.

### 3.4 Cumulative Effects

NWT and Nunavut barren-ground caribou herds have shown a continuing drop in numbers over the last few years, ranging from 40 – 86%. The Bathurst herd has gone from an estimated 472 000 in 1986 to 128 000 in 2006. The most recent results will be available in the fall of 2009.

#### Oversight and monitoring

Many possible causes have been suggested:

- Over-hunting
- Wolf kills
- Effects of climate change
- Overgrazing and range deterioration
- Industrial and other projects
- The winter road

EMAB has heard very strong concerns about this decrease and the possible role of Diavik and other developments in this decline, and possible effects on Bathurst caribou migration during community meetings. These are part of the larger question of cumulative effects on caribou and other wildlife.

EMAB participated in an ENR workshop on the Bathurst Caribou Management Plan (BCMP) and North Slave Research in February. It was well attended by people from across the NWT, including the Aboriginal Parties to the EA. The workshop largely focused on reporting on research projects. The BCMP includes the need for research on the cumulative effects of industrial development on caribou, but aside from wildlife monitoring programs carried out by individual mines there is very little research being done in this area. Last year we reported on an ENR initiative to develop a simulation model for cumulative effects on the Bathurst herd that would predict the effects of development, including Diavik, and natural change on caribou, and that must incorporate Traditional Knowledge. A demonstration project is underway but no results are expected until next year.

EMAB has taken the position that cumulative effects monitoring of wildlife is the responsibility of ENR and INAC, and that they should take the lead in setting standards for monitoring, as well as bringing together and analyzing existing data and developing study designs to fill gaps such as monitoring of the winter road.

EMAB continued to state the need for ENR and DIAND to address cumulative effects monitoring on effects of development on caribou and other wildlife. We raised this issue during meetings between ENR and the diamond mines regarding improving the WMPs (reported above), and are hopeful that this collaboration may be a step in the development of guidelines for wildlife monitoring. EMAB has been planning a workshop on cumulative effects on the Bathurst caribou to address this issue but has been observing other related processes before going ahead to make sure we aren't duplicating other work.

EMAB Environmental Monitoring Advisory Board

#### Oversight and monitoring

## 4. AIR

EMAB continues to hear that communities are concerned about environmental effects of dust and air emissions, particularly on wildlife and the vegetation eaten by wildlife.

### 4.1 Dust Monitoring

Diavik's dust monitoring continues to show that the mine is producing much more dust than predicted, often ten times as much. Diavik is trying to reduce dust by watering roads more and through other dust control methods, but based on the dust monitoring results more may need to be done.

EMAB first expressed concerns about Diavik's dust monitoring methods in 2005 because they were not using standard methods. In 2007 Diavik set up two dust gauges next to two existing gauges and monitored those using standard methods to compare the results with the system they've been using all along. The results seem to show that Diavik's method gives quite different results from standard methods. EMAB commented that it is premature to consider discontinuing the test gauges.

### 4.2 Air Quality Monitoring

Diavik has begun re-doing its air dispersion model, the first step in developing an air quality monitoring program. They hope to have the model done by end of 2009.

EMAB continues to express its concerns that nine years after the environmental agreement was signed the requirement for Diavik to have an air quality monitoring program is still not being met.



A dust gauge at the mine site.

#### 4.3 Lichen Monitoring

EMAB has agreed to help address the best ways to study the effects of dust that falls on lichen and other food that caribou eat.

