Mining Association of Canada Towards Sustainable Mining

Meeting of the Community of Interest Advisory Panel SUMMARY REPORT

March 7-8, 2017 Toronto, ON





TABLE OF CONTENTS

EX	ECU	TIVE SUMMARY	1
1.	INT	RODUCTION	3
2.	SUI	MMARY OF ACTION ITEMS	3
3.	OV	ERVIEW OF THE MEETING	4
3	3.1.	OVERVIEW OF THE AGENDA	4
_	3.3.	MEETING ATTENDANCE	
4.	RO	UNDTABLE AND ISSUES TRACKING AND PRIORITIZATION	
4	.1.	ISSUES ROUNDTABLE	
_	.2.	ISSUES TRACKING AND PRIORITIZATION TOOLS	
5.	MA	C UPDATES	
5	5.1.	TSM Strategy	
_	5.2.	INTERNATIONAL UPDATE ON TSM	_
_	5.3.	TAILINGS	
_	5.4.	MAC'S RESPONSE TO THE PANEL'S CLIMATE CHANGE STATEMENT	
		M AND WATER	
_	5.1.	ICMM'S POSITION STATEMENT ON WATER STEWARDSHIP	
_	5.2.	ALLIANCE FOR WATER STEWARDSHIP	
_	5.3. 5.4.	FINNISH TSM WATER PROTOCOL	
_	5.4. 5.5.	GENERAL COMMENTS	
_		HER PANEL BUSINESS	
		Preparing for the October meeting and Post-Verification Review	
		CTION	16
		OSING AND MEETING EVALUATION	
		DIX A: LIST OF PARTICIPANTS	
, vi			10



Executive Summary

The Community of Interest Advisory Panel (COI Panel) is an independent multi-stakeholder group that monitors the Mining Association of Canada's (MAC) Towards Sustainable Mining (TSM) initiative's progress and serves as an external source of knowledge and experience. This executive summary provides a brief account of the meeting held in Toronto on the evening of March 7th and the full day on March 8th, 2017.

The objectives of the March meeting were to:

- Share and get feedback on the proposed issues tracking and materiality process
- 2. Hear the perspectives of the Panel on issues that are important to their COI and relevant to the industry
- Review four existing standards related to water stewardship and provide feedback to MAC to help inform the development of a TSM Water Protocol
- 4. Provide an update to the Panel on interim Panel and MAC business, including updates on the Panel's Working Groups, Task Forces and October meeting details, and MAC's TSM work, including tailings and climate change
- 5. Select which companies/company will undergo post-verification review for 2017

Issues Tracking and Materiality Process

One of the recommendations from the October 2016 meeting was to improve the annual agenda setting process by better tracking and prioritizing issues of interest. At this meeting, the Panel acted on two specific suggestions for improvement: 1) start each meeting with a roundtable for members to share important issues for their COI that are relevant for industry, and 2) develop tools to help track and prioritize key topics of interest to assess the most important topics to discuss on an annual basis.

Some of the key issues of interest shared during the roundtable included:

- income inequality
- impact and opportunity of mine automation on low-skilled jobs
- shift to a low carbon economy
- climate change
- UN Sustainable Development Goals
- cybersecurity

- mine closure
- recognition and reconciliation
- Indigenous rights
- internationalization of TSM
- Canada's global competitiveness for mining

The Panel agreed to move forward with the development of the tracking and prioritization tools noting that clarity is needed on the process and role of industry versus non-industry members for assessing the importance of issues.

Review of Water Stewardship Standards

The Panel reviewed and shared their perspectives on four different water stewardship standards to inform MAC's development of a TSM Water Protocol. Feedback provided on each standard and key considerations for MAC included:

ICMM Position Statement on Water Stewardship

 Strong holistic approach; good site-specific elements and inclusion of regional planning

Alliance for Water Stewardship

 Good alignment with TSM, ISO 14001; credibility with NGO foundation; detailed and prescriptive criteria; key elements to draw

- and performance; already aligned with TSM Water Framework
- Would like to see more on: climate change, biodiversity, cumulative effects, management system approach, and Canadian context
- Need to consider duplication of efforts and how to incorporate tenets such as: "own the outcome" and "do no harm"
- from such as best practices, governance, regional industry benchmarking, and collective action for shared water challenges
- Not mining specific; still new need to understand implementation challenges; criteria for 'core' and 'platinum' appear low; would like to see more substantive stakeholder engagement at 'core' level; avoid duplication with TSM tailings management protocol
- Suggest drawing on key criteria related to "outside the fence" indicators (e.g., water stewardship at the watershed level)

Finnish TSM Water Protocol

- Helpful starting point due to strong alignment with TSM; strong elements to draw from on community engagement and innovation
- Still new, need to understand implementation challenges; need to adapt for Canadian context; include more indicators related to "outside the fence"; noted a lack of consistency and flow between indicators; lack of clarity on disclosure and reporting out
- Supporting the Finnish TSM helps grow TSM globally; consider how to 'contextualize' TSM for a regional perspective

