



EMAB Environmental Monitoring Advisory Board



#### **Report Card**

#### What's happening with the environment?

Water - Within licence limits. Monitoring program is being improved. Previous program could not assure that Lac de Gras has not changed because of Diavik.

(See page 22 for details.)

#### Comments:

- The water licence renewal hearing in November showed monitoring, ammonia and restoration were the three main concerns.
- Revision to Diavik's monitoring program is expected to be complete by June 2007; the WLWB said delays are partly due to Diavik not addressing known deficiencies and not following WLWB direction.
- The 2005 and 2006 AEMP reports are delayed until the new AEMP is approved.
- Temporary lower ammonia limits were set in February 2007 with additional decreases possible. Progress on studies to bring down ammonia levels has been slow partly due to disagreements between Diavik and other parties.

## Fish – Stable. Some monitoring information is inadequate.

(See page 33 for details.)

#### Comments:

- Community participants in EMAB's fish palatability study say that the taste and texture of fish in Lac de Gras has not changed.
- Diavik and DFO are still searching for ways to replace fish habitat altered or destroyed by mine that do not disturb existing lakes.
- Some monitoring is still not providing useful information. DFO is working with Diavik to improve this.

# Wildlife – Stable. No impacts beyond what was predicted. More information is needed (See page 34 for details.)

#### Comments:

- EMAB's review of the Wildlife Monitoring Report shows that Diavik's effects on wildlife are at or below the levels they predicted before the project started.
- The main improvements needed to monitoring are to better determine whether and how the mine has an effect on caribou, both close by (3-7km) and, far away (more than 25 km). Diavik has proposed to study a bigger area.
- Communities remain concerned about effects of the mine on caribou migration routes and caribou health.
- Dust monitoring needs to be improved, and expanded to include broader air quality.
- Diavik did a one-year study on effects of dust on lichen that caribou eat.
- Regional cumulative effects on wildlife, especially caribou, need to be better studied with government taking the lead.

#### Letter to readers

Dear reader,

Welcome to the 2006-2007 Annual Report of the Environmental Monitoring Advisory Board (EMAB).

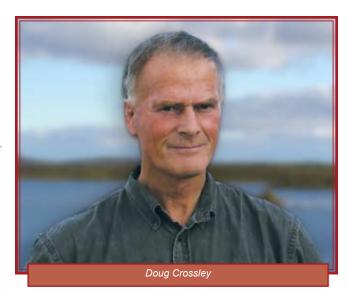
Each passing year brings new challenges. This year was notable because the Wek'èezhii Land and Water Board held the hearing for Diavik's water licence renewal. The licence is a 30-page document plus appendices, which outlines all of Diavik's responsibilities related to the water of Lac de Gras and all the life that depends on it. EMAB's participation in the renewal process is outlined in this report.

You will also find accounts of many other EMAB activities related to Diavik's efforts to operate in a way that protects the environment. If you would like more information, please do not hesitate to visit our website at www.emab.ca or contact our office at 766.3682.

Finally, on behalf of all EMAB members, I would like to thank the eight Parties to the Environmental Agreement, the concerned public and the regulators for their active involvement in helping to make sure the environment around the Diavik mine site is protected.

Doug Crossley

Chair





The Environmental

Monitoring Advisory Board

has a new website to keep you

updated on important issues. Visit:

www.emab.ca

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#### What have we done this year?

We continue to work with the people of the Affected Communities for the environment of the Diavik mine. We do this by communicating, monitoring, involving and supporting communities, advising and recommending, and evaluating. We recognize the value of both Traditional Knowledge and scientific knowledge and we try to use both in our decision-making.

- Aboriginal involvement: The Environmental Agreement for the Diavik Project (EA) says that the Aboriginal Peoples should be involved in protecting the environment around Diavik. We continued to state the need for better ways for Aboriginal Parties to participate in hearings and recommended ways they could receive funding. We recommended Diavik organize a workshop to prepare Aboriginal Parties to review the AEMP and participated in the workshop. We also planned a major workshop with the Parties on improving Aboriginal involvement in environmental monitoring at Diavik that will take place in the next fiscal year.
- Community-based monitoring camps: We organized a third year of camps at Diavik's community-based monitoring camp. This site is located east of the mine, on the mainland. The camps were: Water Quality Monitoring Workshop, Dust Monitoring Workshop and the fifth Fish Palatability and Texture Study. Over 40 Elders, adults and youth from the Aboriginal Parties participated in these camps. We are working with Diavik to fix some possible safety risks at the camps.
- Reviewing reports: EMAB received 17 plans and reports from Diavik, These reports are required by the water licence, the water licence amendment, the fisheries authorizations, and the Environmental Agreement. EMAB focuses most on

the Aquatic Effects Monitoring Program reports, the Wildlife Effects Monitoring Program reports and, this year, on reports related to ammonia management and the water licence renewal. We have been working with Diavik to improve their Environmental Agreement Annual Report and found the 2005 report to be much improved. We followed up our review of Diavik's dust monitoring saying it needs improvement and should be expanded to a full air quality monitoring program.

- Communication: Communication with Aboriginal Parties is one of EMAB's highest priorities. We worked with Aboriginal Parties to make sure they were aware of all the work being done for the water licence renewal hearings and shared the technical reviews we did on the AEMP with them. We held a community update with the NSMA. Our redesigned website was launched in September.
- Board meetings: We met six times and held eight teleconferences. The executive committee met seven times, mostly by teleconference. We welcomed Floyd Adlem back to the Board.
- Water licence renewal: We spent a lot of time and resources preparing for the water licence renewal hearings in November, where we made 24 recommendations, and participating in follow up work directed by the WLWB. We focused on the AEMP, ammonia management, mine closure plans and improvement of management of the licence. We contracted 3 technical reviews of the draft AEMP and a technical review of the new Interim Closure and reclamation plan. We reviewed many documents, participated in 4 workshops, co-chaired the Ammonia Management working group and prepared a major intervention for the hearing.

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



#### OKIOK ENIKTOMI HOLIVITA?

Ovagut havakhımmaktogut inuit pikkatıgıvlogit Nunalgıt Havakvıknı nunalikiot pikatıgıvagait okoa Diavik oyagakhıokvikmi. Ovagut naonaikhimayavut inuit tohaktikatakhogit, taotoktipkakhogit, pikatıgıvakhogit ovalo ekayukhogit inukakniit, onniojukhogit ovalo pitkovlogit, ovalo ehivgiokatıgıvakhogit. Elihimayavut tamaknik Inuit Kaoyimayatokangit kablonatlo elihimayait ehomaliokatıgıvaktavut.

Kablonangogitot Pikkataoyut: Hapkoa Nunalikotit Angigotit omonga Diavik Oyagakhiokvikmi (EA) okaktok okoat Kablonangogitot Inuit elaovaktokhat kayagipkaiyukhat oyagakhioktinik nunanot hogaanotlo haniani oyagakhiokvikmi. Evakhiavatogut ehoaktonik Kablonangogitot Meetiktit elaovaktokhyat tohaktitiahoaligaikpata ovalo kanok manikhainik opalongaikhimayukhat meetiotikhanik. Ovagut pitkoyavut Inuit Kablonangogitot ehivgiogakhat ona AEMP ovalo elaoniaktot meetiklotik.

Meetiktitiniaktogut Meetiktokhanik elaoyukhaokmata nunalikioni taotoktokhat ovani Diavikmi kaffini tikinniakton okioni.

Inuit-nunalgit taotoktitaovakniaktot: Ovagut opalongaiyaliktogut pinggahoni okioni tupikaktitiogut taotoktinik ovani Diavikmi hogaanik nunanik taotoktokaktot. Ona tupikakvik: Emmaknik Emmagikniinik ehivgiokhivaktot Meetiotikakhotik, Apkotit Poyoitnik ovalo talimagilikta Ikaluit Nikkait Nammakpagonakhiot ovalo Nikkkait Ehivgiokpagait. Avatkomayut 40 Inutkoat, eniknigit honanik kongiakpaktot nunami. Ona tupikakvik kivataani oyagakhiokviop tattip akianiitok. Havaagiyavut Diavitkotlo ehoakhiavlota elalinik ehoinniaktonik tupikakvikmi.

**Ehivgiogotit Okaotayut:** EMAB pivaktot 17 opalongaiyaotinik ovalo onipkakhanik Diavitkoni. Okoa onipkakhat piagiakaktot Diavik-mit, Tabkoa onipkakhat opalongaikhimayukhat emmaktutinot laisiniotikhaokmata, ona emmaknto laisi allangokhimayuk, okoat ikaluit ehoakotikhaitlo,. Ovalo Nunalikotit Angigotiniitmata. EMAB havaagınıaktaıt okoat Emmakmeetot Omayut Taotoktaitlo onipkaginiagit ovalo, okiok hajja, onipkaginiagait kaggaktitaotit monagiakhat ovalo emmaktutait laisiat nutangoktokhak. Ovagut havakatıgıavut Diavitkot ehoakhınahoakhogit Nunalikotit Angigotit Okiok Onipkakhat ovalo elittogiyait okoa 2005 titigani ehoakhivaliatainaktok. Ehivgioktavut Daivitkot poyok hiogak ehivgiokpagat ehoakhıyagıakaktoklo ovalo angıglıvalıklogit.





#### OKIOK ENIKTOMI HOLIVITA?

Tohaktıtınık: Tohaktıtınık ınuknot Kablonangogitonot Inuit ona ataohik okoat ommunication EMAB's hivitoyuk hivolioyukpagat. Ovagut havaktogut aghot Kablonangogitot Inuiit elihimapkagahoaktavut tamainik havaaptingnik emaktut laisianik atogapta nutangoktokhamik okoalo eniktot AEMP havakatigivlogit. Inuit pikativut tohaktitavt nutan8ik okoat NSMA. Ovagut nutangotavut kagitaoyakot angmaktot Saptaipami.

Inuit pikatigivaliavlogit: Ovagut Kablonangogtot Inuit, maligalioktit, kavamat havaktiit okoalo Diavikmi havaktii. Havakatigiitiakhonik inuknik ehoaktok naggogiyaonnaitomik inuknit eegaktokhimaitomiklo ehoatkiyaokmat. Meetikatiginiaktvut Inuit tohaktipkaklogit Meetiktit Tohaktipkaklogit nutaanik oingaiklogit.

Katımayııt meetikvikhat: Kaffinik siksinik meetiktogut okiok ovalo meetiktogut eetnik tefotikot meetikhota. Okoa atangoya6 katımayııt meetiktot saıvanık, telafotikot. Ovagut koyagıyakot Floyd Adlem kaıfakmat Katımayıınot.

#### Emmaktutıt laısıa nutangoktokhak:

Ovagut pighaaktogut ovalo maniktokhota opalongaiyakpaktogut emmaktutip laisikhanik nutangoktokhamik tohaktitivlota ovalo Novepami, talvani kafft avut 24 pitkoyavut, ovalo elaovaktogut havakhanik pitkoyait okoat WLWB. Ehomagivlogit okoat AEMP, kaggaktitaotit monagitjutikhainik, oyagakhiokvik umikvikhaniklo ovalo ehoakhaivlota emmaktutip monagitjutikhanik. Pinggahonik 3 naonaktonik ehivgioktitiogut eniktokhamik AEMP ovalo naonaktot ehoakhaotikhainik nutaanik Umiktikvikhamik ovalo halummaktigotikhanik. Ehivgiokhivaktogut amigaitonik titigaiuk, elaovakhota 4 meetiktoni, ighivaotaokataovlota Kaggaktitaotit Monagitjutikhainik meetikpaktogut ovalo kakogo tohaktitiniakhimaliktogut inuknik.

Inugiakhivikhak manikhait: Ovagut tonihivaktogut maniknik aktigionik \$90,000 to Kablonagogitot Inuknik ekayutikhainbik inuit meetiktot elaokataoyangitni taotuktikhat.