## Reports

REPORTS IN REVIEW AS OF MARCH 31, 2009	DATE CUDALITED	70
REPORT DESCRIPTION	DATE SUBMITTED	ТО
Design Specs & Monitoring Plans - Fish Habitat Compensation		5.50
Streams (draft)	April 14/03	DFO
West Island Stream	April 22/04	DFO
Lakebed Sediment, Water Quality & Benthic Invertebrate	May 15/07	DFO
Study - AA18 (Year 1) & A154 (Year 3)	2007	DFO
Hyallela Chronic Toxicity Test Results - Phase 1	August 29/08	WLWB
Options to Monitor Ionized Ammonia Toxicity	November 20/08	WLWB
Proposed Changes to SNP	February 19/09	WLWB
Water Management Plan Ver. 7	December 31/08	WLWB
REPORTS APPROVED IN 2008/2009 OR NOT REQUIRING REVIEW		
REPORT DESCRIPTION	DATE SUBMITTED	то
A418 Fish Salvage Program Report	June 20/07	DFO
Limnology & Aquatic Ecology - Lac de Gras	November 7/00	MVLWB
QA/QC Plan	June 20/07	WLWB
Water Management Plan	December 27/07	MVLWB
Water Licence Report 2007	April 2/08	MVLWB
Hazardous Materials Management Plan Ver.11	March 31/08	MVLWB
Operations Phase Contingency Plan Ver.11	March 31/08	MVLWB
Request for AEMP Modification	March 31/08	MVLWB
Aquatic Effects Monitoring Program Tech. Report-07	April 14/08	MVLWB
SES Design - Chronic Toxicity Test for Hyallela	April 25/08	WLWB
Request to Change Hyallela Toxicity Test Frequency	April 14/08	WLWB
Lake Trout Habitat Utilization Study (now called Shoal Habitat Utilization Study)	November 26/02 (revised)	DFO
Lake Trout Habitat Utilization Study Revised Study Design	July 27/04	DFO
Shoal Habitat Utilization Survey - 2004	April-05	DFO
Shoal Habitat Utilization Survey - 2005	2006	DFO
Shoal Habitat Utilization Survey - 2006	2007	DFO
Request for Temporary Increase in Water Use	August 18/08	WLWB
Dam Safety Inspection Report	September 19/08	WLWB
Request for Extension of Deadline - 2008 AEMP Report	January 30/09	WLWB
Blasting Effects Studies - Final Reports	March 8/07	DFO

#### Communicating with the public

#### Annual General Meeting

Each September, we hold our AGM in our Yellowknife boardroom. Doug Crossley was re-elected as Chair, Florence Catholique as Vice Chair, and Floyd Adlem as Secretary Treasurer.

These annual meetings are open to the public and usually take place in the third week of September.

#### **Public Library**

As a public watchdog, one of EMAB's responsibilities is to make sure that people have access to information regarding Diavik as it relates to the environment. Anyone with an interest can visit our office and access plans and reports, expert reviews, correspondence, Board meeting minutes, maps, and images.

Our office hours are 9 a.m. to 5 p.m., Monday to Friday.

#### Website

The website is another way for EMAB to reach out to people, passing on information about our activities and receiving input from the general public. The website, www.emab.ca, is updated on a regular basis.

#### Meetings

As noted in the section on communities, EMAB holds public updates in various communities. The goal is to keep people informed and allow them to ask questions and voice opinions and concerns.



### WHAT ARE OUR PLANS?

#### Work plan for 2009-10

EMAB's priorities for 2009-10 are:

- Participate in review and design of the Adaptive Management Plan guidelines and Diavik's revised plan.
- Implement the strategic plan.
- Develop a new communications plan based on the strategic plan.
- Build capacity (skills and knowledge), increase awareness and support meaningful participation of Aboriginal Peoples in environmental monitoring activities related to Diavik.
- Implement revised capacity building program.
- Review and assess environmental effects monitoring reports on the Diavik mine, while focusing on issues surrounding wildlife, particularly caribou, fish, water and air quality.
- Monitor regulators to ensure plans and programs are thoroughly reviewed and necessary follow-up is done.
- Continue to improve communications.
- Use Traditional Knowledge panels and carry out more technical reviews in areas of higher priority (water quality, wildlife, fish, air quality).
- Continue emphasizing the need for greater Aboriginal involvement in monitoring at Diavik, including follow up on last year's recommendations.
- Facilitate community-level discussion of EMAB's proposal for use of TK to do environmental monitoring: Monitoring the Land by Watching and Using Caribou and Fish, and move forward with a demonstration project.

