



2018

Annual Report

MINING.CA



The Mining Association of Canada
ADVOCACY STEWARDSHIP COLLABORATION

THE MINING ASSOCIATION OF CANADA (MAC)

The Mining Association of Canada (MAC) is the national organization for the Canadian mining industry. Its members account for the majority of Canada's production of base and precious metals, uranium, diamonds, metallurgical coal and mined oil sands, and are actively engaged in mineral exploration, mining, smelting, refining and semi-fabrication.

Representing members committed to sustainability, MAC's *Towards Sustainable Mining*® (TSM®) initiative is an award winning and world-leading standard that fosters continuous performance improvement in environmental and social mining practices.

MAC promotes the interests of the industry nationally and internationally, works with governments on policies affecting minerals, informs the public, and promotes collaboration to solve common issues and foster progress. MAC works closely with provincial and territorial mining associations and other industries, as well as with environmental and community groups across Canada.

MESSAGE FROM THE CHAIR AND THE PRESIDENT AND CEO

Anne Marie Toutant, Chair of the Board of Directors, and Pierre Gratton, President and CEO



Anne Marie Toutant, Chair of the Board of Directors

The global mining sector's journey in 2018, while volatile, has continued to rebound. This progress is welcome and provides the opportunity for Canada to maximize its participation in the benefits this recovery presents. Now more than ever, it is essential that the appropriate policies and regulations be in place for the country to regain its competitive position. Over the course of 2018, there were numerous issues that required strategic attention from the Mining Association of Canada (MAC) and its members to ensure that much needed support for the country's minerals and metals industry, one of the most significant contributors to the economy in the natural resources sector, were prioritized.

Currently, while our industry has more spring in its step, there continues to be a number of worrying trends domestically that need to be addressed through specific measures and actions. Canada has long benefited from a prosperous minerals and metals industry, but we are not immune to global competitive forces, and cannot take the benefits and opportunities that mining offers Canadians for granted. We operate in a global context, and competition for investment is fierce.

Recognizing the above, there was some good news for the mining sector in the federal government's Fall Economic Statement (FES). The FES included, among other things, a commitment to the Accelerated Investment Incentive, which will enable miners to write off three times the eligible cost of newly acquired assets in the year the investment is made and an unprecedented five-year extension of the Mineral Exploration Tax Credit, bringing greater investment certainty for early stage mineral exploration. These measures, along with the Canadian Minerals and Metals Plan (CMMP), which was released in early 2019, show an understanding that the mining sector is an essential one, and deserving of support.

While the CMMP and FES provide a good start, more must be done as MAC's 2018 *Facts & Figures* report showed that the sector continues to need assistance from different levels of government in order to enhance its competitiveness. The report demonstrated that Canada is losing out on its ability to seize new opportunities for growth and is continuing to cede market share to other jurisdictions. Worrying trends include that over the past five years, Canada has lost ranking for seven out of 16 commodities for which it is a top-five global producer, and the value of total projects planned and under construction from 2018 to 2028 has reduced by 55% since 2014, from \$160 billion to \$72 billion. This year's *Facts & Figures* highlighted that much must still be done to boost the industry's domestic and international competitiveness in order for the country to reclaim its position as the global leader in the mining sector.

MAC remains intensely focused on advocating for the industry's needs and given the multifaceted nature of mining, continuing to stay abreast of all policy and regulatory developments with the potential to impact our sector remains ongoing. 2018 was the busiest year on record for MAC, with the association tallying over 350 engagements with senior federal government officials, Parliamentarians and their staff. This is a 50-meeting increase from the same time last year, which can be attributed in



Pierre Gratton, President and CEO

part to the extensive government relations work done on Bill C-69, C-49, C-68 and climate change engagements in particular, and also to the need for new approaches to work with a much more independent and active Senate. MAC's President and CEO, Pierre Gratton, was once again listed by the Hill Times in its 2018 Top 100 Lobbyists list.

Much of MAC's focus was on Bill C-68, an *Act to Amend the Fisheries Act*, and Bill C-69, amending the *Navigation Protection Act* and creating the *Impact Assessment Act* which has inspired significant discussion and media attention throughout 2018 and into 2019. The new impact assessment process envisioned in this proposed legislation offers the opportunity for critical improvements to Canada's environmental assessment regime, provided we get it right. Bill C-69 and Bill C-68 will materially affect our competitive position, and meeting with government decision makers from all political parties to ensure the voice of Canada's mining industry is being heard on this important issue was a priority over the course of 2018 into 2019.

Our sector was also affected by the summer Cabinet shuffle, which included a number of changes relevant to our industry. The appointments of the Hon. Amarjeet Sohi as the new Minister of Natural Resources, coming to the role with a strong background in infrastructure, and Mr. Paul Lefebvre, MP for Sudbury, a city synonymous with mining, as his Parliamentary Secretary, were encouraging. Both Minister Sohi and Mr. Lefebvre played prominent roles in this year's Mining Day on the Hill Program, which broke records in 2018 in terms of meetings scheduled. MAC was also pleased to see the Hon. Jim Carr bring his familiarity with our sector to his new role as the Minister of International Trade Diversification and is looking for Minister Carr to bring more visibility to the Canadian mining companies hoping to compete abroad.

The federal government's decision to not include key amendments in C-49, the *Canada Transportation Act*, though strongly supported in the Senate, was disheartening. MAC, in partnership with other shippers, tried to secure amendments relating to Final Offer Arbitration to impose some limits on railway market power that were ultimately unsuccessful. Despite a commitment to ensure that our industry remains competitive, the government failed to modernize the Act in a way that balances the interests of shippers and railways and ensures that our wealth and job creating industries are protected from the railway's unbridled market power. Given the fact that the mining industry accounts for >50% of total rail freight generated and is the largest single shipping sector by volume by both rail and marine modes, the lack of fairness in relevant legislation means an uphill battle in relation to transportation will continue to exist.

