

Aquatic Effects Monitoring

Highlights:

- ▶ BHP Billiton (BHPB) agreed to make small changes in the way it does some of the Aquatic Effects Monitoring Program (AEMP) work, starting in 2007;
- ▶ BHPB will do a few other studies that should help improve the monitoring of water and the fish and bugs living in the lakes and streams;
- ▶ No major problems with water or life in the water were identified in 2007-08;
- ▶ The 2007 AEMP report was delivered late, so we will review it carefully in our annual report next year; and
- ▶ BHPB has studied how clean the water that is pumped out of the Long Lake Containment Facility (LLCF) will be far into the future.

How BHPB monitors the water

2007 is the 10th straight year that BHPB has looked at the water, and the tiny plants and bugs that live in the water, to see if the mine is affecting them. BHPB samples the water in lakes and streams near the mine and downstream all the way to Lac de Gras in summer and winter. These results are compared to water in lakes and

streams that are not affected by the mine. BHPB has found that mining does change the water downstream of Ekati, but so far it is not enough to cause harm to the fish that live there.

Potential sources of pollutants to the water at Ekati include:

- treated sewage from the camp;
- fuel and chemicals used to blast rock and power the trucks;

- crushed *kimberlite* left over after the diamonds are removed from the rocks; and
- salty underground water that seeps into the pits.

BHPB pumps all the dirty water and the crushed *kimberlite* to the LLCF. This is where the dirty water is settled and filtered through dams that BHPB built to divide the lake into smaller parts called 'cells'. Once the water reaches the

final cell of the LLCF, it is ready to be pumped into the clean lakes downstream of Ekati.

BHPB can only pump water into the lakes downstream of Ekati if the water is clean. The amount of pollutants in the water, such as dirt or salt from mining in the pits and from the crushed *kimberlite*, must be less than the limits set in the water licence before it can be pumped out of the LLCF.



Inside the Pigeon culvert.

Monitoring Changes

The Wek'èezhii Land and Water Board (WLWB) gave its approval to BHPB to make changes to the way it monitors the water and life in it. These new methods are designed to better determine how changes in the water are identified and whether the changes are big enough to affect fish and bugs. The only change in monitoring that the WLWB has not yet approved is sampling water only

Continued on page 15 ►



Pigeon Stream above the Pigeon culvert.

BHPB's LLCF Water Quality Study

In its study of water in the LLCF, BHPB predicts that before dropping off:

- heavy metals will increase to their greatest amount in the year 2014 or 2015;
- *nitrate* in 2019; and
- chloride salt in 2020.

The metal cadmium will likely reach its greatest amount in 2010. If cadmium reaches

the predicted amount we fear this may affect fish food (zooplankton) and also may harm the kidneys of fish that live in the southernmost part of the LLCF.

We think that this water study is good and will help everyone to understand what the water may be like in the future. BHPB could improve this study by considering how the:

- chemicals in the LLCF water react with each other; and
- extra-fine *processed kimberlite* that is hard to settle will affect water quality.

We expect that other important chemicals from the *tailings* will be looked at in future studies in the LLCF water. One good thing that this study has already done is determine

where the molybdenum (a metal that could be harmful to aquatic life) comes from that is being found in the LLCF water. Misery Pit is the source of the most molybdenum and since ore from that pit has finished being processed, it should take about two years before the molybdenum level starts dropping off.

AQUATIC EFFECTS MONITORING

The Panda Diversion Channel and Other Streams at Ekati

The Panda Diversion Channel (PDC) is a stream that BHPB built to make sure that water cannot flow into the open pits where the diamonds are being mined. The PDC connects two lakes upstream and downstream of the pits that have trout, whitefish, burbot, sculpin and lake chub living in them. Also, grayling (known by some as “blue fish”) lay eggs in the PDC and travel through it between the two lakes.

2007 marked the ninth year of monitoring the PDC. There were not as many spawning grayling using the PDC compared to last year. However, the PDC continues to be a good healthy stream for adult and baby grayling, and adults are able to move between Kodiak and North Panda lakes. Just as many baby grayling hatch and survive in the PDC as in streams untouched by the mine. The

babies also seem to have enough body fat to be able to grow and survive the winter in lakes. We are still waiting to find out if baby grayling whose adipose fins (the small one just in front of the tail) were clipped in 2003 for identifying them have turned up again in the PDC, which would show us that they do survive until they are old enough to spawn.

We are concerned about the future of the PDC. BHPB now plans to keep this stream open after mining is finished. The company must make sure the stream will not be blocked by future rock falls or ice build-up. We think that keeping the PDC is a good idea if BHPB can show that the stream will continue to be a good place for fish long after the mining is finished.