- Participate in the development and review of Diavik's Interim Closure and Reclamation Plan.
- Develop further capacity in reclamation and closure related to Diavik.
- Actively participate in review and revision of Diavik wildlife monitoring program.
- Work with communities to evaluate the effectiveness of EA implementation.
- Resolve budget dispute with Diavik.

In addition to its day-to-day mandate of monitoring the Diavik mine and the regulators, and communicating with communities regarding the mine, EMAB has a number of major projects planned for 2009-10.

**Closure and reclamation** – EMAB made this area a priority in its strategic plan. We will participate in all appropriate aspects of the review process for Diavik's Interim Closure and Reclamation plan as set out by the Wek'eezhii Land and Water Board. We will contract technical expertise to assist us in the review and make this information available to Parties to the EA.

Aboriginal Involvement – EMAB will continue to follow up on recommendations to Diavik on improvement of involvement of Aboriginal people in all aspects of monitoring and on coordination of various organizations responsible for training in environmental monitoring. We will keep raising the issue of participant funding as a necessary means for meaningful participation of Aboriginal Parties in public review processes.

**Traditional Knowledge** – EMAB will encourage and assist Diavik in development of ways to use TK/IQ in environmental monitoring. We will finalize the proposal for a study to use TK in monitoring that we have been developing with help from Allice Legat at the Wek'èezhii Renewable Resources Board. We will help support the Aboriginal Parties to discuss the proposal at the community level and move forward to carry out a demonstration project.

### WHAT ARE OUR PLANS?

**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. We continue doing technical reviews of monitoring programs and reports and management plans as needed. We continue to be concerned at the lack of cumulative effects monitoring on wildlife, particularly the Bathurst caribou, and will work to find ways to make progress. We have set aside funds for a workshop on wildlife cumulative effects and will monitor the work of governments and mines to ensure we do not duplicate.

**Communications** – EMAB will continue to provide updates on environmental monitoring of the Diavik mine to communities through Board members, and target at least one public meeting in each community to review environmental monitoring results, answer questions and hear community concerns. Where possible we will do group community updates along with Diavik and regulators. We will prepare a new Communications Plan based on the strategic planning results. The communications coordinator will also assist in communicating complex issues to communities and in making sure that EMAB hears, understands, and addresses community concerns. EMAB will also produce a newsletter and, when required, plain language summaries of key documents and update our website regularly.

**Capacity Building** – EMAB will implement its revised capacity funding program to support Affected Communities in participating in monitoring the Diavik project. EMAB's communications coordinator will provide additional support to Aboriginal Parties in developing and carrying out projects to build monitoring skills and knowledge in Affected Communities.

**Relationship Building** – We will continue to hold meetings that bring together regulators that deal with Diavik. These meetings help everyone understand each other's roles and help resolve issues.

Strategic plan - Now that the strategic plan is completed we will

implement it through our workplanning and activities.

**No Net Loss** – we will monitor the development of detailed designs for projects to replace fish habitat, and the construction and effects of the projects over the long term.

**Organizational Development** – The Board will continue to work on its procedures and review bylaws and policies to improve efficiency and effectiveness. EMAB holds annual governance workshops to review our performance and transfer knowledge to more recent Board members.

EMAB expects to hold six Board meetings over the coming year and plans to continue rotating meetings in the Affected Communities. EMAB will continue to use Board teleconferences; these offer greater efficiency for routine items, as well as improving cost efficiency and reducing time demands on Board members.

### Budget

Administration	93,000
Capital Cost	3,000
Management Services	268,000
Board	150,000
Sub-Committees	2,000
Community Consultation	175,000
Projects	225,000
Contingency	12,000
Total	928,000

#### Auditor's Report

#### Management's Report

The management of the Environmental Monitoring Advisory Board is responsible for the financial statements presented here. The statements have been prepared as set out in the notes attached and were audited by Charles Jeffery – Chartered Accountants following generally accepted accounting principles.

EMAB management includes budget and financial controls to provide reasonable assurance that spending is authorized, transactions are correctly recorded, and financial records are accurate.