CDP Water Program

- Not mining specific; not focused on management systems; water accounting elements may be too prescriptive; would like to see more consideration of climate change; missing water intensity and efficiency indicators
- Key elements from the questionnaire could be useful (e.g., risk assessment, supply chain aspect, governance, targets and linkages and water expenditures)
- Important transparency tool
- Overall, not as beneficial as other standards for helping develop a TSM water standard

MAC Updates

MAC provided updates on relevant topics for the COI Panel, including:

- TSM strategy: Overview of an annual review schedule for the protocols.
- Internationalization efforts of TSM: Update on which countries have signed on to TSM and which ones have expressed interest.
- Updates to the tailings management guides: Overview and discussion related to key changes made to the guides.
- MAC's response to the Panel's statement on climate change: MAC will respond publicly to the Panel's statement in June and will host a webinar for the Panel in April to provide additional information on how mining companies measure risk and how climate change is factored into day-to-day operations and long-term management plans and practices. This webinar will also provide an opportunity for MAC to seek initial reactions of its draft response.

Panel Business

The Panel discussed the opportunity to conduct a site visit to Glencore's Raglan mine in northern Quebec for the fall 2017 COI Panel meeting. The Panel selected Glencore and Rio Tinto as the two companies that will undergo post-verification review in 2017.

1. Introduction

The Mining Association of Canada's (MAC) Communities of Interest (COI) Advisory Panel ("the Panel") met on the evening of March 7th and the full day on March 8th in Toronto. The Panel, established in 2004, monitors the Towards Sustainable Mining (TSM) initiative's progress and serves as an external source of knowledge and experience.¹ Its mandate is to:

- Help MAC members and communities of interest improve the industry's performance
- Foster dialogue between the industry and its communities of interest
- Help achieve the goals of TSM

This report presents a summary of discussions at the March 2017 Panel meeting. Unless indicated, Panel members' comments are not attributed. While the report captures the discussion and Panel member perspectives, should there be specific decisions and recommendations proposed by the Panel, the approach and results are described in this report, along with any dissenting views. Meeting presentations were shared with Panel members and this content is not duplicated within the body of this report.

2. Summary of Action Items

Below is a summary of action items arising from the COI Panel meetings. Action items are reported until complete. Action items throughout the report are underlined.

ACTION ITEMS					
#	ITEM	LINK TO REPORT	RESPONSIBLE	TIMELINE	STATUS (as of July 2017)
#1 October - 16	MAC will share the letter that they submitted in May 2016 on the federal government's corporate social responsibility strategy with the Panel.	6.2	MAC	Spring 2017	Complete
#2 October - 16	The Effectiveness of Community Engagement Task Force will schedule calls with the Panel at appropriate milestones to keep them informed on progress and any opportunities for input.	7.1	Effectiveness of Community Engagement task force group	2018	This item will be deferred until the review of the protocol begins in 2018
#5 October - 16	Members of the Panel volunteered to start a COI Panel Task Force to define an issue tracking and materiality process.	9.0	Issue Tracking and Materiality task force group	Winter 2017	Complete (Task force met in January, process underway in 2017)
#6 October - 16	The PVR Working Group will meet to discuss how to improve the PVR process, based on Panel comments received.	9.0	PVR working group	Winter 2017	Complete

3

¹ For more information on MAC's COI Panel, visit: http://www.mining.ca/site/index.php/en/towards-sustainable-mining/community-of-interest-advisory-panel.html

ACTION ITEMS					
#	ITEM	LINK TO REPORT	RESPONSIBLE	TIMELINE	STATUS (as of July 2017)
#9 October - 16	The Panel Renewal Working Group will discuss Aboriginal participation on the Panel, based on Panel comments received.	9.0	Panel Renewal working group	Winter 2017	Complete
#1 March – 17	Further develop issues tracking and prioritization exercise including how to characterize input of industry vs. non-industry Panel members.	4.0	MAC / Stratos	Spring / Summer 2017	In progress
#2 March – 17	MAC will prepare a webinar for the COI Panel in April to provide additional information on how mining companies measure risk and how climate change is factored into day-to-day operations and long-term management plans and practices.	5.0	MAC	April 2017	Complete
#3 March – 17	MAC to provide a briefing on the Extractives Sector Transparency Measures Act to the Panel in advance of the October meeting.	8.0	MAC	ТВС	In progress
#4 March – 17	MAC to share its submission to the CEAA review panel.	8.0	MAC	TBC	Complete

3. Overview of the Meeting

3.1. Overview of the Agenda

The meeting began with an informal dinner for Panel members on March 7th. Panel members were invited to share issues of importance to the community of interest they represent that were relevant for MAC or the mining industry in general. The primary focus of the full-day meeting on March 8th was water stewardship. Specifically, the Panel was asked to review four standards related to water stewardship and provide MAC with feedback on each standard. Information on the water stewardship standards was shared in advance through a webinar held February 27th so that the focus of the in-person meeting could be on dialogue and sharing insights. The meeting also included an update on TSM and Panel working groups and task forces, as well as discussion and selection of companies to participate in the 2017 Post-Verification Review.