There will be a new monitoring program next year – checking on new habitat made



Arctic grayling tagged at the Panda Diversion Channel fish box with the adipose fin highlighted.

for grayling in Nero-Nema stream. On the road to the Fox Pit, part of the bridge support over this stream disturbs the main channel, destroying a patch of fish spawning grounds. To make up for destroying this fish habitat, in 2005-2007 BHPB created what it hopes will be high-quality spawning grounds for grayling by putting clean gravel in a few locations in the stream, with the goal of increasing the production

and survival of grayling fry. In 2009, spawning grayling will be monitored in the stream to find out if the new habitat is producing more grayling. In 2008 it was found that there were more spawners in Nero-Nema stream than in the PDC. This is probably because there are more boulders in the Nero-Nema, which allows male grayling to more easily set-up spawning territories.

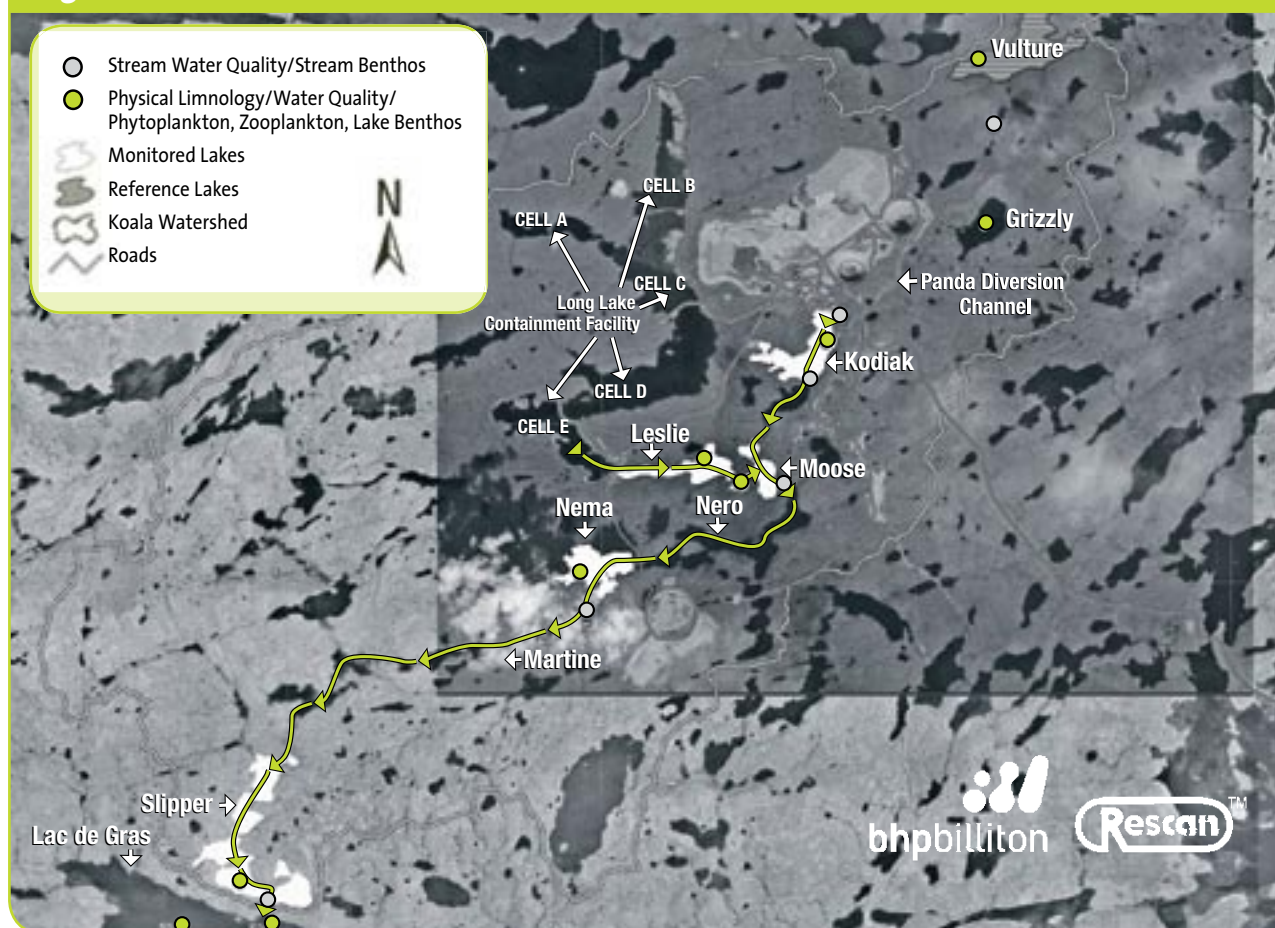
once a summer (August) rather than three times (July, August and September) as now occurs. The WLWB agrees with the Agency and others that more information is needed from BHPB to support this request to shorten the sampling period.