Floyd Adlem Secretary Treasurer

#### To the Board of Directors of the Environmental Monitoring Advisory Board

I have audited the Statement of Financial Position (Balance Sheet) of the Environmental Monitoring Advisory Board as at March 31, 2009 and the statement of operations, the statement of changes in fund balances and statement of 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, 2009 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Yellowknife, Northwest Territories May 1, 2009

Charles Jeffery Chartered Accountant

## Auditor's Report

# **Environmental Monitoring Advisory Board**

#### Statement of Financial Position

	March 2009	March 2008
For the year ended March 31, 2009	2009	2008
Acasta	Ŷ	ų.
Assets		
Current assets	4 000 000	4 4 5 0 4 4 0
Cash	1,066,963	1,153,113
Accounts receivable	370	3,569
Contributions receivable	6,981	23,220
Holdbacks receivable - 2008	-	4,380
Holdbacks receivable - 2009	4,000	•
	1,078,314	1,184,282
Capital assets (Note 3)	14,572	15,282
	1,092,886	1,199,564
Accounts payable and accrued liabilities Contributions refundable - Traditional Knowledge Camps Contributions refundable - Department of Indian Affairs and Northern Development Deferred revenue - Diavik Diamond Mines Inc. (Note 5)	157,405 13,715 - 547,000	63,318 13,715 9,878 676,000
	718,120	762,91
Net Assets		
Investment in capital assets	14,572	15,281
Net unexpended funds for budget period 2008 to 2009	71,972	133,150
Unrestricted net assets	288,222	288,222
	374,766	436,653
	1,092,886	1,199,564

### Auditor's Report

## **Environmental Monitoring Advisory Board**

#### **Statement of Operations**

or the year ended March 31, 2009		March	March
		2009\$	2008
levenue		Ŷ	Ψ
Diavik Diamond Mines Inc		676,000	660,000
Diavik Diamond Mines Inc - Traditional K	nowledge	6,981	11,06
Government assistance			
Department of Indian Affairs and Nor		40,000	43,80
Department of Indian Affairs and No	thern Development (refundable)	-	(9,87
Program Administration		-	
Interest income		18,895	25,61
Cost recovery - Diavik travel		775	
Cost recovery - IEMA		5,400	
Other		90	4,05
	a and a construction of the second statement	748,141	734,65
perating Expenditures			
Administration	Schedule 1	87,051	63,34
Management services	Schedule 2	241,271	219,25
Board Expenditures	Schedule 3	141,019	128,58
Community Updates	Schedule 4	12,365	4,77
Community Consultation (Note 2)	Schedule 5	120,000	83,25
Wate Quality Camp	Schedule 6	6,981	
Strategic Planning	Schedule 7	2,789	18,08
Traditional Knowledge Workshop	Schedule 8	64,027	
Closure Workshop	Schedule 8	50,718	
Governance Workshop	Schedule 8	1,890	
Scientific Expertise	Schedule 8	22,913	10,88
Adaptive Management Workshop	Schedule 8	54,908	84
Aboriginal Involvement Workshop	Schedule 9	-	47,52
AEMP Revision	Schedule 10	-	42
Capacity Funding	Schedule 11	-	18,16
Capital asset purchases charged to operative	ations	3,387	6,36
		809,319	601,50
xcess revenue over expenditure			
expenditure over revenue)		(61,178)	133,15

EMAB Environmental Monitoring Advisory Board

### AUDITOR'S REPORT

### **Environmental Monitoring Advisory Board**

**Notes to Financial Statements** 

For the year ended March 31, 2008

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)(I) 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.