Beyond advocacy, MAC's ongoing sustainability work continued to progress and be recognized in 2018. Our made-in-Canada *Towards Sustainable Mining* (TSM) initiative continued to expand globally. This award-winning mining sustainability standard is now being implemented in six countries on five continents, including Finland, Argentina, Botswana, the Philippines and, as of March of this year, Spain. MAC freely shares our TSM program with these countries to help improve the environmental and social performance as a way of contributing to improved performance across our industry. Recognition of TSM is growing and one example of this is the Yearbook of Global Climate Action for 2018, a publication put out by United Nations Climate Change, which profiled TSM.

TSM is also continuing to evolve and this year saw the addition of a new Water Stewardship Protocol and the completion of updates to the Tailings Management Protocol, fulfilling the commitment MAC made to incorporate all of the recommendations provided by our independent review of the standard launched after the Mount Polley tailings breach. Tragically, we were reminded just how important our tailings work is with the devastating events that took place in Brazil at the start of 2019. It is a reminder that these protocols are more relevant now than ever before and will play a valuable role in ensuring sustainable practices for two of the most important aspects of the mining process.

Through 2018 MAC also remained involved in supporting the development of responsible supply chains for metals and minerals. As part of this effort, MAC worked closely with ResponsibleSteel and other partners to help advance their work and to ensure that MAC member facilities participating in TSM are well positioned to seamlessly feed into ResponsibleSteel supply chains. MAC also increased its collaboration with the Responsible Jewelry Council and committed to a joint project to develop an integrated audit protocol that will reduce the burden of members participating in both standards by aligning assurance requirements into a single process.

As the global transition to a low-emissions future continues to build and the demand for the metals and minerals that will form the building blocks for that transition continues to grow, there are also increasing expectations that these raw materials are sourced using responsible practices. Through a combination of MAC's 20-year investment in TSM, and an effective provincial and federal regulatory environment, Canada's mining industry is well-positioned to be the preferred supplier to the world for responsibly sourced metals and minerals to support the transition to a low-emissions economy.

MAC's achievements in 2018 were due to the collective efforts of many people. These individuals include our Board of Directors, Executive Committee and TSM Governance Team, and the committed industry experts who give their time and lend their expertise to MAC committees, task forces and working groups. We also boast one of the strongest association staffs in Ottawa, composed of individuals who are recognized for their expertise and professionalism by government and other associations. With their mix of skills and experience, they deliver tangible outcomes that benefit the entire industry. Their work is much appreciated by the Board and members of MAC.

For more details on the topics discussed here, and on other aspects of MAC's work, we encourage you to read the Annual Report in full.

REPORT FROM THE CHAIR OF THE TSM GOVERNANCE TEAM

Peter Read, Vice President, Strategic Planning, Syncrude Canada Ltd.

The TSM Governance Team examines opportunities for improving the mining industry's performance and reputation with key communities of interest.



Peter Read, Vice Present, Strategic Planning,
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Highlights

- Continued performance improvement in TSM protocols across the membership, with eight facilities achieving TSM Leadership Award status.
- Completed improvements in MAC's Tailings Management Protocol that include addressing all 29 recommendations from the Independent Tailings Review Task Force.
- Completed the development of the Water Stewardship Protocol, adopted by the MAC Board of Directors in November, 2018.
- The 2018 TSM Progress Report includes the first reporting on the new Preventing Child and Forced Labour Protocol.
- MAC's TSM initiative continues to be sought after internationally, both as a standard for other countries and as a confirmation of responsible mining:
 - MAC is supporting the implementation of TSM In Finland, Argentina, Botswana, Spain and the Philippines.
 - MAC continues to engage with downstream standards such as ResponsibleSteel and the Responsible Jewelry Council to establish greater recognition for facilities that participate in TSM and to advance progress towards responsibly sourced supply chains for metals and minerals.

Improving Performance

The 2018 TSM Progress Report shows steady improvement in company results for 2017, compared to 2016. Notable highlights include:

- 96% report publicly on their engagement and dialogue activities.
- 81% conduct crisis simulation exercises.
- 99% have formal safety and health management systems.
- 75% have senior management commitments to biodiversity conservation in place.
- 92% have implemented a tailings management system that is in conformance with MAC's tailings management guides.
- 96% have implemented energy use and GHG emissions management reporting systems.

On an aggregate basis, we did see a drop in performance in both Tailings Management and Crisis Management and Communications Planning. These drops are in part due to the addition of new MAC member facilities that are still working to align their systems with TSM requirements. In the area of Tailings Management, seven facilities (including six closed facilities) that previously reported Level As for Indicators 3 and 4 were downgraded to Level Cs and Bs during external verification this year. Additionally, five facilities that previously met all criteria of the Crisis Management and Communications Planning Protocol reported "No" for Indicator 2.

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These results confirm the value and integrity of TSM's internal and external verification requirements in monitoring the ongoing implementation of effective systems. As a result of reporting this year, MAC was able to identify the specific issues and engaged with the companies that have experienced a drop in performance. Consistent with TSM's intent to drive performance and encourage continuous improvement, these companies have identified corrective actions which are now being implemented.

Celebrating Outstanding Performance

TSM Leadership Awards

This year, eight facilities were recognized with TSM Leadership Awards, including six from Agnico Eagle, a record number from a single company:

- Agnico Eagle, La India
- Agnico Eagle, Goldex
- Agnico Eagle, Kittila
- Agnico Eagle, Meadowbank
- Agnico Eagle, Pinos Altos
- Agnico Eagle, LaRonde
- Dominion Diamond Mines, Ekati Diamond Mine
- IAMGOLD, Essakane

TSM Excellence Awards

The *TSM Excellence Awards* recognize innovative projects that raise the bar for corporate responsibility in the Canadian mining sector. In 2018, Vale's Sudbury Operations in Ontario and IAMGOLD's Essakane Gold Mine in Burkina Faso were awarded with TSM Excellence Awards for their innovative sustainability projects.

2018 Environmental Excellence Award Recipient-Sudbury Biodiversity Program Restores Land and Waterways

After more than a century of mining and logging activities, significant biodiversity initiatives are well underway at Vale's Sudbury Operations. The goal is to return historically stressed lands and waterways back to their natural states. At root of the Sudbury Biodiversity Program's success is Vale's use of restorative processes that improve biodiversity. The program is also bolstered by input and involvement from stakeholders, communities and experts, including government, students and conservationists.

