

**Mining Association of Canada
Towards Sustainable Mining**

Final Summary Report

**9th Meeting of the
Community of Interest Advisory Panel**

**March 5, 2008
Toronto, ON**

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1 Introduction

This report presents a summary of discussions from the March 5th, 2008 meeting of the TSM Community of Interest (COI) Advisory Panel ("the Panel"), including decisions on the work of the Panel and recommendations to the Mining Association of Canada (MAC). Any dissenting views have been identified and recorded.

2 Summary of Items for Follow-up

ITEM	RESPONSIBILITY
Pierre will forward the Panel an invitation to the next meeting on biodiversity indicators.	Pierre Gratton
Christy Marinig, Brenda Kelley and Jim Gowans agreed to set up this year's post-verification review process, building on the approach applied in 2007. They will make recommendations for Panel adoption by June, to provide sufficient time for the selected companies to prepare to present their TSM results to the Panel in September. Stratos will facilitate this process, including setting up conference calls.	Subgroup / Stratos
Dan Benoit, Alan Penn and Eira Thomas volunteered to draft this year's Panel statement and to circulate to the Panel for comment and approval. Stratos will facilitate this process, including setting up conference calls.	Subgroup / Stratos
<p>The Panel Renewal Working Group – Larry Haber, Ginger Gibson and Doug Horswill – will:</p> <ul style="list-style-type: none"> • Revise process document so that it becomes the standing process for renewal; • Receive from panel members ideas for names of new members/potential candidates; • Look at priority categories and come up with recommendations by June for MAC board approval and participation at the September Panel meeting; and • Revise the Panel Terms of Reference to reflect the changes to the selection criteria and process agreed by the Panel. <p>Stratos will facilitate this process, including setting up conference calls.</p>	Subgroup / Stratos
Additional comments on the Aboriginal framework should be sent to Pierre by the end of April.	Panel members
Dan Benoit, Brenda Kelley, Elizabeth Gardiner, and Pierre Gratton offered to work on preparing a draft letter to the Ministers of Environment and Fisheries and Oceans on MMER. The draft will be sent to all Panel members for comment and sign off. Stratos will facilitate this process, including setting up conference calls.	Subgroup / Stratos
Panel members are encouraged to send ideas to the facilitator on some of the key issues that the mining industry will be facing in the future to inform the GT meeting in June.	Panel members

3 Welcome and Approval of September Panel Meeting Report

3.1 Welcome

The facilitator welcomed Panel members to the 9th Panel meeting. Dan Benoit attended the meeting as an interim representative of the Métis National Council replacing Allan Morin. David Mackenzie was introduced, replacing Charles Campbell as the representative from the United Steelworkers of America. Judy Whiteduck of the AFN participated in lieu of Chief Darren Taylor, and Barbara Shumsky of Syncrude participated in lieu of Gordon Ball.

A list of participants, as well as those Panel members who sent their regrets, is provided in **Appendix 1**.

3.2 Approval of September Panel Meeting Report

Panel members approved the September 2007 report without any amendments.

4 TSM Implementation

4.1 TSM Update

Pierre Gratton provided a TSM update, including on activities since the last COI Panel meeting and an update on biodiversity indicator development. These items are discussed below.

4.1.1 Activities Since the Last COI Panel Meeting

A number of activities have been undertaken since the last Panel meeting, including:

- GT preview of the draft closure framework, which was distributed to the COI Panel in December;
- TSM workshop for SNC Lavalin;
- TSM workshop at Breakwater's Langlois mine (a new reporter);
- Amendments to the TSM protocols as per the verification lessons learned workshop held in late 2007;
- Community workshops on the *Mining and Aboriginal Relations Framework* in Yellowknife with representatives from three Dene First Nations, Inuit and Métis organizations (October 2007) and Gull Bay (February 2008);
- TSM presentations in Algiers, Algeria and Quito, Ecuador; and
- Distribution of the TSM 2008 reporting call letter to all MAC member companies and identification of the seven companies that will be verifying their results:
 - Barrick Gold
 - Quebec Cartier Mining
 - Syncrude (repeat)
 - Teck Cominco Trail (repeat)
 - Xstrata Copper
 - Xstrata Nickel
 - Xstrata Zinc

A Panel member suggested that another workshop on the *Mining and Aboriginal Relations Framework* be held in a community that would involve the Métis more specifically.

4.1.2 Biodiversity Indicators

Biodiversity indicator development to support the *Mining and Biodiversity Framework* is currently underway. The goal is to bring draft indicators to the MAC board in November 2008 and have them ready for roll-out in 2009. Biodiversity indicator development is being led by an Initiative Leader subgroup and the MAC Science Committee. The next meeting on these indicators will be at the end of April. An invitation to attend this meeting was extended to the Panel, and a number of Panel members expressed an interest (Dan Benoit and Alan Penn). Pierre will forward the Panel an invitation to this meeting.

4.2 Post Verification Panel Review

Panel members briefly discussed preparations for the post-verification review of two companies, to be carried out at the September 2008 meeting. Suggestions were made to include a gold producer and a remote mine.

Christy Marinig, Brenda Kelley and Jim Gowans agreed to set up this year's post-verification review process, building on the approach applied in 2007. They will make recommendations for Panel adoption by June, to provide sufficient time for the selected companies to prepare to present their TSM results to the Panel in September.

4.3 Panel Statement

A Panel statement for inclusion in this year's TSM report is needed by the beginning of June. The Panel discussed topics and issues that the statement should address this year, including TSM performance and verification, new membership in MAC, updates on ongoing activities such as progress related to the Aboriginal and biodiversity frameworks, Panel renewal, the MOU between AFN and MAC, and the Panel's work on issues of broader concern such as the Ur Energy / MVEIRB discussion. Dan Benoit, Alan Penn and Eira Thomas volunteered to draft this year's Panel statement and to circulate to the Panel for comment and approval.

5 Panel Renewal

Larry Haber presented a report and recommendations for a formal Panel renewal process on behalf of the Panel Renewal Working Group which comprised Ginger Gibson, Doug Horswill and himself. The Panel discussed and proposed revisions to the process recommendations put forward by the working group. It further discussed possible changes and additions to the composition of the Panel for the future.