#### DII XOK'E AYÌI EDÀTS'ÏLA?

Diavik Mine gha ndè esàwòdech'à gha done xè eghàlats'ìde. Dii haanì eghàlats'ìda, done xè gots'ende, asìi hots'ihdi, done goxè agets'ehi xè kòta gits'àts'edi, yati gigha ts'ehio, yati gogha gehio eyits'ò asìi azho wek'ànàts'ehtaa. Done nàowo sìì wet'aià họt'e wek'ets'ezho haanikò naedik'èzho nàowo sii wet'aià wek'ets'ezho, eyit'à nàowo ts'ehtsi ha nindè elak'a weghaà nàowo ts'ehtsi.

Done soh: Diavik la whezo sii, ndè esàwòdech'à gha nàowo giìto họt'e,eyìi nàowo yìì done soh Diavik goxè sombak'è wemoò ndè goòla sii wexogihdi ha nàowo giìto. Eyìt'à edàanì done soh lets'ehdì nindè goxè aget'i ha eyits'o edàanì somba t'à deèzò gits'àdi nindè ts'iwodè gits'àts'edi. Done goxè legehdi ha eyits'o naada dexè segogele ha Diavik done xè AEMP wegho legehdi ha done xè segogele ha. Eyits'o idàe xo nindè Diavik done soh xè deèzò done xè eghàlagìde ha dexè segogele ha, wet'à ndè esawòdech'à xogihdi ha.

Kòta yagola asìı xogıhdı k'è: Dıı achı taı xoò Dıavık kòta gots'o done asìı hogıhdı gha k'e eghàlats'ıda. Ndèedee k'e K'ambatsòò ts'ohk'ehoòzo. Dıı haanı k'e eghàlagide: tı wexogıhdı gho hoghàdegeto, ehtl'è dàedıh wexogıhdı, hwe sılaı xoò ts'ò wekwò ahsı deto niì gha wek'agehta. Ohdaa 40 eyıts'o chekoa azho goxè agèat'ı. Eyıts'o dıavık done esàwòdech'à gha sıı gık'e eghàlada.

Nıntl'è Weghots'èda: Diavik ts'o 17 ıda dexè segogeha nıntl'è eyits'o ayıı edàtlo hagıla gha EMAB nıntl'è ghàgıla. Ti nıntl'è wegha dii haanı eghalagıde ha, ti nıntl'è ladı adla, hwe gha k'aade eyits'o ndè esawodech'à gha nıntl'è dek'ètl'è, eyits'o tich'adı naowo xogihdi eyixè, dii xoo k'e ammonia edaanı wexoedi ha eyixè ti gha nıntl'è goòchi ha nıntl'è hoolı. 2005 edaanı Diavik denıntl'è xo taat'e segeha yazèa deèrò nezi agıla. Edaanı Diavik ehtl'è daedih wek'e eghalagıda weghats'ıda t'a, ats'o edaanıgho ehtl'è daedih wexogihdi ha ts'ıwo gets'edi.

Ełexè gots'ende: EMAB done solt xè gots'endo ha sìì gogha wet'àra họt'e. Done solt edàanì ti gha lets'ehdi dexè segots'ehn gik'èzho ha hagets'edi, eyits'o AEMP edàanì weghots'ida eyits'o edàanì weghàts'ida wegho gixè gots'ido. NSMA xè kòta lets'èadì. September k'e gogondi satsò wet'à ets'eètl'è k'e ats'ilà.

Nezį ełexè eghàlahòda gha weèdza ha: Done soli xè eghàlats'ide, government cheèke eyits'o Diavik goot'į azho gixè eghàlats'ide hot'e. Gixè nezį eghàlats'ide ha gogha wet'arà hot'e. Ameè seè, ndè k'e ayìi edàtlo ts'ò k'agede wek'èjo dè nezį. Diavik xè ndè k'e eghàlagide gho legèadì, wegondi t'à done xè gots'àdo.

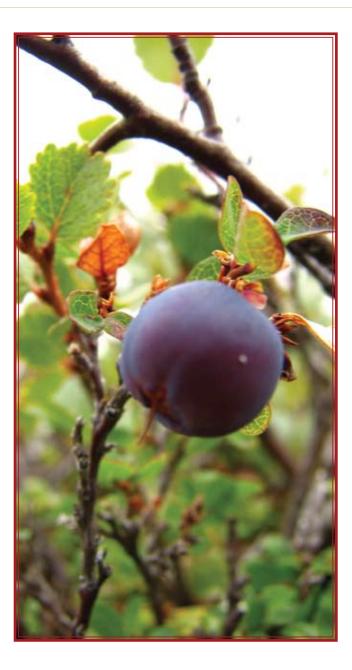
K'aadee Łegehdì: Ek'etaı ts'ò lets'àedı eyıxè fò k'e ek'èdı lets'àedì. K'aade 7 legèadì, fò zo t'à. Floyd Adlem achı goxè at'ı ajà.



#### DII Xok'e aylı edats'üla?

Achı tı nıhti'è goòchı: November k'e achı tı nıhti'è goòchı ha asıı i p naada segots'ıla, sıı hoti'o eghàlats'ıda. WLWB la k'e eghàlagıda k'e 24 la wek'e eghàlageda ha ts'edı t'a naowo ts'ehtsı. AEMP wexoets'ıhdı t'a ammonıa sıı wexoets'ıhdı, sombak'e wedaetı ha segots'ehi eyits'o edaanı dıı naowo deèi sets'ıla lıı wek'e eghalats'eda. Done taı kaza gogha dıı AEMP gıghaıda eyits'o dıı gha edaanı sombak'e wedaato nınde edaanı senadle ha nıhti'e weghaıgıda. Dıı la wegho nıhti'e i p weghats'ıla, hoghadets'eto ha dı iets'eadı, ammonıa wexoedı gha gıxe iets'eadı eyits'o neyaetı gha nıhti'e ts'ehtsı.

Eghàlats'èda gha somba: Done soh goxè legehdı ha \$90,000 t'à gıts'àts'ıdı, wet'à done goxè aget'ı ha gıts'àts'ıdı.





## Ní hadí bazı dene xël ?eghálada

Dırı gháye t'a begháláda

Hayorıla dene bexël regháláída reyi tsámba k'e hárá sí gha reyi benáré ní thera sí gha. Redírí t'at'u hasi dene xël yáíki tth'i báídi-ú tth'i háyòrıla dene ts'ídí, tth'i yaki t'á dene ts'ídi. Nuni dene bech'áni chú k'at'íne bech'áni bet'órera bek'órilya tth'i yaki hałe dé k'elt'o bet'áít'i xa horídza.

Dene ts'į rane bexël: Diavik tsámba k'e núra xa yakı halį dene xël reghálana tth'i ni bádi xa.Nuni háídi t'at'u nezo dene bexël nááki náídil xa tth'i t'at'u súgha tsámba bets'elé xa.Diavik bets'en háídi nááki k'é núra xa t'at'u yakı halį sí net'į xa. reyër ts'į nááki nedhé hale xa reyi t'ą bexël yakı halį sį, rediri t'ą ghą hasí dene ts'į rane bexël tsámba k'é nare rası hadí xa yunedhe gháye bónídhi xa.

Háyorıla dene nadé bexël 2así net'ı k'é házá: ?edo kaghe gháíye Dıavık tsámba k'e dene níılya 2eyër náts'ede 2asíé net'ı xa. Tsámba k'é ts'ı yudá ts'ën ní nedhe k'e.Náts'ede t'a hası: Túe bádı 2eghálada, ts'ër hadí beghálada tth'ı lue net'ı beghálada. Dıghizona 2ázı 2álnedhe-u, 2álnedhe2aze, sekuı kódhe háyorıla dene ts'ızane bexël 2eghálada.Nunı Dıavık bexël 2egháláída 2eyër náts'ede honíla ch'azı 2eghálada xa.

Hanı net'ı: EMAB łáísdı?adhël hanı tth'ı t'at'u reghálada hası Dıavık yegha níila. ?edırı hanı tue rerihtl'ís bálı begharé ralyá rat'e, tue rerihtl'ís redo nalyá, łúé t'at'u beghálada, tth'ı yakı nedhe halı Dıavık bexél. EMAB t'a rakíé yeghálana sí túé yé

2así hulı bádı beghálada, kech'adı bádı xa 2eghálada tth'ı, dırı gháyé ammonıa bets'ı hanı t'at'u beghálada hası tth'ı tue ts'ı 2erihtl'is kódhe bebá halé hasi. Nunı Dıavık bexél 2egháláida t'at'u bexél yakı nédhé híltsı nezo hanı yeghàlana xa, 2eyı 2005 ts'ı hanı 2akié nezu yıla. ?eyı tth'ı Dıavık ts'er hadı xa xel 2eghálana sı 2eyı háidı ts'ér xel 2eghálana sı nezu seyile xázı.

Dene xél hadí: EMAB t'a ʔakíé bebá bet'óreʔa sí dene xél hanı ʔeghálana. Dene ts'ı ʔane bexél ʔegháláída ʔeyı tue ts'ı ʔerɪhtl'ıs kódhe nadlé xa náíkı t'at'o beghálada hasí tth'ı t'at'o tue beghálada hasí benálé háídı. NSMA bexél tth'ı náíkı. Computer beye hanı húlʔa September k'e síılya.

Dene 2eła déłtth'ı náákı: K'etaghe k'énedhe náílkı tth'ı beyé yakı yé k'édı k'énedhe náíkı. Ją dene 2ełá déltth'ı łáįsdį k'énedhe náįłkı, beye yakı yé húką. Floyd Adıem macı helídı dene xél theda nadlı.

Tue ts'į rerihtł'ís dene ba hałé nadlį: Tue ts'į rerihtł'ís dene ba hałe nadlı ghą náákı November ts'ekáí bebá la híltsį, nóna ts'ën dįghį yakı bek'e reghálada xa níílya, tthi WLWB bexél regháláídá. Tue t'at'u bexél reghádá hasí níílrį, ammonia t'at'u beghálada hasi níílrį, tsámbá k'é nut'e dé bedarkį t'at'u beghálada hasí níílrį, tth'i rerihtł'ís kódhe nádlį t'at'u reghálada hasí. Taghe k'énedhe AEMP beghálada dene beneritl'ís net'į xa, tth'i tsámba k'é bedarką dé t'at'u beghálada hasí níílrį. Perihtl'ís łą níílrį, dįghį k'énédhe nááki náadel tth'i ammonia t'at'u beghálada hasi dene rela déltth'i yeghádálana bexél tth'i náíkį.

#### DIAVIK

Diavik is committed to sustainable development by using resources wisely today without compromising the ability of future generations to meet their own needs. At Diavik, sustainable development balances economic prosperity, social well-being, and environmental stewardship.

The need to use resources wisely was especially true in 2006 when Diavik undertook a major airlift to keep mining operations and construction going as planned in the face of that year's premature closure of the ice road, continued new construction projects, and kept diamond production going strong. Throughout these challenges, Diavik continued its exemplary environmental stewardship.

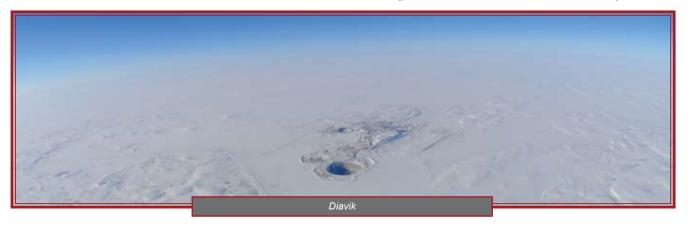
#### Year highlights include:

- Keeping operations and construction work going as planned, despite the abbreviated 2006 winter road. Doing so meant airlifting A418 dike construction materials, a new production shovel, and fuel and other operations supplies. The A418 dike was completed and underground declines were advanced as planned. Fortunately, a rich pocket of ore helped cover the higher costs of flying with Diavik producing 9.8 million carats of diamonds.
- Total expenditures of nearly \$500 million, the largest since mine construction. Over three quarters of this spending

- was with northern businesses. In 2006, Diavik became just one of three companies in Canada to surpass \$1 billion in spending with Aboriginal companies. Total northern spending is approximately \$2 billion.
- On training, eight northerners attained journeyperson status and 11 candidates completed the second Aboriginal Leadership Development Program through Diavik. As well, the mine's workplace education centre, staffed by workplace educators, continued to assist northerners seeking to raise their skill levels.
- For the year, Diavik's workforce averaged 735 people, with an average of 497 northerners (68 per cent). Aboriginal employment averaged 245 people (33 per cent).
- Throughout 2006, Diavik complied with all environmental permits and licences, maintaining requirements associated with an Environmental Management System certified to the international ISO 14001 standard.
- Diavik's total mine life remains 16-22 years as was first envisioned nine years ago. After four years of mining, Diavik's ore reserves remain strong and are estimated to support another 12-18 years of mining. Currently, Diavik is an open pit mine but underground mining is expected to begin in 2008. By 2012, Diavik is expected to be an underground mine. (Contributed by Diavik.)