Through Vale's aerial seeding program, the company has reclaimed 8,600 acres of land since 1990. Additionally, the company invests \$250,000 and donates 50,000 tree seedlings annually to the City of Greater Sudbury's Biodiversity Action Plan. Reclaiming tailings areas is also a top priority and Vale undertakes an innovative approach by using dewatered municipal biosolids that are blended with leaf and yard waste. In 2017, Vale reclaimed 40 acres with biosolids in its central tailings area with hay for dust suppression.

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Vale is also working to improve biodiversity at its revegetated slag pile in Copper Cliff by planting milkweed seeds, which are grown at the company's greenhouse with the help of local school children. Milkweed is the sole food source for monarch butterflies, a species in decline across North America. As the butterflies feed on the milkweed, they pollinate the wildflowers on the regreened slag pile, further enhancing biodiversity in the area. A few years ago, Vale also introduced bee colonies to its revegetated slag hills in Copper Cliff and later introduced them to its central tailings area. There are now more than 20 beehives, which helps restore declining bee populations in the area. The bees aid pollination, improve biodiversity and produce honey for visitors to Vale's operations.

Vale's Biodiversity Program also focuses on restoring local rivers and lakes and boosting their fish populations. Since 2011, Vale has raised rainbow trout and walleye and has released more than 100,000 fish into Ramsey Lake and the Onaping River.

2018 Community Engagement Excellence Award Recipient-IAMGOLD: Scrap Metal Program Supports Women Entrepreneurs

In Burkina Faso where IAMGOLD's Essakane Mine is located, the company has long supported local economic development. One of the ways it does this is by giving the mine's scrap metal a second life through the ingenuity and initiative of local entrepreneurs. The program, known as "Fonds Fer" or "Iron Fund", involves the mine selling its leftover scrap metal at auction and then using the revenues to fund local business ideas. The program has evolved through community input to ensure it meets local needs.

A good case study of the program's success is a peanut butter production unit run by a group of 11 local women. It is one of 34 projects this fund has supported. In Burkina Faso, peanut butter is a staple ingredient in many meals. It is traditionally produced manually by women and requires a lot of time and physical strength. This unit, the first in the region, produces high-quality and affordable peanut butter, directly serving the needs of residents and local businesses.

The unit stores the raw material and finished product and houses the electric-powered mill and generator. The use of a mill has several advantages over the traditional method of producing peanut butter. It improves the product's quality, increases its quantity and dramatically cuts down the time it takes to produce it. Additionally, the unit is powered by electricity, whereas the artisanal method uses wood as its energy source, which contributes to the overcutting of forests and accelerates desertification.

The unit's main customers are households and restaurants, but the mine will soon be added to its client roster. With the business poised to grow, the association is planning to hire more people, both to process the peanut butter and to distribute it. This processing unit is a major advancement in agricultural product processing and can serve as a platform for products beyond peanut butter. Its success in revenue and job creation serves as a benchmark for other entrepreneurs. In fact, it has already inspired other women's associations in the area to submit their business ideas.

REPORT FROM THE CHAIR OF THE TSM GOVERNANCE TEAM cont.

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TSM Improvements and Developments

Tailings Management

In 2018, MAC completed the implementation of the 29 recommendations of the Independent TSM Tailings Management Review Task Force, with the finalization of the strengthened Guide to Developing an Operation, Maintenance and Surveillance Manual. MAC members are now turning their attention to aligning their systems with the updated TSM Tailings Management Protocol and guides, which will become the basis for TSM reporting on tailings beginning next year. More on Tailings Management can be found in the report from the Tailings Working Group.

Water Stewardship

Water experts from across the industry have worked diligently to develop a set of performance indicators to measure water governance, operational water management, watershed-level planning and water performance and reporting at the mine-site level. The new Water Stewardship Protocol is now finalized and will be phased-in over the next few years, with public reporting scheduled to begin in 2021.

Aboriginal and Community Outreach

In 2018, MAC initiated a review of the Aboriginal and Community Outreach Protocol. Work to update the Protocol to ensure it reflects current best practices with respect to community engagement and Indigenous relations will continue through 2019.

Work of the Community of Interest Advisory Panel

The Community of Interest (COI) Advisory Panel played a key role in TSM's design from the very beginning and continues to be integral to its evolution and implementation. The COI Panel is an independent, multi-interest group that advises MAC on the TSM initiative and identifies emerging issues or concerns relevant to the mining sector.

The Panel meets regularly throughout the year, including two in-person meetings annually. These meetings are an opportunity for the Panel to provide input into TSM developments, to conduct its annual review of a sample of companies' verified TSM performance results and to discuss topics of shared interest with members of the MAC Board. During the March 2018 meeting, a panel of Indigenous representatives was convened to share their perspectives on Indigenous reconciliation and the Truth and Reconciliation Call to Action #92, and their implications for the mining sector.

In 2018, the Panel also focused the following activities:

- Provided input into the review of the Aboriginal and Community Outreach Protocol .
- Conducted post-verification reviews of Imperial Metals and Dominion Diamond Mines.
- Provided ongoing engagement with respect to the review of the Tailings Management Protocol and guides.
- Provided a final review of the new Water Stewardship Protocol before it received approval by the MAC Board of Directors.

REPORT FROM THE CHAIR OF THE TSM GOVERNANCE TEAM cont.

Peter Read, Vice President, Strategic Planning, Syncrude Canada Ltd.

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Global Adoption and Uptake of TSM

MAC continues to help build capacity within the global mining industry by sharing its expertise in sustainable mining practices. One of the most effective ways MAC and its members have been doing this is by sharing the TSM initiative with mining associations in other countries that are seeking tools to improve the environmental and social performance of their mining industries. As of the end of 2018, TSM is being implemented in Canada, Finland, Argentina, Botswana, the Philippines and Spain.