5.1 Panel Renewal Process

The Panel suggested that the proposed renewal timeframe be adjusted to allow for a rate of turnover of Panel members that provides more continuity and stability in Panel membership – from a 25% annual renewal rate (3-4 members/year) to a rate of 2-3 members every two years. The Panel recognized that representative members may be subject to change as per the decisions of their organizations and noted the replacement of Alan Morin by Dan Benoit as the interim Métis

National Council representative, and the replacement of Charles Campbell by David Mackenzie as the representative of the United Steel Workers of America. The Panel accepted all other recommendations outlined in the Working Group's report.

5.2 Panel Membership

The Panel discussed Panel membership going forward, including the need to determine gaps in the existing composition of the Panel and a new idea of two types of members – permanent members and members brought in for a shorter length of time on an issue-specific or expertise basis. In exploring future membership, the Panel also needs to balance the role of the Panel in providing advice on TSM implementation and further development, and its increasing role in raising and addressing broader sustainability issues facing the mining industry.

The Panel noted that there is a need to strengthen local community representation on the Panel. In addition, mine site representation such as a mine manager could provide a useful perspective, and could be brought on as an ex-officio or issue-specific basis. The Panel could also benefit from participation of mine site personnel with specific community relations experience, or people in communities building relations with a mine. It was also noted that there is a need to strengthen environmental representation on the Panel, as well as to consider more balanced geographic representation, including from the Atlantic provinces.

The Panel also discussed government representation. In discussions at previous meetings the Panel had decided to invite government representatives to attend Panel meetings on an issue-specific basis, an approach that was reconfirmed at this meeting.

The Panel explored the idea of presenting position statements to government on issues where consensus is reached among all Panel members.

Other categories of members that the Panel may wish to consider were identified, including:

- Youth (students or from environmental youth-based movements)
- Academia (from a future labour force perspective, an innovation/technology perspective, or biological systems perspective)
- Environmental lawyers
- Mine service providers (e.g. contractors, drillers)
- Consultants
- Faith-based or social NGOs
- Aboriginal business

In identifying these potential categories for new members, the concern was raised that the Panel will have to balance adding members in new categories with ensuring the Panel remains at or close to its current size to allow for good exchange and dialogue.

5.3 Next Steps

The Panel Renewal Working Group will revise its recommendations according to the feedback received from the Panel, and distribute the revised report to the Panel. The Panel agreed to extend the Panel Renewal Working Group's mandate to the next meeting to make specific recommendations for new Panel members to join the Panel at the September 2008 meeting. All

Panel members, both external and industry members, are encouraged to provide the Working Group with names of potential candidates as soon as possible.

The Working Group will search for additional potential candidates, including through networking with various organizations. Final decisions on recommendations for new Panel members will be made by the full Panel through circulation of the Working Group's recommendations to reach agreement and brought forth to the MAC Board for approval in June 2008. The formal renewal process will focus on replacements for Ginger Gibson and David Scott, who will be stepping down as of September 2008.

The Panel also requested the Working Group to update the Panel Terms of Reference to reflect changes in the renewal timeframe and potential new categories for Panel membership.

6 Aboriginal Relations

6.1 Feedback on the *Mining and Aboriginal Peoples Framework*

Pierre Gratton provided a summary of feedback to date on the *Mining and Aboriginal Peoples Framework*, including comments from the Assembly of First Nations (AFN) and Métis National Council (MNC) as well as the results of workshops in Yellowknife (NWT) and Gull Bay (Ontario). This feedback is summarized below:

- | | |
|--|---|
| Summary of Comments from AFN | <ul style="list-style-type: none"> • Framework complementary to but cannot replace Crown duty to consult • Respect First Nation "perspectives" on Aboriginal and Treaty rights • Need for a process that demonstrates MAC member (company) adherence to framework • Consult and engage throughout project lifecycle • Full disclosure of project information in timely manner and in local language • Additional principles including statements on consent and precautionary principle |
| Summary of Comments from MNC | <ul style="list-style-type: none"> • Explicit recognition of First Nation, Inuit and Métis in text • Footnote recognizing that "communities" not limited to geographic area • Add "treaty and title" rights • Framework does not substitute a legal "duty to consult" • Add sentence on proactive Aboriginal engagement in environmental impact assessments |
| Summary of Yellowknife Workshop | <ul style="list-style-type: none"> • First consultation on the Framework was held in Yellowknife and involved the five Aboriginal groups that have participation agreements with the diamond mines • Workshop provided excellent feedback on the framework and a call on MAC to provide leadership on mining issues in the North • Considerable concern was expressed regarding the performance of many exploration companies in the NWT and the tensions between traditional land use rights and mineral rights • Idea emerged to establish a mining and Aboriginal forum, to allow for more ongoing dialogue between industry and Aboriginal governments and groups |
| Summary of Gull Bay Workshop | <ul style="list-style-type: none"> • Held in collaboration with North American Palladium's Lac des Iles mine |

- Well-attended by community councilors, elders, youth and the local police
- Representative of the AFN and a civil servant from the Ontario Ministry of Northern Development and Mines also participated
- Dialogue focused on economic opportunities for Gull Bay residents, especially for its youth, and on training and education needs
- Key challenge facing the community is the fact that its youth must leave the community for Thunder Bay (3 hours away) for high school, which is hard on families and youth
- Community had praise for the efforts of Lac des Iles to maintain a regular dialogue with them on issues of mutual interest and concern
- Community asked for more employment and business opportunities

Pierre also noted that the Initiative Leaders have put together their initial reactions to the comments from AFN and MNC (the document was provided in the briefing binder for the Panel meeting).