## 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 quite 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 is now estimated at 128,000. 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.





For a copy of the Environmental
Agreement visit www.emab.ca or contact our office at (867) 766.3682

# 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 Metis 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.

# 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 mine.

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 who have signed it. It states the commitments that Diavik and the regulators 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 is not in compliance. It talks about environmental management plans and monitoring programs, and several other issues such as security, enforcement, and reclamation and abandonment.

Finally, the EA sets out EMAB's mandate.





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

#### 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 for this report. Our major tasks include:

- communicating
- monitoring
- involving and supporting communities
- advising and recommending
- evaluating

As issues arise, we are usually involved in all five tasks.

#### 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.

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.



EMAB members, alternates, and staff with Diavik's Environment Manager

# What is a commitment?

In the Environmental Agreement, a commitment means a promise made by Diavik to take steps to lessen the effect on the environment or any duty given to Diavik 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 49 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 and 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 5 recommendations in 2006-2007 and continues to follow up on recommendations from previous years. These are outlined throughout this report.

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?



Doug Crossley, Chair Kitikmeot Inuit Association

I have been a part of EMAB since September 2002 as the appointed representative for the Kitikmeot Inuit Association. KIA was pleased with the strong role EMAB played in

Diavik's water licence renewal process as an intervenor and actively participated in the many hours of reviewing, debating and reacting to various Diavik submissions to the Wek'èezhii Land and Water Board. EMAB's role in working with Diavik on improving the Community-Based Monitoring Camp and building capacity for involvement of Aboriginal people in environmental monitoring continues to be important to KIA. This work continues into the 2007-2008 fiscal year.



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 about the environmental aspects of the Diavik mine. Our key concerns have been the water and the caribou, but there are other issues that have a direct link to these two concerns, such as dust and fuel emissions. Other important matters are: how monitoring is done in the way of methodology, frequency, analysis, and interpretation of data, and implementation of results. LKDFN now wants to focus on how our people will be involved in this type of work at the mine. Where are the training programs to enable our people to work as environmental monitors at the mine?



Erik Madsen, Secretary Treasurer (Erik left the Board in January 2007 – temporarily replaced by Diavik alternate Gord Macdonald) Diavik

I continue to represent Diavik Diamond Mines as its member, as well serve as the Board's secretary treasurer. This past year seemed to

fly by but the Board kept busy reviewing pertinent monitoring programs and other submissions by both the company and regulators. EMAB continues to provide leadership as to how effective environmental management can be a shared responsibility, an example being its involvement in Diavik's water licence renewal process.



Sheryl Grieve (Replaced Secretary Treasurer from Sept 2006) North Slave Metis Alliance

This is my third year serving on EMAB. A lot has been going on this past year: Diavik's water licence renewal application and the redesign of their Aquatic Effects Monitoring Program,

just to name two big endeavours. That's not to mention all the processes that stem from other mines. One issue that continues to concern the North Slave Metis Alliance is the involvement of Aboriginal Peoples in environmental monitoring. Hopefully, the coming year will see some improvements in this area.

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

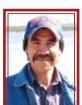


Eddie Erasmus

Tlicho Government

I have represented the Tlicho Government in many capacities, including serving as one of several negotiators for the Tlicho Agreement. Most recently, I took the position of 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.



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

Canada

The Board has been very busy over the year, especially with its involvement in Diavik's water licence renewal process. 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.



Tom Beaulieu

ENR, Government of the Northwest Territories

I was appointed to my current position as Associate Deputy Minister of the Department of Environment and Natural Resources in April 2005. I was then appointed to serve on

EMAB. I think the work done by EMAB is work that is done for future generations. In today's society everyone is after the mighty dollar and at times it is at all costs, including the environment. My wife refers to this type of work as "working for our grandchildren because they can't right now."



John Morrison

Government of Nunavut

Over the last five years on EMAB one of my functions has been to represent the Government of Nunavut on matters that could influence the Coppermine River

watershed. Along with the Hunters and Trappers Organization and the Kitikmeot Inuit Association, EMAB has tried to bring increased consideration to the fore as to how Department of Fisheries and Oceans policies, as well as other regulator policies, affect the Inuit peoples. I look forward to seeing the further implementation of Traditional Knowledge and its integration into the fabric of mine operation and monitoring.



# 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.

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

## What are our special issues?

Wildlife, water, and fish - 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 and wildlife.

#### 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
- Wek'weeti
- Gameti
- Wha Ti
- N'dilo
- Dettah
- Lutsel K'e
- Kugluktuk
- Metis 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.

#### In the communities

EMAB met with the North Slave Metis Alliance's environment committee and presented an update in the fall of 2006.

Plans are being made to visit the communities of Behchoko, Wek'weeti, Lutsel K'e and Kugluktuk in the summer of 2007.





## At the camp

EMAB organized three camps, with Diavik funding, at Diavik's community-based monitoring camp in the summer of 2006. Over 30 Elders, adults, and youth representing the communities participated in the second Water Quality Monitoring Workshop, the Dust Monitoring Workshop, and the fifth Fish Palatability and Texture Study. The camp is located near the mine site on the

mainland. Participants from the five Aboriginal Parties lived at the camp for three days during each camp.

This year, we also engaged in a risk management process with Diavik to make the camps safer for participants.



Community participants at
a water quality workshop we
hosted in Kugluktuk in September
2003 said that water quality monitoring is
a major activity that must continue. They
also said the Aboriginal Peoples
needed to be involved.

#### **Participants**

Lena Adjun (KIA) Adam Kikpak (KIA) Rita Pigalak (KIA) Roland Catholique (LKDFN) Delphine Enzoe (LKDFN) Joyce Isadore (LKDFN) Harry Apple (TG) Michel Louis Rabesca (TG) Francis Williah (TG) Ron Balsillie (NSMA) Ashton Hawker (NSMA) Margaret Lafferty (NSMA) Mike Francois (YDFN) Travis Liske (YDFN) Jonathon Mackenzie (YDFN) Cook: Terri Enzoe (LKDFN) Cook's Helper: Irene Catholique (LKDFN)

#### Involving and supporting our communities

# Water Quality Monitoring Workshop (July 2006)

Water quality is of great importance to the Aboriginal people who signed the Environmental Agreement. Lac de Gras and the Coppermine River watershed has long been an integral part of life on the land. Good water quality means that fish stay healthy and that the water stays drinkable.

In 2004, we organized our first Water Quality Monitoring Workshop. We set up this camp as a three-day information and training session. That first year participants learned the basics of water sampling and the use of scientific equipment. They chose three water-sampling sites around the Diavik mine site, which they thought important because of how deep the water was, which



way the current moved, and the distance from the dike. Diavik does not monitor these sites under their Aquatic Effects Monitoring Program.

In 2005 we added sediment and benthic sampling. Benthics are the small creatures that live on the lake bottom, on which the fish feed.



In 2006 participants learned all the sampling activities from previous years as well as using a plankton net for zooplankton sampling. They also toured the mine site with special attention to water sampling and treatment, including a quick lesson on water sample analysis at Diavik's lab.

Once the AEMP has been revised (see p. 24) EMAB and Diavik will try to find ways to incorporate the data from the camps into the reports on data Diavik collects.



## Dust Monitoring Workshop (July 2006)

Participants from the Tlicho Government, North Slave Metis Alliance, Lutsel K'e Dene First Nation, Yellowknives Dene First Nation and the Kitikmeot Inuit Association worked together at a three-day workshop on dust at the camp in July 2006. They developed five recommendations based on what they learned and saw at the Diavik mine site and around it.

Participants toured the mine site and four other sites encircling the mine where they looked for dust, and identified vegetation that caribou eat, to contribute their knowledge to a lichen study that Diavik had initiated. These visits allowed participants to observe the vegetation and terrain around the mine, to look for signs of caribou presence, to see how Diavik collects dust for its monitoring program and to observe dust generated by the mine from four points encircling the mine and distant from it.

Participants also learned about the lichen study Diavik conducted, dust monitoring at the mine, and mitigative measures.

#### Camp Recommendations

Participants developed five statements/recommendations for EMAB's consideration:

Participants expressed that the dust gauges used by Diavik cannot be very effective. They generally believe that there may be more effective ways of collecting particulates emanating from the mine. It was suggested that an effective dust gauge would force the air through and collect particles.

Monitoring of vegetation must be followed through. A monitoring program must be developed and be ongoing. Any vegetation monitoring program must include effects of contaminants on caribou (and food chain).







## **Participants**

John Komak (KIA) Bessie Omilgoitok (KIA) Paul Omilgoitok (KIA) Denecho Catholique (LKDFN) Joyce Isadore (LKDFN) Charles Nataway (LKDFN) Harry Apple (TG) Michel Louis Rabesca (TG) Francis Williah (TG) Grant Beck (NSMA) Ashton Hawker (NSMA) Margaret Lafferty (NSMA) Mike Francois (YDFN) Travis Liske (YDFN) Jonathon Mackenzie (YDFN) Cook: Terri Enzoe (LKDFN) Cook's Helper: Irene Catholique (LKDFN)

Caribou are integral to the well being of the Aboriginal people of the Northwest Territories, and specifically to the Aboriginal people of Diavik's Affected Communities. Through a community engagement process conducted in the fall of 2004, and at community updates, EMAB has been repeatedly told that community members are concerned that dust, which settles on the lichen and other vegetation caribou eat, could have negative effects on caribou health. EMAB proposed to look at how dust is monitored through a workshop at Diavik's community-based monitoring camp.



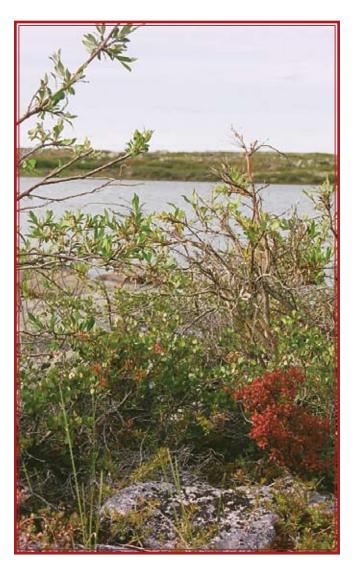
Diavik must improve their dust suppression program. Water is not effective, as viewed from a distance from the camp. DL10, a substance composed mainly of tree sap, was suggested. It's been around for 15-20 years, it is environmentally friendly and it works. Participants highly doubted that it would act as a wildlife attractant and also doubted that it would cause the pit and haul roads to be slippery for large trucks. Properly applied, this wouldn't happen.

Aboriginal people should have been involved in proposed vegetation monitoring program right from the start. If Diavik had been on this when concerns were first brought up, and if they had involved Aboriginal people, Diavik would already have a program in place with baseline and all the information needed from Aboriginal people. The Dust Camp proved that the Aboriginal people have knowledge that is available to be used in the design of a program.

- A team of scientists and Aboriginal people needs to be informed to design a monitoring program.
- Aboriginal people need to be involved in the actual monitoring.

Participants raised the issue of process and time-lines. Action needs to be taken immediately. The problem of dust was noted early on, and still has not been addressed. EMAB has to send the message to Diavik that discussions held at the camp may already be too late.

These recommendations from the dust monitoring camp participants were sent to Diavik for their consideration. EMAB has also made recommendations to Diavik on dust and air quality that are discussed on page 35.





