

# The EKATI MONITOR



Issue #4, May 2000

Newsletter of the Independent Environmental Monitoring Agency

## Environmental Assessment - Expansion of EKATI™

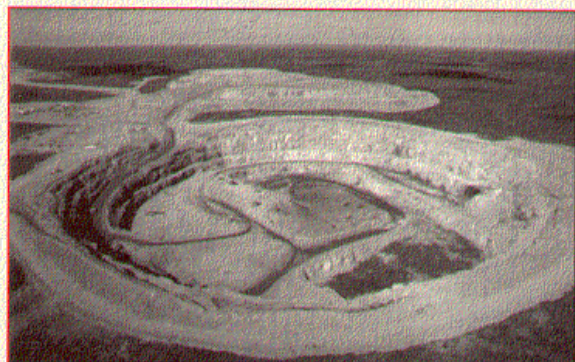
The Mackenzie Valley Environmental Impact Board (MVEIRB) is reviewing a BHP application proposing diamond mining at three new locations, including the construction of access roads and using an esker as a quarry at the BHP mine site. The MVEIRB will be examining the potential environmental and socio-economic impacts of the proposed project in order to determine whether it should go ahead or not, and how to minimize the possible impacts.

The company wants to use open pits to mine the rock. It will then be hauled and sorted. The diamond-bearing rock will be crushed and processed in order to extract the diamonds. Waste management practices, similar to what is already in use at EKATI™, will be used to store the waste rock and contain the waste water. These diamond-bearing rock, called kimberlite pipes, are located under Sable Lake, 15 km north of existing Panda Pit, the Pigeon Pond area, 4.5 km northwest of Panda, and under Beartooth Lake, immediately upstream of North Panda Lake. BHP suggests that the mine life will increase from 18 to 25 years as a result of the development.

A revised project description was submitted to MVEIRB in October 1999. MVEIRB, in turn, distributed the project description and its own terms of reference for the review to the company, communities, aboriginal organizations, regulators, environmental organizations and the Agency. BHP then had to submit a document explaining the predicted impacts of the mine on the affected communities and environment near the Lac de Gras area, as instructed by the terms of reference. In December 1999, BHP issued a public notice announcing the addition of the proposed Beartooth, Pigeon and Sable kimberlite pipes. BHP submitted its Environmental Assessment Report, explaining the development's anticipated effects, on May 1st 2000.

Now that MVEIRB has received the environmental assessment report, the environmental assessment can begin. Here, are the steps of the review:

1. **MEETING THE REQUIREMENTS:**  
Making sure the environmental assessment document meets the requirements of the MVEIRB by May 31st;
2. **INFORMING & LISTENING TO THE PUBLIC:**  
The MVEIRB may schedule public meetings in late-June;
3. **GATHERING INFORMATION & COMMENTS:**  
Technical comments from the Agency and government are due August 18th. Last day for anyone to submit comments and concerns to MVEIRB is on September 1st.
4. **MAKING THE DECISION:**  
MVEIRB will then approve or deny the application and issue recommendations to the federal government.



Panda Pit

### How can you get involved in the environmental assessment?

Public and government, including aboriginal peoples, can help to resolve and clarify issues related to the project by attending gatherings in communities, with elders, and submitting comments to the MVEIRB.



# February Workshops on Environmental Monitoring

Annual workshops on BHP's Wildlife Effects Monitoring Program (WEMP) and Aquatic Effects Management Program (AEMP) were hosted in Yellowknife from February 7th - 10th 2000.



The goal of the AEMP is to test the water so that water quality and flow in and around the mine site, the habitat and spawning areas of fish and other aquatic organisms are preserved.

Director - Pete McCart

The program monitors aquatic animal populations, as well as, levels of chemicals and metals, oxygen levels, acidity in water and other important indicators.

Agency directors thought that the workshops were well attended and informative. Aboriginal representatives, government agencies, other environmental groups, and Agency board members recommended ways to improve monitoring programs. In particular, the poster session on the management programs was seen as very positive. The Agency followed up with a letter containing recommendations and constructive comments for improving the programs and workshops next year.

## Impact 2000: Is BHP's Environmental Management and Monitoring Doing its Job?

On April 30th, 2000, BHP released *Impact 2000*, which is the first comprehensive report on the results and performance of the last three years of environmental management and monitoring programs at its mine site. The report, which is a requirement of the BHP Environmental Agreement, is written in plain language for the public and will be available from the resource centre at the Agency's office. BHP will introduce the report to the communities affected by EKATI through community presentations.



Matt Bender (L) and Mardy Semmler (R): On behalf of the Mackenzie Valley Land & Water Board, they attended the seepage survey meeting hosted by the Agency April 28th in Yellowknife (see page 6).