Results from 2006

The most important result from the 2006 monitoring was that for the first time monitoring has shown that the mine may be affecting life in the lakes downstream. It was shown that there are fewer water fleas (a type of bug in lake water that whitefish like to eat) in Moose Lake due to water quality changes.

As a result of reviewing the 2006 results, we told BHPB of our concerns about increasingly large amounts of sulphate, *nitrates* and molybdenum in the lakes downstream of the mine. Also, since the metals antimony and barium were shown to play a big part in water quality changes in downstream lakes, these two metals should be watched more closely.

Figure 2: AEMP Reference Lakes and Outflow Streams



Fish Studies

2007 was the first year since 2002 that fish in the AEMP lakes have been sampled. There were fewer trout and whitefish than previous

years in the lakes downstream of the mine as well as in those untouched by mine water. The fish in those lakes were larger and older than in 2002. According

to BHPB, these findings are the result of killing too many fish in 2002 while it was sampling them. The amount of fish in the lakes downstream of Ekati is very small

AQUATIC EFFECTS MONITORING

so even sampling a small number of them can have an effect. A small fish, the slimy sculpin, was added to the fish contaminants study done in 2007 in the hope

that these abundant fish could be used in future monitoring instead of trout and whitefish.

BHPB believes that fish in the first lake downstream of the

LLCF, Leslie Lake, may have been exposed to small amounts of oil products. BHPB doubts that the LLCF is the source as there have not been any major diesel spills in

the LLCF. As well, the taste testing showed no evidence of bad fish meat. BHPB will examine this issue more closely in our report next year and we will report on it.

Adaptive Management Plan for Water



Aquatic monitoring at Ekati.

Monitoring of water tells us what is changing in the water and why the changes are happening. But it is adaptive management that tells us what a company plans to do to stop any bad changes from getting worse. Because scientists can not know about everything in the environment, adaptive management aims to deal with things that are not well known that can surprise us. BHPB has developed this type of plan for water at Ekati as its water licence requires them to do this. BHPB's plan aims to control the changes so that they will not get to a point that causes harm to fish and other life in water.

As mining carries on, water-monitoring results are looked

at and if changes are found to cause concerns, then management of the mine can be changed to try to create better water quality. Since the adaptive management plan needs to be regularly improved to take into account unexpected changes, it needs the ideas of not only the mining company but also people from the communities and government. Regular meetings should be held to do this.

In the plan, thresholds (an amount of a contaminant at which problems for aquatic life may start) are set for 17 different contaminants. These thresholds are set to protect all fish species and at least 95% of all of the different forms

of life in a lake. Action will be taken when a contaminant in any lake downstream of the mine is predicted to increase to an amount greater than the threshold within three years. This way, everyone can be alerted to a problem before it develops and the company can act to prevent the problem from happening.

We think there needs to be more consideration of the options available to the company for correcting big changes in the amounts of chemicals in LLCF water. We will have more to report on the Adaptive Management Plan next year after we have taken a closer look at it.

Preliminary Results from the 2007 AEMP

In 2007, only one contaminant, *nitrate*, was in amounts greater than the government's recommended guidelines to protect life in Canadian waters. However, Environment Canada is reviewing this guideline and that of others such as molybdenum and is in the process of changing those guidelines. Eight contaminants continued to be higher in lakes downstream of

the LLCF as far as Slipper Lake, the last lake that drains into Lac de Gras. At this time, none of these contaminants have increased enough to be considered harmful to the water and fish. BHPB is attempting to learn why some of these are increasing at a rate higher than it had predicted. BHPB was not able to deliver its 2007 AEMP report to us in time for us to review it for our annual report. We will review it further and report the results next year. ■

Government Guidelines for Monitoring Water and Fish

At a January 25, 2007 meeting about water monitoring guidelines for all mines, the Agency gave the federal government advice on the need to:

- develop ways to determine effects of more than one mine on a single lake;
- document Traditional Knowledge (TK) contributions to water and fish monitoring;
- develop links between water and fish monitoring and determine when and how to respond to changes in water and fish; and
- have regular meetings of all government and community representatives to discuss water and fish monitoring at a mine.