The Panel commented on the feedback and on possible improvements to the framework itself. These comments are summarized below:

- Consider adding "Aboriginal title" to "treaty rights" in the framework, but recognize the need to consider the legal implications of using the word "title", and the possible implications for other communities.
- Ensure that the framework is inclusive of First Nations, Inuit and Métis, and recognizes the different consultation and decision-making process of different Aboriginal governments and groups.
- Recognize that communities are not limited to a geographic area. While there might not be a community within the specific boundaries set by a project, the lands might still be used by surrounding communities.
- Bring questions and concerns about boundaries for mining activity interaction to national or provincial Aboriginal organizations and they can help companies figure out who to speak with to determine the users of the land.
- Expand consultation on the framework into eastern Canada.
- Give serious thought to how the framework would apply internationally.
- There needs to be some clarity in determining who is responsible for contributing to community capacity. There is strong concern from junior mining companies on the idea that companies have to pay for capacity development so communities can participate in consultation. While companies are happy to pay for the physical costs associated with meetings, small companies may not have their own internal capacity to contribute to increasing community capacity. Even if the company has the capacity to do so, providing such support is problematic as it may create a conflict of interest or it may be seen as biasing the process.

The ITK representative on the Panel offered to provide more detailed feedback from Inuit organizations. A revised draft of the framework will be presented at the next Panel meeting in September 2008, prior to its being provided to the MAC Board in November for approval. Additional comments on the framework should be sent to Pierre by the end of April.

6.2 NWT Aboriginal Forum Concept

Pierre also presented information on work underway to develop an Aboriginal Forum in the NWT. The forum, which would consist of Aboriginal interests and mining industry representatives, would facilitate regional-level dialogue between industry and Aboriginal governments and groups and meet twice a year. The forum would be jointly developed by industry and Aboriginal representatives, and would have a neutral facilitator. From an industry perspective, the purposes of developing this forum would be to identify mutual objectives between industry and Aboriginal peoples for mining activity in the NWT; improve company practices for consultation and accommodation with Aboriginal peoples and their participation in decision making; facilitate access to mineral resources under clear terms; create long-term opportunities for Aboriginal communities; and establish alliances between industry and Aboriginal governments and groups.

A proposed approach to establish the forum is to set up a design team that would develop a draft terms of reference, identify potential participants, and determine how the forum would operate. The design team could include representatives from MAC, the NWT and Nunavut Chamber of Mines, the Prospectors and Developers of Canada (PDAC), Aboriginal community and/or organization representatives, and regional Aboriginal business.

COI Panel members strongly supported the forum as a good idea, and said that the concept could be replicated in other regions and provinces. It was suggested that the forum consider addressing issues such as the growing regulatory burden in the NWT, the mining industry's and federal and territorial governments roles in supporting education in Aboriginal communities, and how to encourage and support Aboriginal businesses.

7 Energy and Greenhouse Gas Management

Paul Stothart, Vice-President of Economic Affairs at MAC, presented to the Panel on energy and greenhouse gas (GHG) management at MAC, including relevant MAC activities and industry performance, the Federal Clean Air Regulatory Framework; and emerging and sensitive issues facing the mining industry today. A brief summary of his presentation is provided below, followed by the ensuing Panel discussion.

7.1 MAC and Climate Change

Relevant MAC Activities

MAC is involved in ongoing dialogue with the Federal government regarding the Clean Air Regulatory Framework (CARF) and targets for its sector. MAC has been involved for many years with the Canadian Industry Program on Energy Conservation (CIPEC) and with Natural Resources Canada (NRCan) on energy efficiency.

In terms of MAC's TSM initiative, one of the four TSM protocols deals directly with energy and GHG emissions management. In general, the protocol requires companies to have targets in place related to energy and GHG emissions intensity and to improve their energy management plans and reporting systems. This is TSM's weakest performance area overall, and only one company has reached "Level 3" in this protocol. MAC aims to improve the TSM energy and GHG emissions management protocol in 2008 through the development of guidance and training workshops to improve TSM results. MAC also collects energy use and GHG emissions data from its members.

Clean Air Regulatory Framework and Mining Industry GHG Performance

The current Clean Air Regulatory Framework sets ambitious targets: for existing facilities in regulated sectors, the framework requires a 6% improvement each year from 2007 to 2010, amounting to an 18% reduction from 2006 GHG emission intensity in 2010, and a 2% annual improvement thereafter. Companies can achieve these improvements through in-house reductions; contribution to a technology fund (phases to zero by 2017); domestic trading/offsets; accessing international Clean Development Mechanism (CDM) projects (up to 10%); and credit for past actions (limited). The industry's historic energy use and GHG emissions performance is summarized in the table below:

	ENERGY USE	GHG EMISSIONS
Metal Mining	0.69% of Canadian energy use in 2005 versus 1.06% in 1990	Total GHG emissions 4.5 mt in 2005 versus 5.6 mt in 1990
	One-half of energy used is from electricity – not much change in 15 years	Emissions Intensity improved 9% in 15 years
	Energy intensity has improved around 7% over 15 years	
Metal Smelting/Refining	0.62% of Canadian energy use in 2005 versus 0.80% in 1990	Total GHG emissions 6.8 mt in 2005 versus 7.7 mt in 1990
	Electricity share has risen - from 40% in 1990 to 50% in 2005	Emissions Intensity improved 36% in 15 years
	Energy intensity has improved around 17% over 15 years	This falls short of the 18%, three-year CARF intensity target

Emerging and Sensitive Issues

Where is the consumer? The Clean Air Regulatory Framework does not place any expectations on consumers, despite the significant GHG emissions resulting from consumer activities (e.g. cars ~40Mt/year, light trucks ~45Mt/year, residential and commercial heating each ~40Mt/year). B.C.'s new climate change plan is expected to send a signal directly to consumers.

Is there a role for a carbon tax? There is debate around whether the proposed Clean Air Regulatory Framework is preferable to a revenue-neutral carbon tax, and whether there is a risk that businesses could end up facing both. B.C.'s new climate change plan proposes to be revenue-neutral and includes a social low-income component.

Where is the international incentive? Under the Clean Air Regulatory Framework, access to clean development mechanism (CDM) project credits is limited to 10% of the firm's target, and the CDM process is complex. Progress towards a Canada-US emissions trading regime is slow, and whatever emerges may be very balkanized. Overall, Canada is a very small player in the international carbon scene.