Director Tony Pearce (L) and consultant Kevin Morin (R) at the Agency's seepage survey meeting.





# Traditional Knowledge Studies

As part of its approval, BHP has to work with aboriginal organizations to support Phase II Traditional Knowledge (TK) Studies. These studies are ongoing. They examine historical land use and existing knowledge of animal migration paths and habitat, vegetation and its uses, as well as, aboriginal peoples relationship to the lands and waters in the Lac de Gras area. The goal is to have this traditional knowledge enhance the environmental management at EKATI™.

The Yellowknives Dene First Nation completed a traditional land use study called *Weledeh Yellowknives Dene: a traditional knowledge study of Ek'ati* in 1997, describing Yellowknives' territory between the city of Yellowknife and Lac de Gras.

The Dogrib Treaty 11 is finalizing a mapping project on biodiversity, which specifies water routes and place names in the Lac de Gras area.

The Kitikmeot Hunters and Trappers Association's (HTA) Inuit Traditional Knowledge project maps the Inuit people's traditional and existing land uses in the Slave Geological Province. The Kitikmeot Inuit Association will use a computer mapping system for screening land use applications.



Sharing Traditional Knowledge



The Lutsel K'e Dene First Nation is also working on a traditional land use inventory of their traditional territory using a computer mapping system so they will be able to work more effectively with BHP in the future.

The North Slave Métis Alliance is currently working on a Phase II Traditional Knowledge proposal.

BHP plans to involve Dene and Inuit elders in community-based monitoring this summer at EKATI™. The plan is to bring the elders to the site and have them observe caribou behaviour over the summer, then incorporate their suggestions into decisions to decrease caribou risks at the mine. BHP will be able to incorporate information from the Dogrib into their long-term plans for vegetation, reclamation and replanting zones.





# New Studies Results

## Impacts on Water & Fish:

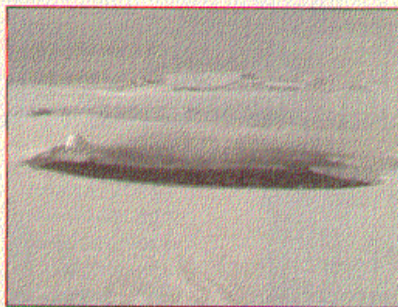
### The Aquatic Effects Monitoring Program

Study findings of the Aquatic Effects Monitoring Program (AEMP) were released in December 1999 by BHP as part of its annual reporting. The purpose of the AEMP is to monitor the changes in water quality as a result of developing the mine.

The 1999 summer field season was the second year that lakes and streams within the mine area were monitored as a follow-up to data collected to determine water quality before the mine was developed, called baseline studies.

### Kodiak Lake

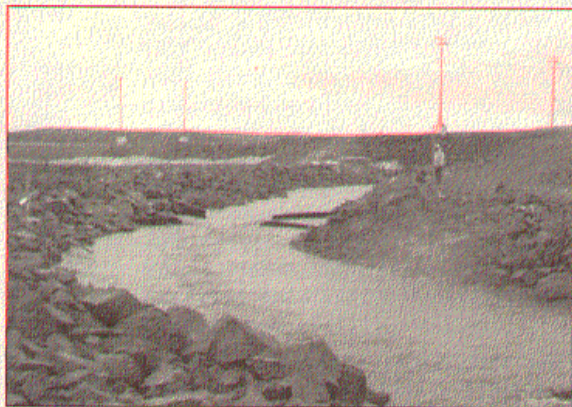
In 1998, a high number of small plants, called phytoplankton, were detected in the Kodiak Lake. Sewage outflow into the Kodiak Lake increased the phosphorus levels, which act as a food source for the phytoplankton. Their population expanded and began to use up the oxygen in the water. In January 1999, BHP stopped releasing treated sewage into the watershed and began



Aerator in Kodiak Lake



Panda Diversion Channel



Panda Diversion Channel



pumping oxygen into the lake during the winter in order to increase oxygen levels. Although the problem continues to persist in the watershed, phytoplankton levels in Moose and Slipper Lake were lower in 1999 than in 1998, indicating that the effects of sewage are lessening and the mitigation measures are helping. Monitoring continues.

### Panda Diversion Channel

BHP made efforts to prevent snow build-up in the Panda Diversion Channel this past winter. The channel was built around the Panda pit to allow the safe passage of fish for spawning and migration. Snow build-up can cause large amounts of water to erode the channel and destroy fish habitat as the snow melts in the spring. BHP constructed snow fences and covers to prevent snow build-up in the stream and in the culverts. BHP also removed snow from the diversion channel surface with an industrial snow blower throughout the year and just before spring melt.





