



Independent Environmental Monitoring Agency

P.O. Box 1192, Yellowknife, NT X1A 2N8 ▪ Phone (867) 669 9141 ▪ Fax (867) 669 9145

Website: www.monitoringagency.net ▪ Email: monitor1@yk.com

January 7, 2008

Laura Tyler
Manager - Environment, Community, Communications & Planning
BHP Billiton Diamonds Inc.
1102 4920-52nd Street
Yellowknife, NT X1A 3T1

Gavin Moore
Manager, Environmental Assessment
Environment and Natural Resources
Government of the NWT
Yellowknife, NT X1A 2L9

David Livingstone
Director, Renewable Resources and Environment
Department of Indian Affairs and Northern Development
Yellowknife, NT X1A 3R9

Re: Highlights from the Environment Workshop November 14, 2007

The Independent Environmental Monitoring Agency (IEMA) hosted a workshop to review Ekati's environmental monitoring and management programs on November 14, 2007. We have attached a summary of the workshop for your information. The presentations made by the Agency can be found on our website.

The purpose of the workshop was to review the Ekati monitoring programs, the results for 2006, and to provide the Agency perspective on these programs and results.

The workshop was well attended by community and government representatives. The Agency has a mandate to convey the concerns of Aboriginal peoples to BHPB and government about Ekati and the monitoring and regulation of the mine. This letter and the attached summary help fulfill that mandate.

The Agency would like to highlight the following observations from the workshop:

- There is a strong interest in knowing what is being monitored at the mine, particularly in terms of aquatics, fish and wildlife, what is being found, and what if any actions the company and regulators should be taking. Thus the Agency's view of the utility of an annual collaborative forum to discuss monitoring is strongly supported.

- There is an interest in knowing more about the aquatic and fish sampling protocols, results and management responses including the Long Lake Containment Facility water quality modeling and the adaptive management plan.
- There is a recurring and persistent concern about dust from the mine site and its possible effects on water quality, fish, vegetation and most importantly, wildlife and caribou in particular.

To reinforce this last point regarding concern about dust and the need for improved monitoring, the Agency is pleased to see that BHPB is sponsoring a technical meeting in January 2008 to discuss its air quality monitoring program. We are of the view that such a meeting of technical experts, including the consultants hired by the Agency to review the 2005 air quality monitoring program report, is an important step to working together to improve air quality monitoring. We commend the company for taking this important initiative in time to improve the air quality monitoring that is scheduled to take place in 2008.

In addition to the January 2008 technical meeting, the Agency would strongly recommend to the company and regulators that there is a critical need to engage the communities with regard to air quality monitoring, particularly dust monitoring and its potential effects on vegetation and wildlife.

We would be happy to discuss any of these matters at your convenience.

Sincerely,

-ORIGINAL SIGNED BY-

William A. Ross
Chairperson

cc: Aboriginal Society members
IACT members

Summary of November 14th, 2007 Agency Environmental Workshop

Participants:

Akaiicho Treaty 8 (Lutsel K'e First Nation):

Florence Catholique
Charlie Catholique

Akaiicho Treaty 8 (Yellowknives Dene First Nation):

Mike Francis
Peter Sangris
Isidore Tsetta

Tlicho Government:

Eddie Weyallon
Harry Apple
Eddie Erasmus

North Slave Métis Alliance:

Ron Balsillie
Claudia Haas
Ed Jones

Department of Indian Affairs and Northern Development:

Jason Brennan
Mark Cassas
Nathan Richea
Velma Sterenberg

Department of Fisheries and Oceans:

Bruce Hanna

Government of the NWT:

Erika Nyssonen
Patricia Hogg

Wek'eezhii Land and Water Board:

Zabey Nevitt
Ryan Fequet

Agency Directors

Bill Ross
Tim Byers
Jaida Ohokannoak
Tony Pearse
Sheryl Grieve
Laura Johnston
Kim Poole

Agency Staff

Kevin O'Reilly
Sean Kollee

Interpreters

Bertha Catholique (Chipewyan)
Margaret Mackenzie (Tlicho)

Draft Date – December 2, 2007

Chairperson's Opening Remarks

The Chairperson stated the purpose of the meeting was to review BHPB's Aquatic Effects Monitoring Program (AEMP), Wildlife Effects Monitoring Program (WEMP) and Panda Diversion Channel (PDC) monitoring program, and the results from these programs from 2006. Bill Ross emphasized that the Agency had invited the company to the workshop and to present its monitoring programs but BHPB had declined. He reiterated that the Agency cannot speak on behalf of the company but would certainly convey any concerns or issues raised. Questions were invited at the end of each session and it was mentioned that notes would be taken and later distributed to participants. The Agency also committed to placing the presentations on its website.

