



Independent Environmental Monitoring Agency

A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT
AT EKATI™ DIAMOND MINE



ERS • TRADITIONAL KNOWLEDGE • WILDLIFE EFFECTS • AQUATIC EFFECTS • SPECIAL EFFECTS
MONITORING PROGRAM • WASTE ROCK • PROCESSED KIMBERLITE MANAGEMENT • CUMULA

Independent Environmental Monitoring Agency

2000-2001 Annual Report Recommends:



On Traditional Knowledge:

1. *The Agency recommends that:*
 - 1) *aboriginal parties meet to develop consensus where they and their knowledge best fit into BHP's environmental management and monitoring programs, and*
 - 2) *aboriginal members and BHP work together to develop more effective means to incorporate aboriginal people and their ecological knowledge into BHP's planning and operations. The Agency, if requested, would be available to assist in these initiatives.*

On Aquatic Effects Monitoring Program:

2. *The Agency recommends that BHP expand the Aquatic Effects Monitoring Program to include a full range of water quality data in the winter months for all AEMP and SEMP lakes.*
3. *The Agency recommends that BHP analyze and determine the sources of substances affecting water quality by using the full range of data from all programs and studies that collect water quality data at the site (i.e. aquatic and special effects monitoring programs, seepage surveys, snow surveys etc.).*

On Special Effects Monitoring Program:

4. *The Agency recommends that BHP place priority in 2001 on determining whether the very slow growth rates of young-of-the-year grayling rearing in the diversion channel adversely affect their survival.*

On Waste Rock:

5. *The Agency recommends that BHP needs to develop a more detailed understanding of what is happening with the waste rock geochemistry at EKATI™ and determine effective management responses that may be needed to deal with the emerging water quality problems at the site.*
6. *The Agency recommends that BHP should update its Waste Rock Management Plans for Misery, Koala, Fox and other pipes to be developed. It should also ensure that these designs are properly reflected in the current Waste Rock and Ore Storage Management Plan and Abandonment and Restoration Plan.*

On Cumulative Effects:

7. *The Agency recommends that BHP take immediate actions to improve waste management in order to reduce risks that wolverines and grizzly bears become attracted to camps. Prompt actions are needed at Misery camp where the cumulative effect on carnivores is of greater concern.*

Chairperson's Message

I am pleased to present the 2000-2001 Annual Report of the Independent Environmental Monitoring Agency. This report provides a review of the Agency's activities from April 1st, 2000 to March 31st, 2001, and provides recommendations for BHP, government agencies and others to work towards continual improvement of environmental management of the EKATI™ Mine.

The 2000-2001 year has been a year of reflection and change for the Independent Environmental Monitoring Agency. We have seen changes in our Board of Directors, our staff, and the focus of our work. This year we have started work to implement the recommendations made in the Macleod Institute assessment of the Agency's performance that we reported on in last year's report.

As Chair, I am now spending a portion of each year in Yellowknife to allow me to work more closely and frequently with our members and the public. I am pleased to report that communications seem to be improving between the Agency and our members.

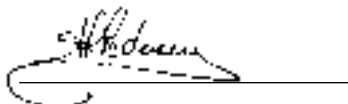
Late in the year I met with Scott Williams of BHP to negotiate our budget for the next two years. I want to express my appreciation to BHP for the trust and respect which made these negotiations a success.

The Agency continues to carry out all the functions and responsibilities it holds under the *Environmental Agreement*, and continues to make comments and recommendations to BHP, regulators and government on how to ensure mining at EKATI™ is carried out in a manner that maintains environmental protection as a priority.

This year the Agency examined the role of environmental monitoring and management in the "big picture". The Agency developed a paper entitled "Towards Improved Environmental Management in the North". This paper outlines principles that we believe would be important in the creation of a more regional body mandated to look at monitoring and management from both project specific and regional or cumulative perspectives. We hope that the comments provided will help those who are working at developing structures for management and monitoring for the future.

We look forward to continuing to develop our relationships of trust and cooperation.

Respectfully,



Red Pedersen, Chair

March 31st, 2001

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Authorizations for the BHP Project:

In addition to the *Environmental Agreement*, BHP holds:

- *Class A Water Licence*
- *DIAND mining leases, land leases and land use permits*
- *Explosive Magazine Permit*
- *Harmful Alteration, Disruption or Destruction of Fish Habitat Authorization from the Department of Fisheries and Oceans*
- *Fish Habitat Compensation Agreement*
- *Navigable Waters Protection Act Authorization*
- *Government of the Northwest Territories (GNWT) Hazardous Waste Generator Registration*
- *GNWT Wildlife Research Permit*
- *GNWT Archaeologists Permits*
- *Socio-Economic Agreement with the GNWT, Department of Resources, Wildlife and Economic Development*
- *Impact and Benefit Agreements with affected aboriginal organizations*

Introduction

Welcome to the fourth Annual Report of the Independent Environmental Monitoring Agency (the Agency). This report describes the activities and involvement of the Agency from April 1st, 2000 to March 31st, 2001

The Agency was established to serve as an independent watchdog for environmental management at BHP's EKATI™ diamond mine. The mine is located at Lac de Gras in the central sub-arctic barrens of the Northwest Territories, approximately 300 km northeast of Yellowknife and close to the Nunavut border. The mine became operational in October of 1998, and is expected to continue operating for approximately 18 years. The original mine plan has been revised by the deletion of the Leslie kimberlite pipe and the addition of the new Sable, Pigeon and Beartooth pipes currently in the permitting process.

In 1996, after the diamond mine was proposed by BHP, a federal environmental assessment panel reviewed all aspects of the development. Environmental impacts of open pit mining of five kimberlite pipes and the associated construction, transportation, operation, waste disposal and reclamation were predicted. Public hearings were held to discuss the potential impacts on aquatic life, wildlife, terrestrial ecosystems (the land), permafrost, the climate, and traditional land-based economies, among others. Methods to protect the environment

were proposed and evaluated in order to determine the extent of these potential impacts and whether they could be minimized through mitigation and adaptive management. Scientific and traditional knowledge were both used to carry out the environmental assessment and to predict impacts.

The review panel recommended the diamond mine be approved, but with specific terms and conditions. As part of the approval process, a legally binding *Environmental Agreement* was created between BHP, and the federal and territorial governments. The BHP *Environmental Agreement* establishes provisions for monitoring and facilitates input to management practices of the mine that are not covered in other authorizations. The *Environmental Agreement* also includes provisions for the creation of the Agency and for defining its mandate. In addition, the Dogrib Treaty II, the Akaitcho Treaty 8, the North Slave Metis Alliance, and the Kitikmeot Inuit Association participated in the negotiation and implementation of the BHP *Environmental Agreement*. Participation of aboriginal groups was essential as the mining activities have the potential to affect their land-based economies and traditional territories.

About Mining at BHP

BHP is mining diamonds on its claim block north of Lac de Gras in the barrenlands of the Northwest Territories. The diamonds are contained in large carrot-shaped geological formations called kimberlite pipes, extending over 300 metres below the ground. Most of the pipes BHP is mining are located beneath lakes.

The mining approach used by BHP is called open pit mining. The lakes above the pipes are first drained and the sediments from the bottom are removed. Explosives are used to blast the rock before removal to waste rock piles, or a process plant where diamonds are removed from the kimberlite ore portion of the rock.

Processed kimberlite is stored in two locations: a containment area called the Long Lake Containment Facility holds the fine processed kimberlite, and land-based piles within the waste rock dump footprints are used for the coarse kimberlite.

Other facilities such as an accommodation camp, roads, waste management plant, landfill site, truck shop, and office complex are also a part of the main camp.

Over the last year the BHP development has grown substantially and BHP is now mining, or preparing for mining, three kimberlite pipes (Panda, Koala and Misery). BHP is also currently seeking approval from the Mackenzie Valley Land and Water Board to mine the Fox pipe, and three new pipes (Pigeon, Sable and Beartooth).





An important part of the Agency's mandate is to bring the concerns of aboriginal organizations, and the public at large to BHP, governments and regulators.

About the Agency

The Independent Environmental Monitoring Agency (the Agency) was established in 1997 to act as a watchdog of environmental management at BHP's EKATI™ mine. Article IV of the *Environmental Agreement* signed by BHP, the Government of Canada and the Government of the Northwest Territories described the composition and mandate of the Agency. The Agency was formally established through the creation of a not-for-profit society under the NWT Societies act. The By-laws of the society describe the administrative details for the operation of the Agency.

The Agency is composed of a board of seven directors (including a chair, vice-chair and secretary-treasurer) appointed directly by the members of the society: Akaitcho Treaty 8 (Lutsel K'e Dene First Nation and the Yellowknives Dene First Nation), BHP, Department of Indian Affairs and Northern Development, Dogrib Treaty II, Government of the Northwest Territories, Kitikmeot Inuit Association and North Slave Metis Alliance. The Board is assisted by a staff of two: a manager and communications administrator.

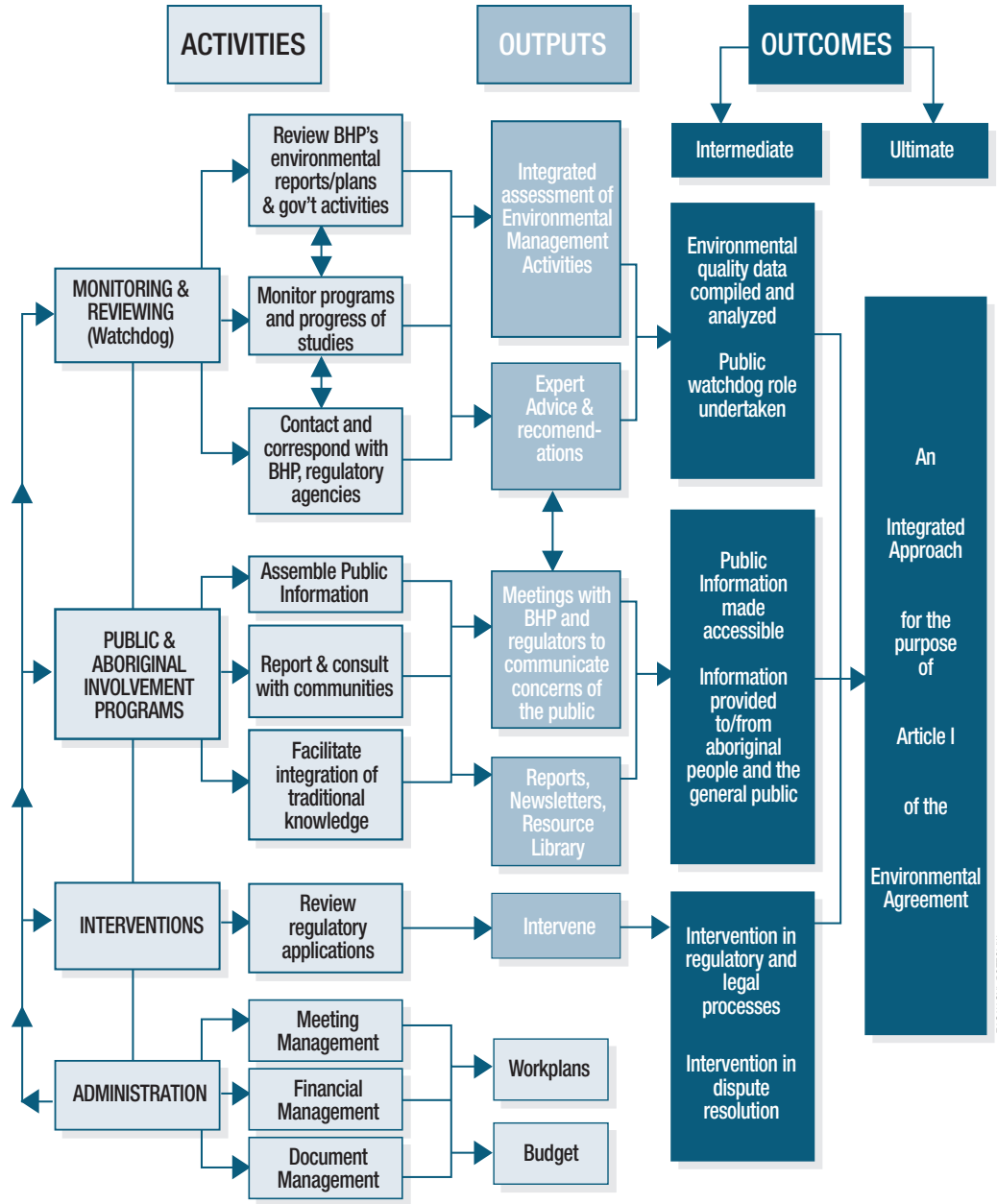
An important part of the Agency's mandate is to bring the concerns of aboriginal organizations, and the public at large, to BHP, governments and regulators. The Agency is also responsible for reviewing management and monitoring reports and acting as an

intervenor in regulatory applications made by the company in relation to the project.