Are the BRIC countries (Brazil, Russia, India, China) onside? In China, 13 million people per year are moving into urban centres, and 500 coal-fired power plants are presently being built. Canada's annual GHG emissions from the mining industry are the equivalent of one week's growth in China's GHG emissions. A similar story is emerging in Brazil, Russia and India, though on a

smaller scale. Without a commitment from these countries to reduce GHG emissions, global emissions will continue to rise. At the same time, the Clean Air Regulatory Framework might drive manufacturing investment offshore to countries where the operating requirements are less stringent, thereby also contributing to global GHG emissions.

7.2 Panel Discussion

Panel members had a lively debate on mining industry concerns and the sector's and broader Canadian society's opportunities to reduce GHG emissions. The discussion included comments on the federal regulatory framework and on the range of measures being put in place by other jurisdictions.

One Panel member noted that as the political debate regarding climate change continues to churn, the mining industry is left in a difficult position of uncertainty regarding where to focus its investments and efforts. There is serious concern about driving businesses to relocate elsewhere, resulting in "carbon leakage" and worsening the carbon emissions elsewhere. A longer-term view is needed to address these competitive issues. In the interim, the mining sector is engaged and is improving its performance, which will hopefully carry some credibility as governments decide how to address the climate change issue.

Another Panel member agreed that MAC was never part of any sceptical "foot-dragging" group and that MAC took early action and developed an action plan on GHGs. However, in the current political context, MAC could go wrong in accepting that the current targets in the Clean Air Regulatory Framework are adequate for corporate responsibility. MAC would garner tremendous public support by being proactive and advocating for a carbon tax and further energy efficiency improvements.

The Panel discussed the role of carbon capture and storage (CCS) for the mining industry's GHG emissions. Paul Stothart noted that while CSS is a very important emerging option for dealing with GHG emissions, there are many big questions about who owns the space where carbon is stored, the best ways to capture it, the ability to store it underground long-term, and who will pay for it. A Panel member raised the concern that the current \$2 billion estimate of costs for investment in CCS technology is a subsidy for conventional oil sands operations to use injected CO₂ to facilitate access to deeper oil that is harder to extract, and if the industry was serious about CCS it would test areas with more stable geologies.

One Panel member commented that the current government's reservations about stakeholder engagement processes are limiting the scale and quality of the public debate about the Clean Air Regulatory framework agenda. Pierre Gratton noted that MAC, other industry associations and several NGOs are part of a small multi-stakeholder advisory committee on the Clean Air Regulatory Framework, which is meeting with the Deputy Minister of Environment. This group has come up with a general consensus position on how to address air pollutants – taking an air-shed-based approach – but is not sure how receptive the government will be.

Overall, Panel members encouraged MAC to make progress on energy efficiency, and acknowledged that solutions to the climate change problem must involve all members of society, including consumers.

8 Metal Mining Effluent Regulations

8.1 Background

The federal Metal Mining Liquid Effluent Regulations were promulgated in 1977, with a commitment in 1990 by the government of the day to review and revise them. Following a series of stakeholder engagement processes that continued over several years, the federal government proposed amended Metal Mining Effluent Regulations (MMER) in 2001, that came into force in 2002. These new regulations provided for the deposition of tailings into natural water bodies by designating five Tailings Impoundment Areas (TIAs) under Schedule 2 of the regulations. Since 2005, the federal government has proposed (or approved) further amendments to the 2002 MMER, which have included a few additional specific TIAs, on a case-by-case basis, following environmental impact assessments. These specific amendments, as they were made or proposed through the regulatory review process for specific mine applications, led to NGOs raising concerns about both the specific applications and approvals, and the processes used to implement the amended MMER.

In February 2008, COI Panel Member Brenda Kelley proposed that a discussion of the MMER and its amendments be put on the Panel agenda for this March 2008 meeting. She prepared a note to Panel members outlining a set of concerns that she and representatives of other ENGOs have with Schedule 2 of the MMER. Elizabeth Gardiner, Vice President Technical Affairs for MAC also prepared a note for the Panel to consider.

8.2 Issues Raised by Brenda Kelley

Brenda introduced the concerns of environmental groups including:

- They may no longer be fully consulted in mine applications under the MMER; there is a need for broader national consultation not just community consultation for each application
- Increasing use of lakes for tailings disposal, particularly where hydrogeology downstream may be linked to the deposit site; there is a view that lakes should not be used for tailings deposition, as in some other jurisdictions
- Climate change impacts on tailings deposit sites
- Lack of review of cumulative effects of the components of large projects
- Need for efficiency in the process as long as people and groups are adequately consulted.

The complete note prepared by Brenda Kelley for the Panel meeting is included in **Appendix 2**.

8.3 MAC's Experience and Perspectives

Elizabeth Gardiner introduced the perspective and experience of the MAC and its members, including:

- Industry isn't being consulted any more than any other group.
- Implementation of MMER involves site-specific economic, social and scientific issues, as well as the assessment of risk and uncertainty.

- Putting tailings under water in a pond or lake can be an appropriate and feasible solution when properly evaluated, implemented and compensated, for example where it stabilizes the waste e.g. where it can stop acid rock drainage.
- There is a need for industry and civil society to encourage the government to work more proactively to fix problems with the MMER process.
- The current MMER process is not efficient.

The complete note prepared by MAC for the Panel meeting is included in **Appendix 2**.

8.4 Panel Discussion

A number of Panel members indicated they had direct experience with the implementation of the MMER, including specific cases. Each Panel member was given the opportunity to comment on what they had heard and their experience with the MMER.

One Panel member presented the experience of a Métis community with the proposed Bucko Lake mine project. An environmental impact assessment was conducted and the company involved did a good job of developing a relationship with the community and demonstrated that it was properly evaluating alternatives to disposal of tailings including into the lake. The community was not informed of which federal agency has jurisdiction, but wrote a conditional letter of support for the project to the Department of Fisheries and Oceans (DFO). DFO replied thanking the Métis for supporting the project and offered no further consultation on the project. The result was the loss of trust in the regulators and the goodwill between the community and the company was eroded.