3.3. Meeting Attendance

Attendees are listed in Appendix A. The following changes to Panel composition should be noted:

- This was the first meeting for Stephen Hazell (representing the Environment category for the Panel).
- Nathan Lemphers, Maya Stano, Theresa Baikie and Scott Yarrow were unable to attend.
 - Harry Borlase from the Nunatsiavut Government sat in as an alternate for Theresa Baikie.
 - Kristan Straub (VP at Glencore Raglan Mine) sat in as an alternate for Scott Yarrow.
- Earl Klyne stepped down from the Panel.
- Throughout the meeting, the following observers joined the meeting:

- Aidan Davy (Chief Operating Officer, ICMM)
- Oswaldo Garcia (Representative from Ecuador's Ministry of Mines)
- Gustavo Koch (Executive Director) and Graciela Keskiskian (TSM Coordinator) from Cámara Argentina de Empresarios Mineros (CAEM), the national mining association in Argentina

4. Roundtable and Issues Tracking and Prioritization

One of the recommendations from the October 2016 meeting was to improve the annual agenda setting process by better tracking and prioritizing issues of interest. At this meeting, the Panel acted on two specific suggestions for improvement: 1) start each meeting with a roundtable for members to share important issues for their COI that are relevant for industry, and 2) develop tools to help track and prioritize key topics of interest to assess the most important topics to discuss on an annual basis.

This section summarizes key issues raised during the evening roundtable, as well as input provided on the suggested tools.

4.1. Issues Roundtable

Panel members were invited to a roundtable on Tuesday evening to share issues of importance to the community of interest they represent that are relevant for MAC or the mining industry in general. The following key points were raised:

Non-industry perspectives

- Labour / Social
 - Concerns related to income inequality and the impact of mine automation and innovative technologies replacing low-skilled workers in the mining industry ("How many jobs will come from a billion-dollar project?")
 - Climate change and understanding the concept of a 'just transition' for workers and communities as the world attempts to shift to a low carbon future. How will it be operationalized? How will it be inclusive and non-discriminatory, particularly towards Indigenous peoples? How can we work towards getting the north off diesel? How might we encourage more local / remote communities to use small scale and renewable energy, including off the grid energy (e.g., schools using biomass for heating, etc.)
 - What does the **global common good** look like in the future? How will resources be shared more equitably and what kind of economic models are needed to support the global common good? How to build trust with those who have opposing views? TSM is a good start for building trust but there is still a long way to go.
 - The UN Sustainable Development Goals (SDGs) are important global goals that illustrate
 the type of world in which most people want to live. These should be recognized and taken
 seriously by industry.
 - Geopolitics and the accountability of elected leaders is of utmost importance right now based on recent events (i.e. Trump, Brexit). Leaders must recognize that all of society needs to work together or there will be global economic and social consequences.
 - Cybersecurity is a problem worldwide and this risk should not be underestimated for the mining industry, recognizing that one global mining company has already been deeply affected by hacking.

 The City of Thompson, Manitoba has been working to mitigate the impacts of mine closure. The Thompson 2020 plan and the Thompson Economic Diversification Working Group is helping with the immediate and long-term effects expected with the closure of Vale's refinery and smelter.

Aboriginal

- Recognition is a key step toward reconciliation. True recognition of Indigenous rights and Peoples needs to change and cannot be done with platitudes. Without this recognition, conflicts between Indigenous peoples and the government and/or resource development sector will continue.
- Recognizing rights and ownership of the land is important for building relationships with Indigenous peoples. Even during challenging economic times, community relationships are integral for industry. For example, despite the last downturn in Canada's economy, the forest sector has remained an important source of employment for Aboriginal people.
- Ensuring that local people in northern and remote communities are fit to work for the mine is a key concern, especially for northern governments. Community issues such as addiction, poverty and mental issues are increasingly important issues to address to support employment.
- There is often synergy between supporting Indigenous rights and environmental outcomes. For instance, the Nunatsiavut Government has expressed deep concerns related to the impact that the Muskrat Falls hydro dam project in Labrador will have on the environment, Inuit health, culture and way of life. Through supporting Indigenous rights, the Nunatsiavut government helped establish an important environmental and health monitoring program for downstream project impacts including granting joint decision-making authority to the Inuit.

Environment

- The impact and effect of climate change will undoubtedly continue to present a major challenge and opportunity for the mining industry. Loss and damage associated with climate change is increasingly becoming an important issue at the international level and will need to be addressed by industry.
- Environmental law reform (e.g., changes to the Fisheries Act, increasing the amount of protected areas, etc.) will have an impact on the mining industry.

Industry perspectives

- Global mining industry
 - The global mining industry is currently seeing a rebound in the commodity cycle; however, Canada's global attractiveness and competitiveness eroded during the downturn. While there are some exciting developments happening in Canada (e.g., increased interest and investments in northern Canada), other sectors are quite vulnerable and, in general, Canada is in a riskier position than it was in previous years.
 - The industry is constantly experiencing change. Addressing these changes using a singular approach will ultimately encourage the 'yo-yo' effect on industry. TSM plays an important role in managing these issues.