International interest in TSM continues to grow, and MAC is currently engaging with other governments and associations across the globe. As part of this effort, MAC is working with ICMM to determine how to establish alignment between TSM and ICMM's new Performance Expectations. In 2019 this will extend to collaboration between MAC and ICMM on the internationalization of the Tailings Management components of TSM.

TSM's Growing Role in the Responsible Metals and Minerals Supply Chain

TSM continues to play an increasingly prominent role with respect to emerging responsible supply chains for metals and minerals. This year, MAC has seen increased attention on TSM through direct engagement with global brands such as Tesla, Microsoft and BMW. Apple has also provided greater recognition of TSM in their Supplier Responsibility Standards. Apple's standard has been updated to reflect the additional issue coverage for three areas, including child and forced labour as well as pollution. TSM is now recognized by Apple as addressing seven out of eight issues.

Over the course of 2018 and into 2019, TSM has also aggressively pursued equivalency and alignment with other standards to facilitate greater recognition for members investments into TSM and to reduce the reporting and assurance burden associated with the adoption of multiple standards. MAC's work to have TSM recognized by ResponsibleSteel continued through 2018 with an initial alignment assessment between the two standards having been completed. In 2019 work will shift to addressing how TSM will be reflected in the ResponsibleSteel scoring system and how issue gaps between ResponsibleSteel and TSM that have resulted from strong regulatory coverage in Canada can be addressed.

In 2018, MAC also entered into a partnership with the Responsible Jewelry Council to develop an Integrated Audit Protocol that would harmonize the requirements of both standards. This new protocol aims to combine the unique criteria of both standards and to reconcile language associated with duplicative criteria in order to produce a single set of audit questions that will satisfy the assurance requirements of both standards. It is anticipated that, once complete, both alignment and equivalency projects will provide important learnings that will help facilitate similar integration efforts with other standards with the objective of enabling facilities that participate in TSM to use their TSM scores and assurance to feed seamlessly into emerging responsible supply chains for metals and minerals.

For more information about TSM and to download the latest edition of the TSM Progress Report, visit www.mining.ca/tsm.

ENVIRONMENT COMMITTEE

Chair: Mark Freberg, Director, Permitting & Closure, Teck Resources Limited

The Environment Committee addresses general environmental issues and legislation affecting the industry.

In 2018, the Environment Committee met jointly with the MAC Science Committee in February, May and September. Committee meetings were augmented with informational webinars and by work through task forces. The MAC Reviews Task Force focused its efforts on the legislative changes proposed in two Bills tabled in Parliament: Bill C-68, amending the *Fisheries Act*, and Bill C-69, creating the *Impact Assessment Act* to replace the *Canadian Environmental Assessment Act* and amending the *Navigation Protection Act* to create the *Canadian Navigable Waters Act*. The timeliness and workability of these federal Acts are critical to the future of the industry.

The MAC Species at Risk Task Force was active on developments related to the Southern Mountain Caribou and Boreal Woodland Caribou, and the *Species at Risk Act* Recovery Strategies and Management Plans. The Committee continued its work related to air pollution, climate change, the Chemicals Management Plan, Federal Environmental Quality Guidelines, the National Pollutant Release Inventory and the review of the *Canadian Environmental Protection Act*. The Committee engaged with officials of Environment and Climate Change Canada, the Canadian Wildlife Service, Fisheries and Oceans Canada, the Canadian Environmental Assessment Agency, Transport Canada and the Commissioner for Environment and Sustainable Development.

Reviews of Key Environmental Legislation

In early February, the government tabled Bill C-68 and C-69 in the House of Commons and published two discussion papers outlining two regulations in support of the *Impact Assessment Act* (IAA). The MAC Reviews Task Force undertook detailed analysis of the proposed changes. MAC submitted briefs and appeared before the House of Commons Committees reviewing the Bills. In the case of both Bills, MAC asked the House of Commons to amend transition provisions and emphasized the importance of well planned and executed implementation. MAC also asked for changes in the IAA for uranium mining projects.

The IAA transition provisions were amended by the House of Commons to resolve identified issues, and the concerns of the uranium sector were partially addressed. MAC's analysis of the IAA as passed by the House of Commons in June 2018 concluded that, if well implemented, the IAA would offer improvements over the status quo for mining projects other than uranium mining. Of importance to the mining sector is the IAA's improved approach to cooperation with provinces and coordination within the federal government, better time management, and decisions based on the merits of a project. In fall 2018, most of MAC's oil sands mining members revised their position on the IAA and advocated for additional amendments. The MAC Reviews Task Force worked with the oil sands members and agreed upon four additional amendments that MAC would pursue in the Senate, when it began its study of the legislation.

The transition provisions of Bill C-68 were somewhat improved in the House of Commons, but the House of Commons also made other amendments that raised concerns. MAC engaged with Fisheries and Oceans Canada to explore solutions to identified concerns and plans to encourage the Senate to make further amendments to resolve these concerns.

ENVIRONMENT COMMITTEE cont.

Chair: Mark Freberg, Director, Permitting & Closure, Teck Resources Limited

The Environment Committee addresses general environmental issues and legislation affecting the industry.

MAC also submitted comments on the two IAA discussion papers, as well as the Strategic Assessment of Climate Change that was launched in mid-year.

In addition to formal comments and discussion with officials, MAC participated actively in the Multi-Interest Advisory Committee formed in 2016 to assist in the legislative reviews.

Species At Risk

Throughout 2018, MAC remained active and engaged on issues related to species at risk, including monitoring proposed amendments to Schedule 1 of the *Species At Risk Act* and the publication of proposed recovery planning documents.

MAC continues to participate in the federal Species at Risk Advisory Committee (SARAC), which meets face-to-face twice per year and progresses work through working groups between meetings. MAC is the industry co-lead on for the working group on a knowledge plan for species at risk and participates on the working group focused on conservation agreements.

The 2018 Action Plan for Boreal Woodland Caribou called for the creation of the National Boreal Caribou Knowledge Consortium (NBCKC). The NBCKC consists of nominated representatives from government (federal, provincial and territorial), Indigenous communities and organizations, industry, environmental NGOs and academia. MAC is an active member of the consortium and participates on the monitoring working group.