The Agency carries out its watchdog mandate through a variety of operations, including the review of BHP's environmental plans and reports, reviewing government reports, monitoring the progress of studies and keeping regular contacts with BHP and regulatory agencies. Public and aboriginal involvement programs include assembling and distributing information, reporting to and consulting with communities, and acting as a facilitator for the integration of traditional knowledge into environmental plans and reports. The Agency carries out interventions in regulatory processes where necessary.

The staff of the Agency carry out administrative functions such as communicating with various organizations, analysis of environmental data, overall coordination of the Agency's activities, finances, and management of a resource library.





Agency Activities, Outputs and Outcomes

The Agency must carry out many activities to achieve the mandate set out in the Environmental Agreement. These include programs to: monitor and review BHP and government's activities, involve aboriginal people and the public, intervene in regulatory processes and carry out the day to day administrative functions of the Agency.





2000 – 2001 Year in Review

Over the past year, the Agency has spent considerable effort following the on-going environmental issues at the mine site. The Agency was actively involved in providing advice and recommendations to BHP on the Aquatic and Wildlife Effects Monitoring Programs. The Agency also hosted a meeting of regulatory authorities and the company to discuss emerging water quality issues identified in BHP's 1999 Waste Rock Seepage Survey. We have also been directly involved in the environmental review of the proposed Sable, Pigeon and Beartooth pipe open pit mines and Fox pipe development. Further efforts have also been made to improve communication between the Agency and its members.

April 2000

- The Agency submitted comments and recommendations to BHP on the Aquatic and Wildlife Effects Monitoring Program workshops held February 7th – 11th, 2000.
- The Agency hosted a meeting of regulatory authorities, BHP and others to discuss the results of the 1999 seepage surveys around the waste rock dumps.

May 2000

- The Agency wrote to the Mackenzie Valley Land and Water Board (MVLWB) concerning the apparent lack of implementation of BHP's required geochemical testing program in the operating pits.

- The fourth issue of the EKATI™ Monitor, the Agency's newsletter, was published.
- The Agency submitted comments to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) on the conformity of BHP's Environmental Assessment Report for the Sable, Pigeon and Beartooth pipe extension with the MVEIRB's Environmental Assessment Terms of Reference.
- John Holman, the Communications Assistant, pursued other employment opportunities with the Inuit Tapirisat of Canada.

June 2000

- The Agency submitted comments to the MVLWB on BHP's application to amend its water licence in order to dewater and mine the Fox pipe.
- The Agency submitted comments to the Minister of DIAND on the adequacy of BHP's 1999 Annual Environmental Report for the EKATI™ Project.
- The third Annual Report of the Agency, covering the 1999-2000 fiscal year, was released.
- The 19th Meeting of the Board of Directors was held in Yellowknife June 25th – 27th. The Agency discussed the Fox Pit amendment, the Sable, Pigeon and Beartooth Extension and BHP's Impact 2000 report.

- The Third Annual General Meeting of the Agency was held on June 26th in N'dilo. The Macleod Institute's evaluation of the Agency was reviewed and society members provided input for future activities.
- The Directors visited the mine site on June 27th.
- Director Fikret Berkes met with community members and elders in Lutsel K'e and discussed BHP's management and monitoring, with a focus on caribou.
- Director Bill Ross presented a paper on the Agency at a conference in Hong Kong.

July 2000

- The Agency reviewed BHP's first assessment of the project's impacts, a report required by the *Environmental Agreement* every three years during the life of the project.

August 2000

- Director Tony Pearce attended a meeting at the mine site regarding the on-land water disposal proposed for the Fox pipe development.
- Director Red Pedersen met with Kitikmeot Inuit Association Board of Directors.

- Zabey Nevitt was hired as the new manager, following the departure of Alexandra Thompson.

September 2000

- The North Slave Metis Alliance appointed Dr. Marc Stevenson as a director of the Agency replacing Dr. Fikret Berkes.
- The 20th Meeting of the Board of Directors was held in Yellowknife September 16th – 17th. The Agency reviewed BHP's new 2000 Operating Environmental Management Plan, environmental information about the new Sable, Pigeon and Beartooth pipes, and waste rock seepage surveys.
- The Agency conducted a technical review of BHP's Environmental Assessment Report for the proposed Sable, Pigeon and Beartooth mines, and submitted comments to the MVEIRB.
- The Manager, Zabey Nevitt, presented the Agency's submission on the new pipes to the Review Board at the September 26th public meeting in N'dilo on the Sable, Pigeon and Beartooth pipe development.



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October 2000

- The Agency hired Robin Staples as the Communications Administrator.
- The Agency conducted a technical review of BHP's Waste Rock and Storage Management Plan.

November 2000

- Director Marc Stevenson met with Clem Paul and Bob Turner of the North Slave Metis Alliance.
- The 21st Meeting of the Board of Directors was held in Yellowknife November 10th – 12th. The Agency met with the DIAND inspector on the various developments at the mine, DFO on the King Pond Fisheries Authorization, BHP on reclamation, and RWED on the Bathurst caribou monitoring project.

December 2000

- The fifth issue of the EKATI™ Monitor, the Agency's newsletter, was published.
- The Agency office relocated from the lower level to the second floor of the 50-50 Mini Mall next to Our Place Restaurant.
- Director François Messier and Manager Zabey Nevitt attended the Bathurst Caribou Management Planning Committee public workshops in Rae on December 14th - 15th.

January 2001

- The Chair of the Agency, Red Pedersen, moved to Yellowknife temporarily to make himself available for a portion of the year to meet with representatives from our member communities and offered to make community visits at their convenience.
- The Agency submitted its comments to BHP on BHP's proposed revisions to its Operating Environmental Management Plan.
- Director Red Pedersen met with the president of the Kitikmeot Inuit Association.
- Director Marc Stevenson met with Chris Hanks of BHP to discuss implementation of traditional knowledge at EKATI™.
- The Manager attended the NWT Cumulative Effects Assessment and Management Framework workshops held January 23rd – 25th.

February 2001

- The 22nd Meeting of the Board of Directors was held in Yellowknife February 3rd – 4th and 7th. The Agency discussed the MVEIRB public meeting process with Tim Byers, a consultant to the Yellowknives Dene First Nation. We also reviewed the 2001 Aquatic and Wildlife Effects Monitoring Programs, the Fox Pipe application and improved communications with society members.

- Directors participated in the annual workshops hosted by BHP on the Aquatic and Wildlife Effects Monitoring Programs.
- The work plan and core budget were finalized.
- Director Red Pedersen and the Manager attended the NWT Cumulative Effects Assessment and Management Framework workshop held February 8th.
- Zabey Nevitt attended the Colomac Mine water licence cancellation hearing on February 28th, the first public hearing held by the MVLWB.

March 2001

- The Agency submitted its comments to the MVLWB on the supplementary information package for the Fox pipe amendment application.
- The Agency issued a discussion paper on the requirements of a regional, cumulative effects monitoring body that could perform the public watchdog role for the Slave geological province.
- The Manager and Directors Red Pedersen, Marc Stevenson and Pete McCart met with Lutsel K'e Wildlife, Lands and Environment Committee, March 15th to discuss community concerns regarding development at EKATI™.
- The Chair and the Manager attended the Regulatory Conditions Workshop hosted by the MVLWB on March 20th – 22nd.

- Dr. Kevin Morin conducted an independent technical review of BHP's 2000 seepage survey data on behalf of the Agency.
- The 23rd Meeting of the Board of Directors was held in Yellowknife March 30th–April 1st. The Agency discussed the various developments at the mine site with the DIAND inspector, and met with BHP and RWED on the recent Aquatic and Wildlife Monitoring Program workshops.
- The Manager and Directors, Red Pedersen and Marc Stevenson, met with the Environmental Monitoring Advisory Board for the Diavik Project.
- Director Marc Stevenson met with Bob Turner of the North Slave Metis Alliance and Allice Legat of the Dogrib Treaty II Council to discuss issues related to Phase II traditional knowledge studies and the incorporation of traditional knowledge and aboriginal people into BHP's environmental management and monitoring programs.



K. ROULF/RWED/NWT



AGENCY

Listening to Our Members

In January 2001 a letter was sent to all our members indicating the Agency's willingness to meet at any convenient time and location.

One of the key principles in establishing the Agency was to develop a forum for aboriginal members to bring to BHP and government concerns and comments about the mine, and how it may affect the environmental quality of the land, water and wildlife. In an evaluation carried out of the Agency (the Macleod evaluation reported in last year's annual report) members expressed some concern that the Agency has not fully carried out its mandate in this regard.

To communicate with our members, the Agency has carried out a number of activities, including: distributing written correspondence, such as newsletters and annual reports, developing and maintaining a

website, regularly meeting with our government members and BHP at the inter-agency coordinating team meetings, as well as hosting or presenting at hearings, workshops and community meetings. The Agency will continue to develop forums and processes that will increase the effectiveness of the Agency's communication activities.

One action undertaken by the Agency, is the increased availability of the Chair, Red Pedersen, to meet with community leadership, land and environment committees or other community representatives. In January 2001, a letter was sent to all of the Agency's members indicating this availability and willingness to meet at any convenient time and location.

In response to our letter an invitation was made to the Agency to meet with the Lutsel K'e Wildlife, Lands and Environment Committee. In this meeting in Lutsel K'e the Agency listened to concerns about the EKATI™ project and the proposed expansion. Agency representatives have also met with other aboriginal groups to discuss issues relating to the use of traditional knowledge in BHP's environmental monitoring programs.

Red Pedersen has also met on several occasions with individuals from BHP, government and other agencies and community organizations. A very productive meeting was held with the



D. HEAD/INWEG/INMT



Environmental Monitoring Advisory Board for the Diavik project, which includes representation from the majority of our members. Positive discussions focused on areas for future cooperation.

Agency representatives also attended the Bathurst Caribou Management Working Group workshop in Rae-Edzo, where delegates from all of our members gathered to discuss issues relating to the management and monitoring of the Bathurst caribou herd.

At our Board meetings, we frequently hear concerns about the EKATI™ mine from our members. Because we also meet with BHP at these meetings, we are often able to pass on concerns of our members on the same day as we hear them. In this way, we are able to fulfill our role in conveying concerns about the mine to BHP.

The Agency office is open to all of our members to visit and talk with our staff, or carry out research. In the last year extensive work has been carried out to improve the quality of our resource library, and work is beginning to upgrade the Agency's website.

Efforts will continue in the next year to improve the Agency's communication activities. It is hoped that new opportunities will arise for the Agency to offer its expertise and work with members of the communities. These activities will help us to fulfill our mandate as detailed in the *Environmental Agreement* and address the concerns spelled out by our members in the MacLeod evaluation.



Traditional Knowledge

“...BHP shall incorporate all available traditional knowledge in the Environmental Plans and Programs and shall give all available traditional knowledge full consideration along with other scientific knowledge as the Environmental Plans and Programs are developed and revised.” *Environmental Agreement* Article XI; Section 3



R. POPOK/REVIEW/AMT

The ecological knowledge that many aboriginal people possess may make significant contributions to environmental management and monitoring at EKATI™. While BHP has begun to include aboriginal peoples into its programs, many aboriginal people have expressed to the Agency that their knowledge has yet to be given the same consideration as western scientific knowledge in BHP's environmental management and monitoring activities.