A number of comments and perspectives on the substantive issues involved with MMER were raised by Panel members, including:

- The sanctity of lakes and whether it is OK to deposit tailings in them.
- The MMER TIA designation process does require that alternatives be adequately looked at and assessed for environmental risks and social risks and benefits.
- The MMER amendments brought more rigour, attention and transparency to the process and made it harder for companies to obtain approval to deposit tailings in natural water bodies by requiring such a proposal to go through an EA process and receive Governor-in-Council approval.
- Each situation has site specific geology and hydrology and we need to rely on experts.
- Disposal in water is a cheaper solution and economics should not be the determining factor when lakes are involved, since communities put high economic and social value on protecting lakes.
- There is a need to look more closely at the impacts of above-ground tailings disposal and to do adequate research on a range of alternatives.

Panel members also raised a number of process issues related to the MMER and their implementation, including:

- It is of concern when parties to the MMER process do not feel that there is adequate transparency or empowerment for them to be at the table to have their voices heard; MAC members on the Panel stated they are fully committed to consulting with stakeholders.

- Communities need to have faith in the rigour of the process and in being able to participate early enough.
- There is an irony in a process that is designed to be based on due diligence, peer review, rigorous science, but which in fact does not generate faith or clarity of purpose or process.
- MMER has not followed consultation processes that are appropriate to Aboriginal groups in the development of the amendments.
- Information and expertise needs to be shared more broadly with communities including the Aboriginal community, and there is a need for post assessment communications once a decision has been made.
- The amended MMER has not provided clarity in how the regulation fits with the federal EA requirements, with the responsibilities of DFO, and with provincial jurisdictions.

Common ideas raised by Panel members included the need for trust in the MMER process, which is currently lacking; each case requires site-specific analysis which takes into account science and technical factors, ecological impact and risks, economic factors and social factors; and adequate consultation is essential.

8.5 Follow up

Panel members considered different options for as follow up to the discussion, including:

- a) Inviting a representative of the Canadian Environmental Assessment Agency to a Panel meeting;
- b) Establishment of a stakeholder forum to address process and other implementation issues that various stakeholders have identified, and how the process could benefit all interests; such a forum could bring clarity and consistency to implementation of the regulations; relevant government agencies would be invited as observers;
- c) Drafting of a set of guidelines or principles for MMER implementation by COI Panel members, MAC and responsible federal agencies to bring clarity and consistency to implementation of the amended regulation; and
- d) Preparation of a joint COI Panel/MAC letter to the Minister of Environment, raising common issues of process such as transparency and adequate consultation, and seeking clarification by the regulators on aspects of implementation.

The Panel agreed that option d), drafting and sending a joint MAC/COI Panel letter to the Ministers of Environment and Fisheries and Oceans, was the most appropriate initial action to take. Dan Benoit, Brenda Kelley, Elizabeth Gardiner, and Pierre Gratton offered to work on preparing a draft. The draft will be sent to all Panel members for comment and sign off.

Making such a letter public would likely cause the government to respond quickly, but the Panel did not discuss further whether to do so.

The Panel noted that ITK and other organizations represented on the Panel have submitted letters on the MMER amendments to the Minister and that these could inform the proposed letter. The AFN representative promised to consult with the AFN's environmental stewardship group and to provide feedback to the Panel. It was also noted that a private member's bill seeking to ban disposal of tailings into lakes has been put forward.

9 Draft Closure Framework

Pierre Gratton presented the draft *Closure Framework*, which addresses planning, consultation, financial assurance and environmental management. The framework was first emailed to the Panel for their review in November 2007.

Panel members provided a number of comments and suggestions for improving the framework:

- The framework must include a greater focus on the social aspects of mine closure.
- MAC should explore whether there is any overlap or complementarity between the framework and Environment Canada's new Code of Practice for Metal Mines, which also addresses closure.
- Smaller mining companies often rely on consultants to do their stakeholder engagement work for them, resulting in a lack of accumulated experience within companies on how to deal with multi-stakeholder and community engagement issues. Companies need to engage directly with communities on issues such as closure to ensure there is two-way learning and long-term relationship building between the company and affected communities.
- The framework should recommend that companies give communities adequate time to have input into the closure plan.
- Strong community capacity to participate effectively in closure planning is crucial, but will vary by community. The role of companies in strengthening community capacity should be explored.

10 TSM Emerging Issues

Discussion of this agenda item was cut short due to lack of time. Doug Horswill indicated that the Governance Team will be discussing emerging issues for TSM at its next meeting in June, and encouraged Panel members to send ideas to the facilitator on some of the key issues that the mining industry will be facing in the future.

11 Information Items

11.1 Mining Sector Sustainability Table Update

Gordon Peeling notified the group that the MSST is on hiatus until further notice.

11.2 Federal Government CSR Roundtables Update

There is nothing to update with regard to the CSR Roundtables. Gordon Peeling noted that while it was understood that the government was intending to announce something related to the CSR roundtables recently, an announcement had yet to be made at the time of the COI Panel meeting.

12 Future Agenda Items

Possible future agenda items identified during the meeting for consideration by the Panel included:

1. Revised Aboriginal framework;
2. Panel renewal and update of Panel terms of reference;
3. Post-verification review;
4. The new Metal Mining Code of Practice; and
5. How the mining industry/MAC can address Aboriginal "consultation".

13 Next Panel Meeting

The next meeting is scheduled for either September 8th, 9th or 10th in Saskatoon. Details will follow closer to the meeting date.

Appendix 1: List of Participants

COI Panel Members

Dan Benoit, Métis National Council
Chief Jim Boucher, Fort McKay First Nation
Richard Briggs, Canadian Auto Workers
Jim Gowans, De Beers Canada Inc.
Larry Haber
Doug Horswill, Teck Cominco Limited
Brenda Kelley, Canadian Environmental Network (Bathurst Sustainable Development)
Soha Kneen, Inuit Tapiriit Kanatami
David Mackenzie, United Steelworkers of America
Christy Marinig, Timmins Economic Development Corporation
Elizabeth May, Green Party of Canada
Gordon Peeling, Mining Association of Canada
Alan Penn, Cree Regional Authority
David Scott, CIBC World Markets
Eira Thomas, Stornoway Diamond Corporation

Other Attendees

Barbara Shumsky, Syncrude Canada Ltd. (in lieu of Gordon Ball)
Judy Whiteduck, Assembly of First Nations (in lieu of Chief Darren Taylor)
Pierre Gratton, Mining Association of Canada
George Greene, Stratos Inc. (Facilitator)
Karla Heath, Stratos Inc. (Rapporteur)

Regrets

Ginger Gibson
George Hakongak, Nunavut Tunngavik Incorporated
Gordon Ball, Syncrude Canada Ltd.
Chief Darren Taylor, Tr'ondek Hwech'in First Nation
Peter R. Jones, HudBay Minerals Inc.