Air Quality Monitoring

Highlights:

- 🕒 **The Agency hired a technical expert to look at BHP Billiton's (BHPB's) 2005 Air Quality Monitoring Program (AQMP) reports;**
- 🕒 **BHPB held a meeting with experts on monitoring air quality where it agreed to make changes to the snow and lichen sampling program in 2008; and**
- 🕒 **We believe that BHPB should discuss changes to its AQMP with Aboriginal communities.**

For the last 10 years, the Agency has been recommending to BHPB that it needs to improve its AQMP. We are happy to report this year that BHPB has agreed to improve its AQMP and will be making some changes for the 2008 field season.

In 2007, we hired a technical expert to look at the 2005 AQMP reports. In April 2007, we provided BHPB with the consultant's report which pointed out some problems with how the data was being collected and being used to find out the air quality impacts of Ekati. In November 2007, BHPB responded to the concerns raised by our consultant, Environment Canada (EC), the GNWT and

ourselves on these reports, and recognized that the AQMP could be improved.

A technical meeting was held with BHPB, consultants (including a lichen expert), GNWT, DIAND and the Agency in January 2008. Comments and suggestions were



Air quality monitoring station at Ekati.

AIR QUALITY MONITORING

made to improve the snow core, vegetation and lichen sampling programs in time for the 2008 field season. As a result of the technical discussions a number of changes were made to the 2008 program.

Last year, BHPB monitored the amount of contaminants that were in the air around the mine

site. They used two air samplers, one at Grizzly Lake and the other on the west side of cell B of the Long Lake Containment Facility (LLCF). These stations record data on a weekly basis from May to October. However, BHPB is considering the recommendation of operating them year round. At Grizzly Lake there is also a

continuous air monitoring station. However, in 2007 this station was not operating properly and the data collected cannot be used to determine the air quality effects of the mine.

In 2007, BHPB began measuring how far dust is blown from the roads before it settles on the land. The amount of dust fall from the haul traffic was collected along the Fox, Misery and Sable roads during the months of June, July and August. The dust was sampled for metals and other possible pollutants. The results of this monitoring are expected in 2008.

We are happy with the changes that are being made to improve the AQMP. However, we recommend that BHPB now needs to involve the Aboriginal Peoples with Traditional Knowledge (TK) expertise, through a non-technical workshop to ensure that the program includes finding answers to Aboriginal concerns including dust and its impacts to lichen and caribou. We also encourage BHPB to coordinate its AQMP with Diavik, as dust can fall past mine

claim boundaries.

Our concerns continue to be about how mining can affect the air and land and how dust and contaminants deposited on lichens and vegetation may affect caribou habitat and health. We continue to recommend that BHPB link air quality monitoring with other monitoring programs like the caribou monitoring program to provide a big-picture view of the potential effects of mining. We also continue to recommend to BHPB that it add the testing of caribou droppings to the AQMP to find out how much dust and metals the caribou may be eating.

We are also happy to hear that BHPB has constructed new incinerators during 2007 to burn up leftover food and other garbage, but are disappointed to learn that the new incinerators are still not in full operation. We hope that the new incinerators will be put into operation as soon as possible and that a revised Waste Management Plan will be submitted for review. ■



Natural vegetation at Ekati.

Closure and Reclamation

Highlights:

- 🕒 **BHP Billiton (BHPB) improved its Interim Closure and Reclamation Plan (the Closure Plan) in some key areas;**
- 🕒 **BHPB needs a better research plan to study the parts of Ekati that are hard to clean up; and**
- 🕒 **The Aboriginal organizations need more support so that they can be involved in the closure plan.**

BHPB's Closure Plan

Last year we discussed the Closure Plan that BHPB submitted to the WLWB in January 2007. It contains information on how BHPB plans to clean-up Ekati when mining is finished. We felt that BHPB did not listen closely enough to the comments sent in by the reviewers and the Closure Plan did not have enough details about how BHPB would be reclaiming Ekati. Since that time, BHPB has made the closure objectives section much better. The closure objectives demonstrate how each part of the mine will appear and how people and wildlife can use the land after it is cleaned-up. The next part of the Closure Plan will describe the level of

cleanliness required in the pits, waste rock piles and other parts of the mine for the *reclamation* job to be considered done. Once that point is reached, BHPB will be able to get its security deposit money back from the government. This



Vegetation growth at the Long Lake Containment Facility.

part of the plan is not as clear as the objectives section.