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Issues and Challenges in Traditional Knowledge Research

Many challenges continue to confront BHP's efforts to incorporate the traditional knowledge of aboriginal people into the environmental management of the project. These challenges include: developing appropriate traditional knowledge (TK) collection methods; effectively applying TK to environmental management; addressing issues of ownership of TK; and addressing aboriginal concerns that more respect be given to TK.



JEANETTE LOONHART/AMT/ISEL K'E DENE FIRST NATION

The Agency's Activities

The Agency's mandate requires it to “review, report or make recommendations concerning ... the integration of traditional knowledge and experience ... into (BHP's) environmental plans and programs” (*Environmental Agreement*, Article IV; Section 2). In partial fulfillment of this mandate, over the last year Agency directors have met with personnel from BHP, Dogrib Treaty II

Council, Akaitcho Treaty 8, North Slave Metis Alliance and the Kitikmeot Inuit Association. Discussions centred around: 1) determining the efficacy of existing Phase II Traditional Knowledge studies to meet the needs of both the aboriginal communities and BHP, and 2) assessing BHP's performance regarding the inclusion of aboriginal peoples and their knowledge into its environmental and monitoring programs.

Phase II Traditional Knowledge Studies

The Agency compliments BHP for supporting Phase II Traditional Knowledge Studies with its aboriginal members. The North Slave Metis Alliance, Kitikmeot Inuit Association and Lutsel K'e Environment and Lands Committee are currently in the process of undertaking traditional land use studies that may assist BHP and their respective organizations in environmental management. The Dogrib Treaty II Council has recently submitted a report to BHP documenting critical habitat in the vicinity of EKATI™ from a perspective that is both holistic and reflective of Dogrib ecological understandings and relationships.

These studies have begun to contribute baseline information on traditional land-use activities and, to a lesser extent, ecological knowledge about valued ecosystem components that may prove valuable in BHP's environmental planning. The Agency also notes that these studies have enhanced the skills and capacity of local aboriginal people to take ownership of such research, and to engage BHP, government and other industrial developers on issues of environmental assessment, management and monitoring. For these reasons, the Agency encourages BHP to continue to support Phase II Traditional

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PHOTO: INUIT

Knowledge studies. The Agency looks forward especially to studies that develop traditional knowledge baselines that will assist BHP and regulators to determine if changes in the abundance, distribution, behaviour, health and condition of various valued ecosystem components are the result of natural variation or impacts of the mine.

BHP has involved Inuit and their knowledge in wolverine monitoring programs and lake fish-out studies.

Other Uses of Traditional Knowledge by BHP

In addition to Phase II Traditional Knowledge studies, BHP has also involved Inuit and their knowledge in wolverine monitoring programs and lake fish-out programs.

The success of these programs is due in large part to the role of Inuit in both their design and implementation. Dene and Inuit elders have also provided advice concerning the placement of caribou crossings along the Misery road (see photo below), and participated in the monitoring and evaluation of crossings. In addition, as described in BHP's 2000 Annual Environmental Report, it is apparent that the concerns of elders are beginning to be incorporated into BHP's wildlife and vegetation studies.



Some Potential Areas for the Inclusion of the Knowledge of Aboriginal Peoples Include:

- Providing baseline information about important species to monitor project-related changes in behaviour, movements, distribution and health.
- Providing baseline knowledge about the ecological relationships between critical species and habitat in the vicinity of EKATI™.
- Given the emerging problems with carnivores and caribou, providing knowledge about what conditions are necessary to repel or detract various animals from entering the mine site.
- Determining what variables should be used to monitor and measure mine effects on various species of wildlife and fish.
- Participating in the design and implementation of effects monitoring programs, including observation, interpretation and analysis.
- Participating in the mitigation of mine impacts.
- Contributing priorities, values and knowledge to assist in reclaiming and recreating disturbed habitat.

Looking to the Future

While BHP's current efforts represent a start towards incorporating aboriginal people and their knowledge into BHP's plans and programs, such efforts alone are not enough. The Agency strongly encourages BHP and the aboriginal members to work together to develop a more formal process or mechanism that will facilitate mutual exploration of solutions.

In the last year, the aboriginal members have expressed a greater willingness to work with BHP towards incorporating their traditional knowledge into effective environmental management at EKATI™. In this coming year we will continue working with our aboriginal partners and with BHP to determine the best method for reaching this goal.

Traditional Knowledge Recommendation

1. *The Agency recommends that:*
 - 1) *aboriginal parties meet to develop consensus where they and their knowledge best fit into BHP's environmental management and monitoring programs, and*
 - 2) *aboriginal members and BHP work together to develop more effective means to incorporate aboriginal people and their ecological knowledge into BHP's planning and operations. The Agency, if requested, would be available to assist in these initiatives.*



C. CALVERT/REUTERS

Wildlife Effects Monitoring Program

Activities at the mine site, including blasting, road construction, traffic, pit excavation and waste rock pile development all have the potential for directly or indirectly affecting wildlife that passes through the claim block.

The Wildlife Effects Monitoring Program was developed by BHP (in consultation with others), as a requirement of the *Environmental Agreement*. Monitoring results are compared against original impact predictions, and provide an opportunity to evaluate the effectiveness of mitigation measures, to assess residual impacts on wildlife, and to adapt environmental management practices where appropriate.

Outline of Studies

BHP's Wildlife Effects Monitoring Program was initiated in 1997. In 2000 the monitoring program focused on seven valued species, or groups of species, and their habitats.

The monitoring activities took place within a 1,600 km² study area. Separate programs were designed for each of the seven valued species or groups of species. Methods of survey included: aerial surveys, ground surveys and behavioural observations. Some mine site activities, such as vehicle speeds and landfill attractants were also monitored.

- | |
|-------------------------|
| • Caribou |
| • Grizzly bears |
| • Wolves |
| • Wolverines |
| • Upland breeding birds |
| • Loons |
| • Raptors |

The Wildlife Effects Monitoring Program provides an opportunity to evaluate the effectiveness of mitigation measures, assess residual impacts and adapt environmental practices where appropriate.

Effects of Mining on Wildlife

The Wildlife Effects Monitoring program indicates that current mining activities are having no measurable effect on the abundance, distribution, or group composition of caribou, the presence of grizzly bears, den use of wolves, wolverines, distribution of breeding raptors or the abundance of upland breeding birds. BHP reported that female caribou with young tended to feed less when close to the mine infrastructure.

Habitat loss remains as one of the most significant direct impacts of the mine. A total of 695 hectares (6.95 km²) of habitat was destroyed by the end of 2000. A total of 18 hectares of habitat has been the subject of reclamation activities so far.

Caribou surveys indicated that a peak of approximately 17,000 caribou (4.5% of the herd) were observed in the study in May 2000 during the northern migration. However relatively few, never exceeding 2000 caribou (0.5% of the herd), were present in the study area during the southern migration.

Problems with carnivores have occurred at a number of camps in the region in 2000. At the Misery camp two wolverine were relocated or killed and eight foxes and a grizzly cub had to be destroyed. These problems appear to be related to inadequate waste management practices at the camp.

Agency's Assessment of the Wildlife Effects Monitoring Program

Overall the Agency sees the 2000 Wildlife Effects Monitoring Program report as an improvement over the previous year. The Agency is pleased to see multi-year trend analyses, and refinements to the grizzly and wolverine monitoring programs. BHP's stated willingness to develop common monitoring protocols with other companies, such as Diavik, is important. Only through such cooperation can any kind of effective cumulative effects monitoring program be developed in the region of Lac de Gras.

A number of issues arose in 2000 that concerned the Agency. These issues were raised with the company at the monitoring workshops and have been discussed in subsequent meetings and correspondence.

The Agency is concerned about the problems that BHP and other operators have had with wolverines, and the waste management issues that resulted in a grizzly cub being destroyed. The Agency considers this issue to be a significant adverse cumulative effect. The Agency fully supports the recommendations made by the Department of Resources Wildlife and Economic Development in calling for a thorough review and stricter enforcement of waste management practices to avoid these situations. For further comments and recommendation, please see the section on Cumulative Effects.

The Agency is still concerned about the limited involvement of elders in the monitoring programs. Last year, we made a recommendation that BHP "fully consider the concerns of elders in adapting its wildlife monitoring program...". BHP did not provide updates or study plans addressing the concerns of the elders. Furthermore, a shortened annual monitoring workshop schedule has increased the problems faced by community members in participating effectively and getting their concerns across to the company.



Aquatic Effects

AEMP/SEMP Glossary

For the following sections, a glossary is provided to explain technical terminology.

Phytoplankton/Periphyton

Microscopic plants, such as algae, found in aquatic environments (e.g. oceans, rivers, lakes and ponds).

Zooplankton

The small, almost microscopic animals that live suspended in aquatic environments. Zooplankton feed on phytoplankton.

Benthic macroinvertebrates

Invertebrate organisms (i.e. those without a spine – insects, worms, mollusks, etc.) that live on the bottom of rivers, lakes and ponds.

Downstream changes in the Koala watershed geochemistry and aquatic environment are now being detected and the potential exists for these effects to reach Lac de Gras in the foreseeable future.

Aquatic Effects Monitoring Program



The Aquatic Effects Monitoring Program (AEMP) carried out within the BHP claimblock is designed to detect any adverse effects that the EKATI™ Mine has on surrounding aquatic ecosystems. BHP determines significant effects resulting from project activities by comparing baseline data collected prior to construction activities (1994 through 1997) with later data, and by comparing potentially affected lakes to reference lakes (those not affected by mine activities).

The AEMP is designed to measure various physical, chemical and biological variables, which represent vital features of aquatic ecosystems, and serve as indicators of fish and ecosystem health. Results are then supposed to be evaluated by BHP's environmental management system such that actions can be taken if required to minimize or correct any adverse effects.