Following participation on the National Advisory Panel for the Pathway to 2020, MAC has remained engaged with several individuals who participated on the panel to encourage recognition privately protected areas and other effective area-based conservation measures (OECMs) as contributing to Canada's target of achieving 17% protected areas for terrestrial and freshwater by 2020.

Other Activities

To boost its effectiveness, MAC belongs to several formal and informal industry and multi-stakeholder groups. Brady Balicki (Cameco) was appointed to the National Boreal Caribou Knowledge Consortium. Tara Shea (MAC) is the representative on the Species at Risk Advisory Committee. Justyna Laurie-Lean (MAC) was the representative on a number of fora, including: the Industry Coordinating Group on CEPA; the Industry Steering Committee on Clean Air and Climate Change; the North American Metals Council; the Multi-Interest Advisory Committee; the multi-stakeholder National Pollutant Release Inventory Work Group; and the Stakeholder Advisory Committee on the Chemicals Management Plan.

For more information on MAC's environmental initiatives and the reduction of releases from member facilities, please see the latest *TSM Progress Report*, available at www.mining.ca/tsm.

ABORIGINAL AFFAIRS COMMITTEE

Chair: Kara Flynn, Vice President, Government and Public Affairs, Syncrude Canada Ltd.

The Aboriginal Affairs Committee (AAC) works to identify, evaluate and offer informed advice to the MAC Board of Directors on strategies to foster and strengthen the relationship between Aboriginal people and the mining industry in Canada.

In 2018, the Aboriginal Affairs Committee (AAC) met in February, May and September. Throughout the year, the committee benefited from meeting with experts, such as Dr. Ken Coates (Professor and Canada Research Chair in Regional Innovation, Johnson Shoyama Graduate School of Public Policy, University of Saskatchewan) to advise as needed.

The committee focused on the following in 2018:

Environmental Reviews

The committee continued to support the work of MAC's Reviews Task Force in analyzing and responding to proposed environmental legislation, including Bill C-68 and C-69. In 2019, the AAC will continue to monitor proposed complementary regulations and policies that deal with Indigenous participation.

Sharing of Best Practices

The AAC has become a forum for companies to share best practices in the area of Indigenous engagement and to learn from one another. In 2018, the AAC developed a compilation of member company initiatives that demonstrate leading practices. These initiatives have helped inform the review of the TSM Aboriginal and Community Outreach Protocol, and several were featured in a 2018 series of MAC advertisements. The MAC website now showcases many of these initiatives.

Extractives Sector Transparency Measures Act (ESTMA)

The Extractives Sector Transparency Measures Act (ESTMA), which requires mining companies to disclose payments made to Indigenous governments and entities in Canada and around the world, is now fully implemented. MAC continued to participate in the Natural Resources Canada (NRCAN) ESTMA Stakeholder Advisory Group.

Recognition and Implementation of Indigenous Rights Framework

In February 2018, the Government of Canada announced that it will develop a Recognition and Implementation of Indigenous Rights Framework consisting of legislation and policy, in partnership with First Nations, Inuit and Métis peoples. MAC participated in a multi-interest workshop organized by NRCAN in 2018 and continues to monitor the development of the Framework.

TSM Aboriginal and Community Outreach Protocol Review

The AAC has provided leadership on the review of the TSM Aboriginal and Community Outreach Protocol. Many AAC members have joined a Protocol Review Task Force, which has been working to revise the Protocol to ensure that it reflects current leading practices with respect to Indigenous Engagement. More on the Protocol can be found in the *Message from the Chair of the Governance Team* section of this report.

ABORIGINAL AFFAIRS COMMITTEE cont.

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Skills Training

Given that the mining industry is, proportionally, the largest private sector employer of Indigenous people in Canada, MAC continued to advocate for enhanced government support for skills training initiatives, including the Indigenous Skills and Employment Strategy (ISETs) and other programs.

Ongoing Engagement

As always, the AAC continued to focus on enhanced monitoring and engagement in the implementation of the extensive federal policy agenda relating to Indigenous peoples. The AAC also participated in several Indigenous business development fora to promote increased Indigenous inclusion and opportunities in the mining sector.

MAC was a 2018 sponsor of the DAREarts Foundation, a Canadian charitable organization that uses educational experiences in the arts to empower children and youth facing life challenges, with confidence, courage and leadership skills to unlock their potential and ignite change in their lives and communities, including through an Indigenous focused program. MAC also continues to support Indspire, an Indigenous-led charity that is improving educational opportunities for First Nation, Inuit and Métis students through various initiatives. MAC staff and several AAC committee members attended the Canadian Council of Aboriginal Business' annual Gala in September 2018.

PUBLIC AFFAIRS COMMITTEE

Chair: Tom Ormsby, Head of External and Corporate Affairs, De Beers Canada

The Public Affairs Committee (PAC) provides MAC member perspectives and guidance on MAC's government relations and communications programming. The PAC is a national platform for MAC member sharing of best practices on issues relating to corporate and association communications and advocacy activities.

The PAC 2018 Work Plan was designed to provide support to advance MAC's strategic objectives in the areas of:

- Mining in society
- Regulatory confidence
- Economic competitiveness

PAC objectives were to draw government attention on:

- The positive and deep participation of Indigenous peoples in Canadian mining
- Provide thought-leadership and action on current and emerging government policy
- Articulate both challenges and opportunities facing the Canadian mining industry

These objectives were achieved through the following tactics and communication strategies:

Mining in society: By providing member on-the-ground perspectives, including company and site-specific case studies featured in MAC communications materials focused on highlighting mining sector contributions to the Canadian and global economy, including through environmentally and socially progressive innovation and initiatives. In 2018, a series of "mining/Indigenous story" ads highlighted Indigenous workforce achievements and related initiatives.

Regulatory confidence: The PAC provided feedback on strategies and materials related to MAC inputs along various stages of legislative and regulatory changes to Canadian project review and permitting during the 42nd Parliament.