The Closure Plan Review Process

Now that the working group set up by the Wek'èezhii Land and Water Board (WLWB) has looked at the Closure Plan, the review process has reached a new stage. BHPB will consider the comments it received on the Closure Plan and will make changes in a new draft that will be submitted to the WLWB in late 2008. Reviewers will again have time to read the plan and suggest changes to BHPB. After the review is

complete, the WLWB will hold a public hearing. At the hearing, BHPB and all of the reviewers will present their ideas and opinions to the WLWB. The WLWB can then decide if the Closure Plan is good enough to be approved or if it needs more work.

The Aboriginal organizations were invited by the WLWB to join in the review of the Closure Plan. During the lengthy review process it has become clear that the Aboriginal organizations do not have the money or capacity to be properly involved. This is a problem because the Closure



Examining processed kimberlite at the Long Lake Containment Facility.

CLOSURE AND RECLAMATION

Plan may be the most important environmental issue at Ekati.

Reclamation Activities in 2007-08

Other than preparing the Closure Plan and attending meetings with the reviewers looking at the plan, BHPB has some new *reclamation* studies to report on at Ekati. BHPB submitted a study on the research it is doing at Ekati on growing plants on the areas disturbed by the mine. This study is based on 10 years of work and should help guide BHPB in its efforts at replanting the land at Ekati. One important conclusion from the

study is that salt tends to increase near the top of the *kimberlite* beaches in the LLCF. This means that BHPB needs to have plants growing on the beach before salt levels increase too much. If these areas are not replanted quickly the salt level could become too high and make it hard for seeds to survive.

The study also showed that the *tailings* beaches are easily worn away by water and channels form. These channels tend to be filled in with *kimberlite* dust that is blown in by the wind. Replanting the beaches sooner could help avoid these problems. Another challenge

of growing plants at Ekati is the need to fertilize the plants. It is not clear how long the plants can survive without fertilizer. This is a question that BHPB must answer so we can be confident that revegetation is a good way to clean-up Ekati.

Agency's Assessment

We are pleased to report that some of the biggest problems we had with the Closure Plan, such as the objectives, have been fixed, although some others remain and will take more time to address. We have recommended to BHPB that it needs to improve its *reclamation* research plan. We think the research needs to be focussed on four main issues: containing the extra-fine *processed kimberlite* in the LLCF; *pit water* quality; LLCF rock and vegetation cover; and LLCF water quality. We believe that the Closure Plan is the biggest challenge at Ekati and the research needs to be completed soon so that decisions on how to clean-up the mine will be made based on the best possible information.

We have not agreed with BHPB that fish should not be allowed back in the pits. After being pumped full of clean water and connected to Kodiak Lake we think that fish should be allowed to swim through the pits as they move upstream. DFO and BHPB have an agreement on making shallow fish habitats in the pits, but the WLWB will decide if fish are to be allowed to enter the pits.

The Closure Plan review process has been well managed by the WLWB with the exception of the lack of Aboriginal involvement. We have recommended that DIAND increase the amount of resources available to the Aboriginal organizations so that they can be part of the closure planning process.

We are also advising BHPB and the regulators that for parts of the mine due to close in the next few years, there must be detailed engineering work done to make sure the plan is complete before *reclamation* activity begins. Our focus next year will again address the challenge of making sure a good Closure Plan is in place for Ekati. ■



Tundra vegetation beside the Sable haul road.

Regional Monitoring and Cumulative Effects

Highlights:

- **Progress was made on forming the Multi-Project Environmental Monitoring Agency (MPEMA) but many challenges remain; and**
- **DIAND has updated its *cumulative effects* monitoring program.**

Cumulative Effects Monitoring

Cumulative effects are the effect of a project (for us, this is the Ekati mine) combined with the effects of other activities and changes. These combined effects need to be managed to avoid causing

lasting harm to the environment. DIAND is the key government organization responsible for monitoring *cumulative effects*. In 2007, it worked on updating its *cumulative effects* program for the Slave Geological Province. We will review this when it is released

later in the year. There was also agreement at a February 2008 workshop to move ahead with a pilot project to model changes to the Bathurst caribou herd. We think this is an important step forward in better managing *cumulative effects*.

Multi-Project Environmental Monitoring Agency

We have supported the idea that one monitoring agency should monitor all of the diamond mines since the Environmental Monitoring Advisory Board (EMAB)

was formed in 2000 as part of the Diavik Environmental Agreement. This could be more cost effective and have better involvement of our Aboriginal Society Members. Progress on forming MPEMA has been slow but last year some decisions were made about the potential budget and role of MPEMA. It seems that 2008 may be the year when a decision will be made on if MPEMA should be formed. We also know that BHPB and Diavik are not interested in MPEMA right now so that makes it seem less likely that MPEMA will go ahead.