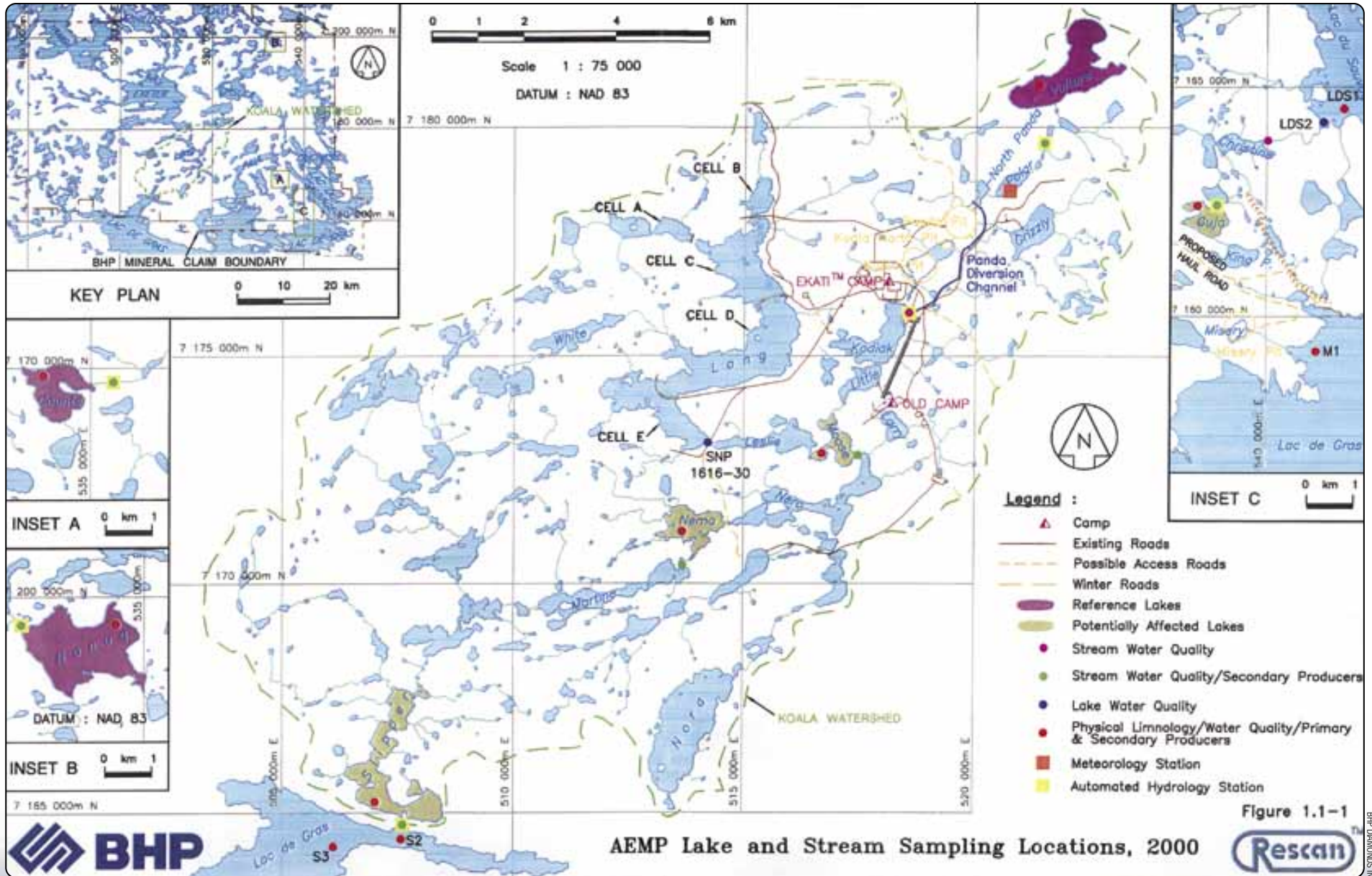
Outline of Studies

In 2000, the study sites (Figure 2 on the next page) included reference and affected lakes within and outside the Koala watershed, potentially affected lake sites in Lac de Gras and Lac du Sauvage and a number of applicable outflow stream sites. The year 2000 was the third year of post-baseline data collection at all AEMP lake and stream locations within the Koala drainage, the two reference areas outside of the Koala drainage, and in the receiving environment of Lac de Gras. The year 2000 was also the second year of baseline monitoring within the King-Cujo drainage at the Misery site.

Sampling for the AEMP was conducted during July, August and September 2000 and included an assessment of meteorology, hydrology, lake and stream water quality, physical limnology, *phytoplankton* (*periphyton* in streams), *zooplankton*, and lake and stream *benthic macroinvertebrates*. Lake sediments and lake fish communities were not monitored in 2000.

Effects of Mining on the Waterbodies Studied

Although not predicted in BHP's 1995 Environmental Impact Assessment, downstream changes in the Koala watershed geochemistry and aquatic environment are now being detected. The observed effects include depressed oxygen levels in certain lakes, increases in phytoplankton abundance and slight increases in the concentrations of selected metals.



Aquatic Effects

AEMP/SEMP Glossary

Nitrate

A nutrient, like a fertilizer, derived from nitrogen.

Phosphorous

A plant nutrient that can cause rapid bacteria and algae growth when present in high amounts, leading to eutrophic conditions.

Eutrophication

The addition of excessive amounts of nutrients (usually nitrates and phosphates) to water bodies, which causes rapid growth of plants and leads to lower oxygen levels and potentially fish kills.

BHP has concluded that the “effects detected were a result of nutrient enrichment rather than typical mining issues involving metals”. Among nutrients, the most pronounced effect involved an increase in *nitrate* concentrations at Moose and Nema lakes and to some extent Slipper Lake. These increases resulted from discharges from the Long Lake containment facility, past treated sewage inputs to Kodiak Lake and, to a lesser degree, sediments from the Panda Diversion Channel. Nitrate originates in the nitrogen based explosives used in mining and will almost certainly remain elevated as long as mining continues. A second important nutrient, *phosphorous*, seems to have been unaffected by mining activities. Among metals, concentrations of arsenic, copper and nickel all appear to be higher than pre-project levels at some monitored sites.

Since mining began, oxygen levels have been decreasing in monitored lakes within the Koala drainage (i.e. Moose, Nema and Slipper) indicating some degree of *eutrophication*, presumably largely the result of nutrient inputs. These oxygen shortages stabilized in Moose Lake in the winter of 1999/2000, though there was a continuing small decline in Slipper and Nema lakes. BHP concludes that Moose Lake is now either stable or recovering. Slipper Lake has been only slightly affected, and Nema Lake has been most affected by oxygen deficits.

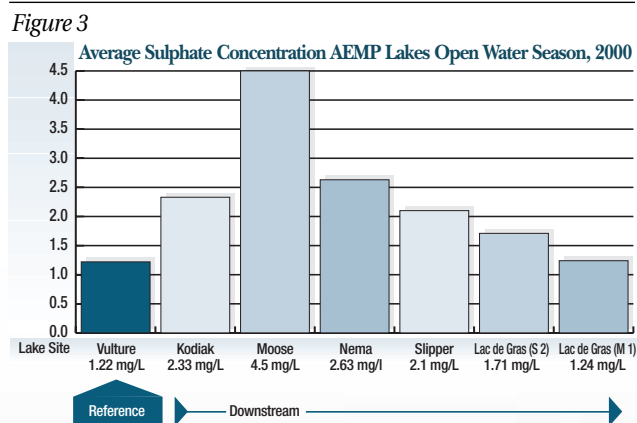
Phytoplankton has increased in abundance in both Nema and Slipper lakes since the baseline years and diversity has declined in Nema Lake. This is most likely as a result of eutrophication. Neither



the zooplankton or benthic macroinvertebrate communities in the monitored lakes have been demonstrably affected by project activities. As long as BHP continues to control the introduction of phosphorus by routing sewage to the Long Lake containment facility, lakes within the Koala watershed are expected to recover from the effects of eutrophication. There is also no clear evidence of changes to benthic macroinvertebrate communities in monitored streams resulting from mining activities and no significant effects were detected at the Lac de Gras monitoring stations in 2000.

Agency's Assessment of the Aquatic Effects Monitoring Program

The information available suggests that the project is having effects as far downstream as the Slipper Lake outlet in the Koala drainage and the potential exists for these effects to reach Lac de Gras in the foreseeable future, as development within the Koala watershed continues. In addition, except for oxygen concentrations, the AEMP water quality data do not include winter data, when it is likely that the concentrations of some potentially toxic substances (e.g. copper, zinc and ammonia) become elevated under winter ice. As well, the precise sources of these and other substances, which are being detected and influencing water quality, are not being analyzed. An example of this is seen in Figure 3, and shows average concentrations of sulphate, a substance associated with mining operations, during the open water season in AEMP lakes in the Koala drainage and at two locations in Lac de Gras. The distribution of values observed is typical of a situation in which there is a relatively concentrated source of contaminants. The highest average concentration is in Moose Lake, which receives waters from both Kodiak Lake (via Little Lake) and from the Long Lake



containment facility (via Leslie Lake). The distribution suggests that the latter is the main source of sulphate, but this has not been sufficiently analyzed or reported by BHP. Overall, it appears at this time that the impacts detected are not yet considered serious and have been managed adequately. However, more data and studies are required to confirm this and to prevent significant adverse environment effects from occurring.

Aquatic Effects Monitoring Program Recommendations:

2. The Agency recommends that BHP expand the Aquatic Effects Monitoring Program to include a full range of water quality data in the winter months for all AEMP and SEMP lakes.
3. The Agency recommends that BHP analyze and determine the sources of substances affecting water quality by using the full range of data from all programs and studies that collect water quality data at the site (i.e. aquatic and special effects monitoring programs, seepage surveys, snow surveys etc.).

AEMP/SEMP Glossary

Aerators

Mechanical pumps that add oxygen to a body of water.

Effluent

Waste Water that flows into a receiving body of water.

Winter oxygen levels and water quality in Kodiak Lake have improved modestly following the termination of sewage discharge and through continued aeration.

Special Effects Monitoring Program

BHP entered into a Fish Habitat Compensation Agreement with the Department of Fisheries and Oceans (DFO) in December 1996, in response to the harmful alteration and destruction of fish habitat resulting from the loss of lakes and streams in the Koala drainage. Under this agreement, BHP was required to conduct special studies to determine and monitor the impacts of mine developments on water and fish in Kodiak Lake and the Panda Diversion Channel.

Kodiak Lake Sewage Effects Study

The objective of the Kodiak Lake Sewage Effects Study is to determine if the operation of the mine (treated sewage discharge in particular) has had any significant aquatic effects on Kodiak Lake. Follow-up monitoring in 2000 was conducted to identify effects of nutrient inputs, with the added scope of determining the recovery status of the lake and how to best enhance this recovery.

Treated sewage was discharged from EKATI™ camp to Kodiak Lake from April 1997 to January 1999. Soon after the discharge began, there were problems in Kodiak Lake involving severely reduced oxygen concentrations during winter. BHP quickly installed surface *aerators* for the remainder of 1997 winter, and has repeated the procedure every winter since. In January of 1999, BHP halted the disposal of its treated sewage *effluent* to Kodiak Lake, and re-routed it to the Long Lake containment facility. DFO's original authorization required BHP to undertake a three-year study of the effects of



BHP PHOTOGRAPHY INC.

discharge of treated sewage effluent on Kodiak Lake. The studies (1997 – 1999) found that Kodiak Lake had been affected by nutrient loading (principally phosphorous) from sewage discharge and from nutrient-rich sediments originating in the Panda Diversion Channel.

A fourth-year follow-up study was conducted in 2000, to evaluate any remaining effects on Kodiak Lake. The results of the 2000 Kodiak Lake Sewage Effects Study are reported as follows:

- Water quality in Kodiak Lake has improved since sewage discharge was terminated, although nitrate concentrations were elevated relative to reference lakes, likely due to inputs from Panda Diversion Channel (i.e. blasting residues).
- Elevated phytoplankton biomass and abundance levels were also detected in 2000 relative to baseline and reference lake levels.
- No effects were detected for zooplankton, but benthic macroinvertebrate biomass and density values remained elevated.
- Winter oxygen concentrations have increased modestly as a result of continued aeration and the lake appears to be recovering slowly from the effects of sewage disposal and nutrient loading.
- Little Lake, immediately downstream of Kodiak Lake, was also affected from nutrient inputs, though to a lesser extent than Kodiak Lake, and also appears to be slowly recovering from the effects of eutrophication. It too is aerated in winter.



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While Kodiak Lake has shown evidence of recovery, it will probably not fully return to pre-project conditions as long as the mine remains in production.

Agency’s Assessment of the Kodiak Lake Sewage Effluent Study

While Kodiak Lake has shown evidence of recovery, it will probably remain more eutrophic than its baseline status as long as it is receiving inputs from the Panda Diversion Channel and the mine remains in production. The Agency agrees with BHP that Kodiak Lake studies should continue in 2001 with the following additions:

- There needs to be greater emphasis on water quality sampling during the winter period; and
- BHP should present and interpret data describing metal concentrations in Kodiak Lake. These are absent from the 2000 Kodiak Lake Sewage Report.

AEMP/SEMP Glossary

Larvae

A fish that has recently hatched from an egg, still has a notable external yolk sac, and typically looks physically very different from an adult.

Fry

A baby fish that is fully formed, usually less than one year old, has absorbed its yolk sac, and is rearing in the stream.

Panda Diversion Channel

In order to mine the kimberlite pipes located underneath the Panda and Koala lakes, the Panda Diversion Channel was built to divert water around the lakes before they were drained. BHP constructed the Panda Diversion Channel (PDC) in 1994 to maintain the connection, to provide fish passage between North Panda Lake and Kodiak Lake and to provide stream fish habitat to compensate for lost streams.

The year 2000 represents the third consecutive year that created and enhanced fish habitat within the 3.4 km long channel has been monitored and improved. The 2000 fieldwork resulted in the following conclusions:



- Peak flows occurred during the first two weeks in June 2000 and likely represented an average year freshet.
- Numbers of arctic grayling migrating into the PDC from Kodiak Lake increased from those observed in 1998 and 1999 and more grayling migrated through the entire channel between Kodiak Lake and North Panda lakes in 2000.
- More arctic grayling entered the channel to spawn in 2000 than in previous years. Spawning was successful and resulted in more *larvae* and young-of-the-year grayling than in previous years.
- Other species using the channel in 2000 included lake trout, burbot, slimy sculpin, and round whitefish.