#### Auditor's Report

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**

or the year ended March 31, 2009				
			March	March
			2009	2008
			\$	\$
2 Capacity funding expenditure				
Kitikmeot Inuit Association			-	30,000
Lutsel K'e Dene			30,000	23,259
North Slave Metis Alliance			30,000	30,000
Tli Cho Government			30,000	
Yellowknife Dene			30,000	
			120,000	83,259
3 Capital assets				
	Cost	Accumulated	Net Book	Net Boo
		Amortization	Value	Valu
Computer Equipment	38,465	32,711	5,754	8,659
Furniture & Fixtures	15,154	9,596	5,558	3,011
Office Equipment	20,429	17,169	3,260	3,612

74.048

59.476

14.572

15,282

### Auditor's Report

Decrease accounts receivable Recovery of Contributions Receivable	3,199 27,600		
Increase trade accounts payable	94,088	46,561	
	124,887	46,561	
Operating resources applied to:			
Increase accounts receivable	(6,981)	(23,931	
Increase contribution holdbacks	(4,000)		
Decrease in contributions refundable Increase in employee receivable	(9,878)	(25,482)	
	(20,859)	(49,413)	
Net Change in Non-Cash Working Capital	104,028	(2,852	

#### **5 Deferred contributions**

Deferred revenue consists of the funds contributed by Diavik Diamond Mines Inc. for the 2009-2010 operating year. This amount will be recognized as revenue over the 2009-2010 operating year as goods and services are acquired.

#### 6 Contributions from Diavik

Diavik Diamond Mines Ltd. (Diavik) has indicated to management that the funding for fiscal 2009-2010 will be reduced by \$150,000, representing an approximate 21% reduction in expected funding. This reduction is based on Diavik's interpretation of clause 4.8G of the Environmental Agreement. This interpretation is disputed by the Environmental Monitoring Advisory Board (EMAB). EMAB has recommended that this matter be resolved throught the Environmental Agreement Dispute Resolution under clause 16.

### What does it mean? - Definitions

Aboriginal Parties/Aboriginal Peoples: means the Tlicho Government, the Lutsel K'e Dene First Nation, the Yellowknives Dene First Nation, the North Slave Métis Alliance and the Kitikmeot Inuit Association.

Adaptive Environmental Management: is a way to manage the environment by 'learning by doing.' We expect plans will need changes. These are important steps:

- Admit doubt about what plan or action is "best" for the issue.
- Thoughtfully select the plan or action to be taken.
- Carefully carry out the plan and action.
- Keep an eye on key results.
- Study the results with the original objectives in mind.
- Include the results in future decisions. Affected Communities: means Behchoko, Wha Ti, Wek'weeti, Gameti, Lutselk'e, Dettah, Ndilo, and Kugluktuk.

**Baseline:** means all the facts, numbers and information that were collected about the Lac de Gras area before Diavik started construction. Facts, numbers and information are being collected all the time and will be compared with the baseline to see if there are any changes to the environment of the Lac de Gras area.

**Compliance:** means following all the rules and regulations, laws and legislation, as well as following through on commitments.

**Cumulative Effects:** means the effects on the environment that increase, when the effect of one action is added to other actions. Cumulative effects can be the result of small, individual actions, that when looked at all together become more important over a period of time or in a whole region.

**Environmental Quality:** means the state of the environment of an area at any time compared with its natural state. This includes biological diversity and ecosystem structures and process.

**Mitigation:** means the choices possible to lessen or get rid of harmful environmental effects. There are three basic choices:

- get rid of the problem by using other sites, locations or operating conditions;
- lessen the problem by using other sites, locations or operating conditions; or
- make up for the problem by remediation, replacement or payments in cash or kind.

Possible mitigation can include the requirement of additional measures or actions, which can be funded or implemented independently of the main project.

**Monitoring:** means keeping an eye on the actual operation and comparing it to what was planned or what was expected to happen. Monitoring generally involves collecting and analyzing information and if a problem is discovered, fixing it.

**Reclamation:** means the way that lands disturbed because of mining are cleaned up. Reclamation can include: taking out buildings, equipment, machinery and other physical leftovers of mining, closing processed kimberlite containment areas, leach pads and other mine features, and contouring, covering and revegetation of waste rock piles and other disturbed areas.

**Security:** means the money that Diavik gives to DIAND as assurance that it will clean up the mine site in an acceptable way after the mine closes.

Sustainable Development: Makes sure that the land our children will use is as healthy and rich as the land we have now. It means not doing harm to the environment that we can't fix, or use up resources our children will need. Sustainable actions are not wasteful, do not have unreasonable costs and are right for society, as well as respect cultures.