Internationalization of TSM

- MAC is considering how best to manage the internationalization of TSM as global interest in the program continues to grow.
- For those countries interested in or establishing TSM, it is hard for people in these
 countries to forget past industrial disasters. Ecuador is interested in TSM as it recognizes that
 if mining is not done responsibly going forward, the country could shut the door to mining

forever. Industry needs to learn from its past wrongs and move forward responsibly. Similarly, Argentina recognizes the importance of TSM as a tool for ensuring that the mining sector works together with communities and other stakeholders.

- Specific issues of interest
 - Mining development in Canada's north is exciting but difficult (e.g., Agnico Eagle's Meliadine project and Meadowbank mine)
 - Key issues of importance/interest are water, Indigenous relations, workforce (including underrepresented groups) and biodiversity (species at risk)
 - Fort McMurray is still feeling the effects of last year's wildfire. Approximately 15-20% of its residents have not moved back.
 - The prospectors and exploration sector have a lot to learn from TSM, and hopefully PDAC will grow and improve its E3 Plus program to continue to encourage performance improvements within this sector.
 - While automation is a challenge for the workforce, there are also opportunities for technology and automation to build more middle-income jobs (e.g., driving rigs from home via video game-like technology).

4.2. Issues Tracking and Prioritization Tools

Prior to the March meeting, five Panel members discussed a process to track and prioritize issues on an ongoing basis to assist with agenda setting. In brief, this process would include:

Issues tracking table:

- The purpose of the table would be to:
 - Keep track of issues that have been discussed (useful input for the PVR working group and new members to understand what has been discussed previously; and also show where, collectively, the Panel has decided to use its time on certain issues).
 - Track how MAC is incorporating and acting on Panel advice and input to its work.
 - Keep track of issues of interest that have not yet been discussed.

Materiality / issue prioritization for the Panel:

- Employ a dynamic matrix to help prioritize issues for the Panel based on two criteria: 1) How material/important is this topic to the Panel? 2) How urgent is this topic for the Panel to discuss, or, how urgent does the Panel think this issue is for the industry to address?
- Populate the initial matrix with issues raised during the roundtable at the March meeting (see above).
- During subsequent meetings, review and update the matrix as part of the agenda setting process, including through input meeting discussions and roundtables on issues of interest (e.g., Stand back and look at the issues that are emerging on the matrix: What would you change? What's missing?)
- Once complete at the end of a meeting, the matrix should reflect the Panel's views on the issues that are of top priority to the group as a whole.
- The results of this process will inform the Initiative Leaders' work planning process and will be
 used by MAC's Governance Team to help set priorities for the upcoming year, including shaping
 the COI Panel agenda.

Panel feedback and suggestions for the roundtable and tools:

- Roundtable
 - Several participants commented that they enjoyed the roundtable and felt that it was particularly effective at building strong relationships and dialogue with the members of the Panel.
 - Going forward, it should be clear that the focus is tied to what is relevant to the mining industry – not just what is top of mind for their COI. This will help make it more concrete in terms of issues to discuss at future meetings.
- Issues tracking and materiality map
 - The issues tracking table is meant to be populated by the issues roundtable.
 - It still needs to be worked out how the tracking table will differentiate between and industry and non-industry input.
 - The output of the issue prioritization from a COI perspective might also be valuable for other companies and industry associations (e.g., PDAC).
 - MAC, Stratos and the Panel members involved in supporting this process will meet to discuss how to move forward with the tool.

5. MAC Updates

MAC provided updates on relevant topics for the COI Panel, including: TSM strategy; the internationalization efforts of TSM; updates to the tailings management guides; and MAC's response to the Panel's statement on climate change.

5.1. TSM Strategy

MAC is in the process of developing a TSM strategy that includes a review schedule for TSM protocols, along with criteria for triggering an unscheduled review of a protocol. The strategy will also include a process for prioritizing issues related to TSM. Though the details of the strategy are still in development, MAC provided an overview of the Governance Team's initial direction.

Comments and reflections from the Panel on the TSM strategy included:

- This type of formal review schedule for the protocols will be beneficial for international partners.
- In general, the review will take into account a review of the protocols as well as the related TSM guides.
- The protocol review schedule is based on when the last review was done (e.g., the tailings review was just finalized this year and so it becomes the last protocol on the review schedule).
- In general, MAC and the Initiative Leaders have the capacity to conduct one complete review and one interim review per year.
- One Panel member wondered if the recommendations made in the Panel's Climate Change statement would not be incorporated in the Energy and GHG Emissions Management protocol until 2020 as per the draft review schedule. MAC revised the protocol review schedule based on this feedback. The Energy Use and GHG emissions management protocol will be reviewed in 2019 and elements of the Panel's statement will be incorporated into the other protocols as they are subject to review.

For now, the review includes development of only one new protocol for water, however, if new priorities are identified, the schedule will be adjusted accordingly.

5.2. International Update on TSM

Since the last meeting, the Botswana Chamber of Mines officially adopted TSM for its membership. This marks the first association in Africa and the third outside of Canada to adopt the program. MAC provided an update on TSM implementation in Finland, Argentina and Botswana, as well as an overview of interest expressed by other jurisdictions.