Regional Wildlife Monitoring

We have suggested for a long time that Ekati and Diavik are close enough together that some wildlife monitoring cooperation is needed. This is most important for caribou and wolverine because they have such large ranges. For more information on BHPB's monitoring of wildlife in 2007, please see that chapter of our report. ■



Caribou near Ekati.

Review of the Performance of the Government Regulators

Highlights:

- ▶ **Department of Fisheries and Oceans (DFO) and BHP Billiton (BHPB) agreed to work together on building shallow water habitat for fish in pit lakes;**
- ▶ **Department of Indian Affairs and Northern Development (DIAND) used technical experts to help it review BHPB's Interim Closure and Reclamation Plan (the Closure Plan) and inspected Ekati carefully;**
- ▶ **Government of the Northwest Territories Department of Environment and Natural Resources (GNWT-ENR) is working to improve air quality monitoring at Ekati;**
- ▶ **Environment Canada (EC) offered good advice to the WLWB on the water licence renewal and taught us about the government's water quality guidelines; and**
- ▶ **The Wek'èezhìi Land and Water Board (WLWB) is managing the Closure Plan Working Group process well and hired new employees that are working effectively.**

Each year we look at how well BHPB is protecting the environment and how the government regulators and the inspector carry out their work. We read the comments the regulators make on BHPB's environmental reports and plans. This tells us a lot about how much time they

spend making sure BHPB is doing a good job.

Our Overall Assessment

We believe the regulators help to make sure that BHPB operates the mine in a way that best protects the environment. There were a few times when we

thought the regulators could have reviewed BHPB's technical reports more carefully. This was related to the amount of effort that some departments are spending reviewing the Closure Plan. We made note of some examples of regulators doing their jobs well last year. These included DIAND making sure it had expert help in its review of the Closure Plan and the WLWB staff management of the Closure Plan Working Group.

One of the positive comments we have toward all of the regulators is that we have seen how willing they are to cooperate with each

other. When new reports must be reviewed and there is not always a clear way forward, the regulators work together to find ways to learn and offer advice to the WLWB.

A lack of funding for our Aboriginal Society Members has become a more noticeable problem over the past year. Aboriginal involvement in the lengthy regulatory processes and working groups is less than what is needed. We have made a recommendation to DIAND to increase support to our Aboriginal Society Members. ■



Government regulators at an Ekati site visit.

Assessment of BHP Billiton

Highlights:

- ▶ BHP Billiton (BHPB) has made improvements to the Interim Closure and Reclamation Plan (the Closure Plan);
- ▶ BHPB is working well with the Agency and government regulators; and
- ▶ BHPB monitoring reports need to be submitted earlier so they can be properly reviewed.

In our view, BHPB continues to operate Ekati in a way that protects the environment. In 2007-08 we did not identify any

major issues related to the mine harming wildlife or the release of water that was harmful to the fish downstream. We are also



Agency directors and BHPB staff at the underground portal at Ekati.

pleased to report an improved working relationship with BHPB employees; in particular, BHPB's Environment Department is working well with the Agency and the government regulators.

We reported in past years that BHPB was no longer delivering the environmental reports in time for us to be able to review them in a timely manner. This led to the recommendation last year that dates for delivery of key environmental reports be fixed by making a change in the Environmental Agreement. BHPB responded that this was not necessary and that it would be providing reports earlier to us this year and in the future. Although the 2007 Wildlife Effecting Monitoring Program (WEMP) report was delivered early enough, we did not receive the Aquatic Effects Monitoring Program (AEMP) report for 2007 in time to fully review it for our annual report. Our position remains that there should be a fixed date for the delivery of the annual monitoring reports and that the

date should be added into the Environmental Agreement.

Last year we reported that the company had worked hard to develop a new Closure Plan but needed to improve its *reclamation* objectives. We are now recommending to BHPB that it needs to improve its *reclamation* research plan. Further information on this topic is found in our chapter on Closure and *Reclamation*.

An issue we are pleased to have resolved over the past year was a disagreement between BHPB and ourselves on use of funds for the Agency to take part in regulatory processes (this is where the WLWB has to make a decision on a part of the Ekati water licence). A deal was reached where the Agency can use the fund if the WLWB will hold a public hearing on any topic related to Ekati.

We look forward to reporting back to our Society Members on these issues and others as they develop, and to another year of good environmental performance at Ekati. ■

Agency Recommendations for 2007-08

Recommendation

Closure and Reclamation: The Department of Indian and Northern Affairs (DIAND) should increase the amount of resources available to potentially affected Aboriginal organizations to engage in regulatory and review processes, in particular the closure planning process for the Ekati Mine.