**Precautionary Principle:** means stopping harm from happening to the environment or human health if there is a good reason to think it might happen. Not knowing all the scientific causes and effects of the situation is not a reason to allow possible damage.

EMAB Environmental Monitoring Advisory Board

### Abbreviations

AEMP	Aquatic Effects Monitoring Program
AdMP	Adaptive Management Plan
AGM	Annual General Meeting
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
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
IEMA	Independent Environmental Monitoring Agency
KIA	Kitikmeot Inuit Association
LKDFN	Lutsel K'e Dene First Nation
<b>MVEIRB</b>	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
NSMA	North Slave Métis Alliance
SLEMA	Snap Lake Environmental Monitoring Agency
TK	Traditional Knowledge
WEMP	Wildlife Effects Monitoring Program
WLWB	Wek'èezhìi Land and Water Board
WRRB	Wek'èezhìi Renewable Resources Board
YKDFN	Yellowknives Dene First Nation

### What happened? - Follow-up on Previous Recommendations

EMAB recommends that DDMI proceed with development of its proposed air quality monitoring program. DDMI should also state which pollutants it proposes to include in its air quality monitoring program and should make best efforts to coordinate with air quality monitoring at the Ekati mine so that data is compatible and comparable.

Diavik began the development of an AQMP by contracting a consultant to prepare a new air dispersion model.

Recommendations related to management of DDMI's water licence – these recommendations are documented in the water section of this annual report and include the need for: participant funding, and a process for amendment of licence between hearings.

Participant funding continues to be an unfulfilled objective for EMAB and we will continue to pursue this as appropriate.

EMAB is hopeful that a process for amendment of water licences between hearings will be developed by MVRMA working groups.

EMAB made a number of recommendations about Aboriginal involvement in monitoring in early 2008, in follow up to our workshop with community participants on this topic. DDMI responded on July 24 about 13 weeks after the 60 day deadline:

In order to improve levels of Aboriginal involvement in the design of its monitoring programs, Diavik should present these programs at public meetings in communities. Diavik should prepare for the presentations by translating the WEMP and AEMP Program Design documents into plain language with lots of graphics, making sure they clearly explain the intent of the programs – along the lines of the AEMP summary presented at the March 2007 AEMP preparatory workshop. These presentations should also address the Environmental Agreement commitments for monitoring, and the ways the programs meet these commitments. There should be a number of presentations/workshops over time focusing on specific topics, such as caribou, rather than trying to review all the monitoring programs at one time. The design review should include ways to incorporate TK/IQ into the monitoring programs. EMAB encourages Diavik to make best efforts to ensure youth are involved in these presentations/workshops.

Diavik informed us that they did not expect the scientific components to change and that the CBM camp would focus on TK. They believe that since the communities hold TK they should implement the programs, with EMAB support. As discussed earlier in the report, EMAB and Diavik are trying out a group community update approach. Diavik has not yet presented details of monitoring programs to communities.

As part of its efforts to put greater emphasis on inclusion of TK in its monitoring programs Diavik should:

- review the Inuit curriculum developed by the Government of Nunavut and the Dene curriculum developed by the GNWT for potential inclusion of TK/IQ into their monitoring programs.
- arrange for Diavik staff to go on the land with Elders to observe and exchange information about how each group monitors water quality. This could be done through the Diavik Community Based Monitoring camp or a similar forum. The intent is to give Diavik staff a better understanding of TK/IQ as it relates to water so they can more effectively work with Elders and EMAB to include TK/IQ in the aquatic effects monitoring program while giving Elders a better idea of the monitoring Diavik does.
- have a TK specialist on staff / contract to help in improving the inclusion of TK in monitoring.

In addition an inventory of TK/IQ research papers and reports regarding water should be undertaken. A partnership approach, such as WKSS, might be the best way.

EMAB is not aware of any initiatives by Diavik regarding TK monitoring since this recommendation was made.

EMAB recommends that the first presentations Diavik should take to communities be on the recently approved AEMP.