5.3. Tailings

Charles Dumaresq from MAC provided an update on the substantive revisions made to the TSM Tailings Management protocol, the Guide to the Management of Tailings Facilities (the Tailings Guide), and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities (the OMS Guide).

Comments and reflections from the Panel included:

Overall comments

One member asked: "If these changes were in place, would Mount Polley have happened?" MAC responded that, while the goal is always zero harm, there is no guarantee as risks will always be present. However, the changes made to the Guide, along with all of the other work that has been done to date to improve tailings management, undoubtedly helps mitigate these risks.

Change in ownership

o In general, these reviews considered the 'cradle-to-grave' aspect of tailings management to help ensure that if there is a change in ownership, all relevant materials and documents are handed over to the new owner (e.g., design principles, geotechnical work, construction information, etc.). One member pointed out that there is a shift happening in the industry in that companies are recognizing that they do not only own the tailings facilities, but they also "own the outcomes".

Climate change

- One member appreciated that climate change was woven into the tailings revisions. Another member wanted to know more about how climate change was factored into the revisions of the Guides, noting the importance of not only having good information on the history and geological issues of where and how tailings management facilities are built, but also having a good understanding of how that setting might change due to climate change in the near and long-term future.
- Involvement and communication with local communities
 - One member suggested that MAC may wish to develop a plain-language version of the guide to share with local communities, noting that communities often want to know about and, in some cases, be part of major reviews, maintenance and operations. MAC responded that the Aboriginal and Community Outreach protocol includes indicators on how to engage the communities on high risk issues such as tailings. The revisions to the tailings management guide has made it easier for non-technical audiences to understand, making it unnecessary to develop a separate plain-language version of the Guides. However, Natural Resources Canada's (NRCan) Mine Environment Neutral Drainage

(MEND) program is considering developing this type of plain-language publication to be shared with communities. One member noted that MAC and its members should not underestimate the power of verbal communication in helping communicate relevant information to local communities. The Panel facilitator also reminded the Panel that the topic of community perspectives on the transparency and accountability of tailings across the mine lifecycle was a key theme during the March 2015 meeting.

5.4. MAC's Response to the Panel's Climate Change Statement

Since the October 2016 meeting, members of the COI Panel Climate Change Task Force have met with both the TSM Governance Team and MAC's Climate Change Working Group to discuss the Panel's climate change statement: Rising to the Challenge: Advisory Statement on Climate Change Issued to MAC and MAC Members. The Climate Change Working Group is preparing a response to the COI Panel's statement. Brendan Marshall, MAC's VP of Economic and Northern Affairs, provided an update on the response and on MAC's work in this area, including:

- Response to the Panel's statement
 - The MAC climate change working group created a task force to respond to the Panel's statement. This task force is currently working on the response, holding regular planning calls to evaluate each of the six sections of the Panel statement.
 - o The goal is to have a draft statement prepared for the June Board meeting.
 - Brendan suggested that MAC prepare a webinar for the COI Panel in April to provide additional information on how mining companies measure risk and how climate change is factored into day-to-day operations and long-term management plans and practices and to seek initial reactions to MAC's working draft response.
 - Two Panel members who sit on the Panel's Climate Change Task Force agreed that the webinar was a good idea. One member commented that it would be beneficial to provide science-based information about the impact on industry of shifting to a "2 degree world".
- In addition, MAC's work in this area includes:
 - Participation in the regulatory consultation process to develop a Clean Fuel Standard and amend the Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations.
 - Support for the development of an energy and GHG benchmarking tool something of interest to Environment and Climate Change Canada (ECCC) and NRCan.
 - Involvement in a mining adaptation working group created by NRCan. One of this group's outputs is a report entitled: Mining State of Play: Climate Change Adaptation in the Canadian Mining Sector.
 - Hosting briefings on carbon markets, including one for the International Emissions
 Trading Association and one for the Energy Intensive Trade Exposed sectors.
 - Appearing before the Standing Committee on Energy, the Environment and Natural Resources regarding a transition to a lower carbon economy.
 - Engaging in media, joint public initiatives with other stakeholders, and other public fora to communicate MAC's position on climate change.

6. TSM and Water

Panel members discussed the following water-related standards in detail to provide advice to MAC that will help inform a TSM Water Protocol:

- ICMM Position Statement on Water Stewardship
- Alliance for Water Stewardship Standard
- Finnish TSM Water Protocol
- CDP Water Program

To prepare for this discussion, MAC held a webinar to share information on the four water standards. During the meeting, Panel members were invited to discuss each standard and identify aspects of each that MAC should consider as it begins working on a TSM Water Protocol.

The Panel had previously discussed water stewardship during the September 2009 and the March 2014 meetings.

6.1. ICMM's Position Statement on Water Stewardship

ICMM's Position Statement on Water Stewardship was released in January 2017. The position statement includes a series of commitments under three themes:

1. Apply strong and transparent corporate water governance

Potential to align with TSM protocols and

5 point scale (clear linkages to elements

responsibilities, and business integration)

such as public disclosure, clear

- 2. Manage water at operations effectively
- 3. Collaborate to achieve responsible and sustainable water use

MAC's water framework was based on ICMM's water framework contained in their guidance on catchment-based water management.