Economic Competitiveness: Pan-Canadian PAC member perspectives enrich MAC's ongoing advocacy efforts in support of favourable Canadian policy regime that enhances the industry's competitiveness and retains Canada's leadership in mining.

- To address a persistent lack of awareness of the positive and deep participation of Indigenous peoples in the mining sector, MAC's Canadian Mining advertising campaign in 2018 featured the made-in-Canada *Towards Sustainable Mining* (TSM) program and other member company initiatives related to Indigenous participation in the mining sector which continues to lead as a key accelerator of Indigenous economic reconciliation.
- MAC held successful advocacy focused events in 2018, including events during National Mining Week in May, and the annual *Mining Day on the Hill* in November, when close to 100 MAC members from across Canada descended on the national capital for meetings with key federal decision makers.
- Throughout the year, MAC also facilitated targeted micro-campaigns with individual and groups of members to address issue specific concerns and policy irritants, often at the site/project level.

PUBLIC AFFAIRS COMMITTEE cont.

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Federal Advocacy

By providing feedback on messaging and materials used to brief federal decision makers on Canadian mining sector opportunities and challenges, the PAC provides valuable member perspective and insights on MAC's government relations activities. The Committee also monitors policy developments and actively participates in MAC advocacy activities and campaigns throughout the year.

Proving that a small team can do big things, and reflective of MAC's deep engagement in the federal policy ecosystem, 2018 saw MAC again at or near the top of lobbying activity by federal government focused in-house advocacy organizations as tracked through monthly reporting under the federal *Lobbying Act*. MAC's President and CEO, Pierre Gratton, was again listed by the *Hill Times* in its 2018 *Top 100 Lobbyists List*.

Consistent with the first three years of the Liberal majority mandate, legislative and regulatory changes to federal project reviews and approvals undertaken through the *Canadian Environmental Assessment Act 2012*, the *Fisheries Act* and the *Navigation Protection Act*, all being amended under the federal government's proposed new Impact Assessment regime, dominated MAC government relations. Legislative changes to the *Canada Transportation Act* (relating to rail issues and market access) were also a significant focus of MAC's government relations activities in 2018, including a successful late in the legislative campaign to have Senators introduce amendments to the legislation.

Of note in the 42nd Parliament is the impact of advocacy options and strategy as a result of the new "Independent" Senate. MAC seized these opportunities and successfully influenced legislation late in the legislative process, generally not possible when dealing with the traditional "rubbers stamp" Senate.

Communicating the Industry's Challenges and Opportunities

Through various communications tools, and consistent with objectives set out in the MAC Strategic Plan, 2018 efforts highlighted the need for Canada to regain global mining dominance that continues to lag despite the recent global market upswing.

Indicators suggest that Canada's mining sector continues on a downward trend in terms of attracting foreign investment and capital. The Federal Court of Appeal decision to quash approval of the Trans Mountain oil pipeline expansion in August reinforced global investor concerns of Canada's global investment climate, impacting all resource and energy sectors and shifting the federal policy and political landscape. Additionally, Canada is experiencing a significant decline in the overall number and total value of mining projects, including a dramatic decrease in new mining projects entering the federal environmental assessment process. Until Canada can address these core and foundational challenges, Canada's mining sector will be unable to fully seize opportunities presented by the global transition to a low carbon future, which will serve to increase the demand for Canadian minerals and metals.

PUBLIC AFFAIRS COMMITTEE cont.

Chair: Tom Ormsby, Head of External and Corporate Affairs, De Beers Canada

The Public Affairs Committee (PAC) provides MAC member perspectives and guidance on MAC's government relations and communications programming. The PAC is a national platform for MAC member sharing of best practices on issues relating to corporate and association communications and advocacy activities.

Canadian Mining Campaign

Since 2012, MAC has produced annual communications campaigns to promote the contributions of Canada's mining sector, primarily to federal decision makers in Ottawa, with a focus on social media channels.

MAC's ongoing *Canadian Mining Stories* series seeks to enhance awareness of our key areas:

- The mining/Indigenous story.
- Sustainability initiatives featuring MAC's world leading CSR initiative *Towards Sustainable Mining (TSM)*.
- MAC member reclamation efforts with a focus on comprehensive engagement with communities of interest.
- Innovation efforts with a focus on emerging technologies and the role of mineral and metals in the transition to a low-carbon economy.

The *Stories* campaign compliments MAC advocacy priorities and will continue to be expanded.

MAC Events

MAC staff attended and participated in domestic and international events throughout the year to promote Canada's mining industry, and to highlight its challenges and opportunities.

The PAC helps identify speaking opportunities at key mining events and functions and supports MAC events through their attendance, promotion and, at times, sponsorship.

Throughout the year, MAC participated in several mining conferences across Canada, including the PDAC Convention, CIM Convention, Nunavut Symposium, AME BC's Mineral Exploration Roundup, the Energy and Mines Ministers' Conference, and the South Africa Indaba Mining Conference.

MAC also held several advocacy events to brief federal decision makers on top issues facing the sector, including:

National Mining Week

In conjunction with partners Natural Resources Canada (NRCan) and the Prospectors and Developers Association of Canada, MAC played a prominent role in the fifth annual Mineral Outlook Dialogue Conference held in Ottawa in May 2018. The focus of the 2018 installment was the development of NRCan's Canadian Minerals and Metals Plan (CMMP), a MAC supported initiative that seeks to raise Canadians' awareness of the importance of the minerals sector, respond to ongoing and emerging challenges, and help position Canada for opportunities offered by an evolving economy. The final CMMP, including targeted Action Plans, is set to be finalized at the July 2019 installment of the annual federal/provincial Energy and Mines Ministers Conference.

PUBLIC AFFAIRS COMMITTEE cont.

Chair: Tom Ormsby, Head of External and Corporate Affairs, De Beers Canada

The Public Affairs Committee (PAC) provides MAC member perspectives and guidance on MAC's government relations and communications programming. The PAC is a national platform for MAC member sharing of best practices on issues relating to corporate and association communications and advocacy activities.