- Benthic macroinvertebrate and periphyton biomass and diversity continue to increase in the PDC from that observed in previous years, but still remain significantly lower than that seen in natural streams.
- The channel is providing sufficient nursery habitat for larval grayling growth and egg-to-fry survival appears to be good. However, once they begin to feed, young-of-the-year grayling in the channel grow more slowly than those in natural streams, attaining average weights of only about 1.0 gram in late August, compared with 1.5 grams to nearly 4.0 grams for young-of-the-year grayling reared elsewhere within the Koala Drainage.

Agency's Assessment of the Panda Diversion Channel

The channel continues to attract spawning grayling as well as other fish, and habitat enhancements in the channel appear to be working to provide useable habitat for arctic grayling. Unfortunately, as growth is a good indicator of environmental condition, the low growth rate of arctic grayling in the channel and small size of young-of-the-year may negatively affect survival of channel-reared



grayling fry by reducing their ability to compete with other young-of-the-year grayling reared outside the channel. Determining whether slow growth rates adversely affect survival of young-of-the-year grayling rearing in the diversion channel should be a high priority of the special effects monitoring program for 2001.

Increasing numbers of arctic grayling are entering the channel and successfully spawning.

Special Effects Monitoring Program Recommendation:

4. *The Agency recommends that BHP place priority in 2001 on determining whether the very slow growth rates of young-of-the-year grayling rearing in the diversion channel adversely affect their survival.*

Waste Rock Glossary

Waste Rock

Rock too low in grade to be mined or processed economically.

Seepage

Water flowing out of or across waste rock dumps.

Acid Rock Drainage

Drainage from rocks that has a high acid content which in turn can dissolve and mobilize metals in the rock. Both acidity and metal contamination can lead to adverse impacts to water and fish.

Precipitation

Rain or snow etc. falling to the ground.

Sulphide Oxidation

The chemical breakdown of sulphide minerals through exposure to oxygen and water. The reaction produces sulphuric acid in mine drainage.

Hydrogeological Investigations

Studies that investigate how water (i.e. groundwater) moves through rock and soil.

Waste Rock

Mining activities at EKATI™ result in large amounts of *waste rock* being brought to the surface and permanently deposited there. From April 2000 to February 2001 over 30 million tonnes of waste rock were produced from the Panda, Koala and Misery pits. Waste rock is rock that surrounds the kimberlite pipe and since it does not contain diamonds it is not put through the process plant, but instead stored near the pits where it is mined. Waste rock at the mine is comprised of a mix of granite, schist and other rock types.

Waste rock is deposited in large piles or “dumps” which will grow to up to 50 metres above the natural profile of the landscape and cover large areas of ground. Currently, dumps are being developed next to the Panda and Misery pits.

Environmental concerns about waste rock focus on several key areas. Most important are the ability of wildlife to pass over or around without injury, and the potential for the contamination of waters flowing over or through the piles. The management practices and monitoring programs that BHP has designed and implemented to prevent water quality problems are detailed in its Waste Rock and Ore Storage Management Plan, a document required by its Class A water license, and requiring approval at regular intervals by the Mackenzie Valley Land and Water Board (MVLWB). The Agency, as well as other agencies, comments on this plan as revisions appear.

Agency’s Assessment of Panda Waste Rock Management

Last year the Agency reported on emerging water quality issues relating to *seepage* from the Panda rock dumps at the mine site. Early 1999 data collected from water seeping from the waste rock piles alerted the Agency to incidences of high acidity in a few cases, and a possible mobilization of some metals.

The Agency notified BHP about the possibility that *acid rock drainage* may be developing in the waste rock, and hired an independent consultant (Kevin Morin of the Mine Drainage Assessment Group) to review the data and provide an opinion as to the possible causes of the high acid levels.

Our consultant's report confirmed our early worries that high acid levels might be resulting from the oxidation of sulphide materials in the rock. As a result of these findings, and concerns of regulators, the Agency sponsored a geochemistry workshop in April 2000 to review possible explanations for causes of acidic waste rock drainage.

At the workshop BHP's consultant identified several potential causes of the high acid drainage, including: naturally acidic tundra pond water, acidic *precipitation* and the oxidation of iron sulphides. He concluded that it was not yet possible to determine the exact cause of the poor water.

The Agency's consultant used trend analysis to show that the emerging low pHs were much lower than could be accounted for natural surface water and rainfall chemistry, and he concluded that *sulphide oxidation* was responsible, in part at least, for the high acidity observed.

The DIAND inspection officer noted that in one area of the dump, low pH levels of waste rock seepage were in violation of BHP's Class A water license and that, in response, BHP had made a request to the MVLWB that the pH license limit be lowered. In a letter to the MVLWB, the Agency recommended against lowering the license limit. The MVLWB concurred with the Agency's recommendation and refused this request, but instead required BHP to carry out enhanced monitoring and *hydrogeological investigations* around the areas of the dump where the acidic seepage appeared to be moving into the receiving environment. This plan was implemented during the open water season of 2000.



AGENCY

Participants at 2000 Seepage Survey Meeting

William Ross – Agency (meeting chair)

Pete McCart – Agency

Tony Pearse – Agency

Kevin Morin – Consultant for the Agency

Alexandra Thompson – Agency

Stephen Day – SRK Consulting/BHP

Jim Millard – BHP

Tina Markovich – BHP

Jody Todd – BHP

Derek Chubb – BHP

Helen Butler – BHP

Martin Pelzer – BHP

John Witteman – BHP

Chris Hanks – BHP

Albert Von Roodselaar – MVLWB

Mardy Semmler – MVLWB

Matt Bender – MVLWB

Emma Pike – MVLWB

Karl Lauten – MVLWB

Louie Azzolini – MVEIRB

Katherine Silcock – DIAND

Bart Blais – DIAND

Roxanne Beavers – DIAND

Greg Cook – DIAND

Darren Unrau – DIAND

Christa Domcheck – DFO

Anne Wilson – Environment Canada

Waste Rock Glossary

Barren Kimberlite

Kimberlite which contains no diamonds.

Schist

Rock comprised of layers of different minerals and splitting into thin, irregular pieces.

Geochemistry Data

Measured values for the chemical content (including metals) of rock, sediment and water.

Following the 2000 open water season, BHP presented two reports on seepage water quality at the site. One of these presented the data and described the seepage stations (seeps) established by the waste rock seepage program required by the Class A water license. The other was prepared for BHP by SRK Consulting to report on the enhanced monitoring program established for the Beartooth drainage area as a result of last year's workshop.

While the BHP report provides little interpretation of the results of its sampling program, the more detailed SRK report acknowledges that acid rock drainage, contrary to BHP's original predictions, is being caused by sulphide oxidation in some of the waste rock. SRK concludes that one seep is generating acid drainage, which is not being neutralized.

A peer review of the SRK report contracted by the Agency concludes that many more of the analyses made show acid rock drainage as originating from sulphide oxidation. Our review concludes that while the seepage monitoring programs, implemented by BHP, are generating adequate data to understand the situation, interpretations of the seepage data are deficient because: not all seeps are being examined, and interpretations of mechanisms for poor water quality origin and transport are contradictory.



In the near future BHP will be hosting a workshop to discuss the findings of the new report. The Agency's consultant will also be presenting at this workshop. We will report on the outcome of this workshop, and any further actions in next year's report.

Agency's Assessment of Misery Waste Rock Management

The Agency is concerned about current plans at the Misery site with respect to the development of the waste rock dump. Construction activities for the dump began in October of 2000. The dump will be comprised of granite, biotite *schist*, and *barren kimberlite*.

The biotite schist was predicted in BHP's early geochemistry studies to have net acid generating potential, with the potential to leach certain metals. From the seepage studies at the Panda dump, we now know that granite waste rock and kimberlite may also contribute to waste rock problems on site. Because of this, the design and management of the Misery dump requires special attention.

In the fall of 2000 the company submitted a revised Waste Rock and Ore Storage Management Plan to the MVLWB for approval, this report includes management plans for dealing with the Misery waste rock. The alternatives proposed in the report have yet to be properly evaluated, especially in light of emerging water quality trends at the Panda dump. As of March 2001 this plan had not been approved, even though Misery rock has been stockpiled since October 2000. DIAND's water license inspector reported that the company was constructing the Misery dump using alternate layers of granite and schist. This strategy has been neither proposed by BHP nor approved by the MVLWB. The reason for adopting it is unclear.

Without further investigation, it is not possible to determine whether the alternate layers of rock will help to freeze the schist, or instead, speed up reaction rates in the dump by allowing more air into the pile, so that the internal temperature of the rock pile is increased. This could have the result of enhancing acid drainage.

Current procedures and plans for the Misery dump need to be reassessed by the company in light of all current waste rock seepage and *geochemistry data*. The revised plan should be reviewed by regulators at the earliest possible date prior to approval by the MVLWB.

Waste Rock Recommendations:

5. *The Agency recommends that BHP needs to develop a more detailed understanding of what is happening with the waste rock geochemistry at EKATT™ and determine effective management responses that may be needed to deal with the emerging water quality problems at the site.*
6. *The Agency recommends that BHP should update its Waste Rock Management Plans for Misery, Koala, Fox and other pipes to be developed. It should also ensure that these designs are properly reflected in the current Waste Rock and Ore Storage Management Plan and Abandonment and Restoration Plan.*



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Processed Kimberlite Glossary

Toxicity of Processed Kimberlite

The ability of a diamond bearing rock to cause harmful health effects to plants, animals and humans.

Sublethal Toxicity Test

Tests on biological organisms (e.g. fish) that measure non-deadly changes in behaviour, such as reproduction success.

Processed Kimberlite Management

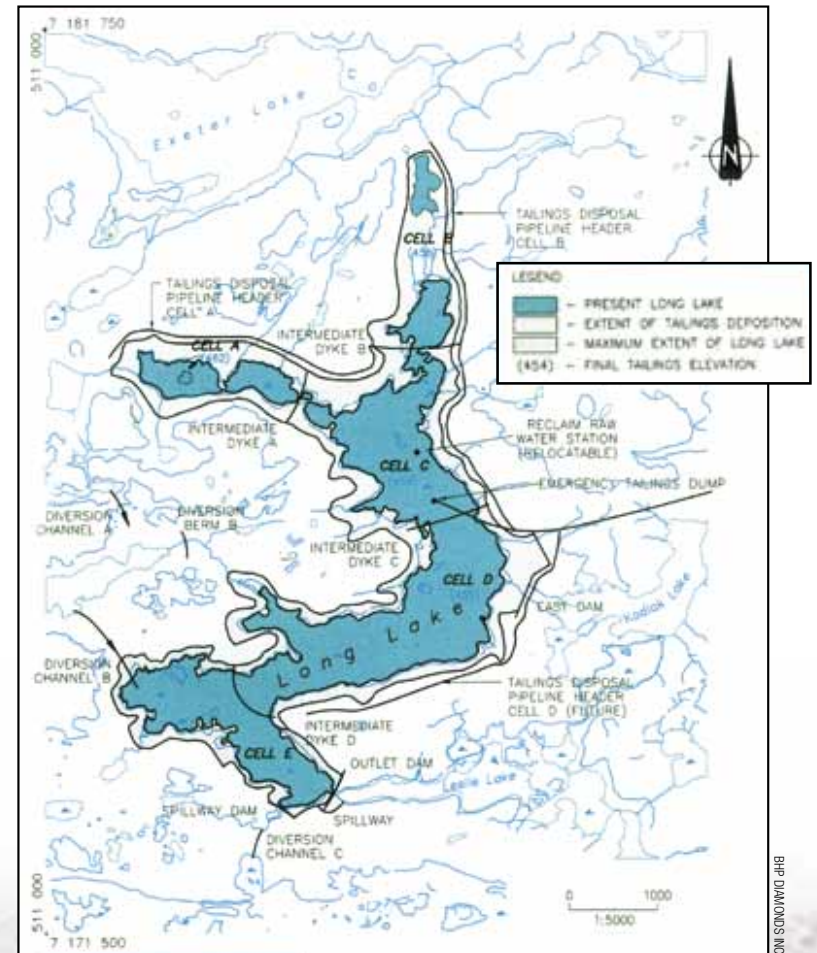
Two significant types of waste are produced through operations at EKATI™. In addition to waste rock deposited near the pits, processed kimberlite ore is permanently deposited on the surface as a waste product from the mining operations. In the process plant, mechanical processes such as crushing and grinding separate diamonds from the kimberlite and produce a waste stream

comprised of fine-grained (approximately 70%) and coarse-grained processed material.