The Panel's comments and considerations associated with this standard included the following:

STRENGTHS CAUTIONS Holistic approach on water (Indigenous) Insufficient treatment of Indigenous water rights and access issues (there is an perspective / water as a single entity) evolving legal framework related to right Addresses environmental and social to water) issues of water Right balance in terms of site level Could include more specificity on: specifics (good level of detail, o climate change (e.g., forward looking review of impacts; improvement from previous work) resilient infrastructure) Good collaboration at local level links to biodiversity Recognizes regional planning, focuses o cumulative effects (how do you on performance improvement for the measure broader concepts that region impact other users?) Provides metrics on how to understand

- Does not have a strong management system focus (no "how-to")
- Success dependent on collaboration; all players need to take responsibility, incentives to collaborate are limited, how do you bring these industries together?
 e.g., If it was a flood year or a drought year, which industry takes more water, less water, etc.?

 Employees have access to clean water but what about communities? (Note: ICMM considered this but decided it could not codify broad-based responsibility)

CONSIDERATIONS

- How is indirect water usage factored in? (e.g., new dams are often built for new mines)
- MAC would need to ensure that the TSM protocol is aligned with the ICMM position statement to avoid creating duplicative obligations for common members.
- TSM can add value with its focus on management systems.
- The concept that "companies don't own the water but they need to take ownership of the outcome from their users" is important and should be woven throughout the protocol.
- MAC can draw on relevant elements of the Energy and GHG Emissions Management protocol.
- Recognizing that TSM goes beyond regulatory compliance, is there a blanket statement that could be incorporated to "do no harm" with respect to water.

Additional comments in plenary:

- Need to remember that mining is often a sequential user of water where water is reused in the
 process. In other industries, such as agriculture and bottling, water is used and gone (mining
 does not 'lock it up in perpetuity').
- Partnering with communities to encourage government to meet its responsibilities is something that could be embedded (e.g., Industry could work with First Nation communities to build capacity / solve major water challenges).
- Within the protocol, it will be important to clearly identify the value add over regulatory requirements.
- Consider the interlinkages between the water protocol and the Aboriginal and Community Outreach protocol. How can they be more integrated without losing specificity?
- Water needs to be viewed holistically and collaboratively. For instance, sea ice is incredibly important for Inuit / northern Canada (highways, bridges, important part of life); how the mine impacts local sea ice is a major concern for safety, and discharge under ice is also a major issue. Vale needed to collaborate with communities, use traditional knowledge and combine that with engineering to find innovative solutions to mitigate the impacts of winter shipping.
- In general, ICMM has good alignment with TSM, however, there are some areas that TSM will need to adapt to "Canadianize" the protocol.
- One panel member cautioned that "If you try to fit too much into one protocol, you might just sink it."

6.2. Alliance for Water Stewardship

The Alliance for Water Stewardship (AWS) is a multi-stakeholder organization dedicated to enhancing water stewardship capacity, and guiding, incentivizing and differentiating responsible water use. AWS employs three mutually-reinforcing programs to drive improved water stewardship: a standard and verification system, membership in a multi-stakeholder association, and training. In this way, AWS is very similar in structure to TSM and could be an important standard to draw upon.

The AWS standard is an international, ISEAL-compliant standard that defines a set of water stewardship criteria and indicators for how water should be managed at a site and within the watershed in a way that is environmentally, socially, and economically beneficial. The standard includes criteria at various levels

(Core, Advanced, and Platinum) and follows a six step approach to water stewardship: Commit, Gather and Process, Plan, Implement, Evaluate and Communicate and Disclosure.

The Panel's comments on the strengths, cautions and considerations for this standard included the following:

STRENGTHS

- Aligned with TSM structure in that it uses a tiered approach for indicators, and a Plan-Do-Check-Act framework
- Aligned with ISO 14001
- A preliminary draft has already been prepared of how a TSM protocol could incorporate AWS criteria (some of this work was already done by New Gold)
- Focus on compliance (good, but also a limitation)
- Includes a capacity / training component
- Credibility (strong NGO / multistakeholder foundation; if MAC asks members to sign on to AWS, it is arm's length from industry - may be more credible to some, like the FSC standard but for water)
- Very detailed provides more context than ICMM
- Good glossary to pull from
- Good elements in section 4 (best practices on site water balance / quality, water-related restoration, governance, regional industry benchmarking, collective action for shared water challenges)
- Addresses offsite issues to address access to clean water

CAUTIONS

- Not mining specific
- Needs more on water reuse/recycling
- Too new? Have the implementation kinks been worked out yet? Verification challenges?
- Too big and complex? (More complex than existing management systems at site level, ISO not as prescriptive as this standard)
- Bar for core criteria appears low (compliance not good enough – need to focus on innovation)
- Platinum does not seem strong enough for TSM level AAA (but there are some elements to draw from)
- Not enough substantive stakeholder engagement at the beginning of the process (more also needed on communications and engagement with Indigenous communities)
- Standard does not recognize need for addressing cumulative impacts
- Prefer to have freestanding indicators, rather than sequential indicators like the AWS' 6 steps

CONSIDERATIONS

- Question for MAC on whether to use this standard "as is" or adapt it to suit MAC general consensus that it would need to be adapted and tailored for MAC
- There is a strong link between the water-related criteria "inside the fence" (i.e. water
 management within mining operations) and MAC's Tailings Management protocol. MAC will
 need to be careful to avoid duplication and may need to move criteria from one protocol to
 another. The criteria "outside the fence" (water stewardship at the watershed level) provide
 good content to draw from.
- Considering the complexity of water, MAC may need both a protocol and guide. For instance, what do we use as the baseline for a watershed? What are the regulators using? This could be addressed in FAQ.
- MAC would need to tailor the criteria for the Canadian context.