Appendix 2: Background Notes for MMER Discussion

BACKGROUND NOTE FROM BRENDA KELLEY (BATHURST SUSTAINABLE DEVELOPMENT)

The MMER is changing the classification of specific natural fish bearing lakes to Tailings Impoundment Areas (TIAs) by adding Canadian lakes to Schedule 2 and then publishing it in Gazette 1. Once the lake is added to Schedule 2 it is no longer considered a lake but is instead already redefined as a TIA before it is published in the Gazette and before the 30 day required comment period is complete and any remaining public concerns addressed.

In some cases, the attempt to streamline the regulatory process is resulting in mining applications being only required to go through an EA screening instead of a full comprehensive review. In still other cases, the size of the proposed operation should have triggered a full comprehensive study but it was not required by the regulator. It appears that a level of consultation and study is being skipped in the attempt to give final approval for using the lake in as little as 8 months.

Specific points and issues of concern:

1. In the past two years, two cases, one in Labrador and one in NS have resulted in approval being given for an arm of an existing lake or river that drains into a watershed to be reclassified as a TIA and used for mine waste.
2. In one case that is already before the Gazette and will be given final approval within 25 days from now, one of the natural fish bearing lakes slated for use as a TIA will no longer be able to support aquatic life after the mine closes.
3. Habitat compensation plans and hypothesis that are being accepted appear weak in some cases, minimum and unsubstantiated by a full peer reviewed external assessment.
4. The precautionary principle appears to have been abandoned.
5. The fast and less expensive selection of using the nearest lakes for mine waste disposal is not an ecologically sound decision when compared to the future risk, the amount of and the permanent loss of eco systems and natural capital
6. Schedule 2 was added to the MMERs in 2002 without ANY prior discussion in the multi-year multi-stakeholder review process. That amounts to a regulatory amendment without public consultation.
7. There is no evidence being presented that HADD compensation plans can and do actually compensate for the destruction of an entire freshwater eco-system
8. Canadians are subsidizing the global mining industry by allowing companies to appropriate lakes when this is not allowed in countries such as the U.S. or Australia
9. No other industry in Canada is being given the special privilege of using lakes to deal with their waste issues
10. Some of the projects that were originally scoped as requiring a comprehensive plan are being allowed to be rescoped as only requiring a screening level EA.
11. In the past, this transitional authorization of a natural fish bearing lake could only be done with direct Ministerial authorization on a case by case basis. The "easier" process of now using the Schedule 2 is making use of the lakes more of a first option than a last option and is going to encourage more proponents to choose the fastest and less costly option of instead of giving serious and full consideration and analysis to paste and backfill, dry storage or constructing on land man made sub aqueous options to prevent AMD.

12. Our concern is also that regulators will also allow the use of the lakes option more frequently in the governments rush to approve increased mining operations in Canada.
13. "Streamlining the regulatory process", reducing both the review requirements and comprehensive assessments, only requiring selective local level consultations with minimal and inadequate public notification time for the public to respond to the intent to destroy fish habitat and impact the lakes is not supported.
14. Protection of current and future fresh water resources and wetland areas that already are or that may need to be included in the future for expansion of watersheds for our urban centers, towns and villages are at risk from this less rigorous process and the decisions to choose to allowing the lakes to be used for TIA's.
15. Hypothesis presented of the future impacts of climate change on evapo-transpiration rates, hydrological anomalies, changes in precipitation rates, reliability of freezing and thawing projections and the unsecure and unsubstantiated reliance on future permafrost integrity have not been adequately peer reviewed by external third part experts or evidence presented to substantiated the hypothesis and provide confidence that the scenarios presented are indeed the "best available option" to protect eco systems and ground water resources.
16. In some cases, proper notification is being accepted to have been done with only as little effort as companies posting their intentions to use natural fish bearing waters for tailings impoundments in national newspapers, as was the case for the Bucko Lake project in Manitoba. This does not give the community and stakeholders enough time or notification to become informed on what is being proposed and to respond with their concerns before the lake is already reclassified as a TIA.

BACKGROUND NOTE FROM ELIZABETH GARDINER (MAC)

Amending the Metal Mining Effluent Regulations (MMER): A Note to the MAC TSM Community of Interest (COI) Advisory Panel

February 25, 2008

Background

In 1990, as part of the Government of Canada's "Green Plan", Environment Canada and the Department of Fisheries and Oceans committed to examine the *Metal Mining Liquid Effluent Regulations* (MMLER), which were promulgated in 1977. In 1992, Environment Canada sponsored a workshop to discuss the MMLER revision process and to seek guidance on this process from representatives of all groups with a "stake" in mining and the environment. Represented at this workshop were the "federal government, the mining industry, provincial governments, Aboriginal peoples and environmental organizations." The key recommendations of the workshop participants were:

- 1) *before any amendments were made to the MMLER, an aquatic effects assessment should be undertaken*
- 2) *the assessment should be comprehensive, reviewing chronic, acute, and cumulative effects , with multi-stakeholder participation, and*
- 3) *public communication and consultation should be incorporated into the review process*

It was on the basis of these recommendations, that the *Assessment of the Aquatic Effects of Mining in Canada* (AQUAMIN) was launched in June 1993. The Mining Association of Canada has been involved in the work of AQUAMIN and the evolution of the *Metal Mining Effluent Regulations*, since that first multi-stakeholder workshop in 1992.