Collecting fish data

### Impacts on Wildlife: Wildlife Effects Monitoring Program

The Wildlife Effects Monitoring Program (WEMP) studies certain animal populations and their habitat, as indicators of how the mine is affecting its environment. WEMP examines wildlife, aquatic, and terrestrial habitat, as well as, the behaviours and movements of the caribou, grizzly bears, wolverines and wolves, breeding birds, raptors and loons.

For example, the **Bathurst Caribou Herd** migrates through the Lac de Gras regions during the spring, summer and fall as it travels from calving grounds near Bathurst Inlet and wintering grounds below the treeline.

The 1999 WEMP study results were issued in December 1999 and reviewed at the February Workshops. With respect to caribou, the environmental effects were not considered significant. The general abundance of caribou and their proximity to the mine showed no significant change for the years of 1997, 1998 and 1999.

**Carnivore species** are especially good indicators of habitat loss as they are driven away from areas where there is industrial activity and human settlement. The grizzly bear, wolf and wolverine share the population characteristics of low density, low reproductive rates, and relatively large territories. They respond poorly to factors affecting their ability to survive or reproduce. In most cases, they will abandon affected habitat. Carnivore monitoring occurred mainly through recording wolverine tracks on

the spring snow and esker monitoring for wolf and Grizzly dens, as well as, the occasional sighting. Grizzlies denned mostly off eskers while wolves and foxes used the actual eskers as denning areas, as well as, travel and hunting corridors (partially due to the high concentration of ground squirrels around eskers).



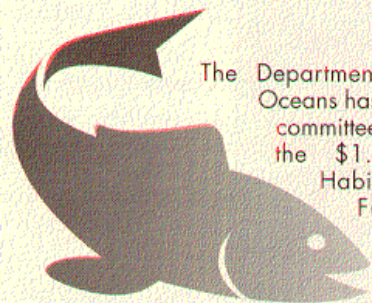
A Wolf

Bathurst Caribou





# Fisheries Habitat Compensation Fund



The Department of Fisheries and Oceans has created an advisory committee to help administer the \$1.5 million Fisheries Habitat Compensation Fund (FHCF). The

committee consists of representatives from the federal government and aboriginal organizations from communities affected by the BHP project. The committee has developed terms of reference for project proposals and issued the first Request for Proposals for communities to get funding for projects that enhance lake habitat for fish populations. The Department of Fisheries and Oceans will make the final decision on which projects will be funded.

## Agency Update

The Agency directors met on December 5th and 6th 1999, February 11th to 13th, 2000 in Rae and Yellowknife, as well as, a year-end meeting from March 31st to April, 2nd 2000.



Dr. Kevin Morin



Anne Wilson -  
Environment Canada



Other activities included:

- ◆ Completing a section for the Compliance Report on the BHP's performance to date for the Beartooth, Sable and Pigeon development;
- ◆ An evaluation of the Agency by the MacLeod Institute of Environmental Analysis.  
A final report was issued April 7th 2000.
- ◆ Kevin O'Reilly's representation on the Agency's board of directors, on behalf of Akaitcho Treaty 8, concluded on February 13th 2000. A new appointee has not been named;
- ◆ Developing the Agency's Annual Report for 1999-2000 for release in the summer of 2000.
- ◆ Reviewing data related to water seeping from the waste rock piles. The Agency hired Dr. Kevin Morin of the Minesite Drainage Assessment Group to analyze the seepage survey reports to develop possible explanations for acidity found at the mine site. The Agency hosted a round-table discussion April 28th 2000 with BHP, Dr. Kevin Morin, Mackenzie Valley Land & Water Board, MVEIRB, government regulators in order to discuss the seepage survey results; and,
- ◆ Participating in the February 7th to 10th workshops on the aquatic and wildlife effects monitoring programs, hosted by BHP and making suggestions for their improvement;



# Looking Ahead

The Agency's upcoming activities and initiatives planned for the next year include:

- ◆ Holding a meeting to discuss the improvement of the Agency's operations and the MacLeod Institute's *Evaluation Report*;
- ◆ Developing a more detailed tracking system to identify and evaluate information and research produced as part of BHP's reporting system under the Environmental Agreement;
- ◆ Offering the directors' expertise to Aboriginal peoples who request it in order to understand BHP's technical reports, operations and other activities;
- ◆ Developing a relationship with new boards and agencies under the Mackenzie Valley Resource Management Act;
- ◆ Closely following and reviewing BHP's proposal to dewater Fox Lake in order to mine the Fox kimberlite pipe via an amendment to its existing water licence;
- ◆ Reviewing and making recommendations on BHP's *Impact 2000 Report*; and,
- ◆ Attending Inspections and other field trips to the BHP mine site.