# Fish Palatability and Texture Study (July 2006)

During the Environmental Assessment, Aboriginal groups expressed concern that in-lake mining might affect the fish in Lac de Gras.

The Aboriginal Parties, with the Department of Fisheries and Oceans (DFO) and Diavik, developed a texture and taste study. The study also involves taking samples and sending them for scientific analysis. This is to monitor fish populations and fish health.

The fisheries authorization requires that the Aboriginal people repeat this study every five years, using the 2002 numbers and results as baseline data. Participants of the 2002 study asked to repeat the study every year.

EMAB now organizes the Fish Palatability and Texture Study at the community-based monitoring camp. We conducted the fourth study in 2006 over three days.

Participants collected fish from Lac de Gras with two gill nets set between the community-based camp and Diavik mine.

During the camp, participants caught 24 lake trout. They completed questionnaires rating fish (1-5) on appearance before and during cleaning, and on look and taste once the fish were cooked. Each Aboriginal group worked together to rate the fish. Participants also collected information on general health, weight, length, fertility, age, and stomach content.

Fish samples were sent to Agriculture Canada and Health Canada for analysis. Muscle, liver and kidney samples were tested for metals and analyzed for Metallothioneins. The study also includes collection of fins and otoliths.

Participants noted that the fish in Lac de Gras continue to look healthy and taste good.

#### The CSR says

Fisheries: The Regulatory Authorities conclude that there will be no significant adverse environmental effects on fisheries in Lac de Gras. Diavik will be required to modify its Aquatic Effects Monitoring Program in accordance with the environmental agreement and/or the Fisheries Act (FA) authorization. However, given concerns raised by the Aboriginal people, a follow-up program that will be specified in the environmental agreement and/or the FA authorization will require Diavik to: i) collect baseline information regarding the palatability and texture of fish in Lac de Gras, and ii) undertake periodic monitoring of fish flesh for palatability and texture.





### **Participants**

Aimee Ahegona (KIA)
Jimmy Hanak (KIA)
Sadie Hanak (KIA)
Ernest Boucher (LKDFN)
Hermaline Catholique (LKDFN)
Mary Rose Enzoe (LKDFN)
Ron Balsillie (NSMA)
Ashton Hawker (NSMA)
Lee Mandeville (NSMA)
Eileen Liske (YDFN)
Adeline Mackenzie (YDFN)
Alice Martin (YDFN)
Cook: Terri Enzoe (LKDFN)
Cook's Helper: Irene Catholique (LKDFN)



Otoliths are particles of calcium carbonate found in the inner ear, used to determine fish age.

Metallothioneins, produced naturally by fish, are proteins and amino acids containing metals. Because metallothionein production increases if fish are stressed, this information offers another measure of fish health.



#### **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 for the fiscal year ending
March 31, 2002, to assist in:

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

from EMAB Motion # 3-01-11-20

#### Involving and supporting our communities

## Workshops

#### Caribou Summit

EMAB's vice-Chair attended the NWT Caribou Summit organized by ENR to talk about EMAB's role in monitoring effects of the Diavik mine on caribou and the importance of this study to the broader issue of effective caribou management.

#### **AEMP Guidelines Workshop**

Some EMAB members attended a workshop in April as part of a DIAND process to come up with guidelines for developing aquatic effects monitoring programs in the north. EMAB has followed up with DIAND regarding next steps, particularly on how they will meet their commitment to include TK/IQ in the guidelines and to involve Aboriginal people in the process.

#### SKILLS AND KNOWLEDGE: CAPACITY FUNDING

#### North Slave Metis Alliance

Capacity funds were used to support NSMA staff to provide information to NSMA members including reviewing and summarizing documents, to hold Environment Committee meetings and to facilitate community involvement in community based monitoring. They also support NSMA members to increase their knowledge of Diavik environmental issues.

#### Lutsel K'e Dene First Nation

LKDFN held a winter fishing program with students as part of the school's cultural programming using capacity funds. The EMAB representative, Florence Catholique, held two meetings with LKDFN's Wildlife, Lands and Environment Committee. Capacity funds were used so the EMAB alternate could attend a "Keepers of the Water" conference.

#### Kitikmeot Inuit Association

During 2006/07 the Kugluktuk Angoniatit Association (HTO) engaged three community youth and a local supervisor/trainer to undertake the responsibilities of the Water Quality Monitoring Program. In previous years training was done by consultants, but local people now have the skills and knowledge to review the process, generate familiarity with the HTO's Hydro Lab equipment, select local sampling sites and show how to download the collected data and input into the Excel software program.

Samples were taken from two locations on the Coppermine River. Spot measurements were also taken from the river and from Heart Lake, near Kugluktuk. Samples were sent to the Taiga Environmental Lab in Yellowknife for analysis. Due to expiry of calibration solutions for the Hydrolab the sampling was delayed until the end of the season.

Now that the program has been running for two years community awareness has increased and there is general support for it. The Kugluktuk HTO considers the water quality monitoring as essential.

### Environmental Regulators and Managers

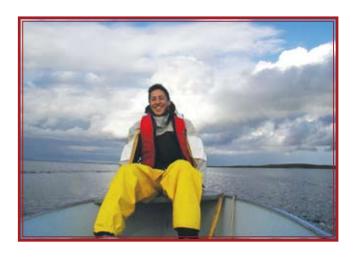
Regulators have the important responsibility of making sure the Lac de Gras area is not harmed by Diavik's mining activities.

They do this by:

- making sure that Diavik keeps its commitments
- reviewing the many reports that Diavik has to provide

Some regulators are responsible for enforcing environmental laws, permits or licences. EMAB monitors the regulators who oversee environmental management and monitoring at the mine to make sure they are doing a careful, thorough job. EMAB focuses on the comments and concerns about the reports that come from the government regulators and other expert reviewers. EMAB also reviews technical reports on water and wildlife and gives its comments and recommendations to the regulators and Diavik.

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.



#### 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.
- Diavik Technical Committee (DTC) advised the MVLWB, and now advises the WLWB, on technical matters related to Diavik's Class A Water Licence Number N7L2-1645. EMAB participates in the DTC. (The status of this group is now uncertain).
- 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.

# What is the DTC?

Established September 14 2000, before the formation of EMAB, the Diavik Technical Committee (DTC) is made up of water experts and regulators that now advise the Wek'èezhìi Land and Water Board on technical matters related to Diavik Class A Water Licence Number N7L2-1645 after it took over the file from the Mackenzie Valley Land and Water Board. The members provide expert technical opinions and recommendations to the WLWB on the acceptability of all development reports and plans submitted related to the water licence. The members assist the WLWB in fulfilling its mandate and recommending acceptance or written approval of the reports or plans.

> The Aboriginal Parties to the Environmental Agreement have official standing with the committee.



## Environmental Regulators and Managers

#### **DTC** update

The Diavik Technical Committee (DTC) did not meet in 2006-07, largely because of rules related to discussion of information related to the water licence renewal. EMAB has stated its support for the DTC in the past as an opportunity to observe, and participate in, the ongoing technical review of plans, programs and reports by government experts, Aboriginal Parties and other DTC participants and looks forward to the WLWB continuing to support the DTC, or some similar body, as a way to provide technical review and recommendations. EMAB submitted comments and recommendations for changes to the DTC's Terms of Reference in January 2005 at the request of the MVLWB but have not received a response.

In February 2006 the WLWB stated its support for the DTC and its continued reliance on DTC recommendations related to technical decisions. However on October 18, 2006 the WLWB stated in a letter to EMAB that "...the DTC may have a role in reviewing plans and reports under the Water Licence, but the WLWB has not determined the future role of the DTC at this time. If the WLWB decides that the DTC will be used in the future, the comments on the revised TOR will reviewed and utilized for any future DTC meetings."



#### Water

## Regulator: The Wek'èezhìi Land and Water Board (WLWB)

Diavik's water licence renewal application dominated EMAB's agenda this year. Much of our work centred on issues we've raised with the land and water boards for a number of years:

- the Aquatic Effects Monitoring Program (AEMP)
- the Abandonment and Restoration Plan
- dust monitoring
- ammonia levels in mine water
- funding for participation in hearings
- management of Diavik's water licence, such as:
- compliance and enforcement
- procedures for changes to the licence between hearings
- correcting errors in past AEMP reports
- whether land and water boards need in-house technical expertise
- implementing Diavik's commitments from the Environmental Agreement



### Environmental Regulators and Managers

#### Water Licence Renewal Proceedings

EMAB submitted an intervention to the WLWB and participated at the hearing in November in Behchoko.

The Wek'èezhii Land and Water Board expressed concern about Diavik's AEMP and the development of ways to control ammonia at Diavik from the time it took over the project from the Mackenzie Valley Land and Water Board in February 2006.

The WLWB gave direction that Diavik needed to make progress on these issues before the hearing. After the hearing the WLWB decided not to issue a new licence until Diavik prepared a new AEMP and Ammonia Management Plan (AMP) that are acceptable to them. We will provide details on the individual issues further in the report.

EMAB commends the WLWB for its strong and realistic approach to the development of these two challenging elements of the water licence. They provided clear and unequivocal direction to Diavik and the parties to the proceedings. We also commend its commitment to providing opportunities for input from the many interested parties, while drawing on independent expertise in making its decisions.

The water licence renewal hearings took place in Behchoko on November 7-10, 2006. EMAB was represented by:

- Chair Doug Crossley
- Vice-Chair Florence Catholique
- Executive Director John McCullum

Technical experts representing EMAB included:

- Dr. Elaine Irving (AEMP)
- Randy Knapp (abandonment and restoration)
- Bill McElhanney (legal counsel)

Dan Hrebenyk (air quality) participated in EMAB's presentation by phone.

There were eight other interveners at the hearing.

EMAB submitted a 15 page intervention accompanied by 26 schedules (see www.emab.ca for the entire intervention). We made many recommendations (see page 27) on ammonia management, the AEMP and abandonment and restoration, including some proposed changes to sections of the water licence. We also made several recommendations related to management of the licence and strongly encouraged the WLWB to address commitments Diavik made in the Environmental Agreement regarding the AEMP in its written Reasons for Decision.

Following the hearing the WLWB adjourned the proceedings and set a detailed schedule intended to have an AEMP and AMP approved in time for a new licence to be issued before the current one expires in August 2007. The WLWB's workplan provided for input from all parties to the direction it would give to Diavik, as well as an opportunity for all parties to comment on a draft of each document before a final decision.



#### Environmental regulators and managers

- 1. Aquatic Effects Monitoring Program (AEMP)
  1.1 AEMP revision
- 1.1.1 AEMP first revised draft

EMAB contracted North-South Consultants to conduct a technical review of the AEMP revision and made comments to the WLWB. EMAB also attended a workshop on this draft version organized by the WLWB.

Early in 2006 the WLWB directed Diavik to re-design the AEMP and submit a draft by May 31 with the intention that it be approved before the renewal hearings. EMAB had their own expert conduct a technical review. EMAB then submitted these comments to the WLWB. Following a workshop organized by the WLWB in August which revealed fundamental disagreements on the AEMP between Diavik and all the interested parties, the WLWB announced its decision to wait until after the renewal hearing before giving further direction to Diavik.

#### 1.1.2 AEMP - water licence renewal hearing

EMAB raised many technical issues and made several recommendations.

The AEMP was the main issue raised by intervenors at Diavik's water licence renewal hearing, including EMAB. We raised many technical issues and made several recommendations, including a process for developing the new AEMP that we believed would avoid the disagreements over the May 2006 draft.

The need for revision of the AEMP remains a top-priority concern for EMAB. We have found the process for revision inefficient and, until recent developments, frustrating. Up to the time of the hearing we found Diavik did not follow some WLWB direction or respond to all reviewer comments. This resulted in an ongoing exchange of documents, review comments, revised documents and review comments pointing out where previous comments had not been addressed. This exchange of views required significant amounts of time as well as large amounts of human and financial resources. We also found that Diavik did not make a very strong attempt to address the additional commitments it made in the Environmental Agreement regarding the AEMP. We did find that once the WLWB provided detailed terms of reference for the AEMP, Diavik's response improved significantly and we are now reasonably confident that a new AEMP will be developed in the next few months that will meet the objectives set out in the water licence.