AQUAMIN

The objective of AQUAMIN was to examine the effectiveness of the MMLER, by conducting an assessment of the environmental effects of mining, and to formulate, on the basis of this assessment, recommendations in three key areas: (1) amendments to the MMLER, (2) the design of a national environmental effects monitoring (EEM) program for metal mining, and (3) information gaps and research needs. AQUAMIN was directed by a Steering Group which included representatives of all "stakeholder groups" (the preferred term is now "Communities of Interest"). The Final Report (published April 1996) and supporting documents were prepared by several multi-stakeholder Working Groups. Over 700 reports related to more than 95 Canadian mine sites were reviewed and detailed case studies were conducted for 18 sites.

AETE

At roughly the same time, another related initiative was underway. The *Aquatic Effects Technology Evaluation* (AETE) ran from 1994 to 1998. It was a joint initiative of CANMET (Canada Centre for Mineral and Energy Technology) at Natural Resources Canada and the Mining Association of Canada. Other federal and provincial government departments participated on a number of management and technical committees. Its mandate complemented AQUAMIN in the identification of affordable, effective tools to determine and characterize the impacts of mining operations on receiving waters in Canada. A \$3.4M program, it supported over 30 individual studies and projects. The *AETE Synthesis Report* provides a list of recommended tools that could be adopted in an environmental effects monitoring (EEM) program.

Both AQUAMIN and AETE figured prominently in the design and content of the amended MMLER.

The "New" MMER

In 1997, a multi-stakeholder advisory group and several expert working groups were formed to develop the new regulations and the associated EEM program. The summer of 1999 was the end of the long consultation to amend the MMLER. On July 28, 2001, the proposed amended regulations, the MMER (the "L" for Liquid having been dropped), were published in *Canada Gazette, Part I* for a 60-day public comment period. They were registered on June 6, 2002 and published in *Canada Gazette, Part II* on June 19th, 2002. The new regulations contain six parts, divided into 41 sections. Eight schedules deal with, among other things, tailings impoundment areas (Schedule 2), EEM requirements (Schedule 5), and transitional authorizations (Schedule 7).

First MMER Amendments

By 2005, another multi-stakeholder consultation process was underway to amend the "new" regulations.

These first amendments were published in *Canada Gazette, Part I* for a 30-day public comment period on April 7, 2006. The most significant of the proposed amendments was the addition of the

Aur Resources Duck Pond tailings impoundment area (TIA) to Schedule 2 of the regulations. As expected, comments from most non-governmental organizations and the public focused on issues associated with Schedule 2 and the use of natural lakes or ponds for the deposition of tailings.

For many years, going back long before the existing MMER were promulgated in 2002, MAC has consistently held the view that the **studied and judicious deposition of tailings in natural water bodies could be permitted on a site-specific basis.**

The *Regulations Amending the Metal Mining Effluent Regulations* were registered on October 3, 2006 and published in *Canada Gazette, Part II* on October 18, 2006. On May 9th, 2007 the Duck Pond Mine officially opened.

Second MMER Amendments

On May 5, 2007, proposed amendments were published in the *Canada Gazette, Part I* that apply to three metal mines—two iron ore mines in Newfoundland and Labrador and one base metal mine in Saskatchewan. The purpose of the amendments was to extend transitional authorizations issued under section 39 of the MMER by a period of 18 months. These particular transitional authorizations were to expire on June 6, 2007. (It should be noted that the amendment had no impact on the Saskatchewan mine; it ceased commercial operations in 2005 and is in the process of final closure and reclamation.)

Transitional authorizations were included in the MMER to allow mines to deposit tailings into water bodies, while meeting prescribed requirements. These provisions allowed additional time for the mines to come into compliance with the prescribed effluent standards for total suspended solids (TSS).

The transitional authorizations in question had to be extended because, prior to designating the water bodies as TIAs, the federal government was supposed to consult Aboriginal communities potentially affected by such decisions, and it failed to do so. The amendments, which were registered on June 21, 2007, were intended to provide adequate time for completion of the necessary consultations, while ensuring that the mines could operate in compliance with the standards prescribed for TSS in the MMER. They extended the transitional authorizations until December 6, 2008.

The Current Amendments

The most recent proposed amendments to the MMER were published in the *Canada Gazette, Part I* on February 9, 2008. The amendments would add two tailings impoundment areas (TIAs) to Schedule 2 of the regulations—those associated with the Doris North (Newmont Mining Corp.) and Meadowbank (Agnico Eagle Mines Ltd.) Projects in Nunavut.

To this point, there has been extensive consultation on these projects during the environmental assessment (EA) phase. The EAs included extensive local/regional consultation with Aboriginals and non-Aboriginals. Federal officials were closely engaged in both EAs. These projects are on Inuit-owned land, and in each case the Inuit were engaged throughout the EAs and had input into the design of the consultation processes. The EAs included thorough assessments of alternatives to the use of natural, fish-bearing waters as TIAs. And in the end, the EAs concluded that both

projects should proceed, subject to terms and conditions of the Project Certificates issued by the Nunavut Impact Review Board.

On February 20th, a three-hour multi-stakeholder Information Session was held at Environment Canada in Gatineau. The purpose of the session was to ensure that participants have the information needed to provide comments on the proposed amendments as part of the 30-day public review period following their publication in Canada Gazette, Part I. Participants included representatives from:

- Federal government: EC, DFO, NRCan and INAC
- Aboriginal organizations: Nunavut Tunngavik Incorporated, Kitikmeot Inuit Association, Kivalliq Inuit Association, and the Inuit Tapiriit Kanatami
- Environmental Non-Government Organizations: identified through the CEN and a representative of Ecojustice by request on February 19
- Mining industry: MAC and the two project proponents: Agnico-Eagle and Newmont

A summary record of the discussions will be issued to participants. MAC will be submitting comments on the proposed amendments to Environment Canada during the public review period.