The fine portion is pumped to the Long Lake containment facility and the coarse fraction is stored in rock piles within the footprint of the Koala waste rock dump.

The Long Lake containment facility contains four cells designed for holding processed kimberlite, and one cell for sediment settling. Total storage volume available is 130.5 million m³. Over the life of the mine it is expected that solids in the fine processed kimberlite will settle out, and water will drain to the last cell of the facility, where it will have to meet license discharge limits before being released to the downstream environment.

During 2000 processed kimberlite was discharged into cells B and C of the Long Lake containment facility. Early reclamation fieldwork was carried out at the top end of cell B, where most of the water has drained out.



During the open water season of 2000 an inspector noted that dyke B had a significant amount of water moving through the dyke, which could be easily heard, and that a substantial amount of fine processed kimberlite appeared to have gone through the dyke prior to the inspection. A geotechnical assessment was subsequently conducted, resulting in BHP switching the discharge point to the upstream face of the dyke to build up a beach in front of the structure to reduce water flow through the dyke.

Research at the University of Saskatchewan on the *toxicity of processed kimberlite* is continuing and due for completion in the near future. The research is studying the effects of processed kimberlite effluent on zooplankton, and may be able to detect impacts to zooplankton from different concentrations of effluent.

Results from last year's toxicity research have shown that zooplankton are adversely affected by some component of processed kimberlite. *Sublethal toxicity tests* have shown that survival was significantly reduced at processed kimberlite concentrations of 50% and reproduction at concentrations as low as 12.5%. The exact cause of the toxicity is not yet determined.

An outstanding study is the water licence requirement to complete the fieldwork phase of the tailings (processed kimberlite) characterization studies. However, it is understood that the fieldwork is being carried out this spring, and the results will be available in the near future. The Agency looks forward to reviewing and reporting on this work.



AGENCY

During 2000 early reclamation fieldwork was carried out to assess the effectiveness of plant growth in kimberlite.

BHP's Reclamation Research Program

- *Assessment of revegetation success on processed kimberlite (Field and Greenhouse studies)*
- *Assessment of Panda Diversion Channel Revegetation*
- *Fox Portal Revegetation Study*

Reclamation Research

A requirement of BHP's water license is to carry out research on methods that could be used to reclaim areas of habitat lost to mine site activities. For several years now BHP has been conducting studies at a number of different locations around the site, with the intent of identifying viable reclamation strategies.

Revegetation on Kimberlite (Long Lake)

The current abandonment and restoration plan proposes to stabilize the processed kimberlite containment facility by covering it with waste rock, and stabilizing original drainage patterns.

BHP has stated informally that it would prefer to develop a vegetative cover to stabilize the facility. Research has been carried out by BHP at the site for a number of years to determine the possibility of identifying a viable approach to revegetation.

Research last year was carried out in the field and in a greenhouse. In the greenhouse pots were seeded with different types of soils, such as peat and kimberlite with amendments including calcium (as gypsum or rock phosphate). In the field, large rectangular plots have been developed and annual and perennial seeds were sown in plots with a range of soils with both physical and chemical amendments.



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A report developed by a consultant for BHP indicated some success in plant growth with low levels of peat, and processed kimberlite amended with different sources of calcium. Annual plants established at a faster rate than perennials, and may provide added nutrients and erosion control for future years plant growth. The results did show that certain trace metals such as chromium and nickel accumulated in plant tissues. This does not appear to have affected first year growth, but concerns have been expressed about the long term viability of plants and possible effects on wildlife.

Panda Diversion Channel Revegetation

Since the establishment of the Panda Diversion Channel (PDC) in 1996 work has been carried out to establish riparian and aquatic plants along the PDC, to help provide fish and invertebrate habitat and stabilize the PDC.

BHP has seen some success in the development of cuttings of willow transplanted into the PDC. However, growth appears to be limited by the low proportions of organic matter and nutrients in the PDC. Natural vegetation colonization is also developing with over 30 plant species recorded in the PDC in 2000.

Fox Portal Revegetation Study

Research at the Fox portal has focused on studying the potential for reclaiming areas of land through revegetation. Different types of seeds have been sown in various soils, including: esker sands, lakebed sediments, and organic soils. Organic soils produced the most successful growth; lakebed sediments, and esker sands produced very limited growth, largely due to the lack of organic matter in these soils.

For several years BHP has been conducting studies around the site to identify viable reclamation strategies.

Agency's Assessment of Reclamation at the Mine Site

While the efforts of BHP to identify and evaluate viable revegetation strategies at EKATI™ are supported by the Agency, the application of results to mine site reclamation is as yet unclear. Organic soils have shown to be clearly beneficial for successful revegetation. However, the use of this soil on a large-scale is unlikely due to lack of availability and, hence, cost. The use of lakebed sediments has shown limited promise to date. However, storage practices for these materials must maintain their availability for possible reclamation needs and ensure that the limited nutrient content is protected from weathering and erosion.

The Agency believes it will be necessary to develop criteria for the determination of successful revegetation efforts. Without such criteria it will not be possible to determine when the reclamation is satisfactory. These criteria will need to be developed in consultation with BHP and relevant regulators. A literature review of reclamation strategies throughout the north and processed kimberlite revegetation experiences in other parts of the world may aid in developing these criteria.



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To mine the Beartooth, Sable and Pigeon pipes, BHP will require new leases, water licenses, land use permits and fisheries authorizations.



Expansions and Amendments

Beartooth, Sable and Pigeon

As reported in our previous annual report, BHP has applied for permits to mine three new kimberlite pipes (Beartooth, Sable and Pigeon) all located within BHP's current claim block. Infrastructure including haul roads, waste rock piles and water containment structures are also proposed in this mine expansion. To mine these pipes, BHP will require new leases, water licenses, land use permits and fisheries authorizations issued.

Before these permits could be issued the proposal was referred for environmental assessment to the Mackenzie Valley Environmental Impact Review Board (MVEIRB). The Agency actively participated in the review process and has provided comments to the MVEIRB on BHP's proposal and its environmental assessment report. We carried out our own technical review and also contracted experts to conduct detailed reviews of the geochemistry work and the proposed air quality monitoring program. The Agency then made a number of specific recommendations to the MVEIRB.

On the 26th of September 2000 the Review Board held a public meeting in N'dilo at which the Agency and other intervenors made submissions.

In a report submitted to the Minister of the Department of Indian Affairs and Northern Development on February 7th, 2001. The MVEIRB recommended the approval of the project subject to 62 conditions. As of the time of writing, the report is currently in the hands of the Minister who has the option of accepting the decision of the MVEIRB, modifying the decision or requesting further review. If the Minister approves the recommendations, the project will proceed to licensing.

Fox Pit Amendment

In BHP's original project description and environmental impact statement, five kimberlite pipes were proposed for mining; Panda, Koala, Misery, Leslie and Fox. In 1997 a Class A water license was issued to BHP for the mining of Panda, Koala and Misery. However Leslie and Fox were not licensed at this time and the former pipe has since been dropped from the mine plan.

BHP has now applied to the Mackenzie Valley Land and Water Board (MVLWB) to amend its water license to allow it to dewater Fox Lake in preparation for mining, and subsequently to mine Fox pipe. In our previous annual report we reported on the innovative technique BHP is proposing to deal

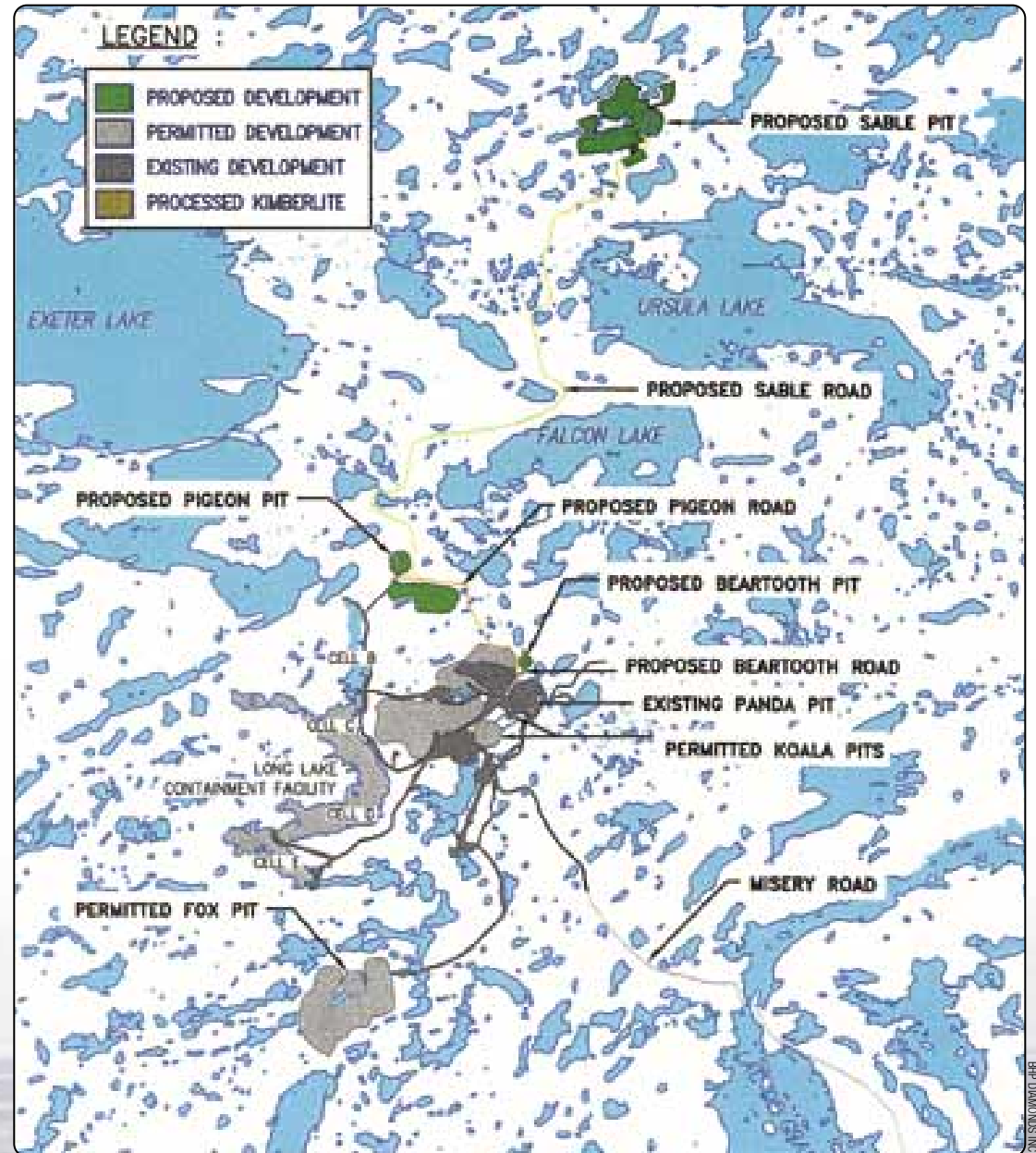
with lake and mine water that does not meet discharge standards by pumping it onto land.

While the Agency saw some promise in this technique, we recommended that further information was required before it could be approved.

In August 2000 director Tony Pearse attended a site visit to EKATI™ with regulators, government officials and BHP environmental staff to view the point of discharge and to review details of the proposal with a specialist hired by BHP, Andre Sobolewski of Microbial Technologies.

In January 2001 a report by Sobolewski and a detailed information package to support its application was submitted to the MVLWB by BHP. This included detailed descriptions of: the potential effects of the land treatment process to the environment, the techniques that BHP proposes to monitor effects, and contingency plans in the event that land treatment of mine water does not prove effective.