EMAB continues to be concerned that some of Diavik's commitments in the Environmental Agreement regarding the AEMP need to be improved with regards to: inclusion of Traditional Knowledge, participation of each Aboriginal Party in design and implementation of the AEMP, training and employment for members of each Aboriginal Party for participation in monitoring and reporting monitoring results to communities. We observe that the WLWB understands that its mandate does not allow it to play a role in ensuring that Diavik fulfils those commitments.

In December, as part of its decision to adjourn the licence renewal, the WLWB gave a detailed workplan to Diavik and the parties. Their plan is to have a new AEMP in place in time for the spring sampling program in April. The workplan provided for parties to recommend an independent reviewer, have input on a Terms of Reference (ToR) that the WLWB would develop for the new AEMP, comment on Diavik's draft AEMP including a WLWB workshop and have the new AEMP up and running by spring.

#### Environmental regulators and managers

The ToR also required the AEMP to include a new analysis of the baseline data collected and the integrated description of Lac de Gras. These two reports were important foundations for the original AEMP that EMAB and others had expressed concerns about. This approach gives Diavik the lead in proposing next steps while providing for critical review from technical experts.

EMAB submitted a number of suggestions for an independent technical reviewer and recommended the WLWB also consider a separate TK reviewer (the WLWB did not accept this recommendation). EMAB also made comments on the draft ToR, including a technical review by our consultants that was largely positive.

EMAB also highlighted the importance of having Diavik's commitments regarding the EA included in the WLWB's direction to the company. The WLWB encouraged DIAVIK to address its EA commitments, but indicated that its mandate did not extend to reviewing or approving anything beyond the scope of the ToR.

#### 1.1.3 AEMP - second revised draft

EMAB asked their experts to review the AEMP in its second draft form.

Diavik submitted its revised AEMP on February 16. EMAB asked their experts to review the second half of the 685-page plan, which described the entire proposed monitoring program. We chose not to focus on the explanatory background information due to shortage of time.

EMAB's technical reviewers were generally pleased with the new draft compared to previous versions. Their review made a number of suggestions for improving the AEMP, mostly on areas needing more information or clarification. The main focus was on the study design:

- specific things to measure
- where to take samples
- how often to take samples,
- how to decide if a change has happened in Lac de Gras and whether or not it was caused by Diavik, and what to do if there is a change caused by Diavik.

The new 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.

#### 1.1.4 Aboriginal involvement in AEMP design

EMAB expressed concern about the ability of the Aboriginal Parties to be involved. EMAB recommended that Diavik organize a workshop to prepare Aboriginal Party representatives for the March technical workshop.

In the EA, Diavik committed to make best efforts to involve Aboriginal Peoples in the design of its monitoring programs, including the AEMP. EMAB expressed concern that the short review period and lack of participant funding would not allow some Aboriginal Parties to meaningfully participate in the process (more on intervenor funding on p. 31) and would prevent Diavik from meeting its EA commitment.

The WLWB was not prepared to extend the schedule so EMAB was challenged to work with Diavik to try to meet their commitment to involve Aboriginal People in designing the program. EMAB recommended that Diavik organize a workshop immediately prior to the WLWB technical workshop to prepare Aboriginal Party representatives to participate.

## Highlights of the revised AEMP

The new 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 spot 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. All this means that once the new AEMP is completed we will have confidence that it will be able to get 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 take actions to make sure Lac de Gras is not harmed.

#### Environmental regulators and managers

Diavik accepted this recommendation and invited two representatives from each Aboriginal Party to attend a workshop at the Diavik mine on March 5 and 6 with the experts who prepared the draft AEMP and a facilitator. EMAB also sent its Aboriginal Party Board members to the workshop. All participants were very pleased with the workshop.

#### 1.1.5 WLWB technical workshop

EMAB participated at the WLWB's technical workshop and made many comments and recommendations.

The WLWB workshop took place March 7 to 9, 2007. EMAB sent five Board members including the Chair and Vice-Chair, as well as the Executive Director and our technical expert from North-South Consultants. All participants in the Diavik preparatory workshop came, along with technical experts from DIAND, Environment Canada, Fisheries and Oceans Canada, the Tlicho Government and Diavik.

EMAB made many detailed comments after the technical workshop. Some of our key recommendations to Diavik were:

- Proceed with spring sampling under the new AEMP, taking into account its commitments and other recommendations made at the workshop.
- Submit a revised draft of the AEMP for review by the workshop participants, based on the commitments they made at the workshop and the recommendations made by participants.
- Provide more information about the amount of change the AEMP can detect and how much change will lead to an "early warning" alert.

- Give details on the methods it will use to decide whether it thinks a change is caused by the mine.
- Make sure its reference sample sites are not affected by the mine discharge.
- Address EMAB's experts concerns about the dust monitoring studies.
- Provide details on how it will work with communities to design TK studies as part of the AEMP.
- Explain how it will integrate all the information from the many difference sources to figure out what is happening in the lake.

After receiving all the comments the WLWB directed Diavik to do winter sampling as proposed in the 2007 draft AEMP with some changes, and to submit a revised version of the AEMP by May 14 based on the discussions at the workshop and comments by the WLWB.

EMAB is pleased with the direction and oversight being provided by the WLWB in the development of a new AEMP and with the direction the new AEMP is taking. We appreciate Diavik's initiative in organizing the preparatory workshop as a way of meeting its commitment to involve Aboriginal People in designing the AEMP.



#### Environmental regulators and managers

#### 1.2 Annual AEMP reports

At the water licence hearing, EMAB recommended that future AEMP reports require approval by the WLWB. EMAB also asked that the WLWB spell out the process it uses to review reports.

Following a DTC meeting in November 2005 regarding the need for revisions to the AEMP, Diavik requested a three-month extension on its AEMP reporting until June 30, 2006. This request was granted by the MVLWB. On September 29, 2006 the WLWB informed Diavik that it would be required to submit an AEMP data summary but not submit an AEMP report for 2005, until the WLWB gives direction on this. Diavik included a data summary for 2006 in its annual water licence report for 2006, submitted April 1, 2007. EMAB understands that this data has not been reviewed by regulators or other parties.

EMAB has noted for several years that the MVLWB required that the AEMP reports for 2001 and 2002 be revised but these revisions have not been reviewed or approved.

EMAB has also noted that the reports for 2003 and 2004 have not been approved. EMAB expressed serious concern when the MVLWB stated in 2005 that it would no longer review or approve the annual AEMP reports. When the WLWB took over the licence we asked them this question and they assured us that they will review reports to make sure they comply with the water licence.

At the water licence hearing, EMAB recommended that future AEMP reports require approval by the WLWB, and that Diavik be required to ensure that all previously submitted AEMP reports be complete and accurate.

EMAB also asked the WLWB to spell out the process it uses to review reports.

The WLWB responded that it will review its rules of procedure, review and approval processes and other processes after completing the Diavik licence renewal, and that it will welcome EMAB's input. We believe this is a positive step and commend the WLWB. We have informed them that we would be pleased to participate in the review.

#### 2. Ammonia Management

#### **History of ammonia amendment**

Diavik applied for an amendment to their water licence on June 26, 2003 because ammonia levels in the mine water from the open pits were rising above predicted levels. After mediation coordinated by the MVLWB, a revised water licence was prepared. The Minister of DIAND approved it on June 24, 2004

The new licence increased the level of ammonia Diavik can put into Lac de Gras from an average of 2 mg/l to 20 mg/l for two years. The experts all agreed that the new levels should not harm the water or fish during that time.

Diavik was to submit an Ammonia Management Plan by February 2006. The licence set out clear steps and schedules for doing this.



# The Environmental Agreement and the water licence

The water licence and the EA both contain requirements for the AEMP. Most of the water licence requirements are more detailed than those in the EA. The WLWB cannot make Diavik meet any of the EA commitments unless they are also in the water licence.

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 these commitments and the AEMP re-design is an excellent time to do this.



## Effects of Ammonia on Fish/Water

- in very high amounts,
   ammonia can kill fish by
   interfering with oxygen in their blood
- in very high amounts, ammonia can affect reproduction and growth of young
- it can also harm benthic invertebrates and plankton
- because Lac de Gras is deep, cold, and low in nutrients, adding too much ammonia, which is a nutrient, over time could change the chemistry of the lake and among other things, promote excessive algae growth.

#### Environmental regulators and managers

Since Diavik applied to amend the ammonia limits in its licence in 2003 there has been a lot of attention paid to finding and meeting the lowest levels of ammonia that are practical at the mine. EMAB has been an interested observer of this process, which included an agreement between Diavik and the member organizations of the DTC, mediated by an MVLWB member in 2004. The Record of Agreement, or ROA, set out a process for development of an Ammonia Management Discussion Paper (AMDP) to provide a broad range of options, and an Ammonia Management Plan (AMP) based on input received on the Paper. Both documents were to be reviewed by a Working Group of participants in the mediation.

EMAB has found progress on the ammonia management issue to be difficult and inefficient, partly due to a difference of interpretation over the basic intent of the ROA between Diavik and all other participants. As with the AEMP, significant amounts of time and human and financial resources have been required from external reviewers and their consultants to review and comment on each revision.

## 2.1 Ammonia Management Discussion Paper

EMAB assigned its executive director as the Working Group's co-chair, at the request of the group. EMAB remained involved in the process by participating in meetings and a workshop.

Diavik submitted its initial AMDP in October 2005. The Working Group (WG) reviewed the AMDP and found it largely inadequate and proposed a 23 page workplan to correct the deficiencies. The WLWB agreed and directed Diavik to carry out the workplan with minor changes.

At the February meeting, the WG requested that EMAB assign its Executive Director as WG co-chair, and we agreed.

Diavik submitted its revised AMDP in mid-May 2006 followed by a technical workshop June 1 and 2. EMAB's executive director attended along with a number of EA Party representatives.

The WG and WLWB concluded that Diavik needed to submit further information and a July 31 deadline was set. When this information came in the WG's opinion was that the information Diavik had provided was still not adequate and stated that Diavik had fundamentally misinterpreted the ROA.

After reviewing the comments from the WG and Diavik the WLWB gave direction to Diavik to prepare a draft AMP by October 2006 for comment and for discussion at the November 2006 hearing, while reminding them that the ROA's intent was to achieve the lowest practical ammonia limits. They also gave detailed direction for Diavik to develop and submit an Explosives Management Strategy by February 15, 2007.

#### 2.2 Ammonia Management Plan

Diavik submitted the draft AMP on October 4, 2006. The Working Group decided that the timelines to review the document and submit interventions for the hearing by October 23 would not allow them to develop a consensus position. The AMP proposed a number of ways to reduce ammonia going into Lac de Gras while proposing that the water licence limit for ammonia stay rather than going back to the original limits or the lowest practical level. Diavik was still not able to provide important information.



#### Environmental regulators and managers

#### 2.3 Ammonia concerns at the hearings

EMAB recommended that ammonia level limits return to the levels in the original water licence.

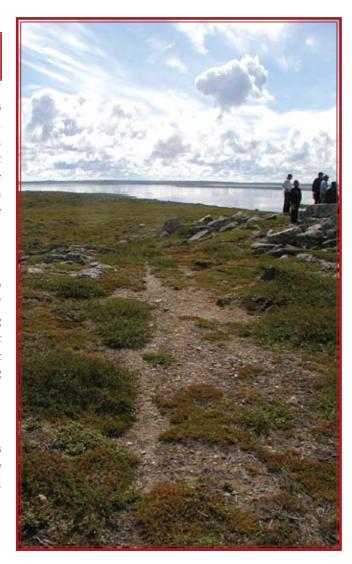
Ammonia was one of the top two concerns raised by interveners at the water licence renewal hearings, along with the AEMP. All interveners thought levels should be reduced, although different amounts were proposed. EMAB recommended that the levels return to those in the original water licence while also allowing the WLWB to vary the levels as new information became available. We also recommended that Diavik complete the toxicity testing for effects of mine discharge on whitefish.