Diavik presentations during group updates have not provided details of the AEMP. EMAB is not aware of any other presentations Diavik has made on the AEMP to communities.

### What happened? - Follow-up on Previous Recommendations

EMAB recognizes that Diavik does good scientific monitoring work, such as on caribou, and recommends Diavik find ways to involve more Aboriginal people, particularly youth, in this monitoring. Diavik committed in the EA to make best efforts to provide for the involvement of members of each of the Aboriginal Peoples in its monitoring programs, including giving priority to members of each of the Aboriginal Peoples in training and employment, and, particularly, providing technical training opportunities for youth. EMAB recommends that Diavik develop and implement a strategy to improve their success in meeting this commitment. EMAB also recommends that Diavik develop programs to provide for youth and Elders from each of the Aboriginal Peoples to observe and participate in Diavik's environmental monitoring.

Diavik gives priority to Aboriginal people for hiring for environmental monitoring positions, including training positions for youth, and has participated in meetings to improve training for environmental monitoring. They are working toward having all staff certified under the GNWT environmental monitor certification program.

EMAB recommends that youth (ages 16 and older) be involved in all future discussions on environmental monitoring at Diavik. Communities should make best efforts to have Aboriginal youth and Elders present when Diavik is communicating about its monitoring programs.

EMAB has made some presentations to schools during community updates and Diavik has also suggested this is a good way to involve youth.

That people who go on site visits make presentations on their observations at community meetings.

That ENR involve more people from Aboriginal Parties in its surveys of caribou and other wildlife.

ENR told us it tries to involve Aboriginal Parties to the degree possible, recognizing availability of aircraft space and survey methodology requirements.

EMAB encourages Aurora College and community District Educational Authorities to undertake a specific review of content and curriculum of its NRTP program involving a steering committee that includes EMAB Aboriginal Party representatives and Diavik staff, as well as representatives of Environment and Natural Resources and Education, Culture and Employment. The objective of the review should be to assess changes required so the program can deliver an environmental monitoring course of studies. Many ideas for the program were suggested by those attending the EMAB Aboriginal involvement workshop in Behchoko in June 2007. This review should take place in a timely manner.

Aurora College has undertaken a review of the NRTP program with broad involvement from various stakeholders and clients and made a number of changes to the curriculum to improve relevance for environmental monitoring of mines.

That NWT high schools provide information in their science courses regarding environmental monitoring to expose students to this field. Ideally the material covered in these science courses could help qualify students for summer job opportunities at Diavik.

High schools provide some exposure to environmental monitoring work

EMAB also made a recommendation intended to address a gap in environmental monitoring training to assist in developing more qualified Aboriginal people to participate in monitoring at Diavik:

EMAB recommends that appropriate representatives of Education, Culture and Employment; NWT Mine Training Society; Aurora College; Diavik Diamond Mines and other interested diamond mining companies; meet to assess whether currently available training for environmental monitoring in the NWT and Nunavut qualifies trainees to the level required by DDMI and other mines.

Two meetings took place that were informative and useful. Based on the discussions the Mine Training Society stepped up to move this forward (see discussion on training earlier in this report). Recommendations Report Card 2008-2009

A — good; B — fair; C — meets minimum standard; D — unacceptable

Recommendation	То	Timely Response	Satisfactory Respons
That the WLWB provide direction to DDMI to revise the AdMP with additional required information and details, and provide an opportunity to the parties to review the revised document.	WLWB	A	A
That DDMI respond to the questions and recommendations in the MSES report for 2007.	DDMI	D – six weeks after 60 day deadline	A
That ENR provide a response to the 2007 Wildlife Monitoring Program Report and respond to the MSES report for 2007, including the recommendations.	ENR	A – initial response D – 8 weeks after 60 day deadline	A
That the Canadian Wildlife Service provide a response to the waterfowl component of DDMI's 2007 Wildlife Monitoring Program Report and respond to the waterfowl related sections in MSES' report for 2007, including the recommendations.	CWS	D – six weeks after 60 day deadline	A
That Diavik Diamond Mines provide specific proposed changes to the Wildlife Monitoring Program and a detailed, scientifically defensible rationale to support any proposed changes so that they can be reviewed by scientific wildlife experts and Affected Communities.	DDMI	A	D – Diavik declined to provide any specific proposed changes
That Diavik Diamond Mines provide their responses to each of MSES' questions regarding the 2007 Wildlife Monitoring Program report and statistical analysis report in writing.	DDMI	A	A – Diavik provided useful responses
That Diavik Diamond Mines propose options for adaptive responses to the larger Zone of Influence on caribou, detected by the Wildlife Monitoring Program.	DDMI	A	C- Diavik responded that they had increased the size of the aerial survey and had increased dust control