AEMP Question and Answer Session

The Agency presented an overview of the AEMP, the results for 2006 and the Agency's findings. A copy of the presentation is found on the Agency's website at <http://www.monitoringagency.net/AgencyPublications/Presentations/tabid/81/Default.aspx>.

Charlie Catholique – asked a question related to the health of fish in the East Arm area of Great Slave Lake where skinny fish have been noted. In comparison to Ekati fish stomach analysis done to date there is no such information available about fish from Lutsel K'e. Charlie also noted that there was no Inuit representation at the workshop.

Agency—The Agency is not sure about Great Slave Lake fish populations. Fish near Ekati however appear able to switch their diet to food on the bottom of the lake rather than floating in the water column possibly in response to decreasing zooplankton populations downstream of the LLCF. We only have two years of data collected so far on fish diet (fish monitoring takes place every five years) so 2007 is an important year to look at fish and their response to decrease in zooplankton as it will provide a third data set.

The Agency noted that Kitikmeot Inuit Association representatives could not attend the workshop but would be at the Agency Annual General Meeting the next day.

Florence – what action will be taken if the CCME guideline is exceeded for molybdenum?

Agency – The CCME guideline for molybdenum is based on toxicity testing on newly fertilized trout eggs. Molybdenum concentrations would need to be ten times the current guideline to have that effect (toxic to fish). The concern is for reproductive success of trout and other fish. The Agency has been tracking and is concerned about molybdenum levels and is waiting for a report from BHPB on water quality within the LLCF that should tell us all about predicted levels in the LLCF. We expect to get the report by the end of this year.

Velma Steremberg – Can you describe what the relative composition of fish species such as the percentage of the fish community that are whitefish, grayling, etc? Are the control lakes sampled for fish diet?

Agency – Diet studies are done on lake trout and round whitefish. At this time we do not have the numbers as far as population estimates in Moose Lake and species composition. Trout eat cladocera as well and there have been reports of round whitefish eating large numbers of cladocera. We only have two data points to work with so it will be interesting to see what happens in 2007. Other information you requested will be retrieved later when we are in our office.

PDC Question and Answer Session

The Agency presented an overview of the PDC monitoring, the results for 2006 and the Agency's findings. A copy of the presentation is found on the Agency's website at <http://www.monitoringagency.net/AgencyPublications/Presentations/tabid/81/Default.aspx>.

Harry Apple – Most of the fish at the mines are being contaminated due to explosives. The material from explosives goes into the water and the fish can only eat what is in the lakes. The dust is a concern as it could contaminate the fish and this affects the people that eat fish. How do we know if the fish are getting sick from the explosives at the mine site?

Agency –The company determines if contaminants get into fish because BHPB samples the fish every five years. BHPB also examines the condition of the fish. The Agency looks at the report to see if there are problems with the fish. The Agency will report back following information received in 2007 and we also should note that in 2002 the report indicated that the fish condition in lakes downstream of the mine was better in 2002 than in 1997.

Charlie Catholique – He is concerned about the professional experience of the people that do the monitoring. Are they students and do they have the same people doing the testing year after year? If there is a problem in the PDC, does the mine have to shut down?

Agency – The consultants used by BHPB appear to have a lot of experience and are assisted by technicians from the communities or who have a basic knowledge and education in fisheries. The Agency view is that competent researchers are utilized. In early years there was an assumption that all fish moving up the PDC were there to spawn. In later years it was observed that not all fish are spawning. Differences in results may be in part due to changes in methods. After mine closure the PDC is going to remain a stream so we want to make sure the good conditions we are seeing now will continue into the future. At the moment the Agency does not see a problem with the grayling or anything with the PDC that would result in the mine having to shut down.

Bruce Hanna (DFO)—Fisheries and Oceans has no concerns with the PDC or its current monitoring.

Isidore T'Setta – Fish in the tundra and treeline area are not the same. In his trips to the barrenlands they caught the fish and they taste different. In the bigger lakes the fish are much fatter vs. barren land fish. Do you do the monitoring only in the fall? He also wondered whether Inuit eat the fish that travel into that Ekati area. What is the lifespan of a fish?

Agency – Trout can live up to 25 years. For whitefish the Agency is not as certain (possibly 10-15 years) but this could be checked later. [This was confirmed by the Agency to be the case.] Old trout more than 20 years old, even in clean lakes not impacted by development, often have naturally high levels of mercury that has bio-accumulated in the fat and liver. Normally this will not affect the fish unless they have stress from other things. Even if fish have high levels of mercury, the scientific literature shows that other contaminants can interact with it such as selenium to make the mercury less harmful. That is, the inorganic form of mercury can be changed, in the presence of selenium, into the harmless organic form.