#### 2.4 Explosives Management Strategy

Diavik submitted its Explosives Management Strategy in early December. It included adopting all six of its consultants' recommendations for improving practices. Initial monitoring for October and November indicated that there were significant decreases in loss of ammonia as a result of these changes, but Diavik cautioned that more data is needed before drawing conclusions.

#### 2.5 Ammonia management following the hearings

The WLWB's extension of Diavik's revised ammonia limits ended on February 1, 2007. The WLWB set a new temporary limit of 10 mg/l average ammonia concentration and 20 mg/l maximum.



## Ammonia Expert Panel

Following the hearings the WLWB developed a new workplan for revision of the AMP, including an independent expert panel to advise it. The Panel's first task was to review all the information that had been submitted by Diavik and the interveners, recommend the lowest practical ammonia limit and determine whether the draft AMP can achieve this.

The Panel provided its first report in February 2007. It developed a mathematical model of Diavik's ammonia discharges and the effects of Diavik's ammonia management actions and recommended lowest practical ammonia limits for 2007 of 5.1 mg/l average and 8.5 mg/l maximum decreasing to 3.3 mg/l average and 6.8 mg/l maximum from 2008 onwards. The Panel stated that they felt the AMP, if implemented fully and rapidly. could achieve these levels. Questions were raised by some parties regarding some parts of the Panel's model and Diavik proposed a limit of 10 mg/l average concentration as well as requesting the WLWB reconvene the hearing to assess the Panel's report, and providing a legal position on the way ammonia limits should be set. The Panel responded to the comments by revising their model and recommending higher limits on ammonia as follows: 2007 - 7 mg/l average, 14 mg/l maximum and for 2008 onwards 5 mg/l average and 10 mg/l maximum.

### Ammonia Limits – the issues

In 2006 it emerged that Diavik interpreted the Record of Agreement (ROA) differently than the rest of the participants to the mediation. Diavik felt that the limit set in the ROA of 20mg/l average and maximum concentration should remain; they planned to propose management targets below those amounts, but these would not be legal limits (the highest level of ammonia Diavik has ever discharged to Lac de Gras was 8 mg/l in late summer 2005 with the maximum in 2006-07 at 5 mg/l). The rest of the participants said they had agreed to the mediation with the understanding that Diavik would use the two-year period to do extensive investigations on ways to bring ammonia discharges down with the goal of returning to the original licence limits for ammonia of 2 mg/l average and 4 mg/l maximum, or the lowest practically achievable level. There were other differing approaches such as:

- Diavik didn't include looking at ways to improve their blasting so less ammonia was left afterward in the scope of their review until they were directed to by the WLWB following expression of concern by the Working Group.
- Whether it would be helpful and effective to test hyallela azteca for effects and how best to do it. This has still not been resolved
- How and when to test the effects of Diavik's discharge on whitefish. This has not yet been done. Following the hearing the WLWB decided to leave further work on this until after the new licence is issued.

#### Environmental regulators and managers

#### 2.6 Whitefish toxicity testing

EMAB recommended that whitefish should also be tested to determine toxicity in Lac de Gras.

Very young rainbow trout are routinely placed in samples of Diavik's discharge for 96 hours (4 days) to find out whether it is toxic to fish. In the ROA Diavik agreed to do the same test with whitefish to see how sensitive they are compared to the rainbow trout. This is because rainbow trout are not native to the area, so may be less sensitive than local fish, which are used to the very pure water in Lac de Gras. These tests have not taken place due to a lack of availability of very young whitefish raised in standard conditions. EMAB, along with

the other parties, believes these tests are important, and has recommended they go ahead as soon as possible.

#### 2.8 Ammonia amendment recommendations

EMAB made recommendations to improve processes such as the one for the ammonia amendment.

Following the amendment to ammonia limits in the water licence in 2004 EMAB submitted recommendations to improve the process for future amendments. The WLWB will consider these recommendations as part of their review of procedures.

REPORT DESCRIPTION	DATE SUBMITTED	то
A. IN REVIEW		
Ammonia Management Plan	4-Oct-06	WLWB
B. PENDING WLWB Decision		
Follow up to GLL Review - Compilation & Evaluation of Existing Aquatic Information	May 27/05	WLWB
Ammonia Fate / Plume Delineation Study	May 27/05	WLWB
Follow up to GLL Review - Completed Special Effects Studies - dike leaching	Rev. June 13/05; May 16/05	WLWB
Limnology & Aquatic Ecology	Nov 16/05	WLWB
Follow up to GLL Review - Completed Special Effects Studies - effluent toxicity	Nov 17/05	WLWB
C. COMPLETED REPORTS / STUDIES		
Status Report #1 - Ammonia Management Investigations	July 13/05	WLWB
Status Report #2 - Ammonia Management Investigations	July 29./06	WLWB
Revised Ammonia Discussion Paper	Sept 1/06	WLWB
Addendum to revised Ammonia Discussion Paper	Sept 1/06	WLWB
D. REPORTS INADEQUATE		
GLL Review - Completed Special Effects Studies - effects of dredging, dike construction on water quality	Oct 19/05	WLWB

#### Environmental regulators and managers

#### 3. Abandonment and Restoration Plan

EMAB has closely followed progress on Diavik's closure plans.

EMAB reviewed Diavik's 2001 Interim Abandonment and Restoration Plan (IARP) in 2005. The review concluded that Diavik should update the plan with many more details. Diavik submitted a revised plan, called the Interim Closure and Reclamation Plan (ICRP), in October 2006, a month before the hearing. EMAB was able to have a brief technical review prepared in time to include in our intervention. Our review concluded that the ICRP was much better than the previous IARP, but that more detail was still needed in a few areas. The main concern raised was that Diavik no longer planned to revegetate the PKC and rock piles. The review noted that additional information requested by the MVLWB in 2001 had not been provided. The review also noted that this version of the plan addressed EMAB's concern that Diavik had not submitted the required reclamation monitoring program.

The ICRP was discussed at the hearings with some parties expressing many concerns and others, including EMAB, stating that the revised ICRP was largely adequate for this stage of the mining operation. EMAB recommended that the WLWB direct Diavik to address outstanding issues raised by our reviewer followed by technical sessions to review the plan and make recommendations for changes or approval. EMAB also recommended that the water licence require Diavik to update the plan every three years, and that the new licence requires Diavik to provide a final plan at least five years before scheduled closure. The WLWB decided that any required changes could be addressed through the renewed water licence and after.

#### 4. Participant/intervenor funding

EMAB continues to make recommendations on the need for intervener funding.

EMAB continues to raise the issue of participant/intervenor funding under the MVRMA. We repeatedly drew the WLWB's attention to the need for funding in order for Aboriginal Parties and others to participate meaningfully and effectively in review of documents and the water licence renewal hearings.

In our intervention we noted this problem and presented the position taken by other public tribunals and by the courts that funding is needed for effective participation.

EMAB drew the WLWB's attention to the Northwest Territories Environmental Audit, required every five years under the Mackenzie Valley Resource Management Act and released in summer 2006 where Recommendation 34 stated that "Building on previous work undertaken by the National Roundtable on the Environment and Economy, INAC should fund an independent evaluation of the capacity of Aboriginal communities to participate in environmental and resource management processes. The findings and recommendations of this evaluation should be acted on." and Recommendation 39 stated that "a participant funding program should be established for...regulatory processes involving public hearings under the MVRMA."

## 5. Licence management recommendations

EMAB has actively pursued ways to improve the management of Diavik's water licence.

EMAB has made a number of recommendations to the MVLWB and the WLWB regarding possible improvements to

# 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.

# History of ammonia amendment

Diavik applied for an amendment to their water licence on June 26, 2003 because ammonia levels in the mine water from the open pits were rising above predicted levels. After mediation coordinated by the MVLWB, a revised water licence was prepared. The Minister of DIAND approved it on June 24, 2004

The new licence increased the level of ammonia Diavik can put into Lac de Gras from an average of 2 mg/l to 20 mg/l for two years. The experts all agreed that the new levels should not harm the water or fish during that time.

Diavik was to submit an Ammonia Management Plan by February 2006. The licence sets out clear steps and schedules for doing this.

#### Environmental regulators and managers

the way Diavik's water licence is managed:

- Review of plans and reports by the MVLWB was an ongoing issue for EMAB – as discussed under AEMP reports above, the WLWB has stated that it will review all reports for compliance with the water licence, and plans to assess its review and approval processes with input from interested parties including EMAB. We are pleased with this approach and look forward to participating.
- EMAB also asked the WLWB to make the same commitment as the MVLWB regarding decisions on reports to make a decision within three months of a report's submission, recognizing that decisions will take longer if a report is sent back for revision.
- Licence amendments between hearings have been a
  priority concern for EMAB. We recommended the WLWB
  clearly identify the process by which a water licence can
  be amended between hearings and how this process can
  be initiated in the public interest by Parties to the EA.
  We also recommended that the WLWB develop explicit,
  publicly available criteria for deciding if a proposed
  amendment is in the public interest.
- At an AEMP workshop in August 2006 Diavik stated that it had been granted exemptions to some parts of the water licence. EMAB stated that it interpreted any such exemption to be an amendment to the water licence and that if the WLWB chose to grant an exemption it should clearly document this for the record.
- Because EMAB believes that lack of technical capacity at the MVLWB contributed to its inability to identify and respond to problems with Diavik's AEMP early on, we recommended that an independent audit be conducted to assess this. We have noted that the WLWB has made extensive and effective use of consultant expertise in advising it on the revision of the AEMP and on the

ammonia issue. We will raise the issue of access to technical capacity during the WLWB's review of its review and approval processes.

#### 6. Inspector

EMAB was concerned that inspections had temporarily stopped because no one could be found to fill the inspector position. We actively pursued DIAND to return to regular inspections at Diavik.

Normally, EMAB invites the DIAND inspector to its Board meetings so that we can stay informed of the details of environmental management at the mine.

At each Board meeting the inspector gives a presentation outlining the main points of his monthly inspection reports. These reports deal with the on-the-ground reality of everyday operations. The inspector closely examines any areas where water quality might be affected, including:

- where spills may occur
- chemical and fuel storage areas
- contaminated water storage areas
- where water is discharged

In May 2006 a replacement inspector left the position. DIAND was unable to fill the position and as a result there were no inspections at Diavik for several months. In early November EMAB wrote to DIAND's Regional Director General and to the Executive Director of the WLWB requesting that inspections resume as soon as possible. An inspection took place that month using a replacement inspector and there were three more inspections done by March 2007.



#### Environmental regulators and managers

#### Fish

# Regulator: Department of Fisheries and Oceans (DFO)

Diavik submits reports to DFO under the fisheries authorizations. EMAB monitors DFO's reviews of the reports and meets with DFO on specific issues from time to time.

#### 1. No Net Loss

EMAB continues to request updates on progress on No Net Loss.

Last year EMAB reported that DFO had agreed to review alternatives to Diavik's approved No Net Loss plan and have further discussions when it was complete. DFO did not come back to EMAB during 2006-07.

#### 2. Fisheries Authorization Monitoring

EMAB continues to monitor the implementation of the fisheries authorization.

DFO's review of the 2005 Shoal Habitat utilization study concludes that the report does not meet the requirements of the fisheries authorization. This is largely because poor weather cancelled most of the survey and DFO's opinion is that no useful data was generated. DFO made a number of recommendations to improve future reporting.

The A418 dike baseline monitoring report and A154 year 2 monitoring report were approved with the requirement that more sample sites be added for future monitoring and that data presentation be improved.

The A418 Dike Turbidity Monitoring Report was approved.



# What is No Net Loss?

The Department of Fisheries and Oceans No Net Loss policy states that when a project, such as Diavik, destroys or damages fish habitat, the company must offset the loss by replacing or creating an equal amount of fish habitat. Ideally, the habitat will be in the same area as the project and will be the same kind of fish habitat. If this is not possible then the policy allows for habitat creation away from the site or increasing habitat for the affected fish species. This could be done by fixing up damaged habitat somewhere else or by increasing the productivity of existing habitat.

# 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.

# What is the WEMP?

The Wildlife Effects Monitoring
Program is a requirement of
the Environmental Agreement.
The program measures the effects
of the mine on wildlife and looks at
caribou, bears, wolves, wolverines,
birds and plants. The WEMP measures
predictions to note 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 can
do something about it.