#### Recommendations

EMAB Environmental Monitoring Advisory Board

Recommendation	То	Timely Response	Satisfactory Response
That one or more of the Parties to the Agreement immediately initiate Article 16 of the Environmental Agreement "Resolution of Disputes" by delivering notice in writing to DDMI that its contribution for 2009-10 is in dispute, and that its interpretation of EA (4.8)(g) is also in dispute; and	Parties to the EA	DIAND – A	Initial response March 23 – will consider position and respond in more detail
That DDMI, the disputing Party(s) and EMAB enter into mediation as soon as possible with the intent of resolving the dispute before the 60-day deadline set out in section 16.2 of the EA.		N/a – response needed by April 17/09	N/a – no response by March 31/09
That DDMI include consultations on the draft ICRP in each Affected Community prior to submission to the Wek'èezhii Land and Water Board	DDMI	N/a – response needed by April 24/09	N/a – no response by March 31/09
That DDMI take the January 2009 Closure Workshop participants to visit the mine site in late May or early June to provide a better understanding of the closure components.	DDMI	N/a – response needed by April 24/09	N/a – no response by March 31/09
That the WLWB clearly define vision/goal, objectives and criteria for closure plans, and the differences between them.	WLWB	N/a – response needed by May 5 /09	N/a – no response by March 31/09

According to the Environmental Agreement (Articles 4.3), the Minister of DIAND, Diavik, or any other Party to the EA, must respond within 60 days after receiving a written recommendation from EMAB.

Any response must be given "full and serious consideration" and an attempt made to implement the recommendation the best way possible, or a written reason must be given explaining why it is not possible.

Article 4.4 states that the Minister of DIAND will encourage regulatory authorities to comply with the above if they receive a recommendation from EMAB.

**Recommendations** 

### How to contact us

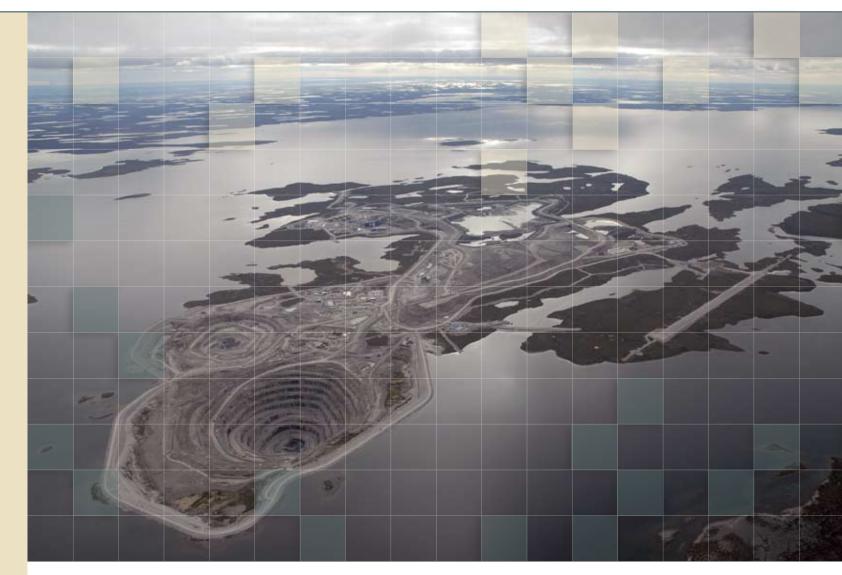
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