Mining Day on the Hill and Annual Reception

MAC's flagship *Mining Day on the Hill* event was held in November 2018, with MAC member delegates participating in approximately 60 meetings with Parliamentarians, political staffers and government officials from key federal departments.

The 2018 theme was "Restoring Canada's Mining Competitiveness" and focused on key federal policy areas critical to reinforcing Canada's competitive advantage in the global mining industry, with emphasis on regulatory certainty, infrastructure, innovation, tax, and Indigenous participation.

The Mining Day program concluded with MAC's annual reception, which was well attended by industry representatives, stakeholders, government officials and Parliamentarians.

Annual Opinion Polling on Canadian Attitudes on Mining

To understand how Canadians view our sector, MAC conducted its sixth annual national public opinion poll in 2018. The PAC provided input into the poll's development and helped assess the findings to inform MAC's activities and priorities for the year ahead.

Results continued to indicate that Canadians have a favourable view of the industry, its vast economic and societal contributions to Canada, and its role in providing the building blocks of useful, modern products. Canadians expressed support for a healthy and growing mining industry, and one that is adopting best practices in protecting the environment, engaging with communities and operating under a robust regulatory system.

SCIENCE COMMITTEE

Chair: Kent England, Manager, Environment and Licensing, Cameco Corporation

The primary focus of the Science Committee is the application of sound science and technology towards mitigating and/or minimizing the impacts of mining on aquatic and terrestrial ecosystems.

In 2018, the MAC Science Committee met jointly with the MAC Environment Committee in February, May and September to collaborate on issues related to the *Fisheries Act*, the *Metal and Diamond Mining Effluent Regulations* and proposed regulations for coal mines and oil sands mines.

Metal and Diamond Mining Effluent Regulations (MDMER)

On May 30th, 2018, amendments to the MDER were published. These amendments were renamed the *Metal Mining Effluent Regulations (MMER)* and the *Metal and Diamond Mining Effluent Regulations (MDMER)*.

Several of the amendments came into force almost immediately, on June 1, 2018, including:

- Application to diamond mines, with the same effluent discharge limits as metal mines.
- New, lower method detection limits for chemical analyses.
- Many changes to the environmental effects monitoring (EEM) requirements, including a new requirement to monitor selenium in fish tissue.

New requirements for the effluent and water quality monitoring component of EEM came into force on January 1st, 2019. More stringent requirements for effluent quality will come into force in 2021.

Following publication of the amendments and through the balance of 2018, MAC activity, through collaboration between the Science Committee and the Environment Committee, focused on providing support to MAC members with mines subject to the MDER, to help ensure that all members were aware of the amendments and familiar with specific details in order to guarantee compliance with the new requirements.

MAC also sought clarification from Environment and Climate Change Canada (ECCC) on a number of questions, to help ensure that our legal understanding of the amendments was accurate.

Proposed Fisheries Act Regulations for Coal Mines

In November 2017, ECCC released a detailed proposal for *Fisheries Act* regulations for coal mines. Consultations were held in early 2018. MAC and our members involved in coal mining have advocated for the development of a *Fisheries Act* regulation for several years and are supportive of ECCC's efforts in this regard.

The detailed proposal included a proposed approach for addressing discharges at legacy sites, specifically discharges from waste rock piles that are very close to streams, making collection of effluent from those waste rock piles impossible. For these cases, ECCC proposed a regulatory approach based on in-stream limits rather than end-of-pipe effluent discharge limits. This is an entirely new approach for *Fisheries Act* regulations, and without precedent in the MDER/MDMER. MAC commends ECCC for developing a new mechanism for addressing discharges at these legacy sites. However, the approach that they proposed in November 2017 was impractical, impossible to achieve, and contradicted existing

SCIENCE COMMITTEE cont.

Chair: Kent England, Manager, Environment and Licensing, Cameco Corporation

The primary focus of the Science Committee is the application of sound science and technology towards mitigating and/or minimizing the impacts of mining on aquatic and terrestrial ecosystems.

provincially approved approaches that had been developed in consultation with the Government of Canada in addition to local and Indigenous communities and other parties. MAC submitted detailed comments on this and other aspects of ECCC's proposal.

In late 2018, ECCC provided a high-level update on their proposal, including brief explanations of revisions to the proposal in response to comments submitted on the November 2017 proposal. MAC submitted comments on this in early 2019.

Potential Fisheries Act Regulations for Oil Sands Mines

MAC and our members involved in oil sands mining have been advocating for several years for a *Fisheries Act* regulation for oil sands mining. At present, oil sands mines do not deposit any effluent. Instead, all water is stored on site. While some is reused in processing to recover bitumen, this means that volumes of water stored at oil sands mines continue to increase. Being able to release water is essential to closing and rehabilitating oil sands mines.

Engagement with ECCC officials on the oil sands sector and the potential development of regulations began in 2017 and accelerated in 2018. It included a site visit by ECCC officials in July 2018, and a series of meetings through the second half of 2018. ECCC officials have developed a workplan proposing to have a regulation in place in 2022.

Innovation and Support for the Canada Mining Innovation Council

The Canada Mining Innovation Council (CMIC) is a non-profit organization founded by industry, government and academia to transform the mining industry in Canada by tackling common and pre-competitive challenges through innovation. CMIC membership includes more than 75 organizations including mineral exploration and mining companies, universities, government agencies, and service providers within the mining and minerals industry in Canada, and across the globe.

MAC is a supporting member of CMIC, for which it provides advocacy support and facilitates meetings with the federal government. MAC is represented on the CMIC Board of Directors and on the CMIC Environment Committee.

Several CMIC projects are proceeding, and CMIC is implementing a path forward that capitalizes on the energy and synergy that was generated within the mining industry through the development of the ultimately unsuccessful bid for funding through the federal supercluster initiative.

National Orphaned and Abandoned Mines Initiative (NOAMI)

MAC continues to participate in the NOAMI Advisory Committee. The NOAMI Advisory Committee held a workshop of key players in June 2018 to look at potential opportunities for NOAMI to have a continued role in the future. There was agreement that there is still a role for NOAMI to play, but no definitive plan forward.