# Joint aerial caribou surveys: background

Following a recommendation by
EMAB in 2002 that DDMI carry out
aerial surveys of caribou in a joint,
coordinated fashion with BHP the two
companies developed a program that did
weekly surveys from May to October and
provided data to each company on its own
Wildlife Study Area. They flew lines four
km. apart going about 20 km south,
east and north of Diavik and 15 km
west as well as the neighbouring
BHP area which extends much
further north and west.

### Environmental regulators and managers

#### Wildlife

#### 1. Wildlife Effects Monitoring Program (WEMP)

EMAB contracted wildlife consultants MSES to review and assess the methods and results in the 2006 Wildlife Monitoring Report. In addition EMAB invited MSES and government wildlife experts to attend Diavik's presentation of the report and make comments. EMAB reviewed all the comments and passed on MSES's report to Diavik and ENR for response.

MSES concluded that "Most effects continue to be at or below predicted levels. However, data quality may, in several instances, be improved and the precision of the analyses increased by changing the methods of measurement."

The major wildlife issue that EMAB has been struggling with for the past three years came to a head in 2006. The question of how best to monitor caribou movement and the effects of the mine was originally raised by EMAB in 2005 when BHP Billiton (BHPB) indicated they were considering changing the method they used in the joint aerial caribou surveys with Diavik (see box) to try to find out if the mine was having an effect on caribou movement further away than originally predicted. A study involving ENR staff had shown that there might be an increase in numbers of caribou 25 km from the mines, which is slightly outside the aerial survey area, although it was not clear whether this was related to the mines or some other factors.

EMAB recommended that any changes only be made with full and meaningful participation of the Aboriginal Parties. EMAB also had some concerns from a technical perspective as to whether the proposed method was the best approach.

In 2006, BHPB unilaterally changed the survey method in mid-season. Diavik continued with the previously agreed method, so BHPB is flying a larger area than Diavik but less often and with a greater distance between flight lines (8 km). EMAB hopes that any future changes can be made in a more cooperative fashion.

Diavik has proposed changing its aerial survey method in 2007 to cover a larger area but would continue with the closer flight lines (4 km) and longer time period used when BHPB and Diavik were cooperating on the surveys. The data from the BHPB's surveys is still compatible with that gathered by Diavik.

\*MSES - Management and Solutions in Environmental Science

#### 2. Cumulative effects on caribou

EMAB continued to state the need for ENR and DIAND to do cumulative effects monitoring on effects of development on caribou and other wildlife at meetings on the Bathurst Caribou Management Plan and at Wek'èezhii Renewable Resources Board (WRRB) hearings in March 2007

The concerns Aboriginal Parties have been stating about the effects of Diavik and other developments on Bathurst caribou migration are one part of the larger question of cumulative effects on caribou and other wildlife.



## Environmental regulators and managers

NWT and Nunavut barren-ground caribou herds have shown a large drop in numbers over the last few years and many possible causes have been suggested, particularly in relation to the Bathurst herd:

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

There is a Bathurst Caribou Management Plan (BCMP) that was developed after ENR surveys first showed the drop in caribou numbers. The BCMP includes many actions, but a number of them are not being implemented.

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.

When EMAB intervened at the Wek'èezhii Renewable Resources Board (WRRB) hearings in March 2007 on a proposal by ENR to put quotas on Bathurst caribou, we said that monitoring of industrial activity is necessary in order to manage the Bathurst herd effectively, This need is recognized by the BCMP but is not being carried out.

EMAB has included a workshop on cumulative effects on the Bathurst caribou in its budget for next year.

## 3. Dust and Air Quality

EMAB recommended that Diavik improve its dust monitoring methods and that Diavik should be monitoring all aspects of air quality at the mine.

EMAB has taken note of increasing community concerns about the effects of dust and other air emissions from Diavik on the environment and particularly the food that caribou eat. Since our review of Diavik's dust monitoring program in 2005 EMAB has been following up with Diavik and regulators. There were three main issues:

#### 3.1 Dust monitoring

EMAB's consultant (SENES) concluded that Diavik's monitoring techniques had not been shown to provide scientifically defensible data. EMAB asked Diavik to tell us how they planned to address SENES' concerns. After almost seven months Diavik responded; its answers were helpful but did not show that its methods were sound. Following this response EMAB made recommendations to Diavik.

Dust monitoring is part of both the WEMP and the AEMP. In its revised AEMP, submitted in February, Diavik did propose some improvements but did not address the main concern in EMAB's recommendations or SENES' report.

In its 2006 Dust monitoring report Diavik has said that it will address SENES's concerns by evaluating the frequency of collection from the dust gauges.

# Fencing: background

Fencing at the Diavik
mine site is noted in the
Comprehensive Study Report.
Diavik committed to fencing key
areas of the mine site if it proved
necessary to protect wildlife,
especially caribou.

Over a period of two years, EMAB worked with Elders to arrive at a consensus about whether fencing was necessary and, if yes, where it should go and what type of fencing it should be. Diavik's environmental staff worked closely with the Elders to explain how caribou moved around the mine. EMAB also enlisted the help of a government caribou expert and a fencing expert so that we could be as thorough as possible. Because of recommendations that came from the workshop, Diavik installed temporary fencing in July 2005 at a key location near the Processed Kimberlite Containment Facility. Two key components remain:

- finalizing the fencing work plan
- reassembling the Traditional Knowledge Panel on Fencing to inspect temporary fencing laid out in July 2005 at the mine site

## Environmental regulators and managers

#### 3.2 Air quality monitoring

SENES also pointed out that Diavik committed to having an Air Quality Monitoring Program in the EA, and that the current dust monitoring is not sufficient. EMAB requested that Diavik address this and in September they committed to develop an air quality monitoring program in cooperation with regulators. We are not aware of any further progress on this issue as of March 31, 2007.

#### 3.3 Lichen monitoring

SENES also raised a number of concerns about Diavik's lichen monitoring study. DDMI disagreed with many of these concerns because the study was a pilot project, and indicated that many of them would be addressed if the study continued. Diavik has committed to carry out the study every five years to see if there are any changes. At EMAB's community based monitoring camp on dust, participants collected lichen species they know caribou eat. These will be passed on to Diavik so that they know which species to study.

## 4. Fencing

EMAB is continuing to follow up the elders' recommendations on fencing at Diavik from 2004.

EMAB requested that Diavik give an update on how they planned to fulfil the longer term fencing recommendations they had agreed to. As of March 31, 2007 Diavik had not been able to make itself available for this update.





# REPORTS

REPORT DESCRIPTION	DATE SUBMITTED	то
A. IN REVIEW		
1. CARRY-OVER or ONE-TIME REPORTS		
Limnology & Aquatic Ecology - Lac de Gras	Nov 7/00	MVLWB
Design Specs & Monitoring Plans - Fish Habitat Compensation	n	
Streams (draft)	14-Apr-03	DFO
West Island Stream	April 22/04	DFO
Interim Closure and Reclamation Plan	Sept 29'06	WLWB
AEMP Design Document 2007	Feb'07	WLWB
Hazardous Materials Management Plan ver10	Mar'07	WLWB
Operations Phase Contingency Plan ver 10	Mar'07	WLWB
PKC Raise 4 as-built	Mar'07	WLWB
B. INADEQUATE REPORTS / STUDIES		
Shoal Habitat Utilization Survey - 2005		DFO



# REPORTS

REPORT DESCRIPTION	DATE SUBMITTED	то
C. COMPLETED REPORTS / STUDIES		
Lakebed sediment, water quality & benthic invertebrate study - A418 (baseline) & A154 (yr. 2)	June 21/05	WLWB
A418 Dike Turbidity Monitoring Report	31-Mar-06	DFO
Draft Aquatic Effects Monitoring Program	April-06	WLWB
A418 Fish Salvage design	May 23/06(revised); Mar/06	DFO
2005 Environmental Agreement Report	June'06	DIAND
Dam Safety Inspection Report	Aug '06	WLWB
Explosive Management Investigation	Dec 4/06	WLWB
A418 Dewatering Report	Dec-06	WLWB
WEMP 2006	Mar 30/07	EMAB/RWED
Water Licence report 2006	April 1/07	WLWB
D. REPORTS / STUDIES UNDER WLWB CONSIDERATION		
Ammonia Fate / Plume delineation study	Nov 24/05	MVLWB
AEMP Baseline Data Compilation & Evaluation	Oct 16/00	MVLWB
*also see follow up to reviews of special effects studies under Ammoni	a Amendment - p. 30	

## WHAT ARE OUR PLANS?

## Work plan for 2007-08

EMAB's priorities for 2007-08 are:

- Participate as an intervener in Diavik's water licence renewal process.
- Continue to participate in re-design of the Aquatic Effects Monitoring Program.
- Build capacity (skills and knowledge), increase awareness and support meaningful participation of Aboriginal Peoples in environmental monitoring activities related to Diavik.
- 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).
- Complete the strategic plan with a focus on engaging remaining Aboriginal communities in the strategic planning process.

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 2007-08.





## WHAT ARE OUR PLANS?

Water Licence Renewal Application – EMAB is participating in reviewing the redesign of the Aquatic Effects Monitoring Program, including the dust monitoring program. We will also comment on the draft licence when it is circulated. We also plan to follow up on issues that have come up over the past few years regarding management of the water licence and to participate in the Wek'èezhii Land and Water Board review of their rules of procedure and review / approval processes for technical reports.

Aboriginal Involvement – We were unable to hold the planned workshop on Aboriginal involvement in the environmental monitoring of the mine with representatives from each Aboriginal Party last year, so have set a priority on holding it early in 2007-08. We will continue pursuing intervener funding so that Aboriginal groups can fully participate in regulatory processes such as the water licence renewal.

Traditional Knowledge – We will continue asking our highly successful Traditional Knowledge panels to give us advice on issues that we identify as necessary. Diavik has decided not to operate the community based monitoring camp this year as there are a number of risk issues that need to be addressed. EMAB will participate in addressing these risks.

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.

Communications – EMAB will maintain and upgrade its new website. EMAB will continue to provide updates on environmental monitoring of the Diavik mine to communities through Board members, and will target at least one public meeting in each community to review environmental monitoring results, answer questions and hear community concerns. We will update and revise the Communications Strategy 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.

Capacity Building – EMAB will continue its 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. EMAB has planned a workshop to evaluate the capacity funding program in 2007-08.

Relationship Building – We will continue to hold meetings that bring together regulators that deal with the Diavik file. These meetings help everyone understand each other's roles and help resolve issues. We are also considering a follow up meeting with the Diavik Community Advisory Board to identify areas of common interest.



## WHAT ARE OUR PLANS?

Strategic planning and community engagement – We will work with our Parties, focusing on Aboriginal Parties, to complete the community engagement started in 2004-05. This will be the basis for our strategic plan. We will work to finish the community engagement in the fall of 2007 to get a better understanding of community priorities related to the Diavik environment.

**Fencing** – We plan to keep encouraging Diavik to continue carrying out the recommendations developed with Elders in 2004.

No Net Loss – We will continue to encourage the department of Fisheries and Oceans and Diavik to resolve the issue of fish habitat replacement.

Organizational Development – The Board will continue to work on its procedures and review bylaws and policies to improve efficiency and effectiveness. EMAB is considering holding a governance workshop during 2007-08.