DIAND Response: Indian and Northern Affairs Canada (INAC) recognizes that Aboriginal organizations have concerns about their capacity to participate in regulatory and review processes. INAC has no formal process to provide participant funding for these process, but will continue to consider individual proposals as funding becomes available. ■



Recommendation

Closure and Reclamation: BHP Billiton (BHPB) should improve its reclamation research plan to include an explicit description of the link between the research task and the related closure measure, how the research task will be carried out to deal with each of the remaining uncertainties, what data will be collected, how the results will be used to improve the Interim Closure and Reclamation Plan (ICRP) and when the results will be available to amend the ICRP. This recommendation should be targeted especially at the four key issues of concern—pits, Long Lake Containment Facility (LLCF) cover, water quality in the LLCF, and extra-fine processed kimberlite.

BHP Billiton Response: The Agency provided this recommendation to BHPB early in 2008 when comments were sought as a part of the ICRP review process. This advice was considered together with requests and comments from community and regulatory members of the ICRP Working Group. Changes to the layout and content of the *Reclamation Research Plan* have been undertaken to address these and other concerns and will be included in the final draft due later this year. ■

Recommendation

Wildlife Effects Monitoring: BHP Billiton (BHPB) should, in collaboration with the Government of the Northwest Territories, Department of Environment and Natural Resources (GNWT-ENR), recommence wolverine DNA monitoring in 2009 for continuation every second year. All cells within the BHPB study area should be sampled (varying numbers of cells were not sampled in 2005 and 2006). The snow track surveys for wolverine should be discontinued in favour of the DNA monitoring.

BHP Billiton Response: The wolverine DNA monitoring program carried out in 2005 and 2006 was a part of a sampling program operated and coordinated by ENR with four northern mining developments. BHPB is prepared to cooperate with ENR in the future should a similar monitoring program be set up. Future modifications to the Wildlife Effects Monitoring Program will be considered.

GNWT Response: It is the GNWT's intent to continue to move forward with a wolverine DNA monitoring program in the central barrens. The GNWT has had initial discussions with BHPB about participation in this program. ■

Glossary

Consultation

Written notice, adequate preparation time, and consideration of the views presented by the community.

Cumulative Effects

The environmental changes that occur from a project or activity combined with effects from other human activities.

Environmental Agreement

Created as a legally binding instrument to provide monitoring and input into management practices not covered by other authorizations.

Inokhok

Innuinaqtun word meaning “looks like a person” and used to describe a pile of rocks constructed by people to direct caribou or to serve as a landmark.

Kimberlite

A rare, potentially diamond bearing iron and magnesium rich rock from deep in the Earth’s mantle. Kimberlites are generally found as vertical pipe-like structures.

Nitrate

A nutrient, like a fertilizer, derived from nitrogen.

Pit Water

Water found within the pit containing wastes from mining practices.

Processed Kimberlite

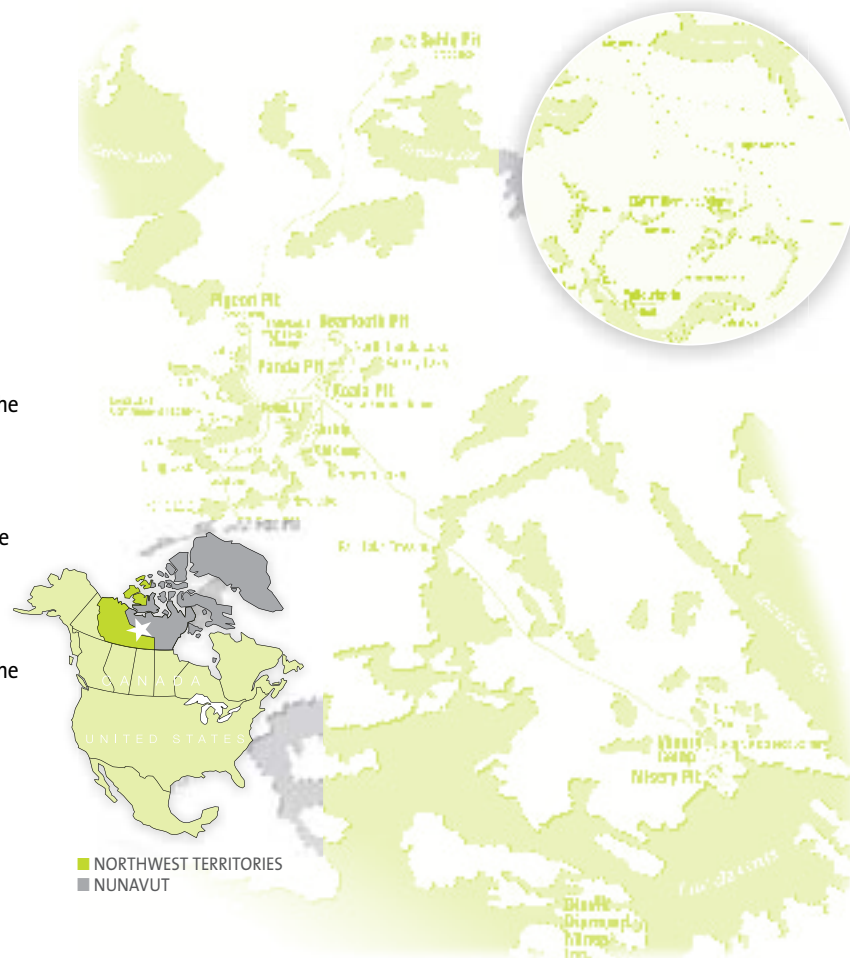
The waste material and water mixture that is left over after the mill removes the diamonds. Also referred to as tailings.