The Current MAC Perspective on Schedule 2 of the MMR

Under the amended MMR there is a requirement for Governor-in-Council approval to designate any portion of any natural water body frequented by fish as a TIA on Schedule 2 of the MMR, following the successful completion of an environmental assessment (EA) under the Canadian Environmental Assessment Act (CEAA). This requirement applies equally to the use of a natural water body such as a lake for containment, as well as to the use of engineered tailings dam structures in a valley setting, which may impinge on the smallest creek channel inhabited, on a seasonal or intermittent basis, by fish. In the past, the practice of depositing tailings into a natural water body, while not frequent, was in fact not subject to the high level of scrutiny and assessment that the MMR now requires. This is not a new issue, nor has the use of natural water bodies for tailings deposition increased as a result of the new regulations. It is, however, the new more rigorous permitting process imposed by the new regulations that is drawing more attention, quite naturally, to the few cases that do gradually come forward.

In many cases, using natural water bodies for a TIA has been shown to be the most effective and scientifically-proven method to manage and mitigate environmental risk associated with mine waste and tailings materials, and therefore should not be precluded as a potential reasonable option. The primary benefit of using water bodies for this purpose is to ensure that mine waste and tailings materials are perpetually saturated and safely contained, thereby minimizing the creation and subsequent mobilization of contaminants to the receiving environment. Further, many TIAs can be successfully reclaimed and are fully capable of supporting healthy ecosystems and fish populations.

Furthermore, the use of containment structures in valley settings is a practical engineering consideration given that containment in open flat areas or on top of mountains is not always feasible. In most places in Canada, valleys contain streams and such streams may be inhabited by fish.

In the mining industry, tailings and waste rock pose a significant risk that must be managed for the long term. Tailings facilities are site-specific and complex, involving unique environmental settings and physical and geochemical characteristics. Over time, it has become evident that the technology—or tools—exist, to safely design, build, operate and decommission tailings impoundment areas, but that these tools must be used and managed properly. Effective tailings management is key.

Through decades of work undertaken by the MEND (Mine Environment Neutral Drainage) program in Canada, as well as other programs and initiatives around the world (International Network for Acid Prevention, Australian Centre for Minerals Extension and Research, etc.), we are gaining an ever-increasing understanding of the complexities involved in the proper and safe storage of mine tailings and waste rock.

Similarly, organizations such as The Mining Association of Canada (MAC) have produced guidelines to help mining companies manage their tailings facilities responsibly and safely, and to be able to demonstrate this to regulators and the public. These guidelines present a framework for managing tailings facilities throughout their full life cycle—from site selection and design, through construction and operation, to eventual decommissioning, closure and post-closure.

Despite the fact that significant improvements have been made in tailings disposal practices, public concern remains. And rightly so. With respect to the MMR, amendments have always been subject to scrutiny by all interested parties, and much attention has been focused on the addition of tailings impoundment areas (TIAs) to Schedule 2 of the regulations.

As noted above, however, this is not a new issue. As mentioned, the Canadian MEND program has for decades been studying a wide range of options for the safe disposal of tailings, particularly those of acid generating potential. In 2000, the 6th Annual BC MEM-MEND 2000 Metal Leaching and ARD Workshop held a workshop entitled “Case Studies, Research Studies and Effects of Mining on Natural Water Bodies”. This topic was considered timely, given the proposed requirements for environmental effects monitoring (EEM) and ongoing discussions regarding the deposition of wastes in natural water bodies. The session was fascinating, not just because of the wide range of viewpoints, recommendations, case studies, and concerns expressed by a number of experts—scientists, regulators, mining company owners and operators, environmentalists, private citizens—but also because of the collegial manner in which ideas were exchanged.

One of the case studies involved the performance of the Albino sub-aqueous waste disposal facility at the Eskay Creek mine in British Columbia. Albino Lake was listed on Schedule 2 of the MMR in 2002. After considerable environmental effects monitoring (field work over three seasons 1997-99) and mass balance modelling, the conclusions, in this particular case, included:

- Oxidized waste rock can be stabilized and deposited in a small natural water body without exceeding water quality guidelines
- There was no evidence that resident communities were adversely affected
- Sub-aqueous disposal of potentially acid generating (PAG) production waste rock and tailings to a natural water body can be acceptable from both environmental and operational perspectives and provides long-term security.

This is just one example, and it is important to recognize that what may work beautifully at one site may be completely inappropriate at another. But some important points emerged from that 2000 workshop, and they hold true today:

- everything is site-specific
- thorough predictive work must be conducted before selecting the appropriate mitigation measure
- thorough assessment of risks associated with disposal options, short and long term
- disposing of tailings in natural lakes depends on various aspects such as the number of lakes in the area, the “ecological value” of the lakes, the geochemical control of ARD, the unknown ecological effects, climate, topography, etc.

In addition, the mining community must work to:

- support more research in the biology and ecology of lakes or man-made water bodies that hold tailings or waste rock
- quantify long term consequences
- develop detailed information at existing sites to assist the application at future sites.

There are good reasons for submerging sulphide-rich tailings in constructed or natural lakes. And conversely, there are good reasons against putting tailings on land. At the end of the day, however, not all types of mine wastes are suitable for sub-aqueous disposal in lakes. The best available science suggests that sub-aqueous disposal in lakes, if properly evaluated, implemented and compensated for, could be an environmentally sound and permanent disposal option. At the outset, the mining industry is committed to protecting aquatic and terrestrial integrity, the fisheries resource and fish habitat, as well as endangered species.

There are lessons to be learned from all the recent multi-stakeholder reviews of the MMER proposed amendments. The issue of sub-aqueous tailings deposition is a difficult one for industry, governments and civil society alike. There is a need for ongoing communications within and among all Communities of Interest, to improve the transfer of information and general understanding of all the associated issues in a timely fashion. In addition, a range of issues which continues to present challenges should be identified, and a framework developed for addressing them effectively. For example, it has often been expressed that there is a need for clarity surrounding the relationship(s) and roles of Environment Canada, Fisheries and Oceans and legislation such as federal and provincial environmental assessment procedures, as they relate to the MMER and the designation of TIAs on Schedule 2.

The Mining Association of Canada has offered to work with its Communities of Interest—federal, provincial and territorial governments, environmental groups, Aboriginal groups, civil society—with a view to developing guidelines that would respond effectively to the issues outlined above, while maintaining rigorous environmental permitting standards.

Elizabeth Gardiner
Vice President, Technical Affairs
The Mining Association of Canada