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	80,000
Capital Cost	3,000
Management Services	253,000
Board	158,000
Sub-Committees	4,000
Community Consultation	183,000
Strategic Planning	6,000
Projects	211,000
Contingency	12,000
Total	910,000

# 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.

Sheryl Grieve Secretary Treasurer

## AUDITOR'S REPORT

## 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, 2007 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, 2007 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 August 20, 2007 Charles Jeffery Chartered Accountant



# Auditor's Report

# **Environmental Monitoring Advisory Board**

## Statement of Financial Position

For the war anded March 21, 2007	March 2007	March 2006
For the year ended March 31, 2007	\$	2006 \$
Assets	•	
Current assets		
Cash	1,006,815	885,853
Accounts receivable	7,238	3,625
Prepaid rent		4,494
	1,014,053	893,972
Capital assets (Note 3)	13,026	16,744
	1,027,079	910,716
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	23.476	13,663
Contributions refundable - TK Camps	13.715	13,715
Contributions refundable - Department of Indian Affairs and		
Northern Development	35,360	
Deferred revenue - Diavik Diamond Mines Inc. (Note 5)	660,000	644,000
	732,551	671,378
Net Assets		
Investment in capital assets	13,025	16,744
Unrestricted net assets	281,503	222,594
	294,528	239,338
	1,027,079	910,716



# Auditor's Report

# **Environmental Monitoring Advisory Board**

## Statement of Operations

For the year ended March 31, 2007		March	March
		2007	2006
		\$	\$
Revenue			
Diavik Diamond Mines Inc		644,000	629,000
Diavik Diamond Mines Inc - Traditional Know	vledge	120,000	129,623
Diavik Diamond Mines Inc - Traditional Know	vledge (refundable)		(13,715
Government assistance			
Government of the Northwest Territorie	S. Carrier and C. Car		to engage
Department of Indian Affairs and Northe	m Development	76,129	40,000
Department of Indian Affairs and Northe	m Development (refundable)	(35,360)	
Program Administration		10,169	100000
Interest income		25,219	12,615
		840,157	797,523
Operating Expenditures		24.500	
Administration	Schedule 1	74,536	89,229
Management services	Schedule 2	230,128	233,161
Board Expenditures	Schedule 3	120,162	134,634
Community Consultation	Schedule 4	90,000	118,500
Water licence renewal	Schedule 5	43,343	39,959
Strategic Planning	Schedule 6	•	557
Projects - Traditional Knowledge Panel	Schedule 7	136,889	162,238
Aquatic Effect Monitoring	Schedule 8	42,475	
Multi - project Environmental Monitoring	Schedule 9	28,217	,
Abiriginal Involvement Update	Schedule 10	12,552	Access.
Capital asset purchases	ACTORIO CONT.	2,947	587
		781,249	778,865
Excess revenue over expenditure			
(expenditure over revenue)		58,909	18,658

## AUDITOR'S REPORT

## **Environmental Monitoring Advisory Board**

#### Notes to Financial Statements

For the year ended March 31, 2007

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.

NS. 8.	March 2007	March 2006	
	\$	\$	
2 Capacity funding expenditure			
Yellowknives Dene First Nations		28,500	
North Slave Metis Alliance	30,000	30,000	
Lutsel K'e Dene	30,000	30,000	
Kitikmeot Inuit Association	30,000	30,000	
	90,000	118,500	

## 3 Capital assets

	Cost	Accumulated Amortization	Net Book Value	Net Book Value
NXTEC AMD XP 1700 & HP Deskjet printer	3,131	2,605	526	752
Various computer equipment	1,609	1,339	270	386
Desks	1,603	1,050	553	790
Recording equipment	1,336	1,152	184	458
Digital imager	5,350	4,721	629	900
Toshiba Satellite Pro 4240	4,676	4,126	550	786
Computers	22,687	20,018	2,669	3,813
Proxima DS2 projector	1,605	1,417	188	270
Doug Crossley's computer	3,257	2,475	782	1,117
Two nomadic displays	5,153	2,068	3,085	3,085
Board room furnishings	1,873	1,653	221	315
Other office equipment and office furnishings	20,627	17,265	3,362	4,210
	72,907	59,889	13,019	16,882



## AUDITOR'S REPORT

Net Change in Non-Cash Working Capital	62,053	27,062
	(3,613)	(8,119
Increase in employee recievable	+	
Increase prepaid expenses	•	(4,494
Increase accounts receivable	(3,613)	(3,625
Operating resources applied to:		
	65,666	35,181
Increase trade accounts payable	9,812	6,466
Decrease prepaid rent	4,494	10000
Increase in contributions refundable	35,360	13,715
Increase in deferred contributions	16,000	15,000
Operating resources provided by:		
4 Net change in non-cash working capital balances		

#### 5 Deferred contributions

Deferred revenue consists of the funds contributed by Diavik Diamond Mines Inc. for the 2007-2008 operating year. This amount will be recognized as revenue over the 2007-2008 operating year as goods and services are acquired.

#### 6 Misappropriation of funds

It had been determined that funds were misappropriated in the years ended March 31, 2006, 2005 and 2004. The amounts were determined by reperforming reconciliations of the bank account for each month in the period September 2003 through March 2005. Certain cheques which were cashed by the bank have been removed from the bundles of cheques returned from the bank. Certain transactions recorded as cash disbursements in the general ledger were not cashed and were not recorded as outstanding on the bank reconciliations prepared by staff.

Management has been able to make an arrangement to recover funds over time.



## 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 Metis 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, Lutsel K'e, Dettah, Ndilo, Kugluktuk and the Metis of the North Slave.

**Baseline:** means all the facts, numbers and information collected about an area before development. Facts, numbers, and information continue to be collected all the time and are compared with the baseline to see if there are any changes to the environment in the 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.

**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 and other mine features, and contouring, covering, and revegetation of waste rock piles and other disturbed areas.

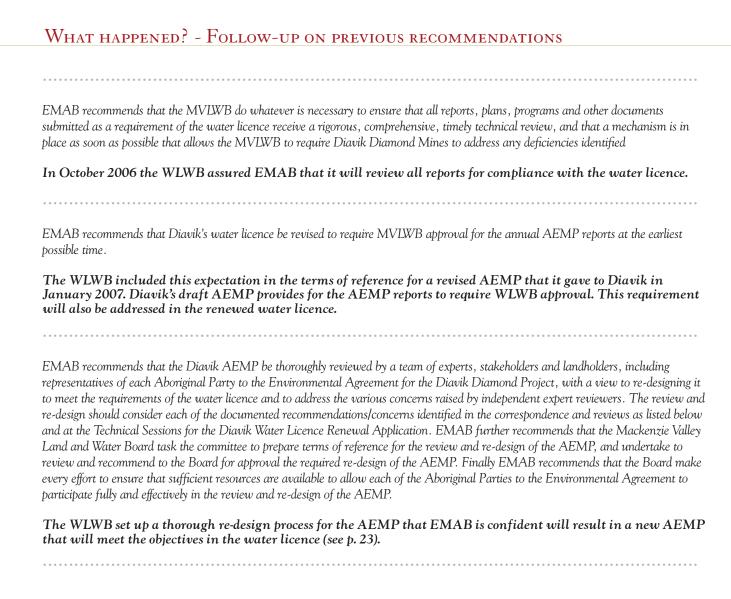
**Security:** means the money that Diavik gives to DIAND as assurance that it will clean up the mine site in an acceptable way after the mine closes.

**Sustainable development:** means making 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 using 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.

# What happened? - Follow-up on previous recommendations

In some cases, results for EMAB recommendations from previous years were delayed. The following is an overview of past recommendations and their status.
EMAB recommends that Diavik provide a work plan by December 17, 2004 to meet their commitment that temporary test fencing be ready for installation by July 2005. The work plan is to include:  • date for completion of draft management plan  • review/consultation on draft management plan from site visit participants (Group) and EMAB  • timing for inspection of completed temporary fence by Group  • date for completion of worst case contingency plan
Diavik provided a Standard Operating Procedure for the temporary fencing. Much of the area is now diked which the Group felt would keep caribou away from the area. The area has not been inspected by the Group and a worst case contingency plan for caribou at the mine site has not been provided to EMAB.
EMAB recommends that the MVLWB assess its capacity to ensure a comprehensive, rigorous, timely technical review of each report or plan submitted under Diavik Diamond Mines' water licence.
The WLWB will be assessing its review processes for reports and seeking input from parties, including EMAB. The WLWB has made extensive use of contracted technical expertise in developing the new AEMP and AMP and in reviewing reports required under the ROA.
EMAB recommends that the Mackenzie Valley Land and Water Board not consider approving the report on the integrated description of the limnology and aquatic ecology of Lac de Gras at this time
The WLWB gave direction to Diavik to submit a revised integrated description as part of the revision process for the AEMP in January 2007. Diavik provided information to address this requirement in the draft AEMP submitted in March, and this is in review.



#### Recommendations 2006-2007

A – good; B – fair; C – meets minimum standard; D - unacceptable

Recommendation	То	Timely Response	Satisfactory Response
Community Based Monitoring camp recommendations regarding involvement of Aboriginal People in caribou monitoring	DDMI	A – initial response	F – initial response; DDMI was too busy to address these.
We recommend DDMI initiate consultation directly with the Aboriginal Parties to the EA regarding implementation of these recommendations in a way that meets the spirit and intent of the EA. We further recommend that this consultation take place in a timely way and request that DDMI provide us with a workplan for consultation on these recommendations and follow-up implementation, and report back to us on the results of the consultations.		D – follow-up response three weeks past deadline	C – DDMI rejected 3 of the 4 recommendations, some for spurious reasons.  Note: EMAB agreed that it would try to address these at its planned workshop on Aboriginal Involvement in monitoring.
Dust & Air Quality Monitoring	DDMI		
EMAB recommends that if DDMI wishes to continue using non-standard methods for dust monitoring they must demonstrate in a scientifically defensible way that they can maintain the same accuracy as standard methods. While the related issue of potential for bird droppings and fungus to contaminate the samples may be limited to summer months, it can still affect sample results.  EMAB recommends that DDMI should clearly state in each dust monitoring report whether dust fall measured is within the levels predicted in the 1998 Environmental Effects Report.  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. Recommendations for changes to water licence at renewal hearings (see appendix for recommendations and website for complete intervention).		A – initial response F – follow-up response 3 months past deadline A – initial response  A – initial response	F – initial response did not address recommendation. C – DDMI will evaluate frequency of collection compared to standard methods – no details provided. F - initial response did not address recommendation. A – follow-up response; DDMI is now addressing itsss predictions in the annual dust monitoring report C – DDMI has initiated air quality monitoring by testing equipment but has not updated its model or provided details of its approach.
Recommendations for changes to water licence at renewal hearings (see appendix for recommendations and website for complete intervention)	WLWB	N/a	N/a – these will be addressed in the draft licence and accompanying reasons.
EMAB recommended that DDMI organize a workshop to prepare Aboriginal participants selected by their Parties to participate in a technical workshop on the draft AEMP as a way of involving Aboriginal People in the design of the AEMP in the time allowed by the WLWB.	DDMI	A	A – Diavik organized this workshop quickly and participants felt it was useful.
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: rigorous review of AEMP, participant funding, and a process for amendment of licence between hearings.	WLWB	A	A – WLWB will address these recommendations in its reasons for decision. It has also initiated a consultative process on its procedures, policies and guidelines with all parties.

<sup>\*</sup> When EMAB makes a recommendation, the applicable regulatory authorities and Diavik have 60 days to respond.

## Recommendations

## CURRENT CONTACTS

#### **Board Members**

#### Kitikmeot Inuit Association Doug Crossley, Chair

dcrossley@giniq.com phone (867) 983 3958 fax (867) 983 3964

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

fcatholique@msn.com phone (867) 370 3190 or 3975 fax (867) 370 3964

#### Diavik Diamond Mines Inc Eric Christensen

eric.christensen@diavik.com phone (867) 669 6508 fax (867) 669 9058

#### Tlicho Government Eddie Erasmus

eddieerasmus@tlicho.com phone (867) 392 6381 fax (867) 392 6862

#### Yellowknives Dene First Nation Lawrence Goulet

phone (867) 873 4177 fax (867) 873 8545

#### North Slave Metis Alliance Shannon Havden

shayden@nsma.net phone: (867) 873 6762 fax: (867) 669 7442

#### Government of Canada Flovd Adlem

adlem@theedge.ca

#### Government of the NWT, ENR Gavin More

gavin\_more@gov.nt.ca phone (867) 873 7244 fax (867) 873 4021

## Government of Nunavut

vacant

#### Alternate Board Members

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#### Government of Nunavut

vacant

#### Staff

#### **Executive Director** John McCullum

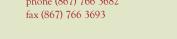
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