The Agency is satisfied that the new information helps to show the viability of the proposed on-land treatment and considers the monitoring program proposed to be acceptable if properly implemented. However, with respect to the waste rock management at the Fox pipe the Agency has recommended to the MVLWB that BHP ought to provide an updated waste rock management plan that integrates all that has been learnt on site about waste rock geochemistry and seepage quality.



BHP's Annual Report

BHP is required to present annual reports as conditions of both the *Environmental Agreement* and Class A water license. The reports are now integrated into one report, and include a summary of mine site activities, compliance monitoring results, and results of the numerous environmental programs and studies required by the *Environmental Agreement* and water license.

The information presented in the 2000 annual report was generally adequate and presented the issues in a clear and concise manner. The Agency was pleased to see that BHP had developed more links of where environmental monitoring and results were tied to management consequences. The report provided a thorough and detailed presentation of compliance-related issues. Tables presented are clear and easy to understand.

The Agency is also pleased to see the significant amount of outside expert research being carried out on various environmental issues around the mine site reported in the annual report. The Agency encourages BHP to regularly update all interested parties on these studies, and where applicable, update management practices as new information becomes available.

Although the report provided a large quantity of information and discussion, much of this information has been previously released in monitoring reports. BHP's annual report provides the only opportunity for the results of the numerous monitoring programs and special studies to be consolidated, reviewed and evaluated. This analysis of things learned over the last year appears to have been missed, a deficiency we have commented on in previous years and which we view as an essential part of the annual environmental report.

References are made to initiatives currently underway to improve data management. An example is the EQWin Water Quality database, which will store in one database water quality data from all BHP's monitoring programs (SNP, seepage surveys and AEMP). The Agency encourages BHP to continue the development of this and similar initiatives.

The Agency is concerned about the dramatic increase in the frequency and quantities of unauthorized discharges and spills: 36 spills were reported in 2000, compared to 17 in 1999.



BHP DIAMONDS INC.

The Agency is concerned about the dramatic increase in the frequency and quantities of unauthorized spills and discharges.

Immediate management actions need to be taken to reduce this spill frequency. The report indicates that site personnel were trained in 1999 in spill management practices. No indication is given of any training in 2000. This should be rectified with immediate spill training for all on site workers, including contractors.

Snow-Core Survey

BHP's monitoring includes the snow-core survey; an assessment of the levels of contaminants in snow cores collected at various locations around the site. This enables the measurement of the amounts of contaminants being released to the environment during spring, when the snow melts. The snow core survey is carried out every two years.

Data are presented for samples collected in 2000 from five affected sites and three control sites. However, the interpretation that accompanies the snow data is inadequate. While there seems to be dramatic differences in values for several contaminants between 1998 and 2000, there is no explanatory text in the report. It is not possible, therefore, to determine which of the differences are due to real differences between the two years, and which might be differences due to methodology. Further, there are currently very few snow sample locations. The number of sites needs to be increased to ensure a greater coverage of mine site impacts. It is understood that BHP is currently expanding the snow-survey to achieve this objective.

Geochemistry Data

The 2000 BHP Annual Report includes a large volume of data on rock geochemistry from the Panda, Koala, Misery waste rock and kimberlite. Such data can be useful for predictions of potential water quality problems from waste rock and ore storage on the site.

It is essential that BHP now integrates all information that has been collected on site through the sampling of rock, vegetation, snow and water to develop a clear understanding of mining impacts and the implications for the long-term management of waste rock. Waste rock and water management plans should then be modified accordingly. This is especially important with the potential for the development of four new pits and waste rock dumps in the near future.



PHOTO: GAWIT

It is essential that BHP now integrates all information that has been collected on site through the sampling of rock, vegetation, snow and water.

Assessment of the Regulators

The Agency commends the Government of the Northwest Territories' Department of Resources, Wildlife and Economic Development for taking a strong role in pushing for improved management practices for the protection of wildlife at the mine site.



PAGE BURR/OUTROPO

BHP's EKATI™ mine operates under a number of different regulatory permits which provide for the management of water use, and discharge, land-use, and fish habitat protection. Regulators are responsible for ensuring that BHP adheres to the conditions set out in the various licences, permits and authorizations.

In the last year the review and regulatory regime in the Mackenzie Valley has changed significantly. On March 31st, 2000 the Mackenzie Valley Land and Water Board (MVLWB) was established with responsibility for the screening of project proposals, as well as the permitting of land and water uses. The Mackenzie Valley Environmental Impact Review Board (MVEIRB), established on December 22nd, 1998, is responsible for the environmental assessment of projects considered to have the potential for significant environmental impacts or public concern.

Over the last year the Agency has had the opportunity to work with both of the new boards in the environmental review and licensing processes for BHP's Fox, Sable, Pigeon and Beartooth pipes.

During these processes, the Agency listened carefully to what was said by the company, aboriginal members and government agencies about the new boards. Some have expressed concerns about the uncertainty and lack of guidelines to lead the companies and intervenors efficiently through the new processes. The Agency was pleased that the new MVLWB began to address some of these concerns by holding a workshop on Regulatory Changes in late February 2001. This workshop offered a good opportunity to discuss concerns with the current processes.

The Agency commends the Government of the Northwest Territories' Department of Resources, Wildlife and Economic Development for taking a strong role in pushing for improved management practices for the protection of wildlife at the mine site. The department reacted quickly to the growing issue of carnivore problems at mine camps, especially satellite camps like Misery, by presenting an excellent review of relevant past data to BHP, expressing the issue in an effective manner, and more importantly, presenting a series of practical recommendations for mitigating concerns (applicable to BHP, Diavik and Nuna Logistics winter road camps). The department should also be encouraged to continue its regional approach to monitoring (e.g., for the Bathurst caribou herd), and willingness to look beyond the project specific effects.

Inspections at the mine site to check compliance with land leases, land use permits and water licenses are conducted by an inspector from the Department of Indian Affairs and Northern

Development. Reports from these inspections provide an excellent record of events happening at the site, and the Agency continues to view them as a valuable contribution in understanding environmental management at the mine site. The DIAND inspector continues to show his professionalism and expertise in this work.

Although the situation has improved from previous years, communication still needs to be improved between regulators, other agencies and the company to ensure all license requirements and commitments are tracked and implemented by those responsible. This is especially important in the immediate future as new organizations with new staff and a lack of corporate memory take over responsibility for enforcement of licence conditions. Informal processes such as continued meetings of the Inter-Agency Coordinating Team, or formal meetings between boards will continue to facilitate communication between different organizations.

Communication still needs to be improved between regulators and other agencies to ensure all license requirements and commitments are implemented by those responsible.

Lake Habitat Compensation Fund

The Department of Fisheries and Oceans has been working with a community advisory committee to determine the uses of the \$1.5 million Fish Habitat Compensation fund, established as a result of the loss of a number of lakes as part of the mine development.

Proposals on how to spend the money were reviewed by the department and the committee in 2000. The committee recommended that many of the proposals, submitted by aboriginal organizations, be funded. Since then ongoing discussions have resulted in only one project receiving funding.

The Agency would now like to see efforts made to speed up the process to allow the projects approved by the advisory committee to move to implementation.

Lake Fish Out Studies

Last year the Agency made a recommendation that DFO should analyze and report on the results and significance of the fish-out studies conducted as result of the Fisheries Authorization for the current mine development. It has been indicated that these studies will be available in the near future, it is important that previous results be assessed so that they can be used to predict the impacts of future developments.



JIM HERMAN/SEHR DIAMONDS INC.

Lupin Winter Road Helicopter Survey

On June 12, 2000, Director Pete McCart took part in a helicopter survey of the southern segment of the Lupin Winter Road from the Ingraham Trail to Lockhart Camp. He noted that overall, the segment of winter road that was observed, seems to have had relatively little impact on the aquatic habitat. In normal operations (i.e. excluding accidental spills of fuels, etc.) the only obvious impact on aquatic habitats appeared to be increased sediment loadings, which to a large extent can be remedied.



BHP BIOMONITORING INC.

Cumulative Effects and Current Initiatives

The last year has seen renewed interests from First Nations, departments of government, and others for the development of processes to look at the cumulative effects of developments. In early 2001, the Agency released a paper that describes some of the key principles that should be observed in the development of a body serving as a public watchdog for cumulative as well as project-specific effects monitoring. These principles are based on the experience of the Agency over the last four years with BHP's project. The key principles highlighted were:

- Need for independence (both membership and financial support).
- Need to look at projects from the very early stages of development.
- Ability to make recommendations that must be considered by proponents and regulators.

The Agency is pleased to have met with the newly formed Environmental Monitoring Advisory Board for the Diavik project, and hopes to continue to share ideas in a manner that will enable monitoring to move towards more effective cumulative monitoring efforts. The Agency is pleased with BHP's stated willingness to work with other companies, particularly Diavik, toward developing common monitoring goals and protocols for both land and water environmental monitoring.

The Cumulative Effects Assessment and Management Framework is an initiative by the Department of Indian Affairs and Northern Development, through a steering committee to develop a process to include cumulative effects in the assessment and monitoring of projects in the Northwest Territories. The Agency has monitored the activities of the steering committee during the last year, and hopes that this initiative will develop to a point to add real value to the work being carried out by others.



RWED/GNWT

The Department of Resources, Wildlife and Economic Development has responded to recommendation # 16 of the Agency's 1999-2000 Annual Report which called for a workshop on the development of a cumulative effects monitoring program for the Bathurst caribou herd. A steering committee has been formed to develop the Bathurst Caribou Management Plan. This committee includes representatives from First Nations, hunter and trapper organizations, industry, and governments.



In December the Bathurst Herd steering committee held a workshop in Rae-Edzo for community members to provide their input into the development of the management plan. An Agency director and staff member attended the meeting and were able to listen to many of the concerns of elders about caribou monitoring and management.

In the past year a significant adverse effect on wolverines has been noted for the Lac de Gras area. A total of ten wolverines were removed from BHP's Misery camp, Diavik's nearby construction camp, and the winter road Nuna camp from 1998 to 2001 due to animals being attracted to the camps or waste food. The Agency shares the view of the Department of Resources, Wildlife and Economic Development that the death or removal of ten wolverines from the northeast portion of the Lac de Gras had a negative, cumulative effect on the local wolverine population.

Cumulative Effects Recommendation:

7. *The Agency recommends that BHP take immediate actions to improve waste management in order to reduce risks that wolverines and grizzly bears become attracted to camps. Prompt actions are needed at Misery camp where the cumulative effect on carnivores is of greater concern.*

The Agency is pleased to have met with the newly formed Environmental Monitoring Advisory Board for the Diavik project, and hopes to continue to share ideas.

Financial Statements

March 31, 2001

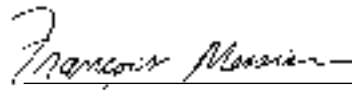
<i>Management's Report</i>	42
<i>Auditors' Report</i>	43
<i>Statement of General Operating Fund and Fund Balance</i>	44
<i>Statement of Financial Position</i>	45
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Management's Report

The management of the Independent Environmental Monitoring Agency is responsible for the integrity of the accompanying financial statements. The financial statements have been prepared by management in accordance with the accounting principles disclosed in the attached notes. The preparation of the financial statements necessarily includes some amounts which are based on the best estimates and judgements of management.

To assist meeting its responsibility, management maintains accounting, budget and other internal controls. These controls provide reasonable assurance that transactions are appropriately authorized and accurately recorded, that assets are properly accounted for and safeguarded, in order that the integrity of the financial records is maintained.

The financial statements have been audited by the independent firm of MacKay & Partners, Chartered Accountants. Their report to the directors of Independent Environmental Monitoring Agency, stating the scope of their examination and opinion on the financial statements, follows.