WEMP Question and Answer Session

The Agency presented an overview of the WEMP, the results for 2006 and the Agency's findings. A copy of the presentation is found on the Agency's website at <http://www.monitoringagency.net/AgencyPublications/Presentations/tabid/81/Default.aspx>.

Florence Catholique – In regard to caribou, are there any studies on the effects of fossil fuel emissions and smells from diesel and airplanes that arrive on a daily basis to the mine site? We understand that lichen grows without roots so the food is taken from the air and the effects of air pollution from the mine need to be studied.

What does the Environmental Agreement (EA) say about Traditional Knowledge (TK) input into the monitoring program? How is that being done for BHPB? Is there a condition to train Aboriginal people within the monitoring program?

Agency – BHPB is conducting air quality monitoring and studies. The air quality monitoring program needs to be improved. The Agency hired a consultant to review the program earlier this year. Their assessment of it is posted on our website. It identifies deficiencies and has been sent to BHPB. The company is hosting a technical meeting with experts to discuss the program and improve it. Our view is that dust deposition is the most important issue. What falls on lichen may have some adverse effect on caribou. The company has some new equipment to be installed soon or it may already be operating. Lichen monitoring that has been done also appears to need some improvements.

The Ekati EA and Agency mandate is different from the other diamond mines. The Agency mandate allows us to encourage use of TK in monitoring and management but not to get as engaged as the Diavik Environmental Monitoring Advisory Board (EMAB) does. There is no reference to capacity building in the Ekati EA though we have tried to provide assistance to Aboriginal Society members. Lutsel K'e has been a beneficiary of the efforts but the Agency does not have as strong a mandate in this area as the other monitoring agencies. Caribou and roads reporting have been done and is a key area where TK appears to be used by the company. An upcoming GNWT workshop on caribou and cumulative effects was also mentioned.

Harry Apple – He camped for about 9 days near the diamond mines and the land was dry. When they traveled that area there was a lot of drought and not a lot of animals would feed there. Where the tailings are dumped, the dust is blown around from the LLCF. How far does it blow? It has an impact on the vegetation that for the caribou is food. The dust could also fall on the lakes and aquatic life could be affected. On windy days we would like BHPB to keep the dust down.

Agency – The company has done some work on dust deposition on lichen. Studies show that dust can be found 18-20 km from the mine. Sampling does not go beyond that so it is not known where the dust deposition stops. This is why the Agency wants this monitoring to be improved. BHPB waters the roads and uses a dust suppressant. At the Agency's Board meeting, the issue of the LLCF and how to manage dust at closure was raised. There is a plan to cap the LLCF in parts with rock so the dust would be kept down. We want to make sure this is managed properly. Dust may also require regional monitoring and management. The Agency learned of the importance of dust (in part) by listening to our Aboriginal Society members. In the past, elders told us of these concerns and we determined this was a very wise observation. Since then, we have promoted the idea of doing vegetation dust surveys and we believe the dust deposition is a very important matter.

Velma Sterenberg– Why are caribou avoiding the mine? With regard to health and safety it was thought that caribou were to be diverted using inukshuks. She is concerned about caribou getting onto the waste rock piles at closure. Can it be a good thing that caribou are avoiding the mine rather than viewing the caribou avoidance as a negative? Do the dust studies address the snow melt?

Agency – Inuksuit are for physical avoidance of areas that are dangerous to caribou, such as the Fox pit area. The inuksuit were not meant to make the animals avoid the mine site. The Agency would like to see the company make the waste rock piles possibly easier to get on and off if caribou are to be allowed onto the piles. Our concern is what makes the caribou avoid the mine out to 20 km or more. It is not clear if this relates to the dust deposition footprint. The air quality monitoring work includes snow sampling so that deposition can be measured on snow.

37,000 caribou passed through the study area in 2006 and there were a few deaths in the area attributed to predation and natural processes. Agency has heard the concerns about

dust being a problem and has encouraged the company to improve its monitoring. The company is carrying out snow surveys to find out the amount of dust in the snow. The Agency hopes these data will allow us to better understand the potential impacts on wildlife from the dust. To keep the dust down, the company can use a dust suppressant. Constantly watering the road is not working as well as the company would like in keeping the dust down from road traffic.

Charlie Catholique – Why are caribou avoiding Lutsel K'e? This is the third year of not seeing caribou around our community. Could it be that there is too much activity north of the lake? Is it a natural cycle?

Agency – Bathurst caribou winter across a wide area from northern Saskatchewan to south of Great Bear Lake, and it is not clear why they winter where they do in different years.

Isidore T'Setta – Do people from Kugluktuk eat fish from the Coppermine River?

Agency - We believe it likely that they do eat fish from the Coppermine River. We have heard that the Coppermine River is important to the people in Kugluktuk because they get their drinking water from there.

CLOSING PRAYER

MEETING ADJOURNED

Summary Prepared by the Agency