6.3. Finnish TSM Water Protocol

In 2015, FinnMin (the Finnish Mining Association) adopted TSM for its members. Since then, FinnMin has drafted its own TSM Water Management and Treatment Performance Protocol. The draft protocol, which is being pilot tested by FinnMin's members, includes four indicators:

- 1. Water management policy and operational guidelines
- 2. Risk management and planning of activities in water management and treatment
- 3. Water management system

CONSIDERATIONS

4. Reporting on water management and treatment

The Panel's comments on the strengths, cautions and considerations for this draft protocol included the following:

STRENGTHS CAUTIONS Helpful starting point, with obvious strong Finland-specific (e.g., high level of alignment with TSM; it goes beyond government management in the process) ICMM and may be more useful than AWS Still new (need to understand as a starting point implementation challenges) Ambitious approach, done quickly Needs a robust/holistic water stewardship High level of prescriptiveness on purpose statement community engagement e.g., community Definition of consultation should be context with Sami people demonstrates strengthened leadership / step towards reconciliation Absence of cumulative effects related to (could be seen as both a strength and a water caution as it might overlap with the Overall, focuses more "inside the fence" Aboriginal and Community Outreach (i.e., does not include the catchment protocol) based criteria in the same way as the Level AAA encourages innovation other standards) Indicators, and the order or flow between indicators, lacks consistency, particularly in terms of community engagement, for which it is best practice to start early in the process (cannot be about understanding and only engaging with communities in level AA or AAA - need to see that the company is incorporating feedback from stakeholders) Lacks clarity on disclosure/reporting out, could be more transparent Lacks targeted/annual measurement objectives and targets, Lacks accountability requirements such as reporting to a Board Some process uncertainty around what verifiers/auditors would be looking for with regard to certain criteria

- As TSM evolves, there may be a need to contextualize the protocols (i.e. the protocols are written to be applicable to all jurisdictions, but supplemental criteria is developed with regional-specific requirements.)
- Alignment between the Finnish TSM and MAC TSM would help members of both associations (i.e. Agnico Eagle, FQM)
- Helps TSM expand globally provide input into the Finnish protocol then share collaboratively

6.4. CDP Water

CDP (formerly the Carbon Disclosure Project) is an independent not-for-profit organization that requests sustainability information from corporations on key issues such as climate change and water for investors. CDP's water program is intended to motivate companies to disclose and reduce their environmental impacts by using the power of investors and customers.

CDP's Water Information Request draws on relevant reporting principles from the GHG Protocol, the GRI Sustainability Reporting Standards (GRI Standards) and existing water reporting guidance such as the CEO Water Mandate Corporate Water Disclosure Guidelines and Ceres Aqua Gauge.

The Panel's comments on the strengths, cautions and considerations for this tool included the following:

STRENGTHS

Questionnaire could help inform a protocol as there are some elements to draw from:

- Risk assessment question is very robust/comprehensive, and includes an element of stakeholder consultation
- Delineation between direct operations and supply chain water use is interesting/positive
- Governance and strategy
- Targets and linkages
- Water expenditures
- Potential to cover public reporting requirements that would be included in a TSM protocol
- Some elements are management system based others are focused on investor relations

CAUTIONS

- Not mining specific
 - Not a standard, but an information request with potential for large variation in responses
- Not focused on management systems / continuous improvement – focuses on reporting of data
- Water accounting elements may be too prescriptive; enhanced flexibility may be needed to account for site-specific realities (could be complicated for mining – water reuse might not be properly taken into account)
- Data should include more climate change related considerations
- Not appropriate for non-publicly traded companies
- Missing discussion of water intensity / efficiency
- No verification system

CONSIDERATIONS

- Important transparency tool
- Could consider making reporting to CDP Water a basic C requirement (put on a level playing field) but generally agreed not a good idea (also should not be considered a requirement for AAA)