Secretary-Treasurer

April 11, 2001

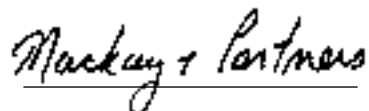
Auditors' Report

To the Directors of Independent Environmental Monitoring Agency

We have audited the statement of financial position of the Independent Environmental Monitoring Agency as at March 31, 2001 and the statement of general operating fund and fund balance and the statement of cash flows for the year then ended. These financial statements are the responsibility of the Agency's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we 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 our opinion, these financial statements present fairly, in all material respects, the financial position of the Agency as at March 31, 2001, and the results of its operations and cash flows for the year then ended in accordance with generally accepted accounting principles.



Chartered Accountants

Yellowknife, Northwest Territories

April 11, 2001

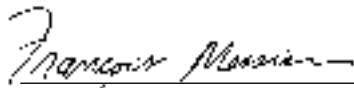
Statement of General Operating Fund and Fund Balance

<i>For the year ended March 31,</i>	2001	2000 (restated)
Revenue		
BHP Diamonds Inc.	\$ 493,600	\$ 495,800
Over-contribution from BHP Diamonds Inc.	(31,700)	(2,200)
Moving	563	13,989
Government of Northwest Territories - "Training on the Job" program	3,938	3,375
Contributed services (Note 2)	22,483	11,964
Interest income	5,049	-
	493,933	522,928
Expenses		
Accounting fees	6,443	7,870
Advertising	1,800	597
Amortization	3,926	2,406
Board support		
- per diem fees	152,682	142,026
- service charge	-	4,140
- travel, meals and accommodation	75,917	57,576
Community consultation	23,437	38,428
Contributed services		
- office lease	16,995	9,401
- equipment lease	4,788	2,563
- moving	700	-
Equipment	280	-
Equipment lease	-	2,179
Insurance	2,073	1,250
Moving	561	13,989
Office lease	-	11,548
Office management	12,241	80,806
Office supplies	3,721	1,124
Outside consultant	16,549	9,665
Postage and freight	1,828	1,235
Printing, design and communication	34,775	40,808
Relocation	6,619	-
Training	265	4,817
Telephone and fax	7,044	5,615
Travel and accommodations	-	700
Wages and benefits	105,267	50,328
	477,911	489,071
Excess of revenue over expenses	16,022	33,857
Fund balance, opening as previously stated	36,567	13,844
Correction of accounting for assets (Note 5)	11,134	-
Fund balance, opening as restated	47,701	13,844
Fund balance, before investment in capital assets	63,723	47,701
Investment in capital assets	(14,068)	(12,585)
Fund balance, end of the year	\$ 49,655	\$ 35,116

Statement of Financial Position

<i>As at March 31,</i>	2001	2000 (restated)
Assets		
Current		
Cash	\$ 100,710	\$ 54,407
Accounts receivable	630	3,375
Prepaid expenses	195	192
	<u>101,535</u>	<u>57,974</u>
Capital assets (Note 3)	14,068	12,585
	<u>\$ 115,603</u>	<u>\$ 70,559</u>
Liabilities		
Current		
Accounts payable	\$ 17,980	\$ 20,658
Repayable contributions (Note 4)	33,900	2,200
	<u>51,880</u>	<u>22,858</u>
Net Assets		
Investment in capital assets (Note 6)	14,068	12,585
General operating fund	49,655	35,116
	<u>63,723</u>	<u>47,701</u>
	<u>\$ 115,603</u>	<u>\$ 70,559</u>

Approved on behalf of the Directors



François Messier, Director



Red Pedersen, Director

Statement of Cash Flows

<i>For the year ended March 31,</i>	2001	2000
		(restated)
Cash provided by (used in)		
Operating activities		
Excess of revenue over expenses	\$ 16,022	\$ 33,857
Item not affecting cash		
Amortization	3,926	2,406
Changes in non-cash operating working capital		
Accounts receivable	2,745	(3,375)
Prepaid expenses	(3)	587
Accounts payable	(2,678)	(6,370)
Repayable contribution	31,700	2,200
	51,712	29,305
Investing activity		
Purchase of capital assets	(5,409)	(11,134)
Change in cash position	46,303	18,171
Cash position, beginning of the year	54,407	36,236
Cash position, end of the year	\$ 100,710	\$ 54,407

Notes to the Financial Statements

March 31, 2001

1. Accounting Policies

The Independent Environmental Monitoring Agency ("the Agency") is a non-profit organization incorporated under the Societies Act of the Northwest Territories. It is exempt from income tax under Section 149(1) of the Income Tax Act.

The mission of the Agency is to oversee environmental management of BHP Diamonds Inc.

The following is a summary of the significant accounting policies used by management in the preparation of these financial statements.

(a) Financial instruments

All significant financial assets, financial liabilities and equity instruments of the Agency are either recognized or disclosed in the financial statements together with available information for a reasonable assessment of future cash flows, interest rate risk and credit risk.

(b) Capital assets

Equipment purchases are recorded on the balance sheet at historical cost less accumulated amortization. Amortization is calculated by the declining balance method at the annual rates set out in Note 3. In the year of acquisition, amortization is taken at one-half the annual rates.

(c) Economic dependence

The Agency receives all of its contribution funding from BHP Diamonds Inc. Management is of the opinion that operations would be significantly affected if the funding was substantially curtailed or ceased.

(d) Fund accounting

The Agency follows the deferral method of accounting for contributions.

The general operating fund accounts for current operations, programs and general operations, and the Agency's capital assets.

(e) Recognition of revenue

The Agency recognizes unrestricted contributions when they are received or receivable if the amount receivable can be reasonably estimated and its collection is reasonably assured.

Revenue is recorded in the year specified in the funding agreement with BHP Diamonds Inc.

2. Contributed Services

BHP Diamonds Inc. has directly paid for the office rent, equipment lease and moving expense for the Agency. The monthly rent is \$1,900 and the equipment lease expense is \$1,197 quarterly. Moving expenses were \$700. The Agency recognizes the contributed services at the fair market value of the services provided.

3. Capital Assets

			2001	2000	
	Rate	Cost	Accumulated Amortization	Net Book Value	Net Book Value
Computer	30%	\$ 13,729	\$ 5,646	\$ 8,083	\$ 6,655
Office equipment	20%	8,778	2,793	5,985	5,930
		<u>\$ 22,507</u>	<u>\$ 8,439</u>	<u>\$ 14,068</u>	<u>\$ 12,585</u>

4. Repayable Contribution

The balance consists of a repayment of over-contributions to BHP Diamonds Inc. in the amounts of \$2,200 in 2000 and \$31,700 in 2001.

5. Correction of Recording of Assets

Under current accounting guidelines in Canada, capital assets for not for profit organizations should record assets at cost less accumulated amortization. There is an exemption for organizations with revenue below \$500,000. In the past, the Independent Environmental Monitoring Agency expensed the capital asset and set up an offsetting liability. In 2000, \$11,134 of capital assets were expensed. A reclassification entry was done from the liability account to the general operating fund. The effect of the reclassification was to increase the general operating fund by \$11,134 and decrease the accounts payable by \$11,134.

6. Investment in Capital Assets

	2001	2000
Balance, beginning of year	\$ 12,585	\$ 3,857
Purchase of capital assets	5,409	11,134
Amortization	(3,926)	(2,406)
Balance, end of year	<u>\$ 14,068</u>	<u>\$ 12,585</u>

In 2001-2003 the Agency intends to devote more effort to:

- *Consultations and communications with aboriginal communities and organizations.*
- *Facilitating the integration of traditional knowledge into environmental management at EKATI™.*
- *Developing strategic plans in order to develop clear and effective methods of delivering its mandate; including how the Agency can work with the members to be more constructive in its monitoring and advisory roles.*

Summary of 2001–2003 Work Plan and Core-Budget

In the next two years the Agency's work plan has been modified to reflect the recommendations made by our members at last year's annual general meeting and confirmed in the Macleod Institute evaluation report. In particular it is important to note the Agency's activities continue to increase with modifications and expansions to the project.

The activities of the Agency mandate are as follows:

- a) As part of Article I of the *Environmental Agreement*, the Agency continually and regularly reviews BHP's environmental management system, activities of regulatory agencies, and government interactions with BHP. The Agency suggests solutions to problems, and reports them to the company, regulators, or Society Members.
- b) Serving as a public watchdog of the regulatory process and implementing the *Environmental Agreement* requires that the Agency keeps up to date with regulatory agencies, reviews and comments on regulatory approvals BHP seeks, and analyzes environmental reports and data.
- c) Compiling and analyzing environmental data in order to make recommendations on: the environmental effects programs at EKATI™; government compliance reports; environmental plans and programs; and the integration of Traditional Knowledge into environmental plans and programs, among other activities.
- d) Participating in regulatory and legal processes as an intervenor on environmental matters at BHP. The Agency will continue to participate in the regulatory processes for BHP license amendments and authorizations sought through the Mackenzie Valley Land and Water Board, Mackenzie Valley Environmental Impact Review Board and other regulatory agencies.
- e) Providing an accessible public repository of relevant environmental data, studies, and reports. The Agency is often called upon to provide information or copies of reports contained within its library, which has over 400 documents (or individual sets of documents) related to BHP.
- f) Providing information to aboriginal peoples and the public about the Agency's mandate and activities by publishing an annual report, newsletter, web site, as well as, meeting aboriginal organizations.
- g) Providing aboriginal people a way to bring their concerns to BHP and the general public about the monitoring and regulation of the project.
- h) Participating in dispute resolutions under the *Environmental Agreement*. No incidents of dispute resolution have occurred to date.

Core Budget

The following table summarizes the expenditures (thousands of dollars) for the budget categories in the 2001-2002 fiscal years. The Budget has been increased where appropriate by 2.5% due to inflation for the 2002-2003 year.

A. Operations	1st Q	2nd Q	3rd Q	4th Q	2001-02	2002-03
1. Insurance	0.525	0.525	0.525	0.525	2.1	2.15
2. Telephone, fax, email	2.0	2.0	2.0	2.0	8.0	8.2
3. Office supplies, software	1.6	1.6	1.6	1.6	6.4	6.6
4. Postage, courier, freight	0.55	0.55	0.55	0.55	2.2	2.3
5. Bookkeeping	0.55	0.55	0.55	0.55	2.2	2.3
6. Auditing, accounting	0.0	0.0	0.0	4.5	4.5	4.6
Subtotal					25.4	26.15

B. Board Support	1st Q	2nd Q	3rd Q	4th Q	2001-02	2002-03
1. Travel	16.6	8.6	16.6	8.6	50.4	51.7
2. Accommodation	5.4	2.7	5.4	2.7	16.2	16.6
3. Accommodation - Chair	3.6	3.6	3.6	3.6	14.4	14.8
4. Meals	2.1	1.1	2.1	1.1	6.4	6.6
5. Honoraria (Note 1)	46.2	33.6	46.2	33.6	159.6	159.6
Subtotal					247.0	249.3

C. Communication/Consultation	1st Q	2nd Q	3rd Q	4th Q	2001-02	2002-03
1. Communication (Note 2)	28.5	1.5	1.5	1.5	33.0	33.8
2. Community Consultation (Note 3)	10.0	10.0	10.0	10.0	40.0	41.0
Subtotal					73.0	74.8

D. Staffing	1st Q	2nd Q	3rd Q	4th Q	2001-02	2002-03
1. Manager	16.25	16.25	16.25	16.25	65.0	67.0
2. Environmental Analyst	13.75	13.75	13.75	13.75	55.0	57.0
3. Benefits & Payroll taxes	7.0	7.0	7.0	7.0	24.0	24.8
4. Outside experts	3.0	3.0	3.0	3.0	12.0	12.3
Subtotal					156.0	161.1
				Total	501.4	511.35

Final

1. Based on 6 meetings/yr (3 days each) and 1.5 days/month/director for office work and participation in workshops. Meetings are planned in April, June (with AGM), August, October, December, and February (with workshops) and 14 days for the Chair for community consultation.
2. Annual report (\$26.0k), 3 newsletters (\$4.5k), brochures (\$1.0k) and web site (\$1.5k)
3. Costs for holding meetings in communities, and attendance/presentations at aboriginal assemblies. The Agency proposes attending one meeting per annum in one of the communities of Kugluktuk, Lutsel K'e, Rae-Edzo, N'dilo, Dettah, Wha Ti, Gameti, Yellowknife, Wekweti.

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