Reclamation

The recovery to viable ecosystems of areas of land and water bodies that have been disturbed during mining.

Tailings

The waste material and water mixture that is left over after the mill removes the diamonds from the ore. Also referred to at Ekati as processed kimberlite.



Agency Recommendation Themes 1997-2008

Recommendation Recipient

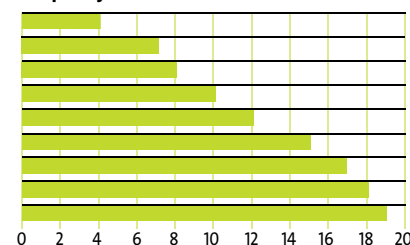
| | |
|--|----|
| BHPB | 80 |
| Government (GNWT, GNU, Government of Canada) | 13 |
| Water Board (NWT Water Board, MVLWB, WLWB) | 8 |
| Environmental Agreement signatories | 3 |
| Aboriginal Society Members and BHPB | 3 |
| Aboriginal Society Members | 1 |
| All Agency Society Members | 1 |

Total 109

Frequency of Recommendations

| Themes: | Frequency: |
|---|------------|
| Role of government in environmental management | 4 |
| Regional monitoring and cumulative effects | 7 |
| Wildlife monitoring | 8 |
| Kodiak Lake monitoring | 10 |
| Waste rock management, seepage and characterization | 12 |
| Aquatic monitoring and fisheries | 15 |
| Closure and reclamation | 17 |
| Traditional Knowledge and Aboriginal involvement | 18 |
| Environmental management, planning and reporting | 19 |

Frequency:





Independent Environmental Monitoring Agency

How To Reach Us

In Person

Suite 203
5006 Franklin Avenue
Yellowknife NT

By Mail

P.O. Box 1192
Yellowknife NT
X1A 2N8

By Telephone

(867) 669-9141

By Fax

(867) 669-9145

By E-mail

monitor1@yk.com
Or visit our website:
www.monitoringagency.net

Office Hours

Monday to Friday
9:00 a.m. — 12:00 p.m.
1:00 p.m. — 5:00 p.m.

Directors

Bill Ross

Chairperson
269 Edgebank Circle
Calgary AB T3A 4V8
Phone: (403) 547-0415
E-mail: ross@ucalgary.ca

Tim Byers

Vice-Chairperson
Box 1049, Teulon MB R0C 3B0
Phone/Fax: (204) 886-4642
E-mail: Byerses@escape.ca

Jaida Ohokannoak

Secretary-Treasurer
P.O. Box 2366
Cambridge Bay NU X0B 0C0
Phone: (867) 983-2153
E-mail: jaida@polarnet.ca

Sheryl Grieve

P.O. Box 2301
Yellowknife NT X1A 2P7
Phone: (867) 873-6762
Fax: (867) 669-7442
E-mail: lands@nsma.net

Laura Johnston

611-16th Avenue North
Creston BC V0B 1G5
Phone: (250) 402-0036
E-mail: laurajo@shaw.ca

Tony Pearce

RR1 — S6, C-9
Mayne Island BC V0N 2J0
Phone: (250) 539-3015
Fax: (250) 539-3025
E-mail: tpearce@gulfislands.com

Kim Poole

2305 Annable Rd.
Nelson BC V1L 6K4
Phone: (250) 825-4063
Fax: (250) 825-4073
E-mail: kpoole@aurorawildlife.com

Office Staff

Kevin O'Reilly
Manager

Sean Kollee
Environmental Analyst

All photos by the Agency unless otherwise noted.

Plain Language Annual Report 2007-08