6.5. General Comments

- Importance of having a water protocol
 - The water protocol would be one of the few protocols that help companies manage impacts "beyond the fence".
 - Water is generally the most important issue for communities. From an Indigenous perspective, water is everything and is a basic human right. Every issue comes down to water (cultural, spiritual).
 - As Canadians, we have a certain understanding of water abundance but this is not the reality worldwide and a protocol should work in both regions of water abundance and scarcity.
 - We also need to look beyond surface water and consider fossil water (water that has been contained in some undisturbed space, usually groundwater in an aquifer, for millennia).
- Purpose and objectives of the Water protocol
 - Reminder that the water protocol will support implementation of the TSM Water Framework.
 - o Mining is about managing water need to emphasize its importance.
- Development and implementation of the protocol
 - Need to ensure water in all of its forms is considered.
 - Water is a complex subject and MAC may need more expert advice (e.g., hydrologist / water specialist, experts on water scarcity, to bring new necessary perspectives).
 - Industry needs to play a problem solving role for local communities (especially if the government is not taking on that role, though industry must be cautious not to take on the responsibility of government).
 - Consider how 'waterkeepers' (those devoted to protecting local water resources) would handle / contribute to this conversation.
 - Will need to develop an approach that will work across jurisdictions.
- Process of reviewing each standard
 - COI Panel is playing an important role in reviewing the standards. It was a constructive discussion that is timely and 'outside the Panel's comfort zone'.
- Water's connection to other issues
 - Part of the climate change issue water vapour is a big issue (if it heats up).
 - Carbon pricing assume there will be water pricing as well, but from an Indigenous perspective, water should not be seen as a commodity (cannot put a dollar value on something that is sacred).
 - Connection to biodiversity / social issues.
 - Water is a transport mechanism.
- Overall suggestion
 - The Finnish TSM Water protocol is a great starting point for this work.
 - o In general, elements of the AWS Standard and Finnish TSM protocol stand out.

7. Other Panel Business

7.1. Preparing for the October meeting and Post-Verification Review Selection

MAC informed the Panel that Glencore had offered to host the October meeting at its Raglan mine in Northern Quebec. MAC will follow up with exact dates, and recognizes the time commitment required for this trip.

The Panel selected Glencore and Rio Tinto as the two companies to undergo post-verification review (PVR). The PVR Working Group will work with both companies to select topics for discussion at the October meeting. It was noted that it will be interesting to compare and contrast these two companies given that both have northern operations.

8. Closing and Meeting Evaluation

The Panel shared their closing thoughts in a final roundtable and provided feedback via evaluation forms, both in person (12) and online (1).

The feedback received indicated that everyone enjoyed the meeting, felt that the outcomes met their expectations, and found the meeting to be well-organized. Several Panel members commented on the value of holding a webinar in advance to share relevant information, and then allowing members to break into small groups during the meeting for a more in-depth discussion. While several Panel members noted they often do not like group work, having a clear purpose and small groups helped the Panel to have focused conversations leading to detailed input on a new TSM protocol. One Panel member commented that the presentation on tailings was quite technical and could have been better geared to take advantage of the COI's role and expertise (e.g., did it meet the expectations of each community of interest or not?).

- Additional topics to consider:
 - One member reminded the Panel that an outstanding action item was to provide more information on the Extractives Sector Transparency Measures Act (ESTMA). MAC noted that this could be done via webinar before the October meeting.
 - The Panel should spend time discussing the departure and comments provided by two Panel members who left in 2016 (Alan Penn and Luc Zandvliet).
 - One Panel member commented on how the Panel needs to increase its focus on the implementation of the Truth and Reconciliation Commission and endorsement of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
 - The Panel should consider the results of the reviews happening on several pieces of environmental legislation. MAC could share its submission to the CEAA review panel as well as provide more information on the reviews. (It was also noted that MAC was the only industry association to endorse the Indigenous submission calling for more Indigenous participation in the EA decision making process.)

"[We] had a results/purpose focus throughout while being open enough for dialogue and input that was critical to hear. Results were of a nature that encouraged this input vs seemingly controlling the discussion."

Appendix A: List of Participants

TSM Community of Interest (COI) Advisory Panel 2017 Membership List

COI Panel Category	Name
	Dan Benoit
Aboriginal people	Theresa Baikie* (Harry Borlase attended as an alternate)
	(Vacant)
Environment	Nathan Lemphers*
Environment	Stephen Hazell
Social NGO including faith based groups	Joy Kennedy
International development	Philip Oxhorn
Foonamia / community dayalanment	Chief David Walkem
Economic / community development	Tim Johnston
Finance/investment	Stephen Kibsey
Labour/workplace	Doug Olthuis
Expert	Maya Stano*
	Pierre Gratton
	Peter Read
Industry representatives	Scott Yarrow* (Kristan Straub attended as an alternate)
industry representatives	Michel Julien
	Mark Wiseman
	Cory McPhee
	Josée Méthot
	Shirley Neault (Chair of ILs)

^{*} Regrets

Additional Attendees	Organization		
Observers			
Oswaldo Garcia	Representative from Ecuador's Ministry of Mines		
Gustavo Koch	Cámara Argentina de Empresarios Mineros (CAEM), the national		
Graciela Keskiskian	mining association in Argentina		

Additional Attendees	Organization			
Aidan Davy	International Council on Mining and Metals			
Frédéric Brassard	Quebec Mining Association			
Geoff Smith	Mining Association of Canada			
Charles Dumaresq				
Brendan Marshall				
Organizers				
Ben Chalmers	Mining Association of Conside			
Tara Shea	Mining Association of Canada			
Michael van Aanhout	Otracta			
Jane Porter	Stratos			