SCIENCE COMMITTEE cont.

Chair: Kent England, Manager, Environment and Licensing, Cameco Corporation

The primary focus of the Science Committee is the application of sound science and technology towards mitigating and/or minimizing the impacts of mining on aquatic and terrestrial ecosystems.

Mine Environment Neutral Drainage (MEND) Program

MAC chairs the multi-stakeholder MEND Steering Committee and is the sole source of funding for MEND. In 2017, MEND undertook an update of a 1993 MEND review of sediment monitoring methods that can be applied to understand biogeochemical interactions in subaqueous tailings. The final report from this project was released in late 2018.

Building on this study, MEND is planning a project in a closed, subaqueous tailings facility where there has been natural biological colonization. This project will be initiated in 2019 and will extend into 2020. The goal will be to understand the biogeochemical interaction between the tailings and the various types of plants that have been established.

In 2018 MEND also undertook a study of in-situ application of batch treatment for water management at closed sites, in partnership with Ecometrix and Goldcorp. This project will continue into 2019.

Canadian Ecotoxicity Workshop (CEW)

The 2018 Canadian Ecotoxicity Workshop was held in October. MAC was not represented due to a scheduling conflict. There was a technical session related to oil sands, and in total, there were 12 technical presentations related to oil sands mining and 14 related to metal mining.

For CEW 2019, MAC, which is represented on the CEW Advisory Committee, will submit a proposal for a technical session on mining.

TAILINGS WORKING GROUP

Chair: Mike Davies, Senior Advisor, Environment, Teck Resources Limited

The Tailings Working Group (TWG) reviews the management of tailings and mine waste to allow the identification of best practices that can then be used to develop industry guidelines for the safe and environmentally-responsible operation of tailings and water management facilities. The TWG also promotes effective facility management and risk assessment at MAC member facilities and throughout the broader mining industry. The TWG contributes to MAC's TSM initiative, specifically with the development and implementation of the TSM Tailings Management Protocol, and with joint delivery of tailings management workshops.

MAC has played a leadership role on tailings management since the 1990s when the first edition of MAC's *A Guide to the Management of Tailings Facilities* (the Tailings Guide) was released. The companion document, *Developing an Operation, Maintenance, and Surveillance Manual for Tailings and Water Management Facilities* (the OMS Guide) was released in 2003. Tailings management is a key component of the TSM program, and a Tailings Management Protocol (the Protocol) was introduced in 2004 with five performance indicators for tailings management.

In 2015, MAC launched an independent review and an internal review of the Protocol, Tailings Guide and OMS Guide. The internal review was led by MAC's Tailings Working Group (TWG), which consists of more than 50 representatives of MAC members and associate members with collective experience and expertise in tailings management in Canada and around the world.

As an outcome of the independent and internal reviews, a revised Protocol, the third edition of the Tailings Guide, was released in November 2017. Documents are available for download at www.mining.ca/tailings-management.

The updated Tailings Guide has been extremely well received. A short course on the Tailings Guide was given at Tailings and Mine Waste 2018, held in Colorado at the beginning of October. At that conference, there was strong acknowledgement of the Tailings Guide and of MAC as providing world leading guidance. These endorsements came from non-MAC members, and from experts from many countries, including the US, Australia, and Sweden.

Following completion of the Tailings Guide and in response to the results of the reviews, the TWG undertook substantial revisions to the OMS Guide, which had not been updated since 2003, as well as further updates to the Tailings Guide and the Protocol to ensure alignment. In November 2018 the MAC Board of Directors approved:

- The second edition of the OMS Guide.
- Version 3.1 of the Tailings Guide.
- Revisions to the Protocol.
- Revisions to the Table of Conformance, first introduced in 2017, as a tool to assess conformance with criteria for performance indicators described in the Protocol.

All four documents are expected to be released in early 2019 and will be available at the weblink provided above. Revisions are further described below.

TAILINGS WORKING GROUP cont.

Chair: Mike Davies, Senior Advisor, Environment, Teck Resources Limited

The Tailings Working Group (TWG) reviews the management of tailings and mine waste to allow the identification of best practices that can then be used to develop industry guidelines for the safe and environmentally-responsible operation of tailings and water management facilities. The TWG also promotes effective facility management and risk assessment at MAC member facilities and throughout the broader mining industry. The TWG contributes to MAC's TSM initiative, specifically with the development and implementation of the TSM Tailings Management Protocol, and with joint delivery of tailings management workshops.

In late 2018, MAC was involved in conversations with both the International Council on Mining and Metals (ICMM) and the United Nations Environment Program (UNEP). The engagement with the ICMM was catalyzed by a paper by Dr. Norbert Morgenstern, Professor Emeritus of the University of Alberta. This paper stated that the revised Tailings Guide “provides an outstanding document to influence the organization and governance protocols needed to ensure safe tailings management from the conceptual stages through to closure.” The paper emphasized, however, that more needs to be done to improve tailings management and made a number of specific recommendations to the ICMM.

MAC discussions with the ICMM focused on how best to respond to Professor Morgenstern's recommendations, and how MAC and ICMM could potentially collaborate in the development of a guidance document responding to his recommendations. This work is expected to continue in 2019.

Second Edition of the OMS Guide

The OMS Guide has been substantially re-worked and modernized, while retaining the strengths of the current version, which dates to 2003. It responds to the recommendations of the TSM Tailings Review Task Force and builds on lessons learned over the last 15 years of developing and implementing site-specific OMS manuals.

The second edition of the OMS Guide integrates a risk-based approach and strongly emphasizes the critical role that OMS activities play in the management of risk. A recurring theme is that OMS activities must be based on the performance objectives, risk management plan, and critical controls of the tailings facilities to which they are applied. As such, it is essential that OMS manuals be developed in a site-specific manner, and that they are always up-to-date. They cannot be purchased “off-the-shelf”.

In addition, the second edition of the OMS Guide:

- Is aligned with the Tailings Guide and emphasizes that OMS activities are essential to the effective implementation of site-specific tailings management systems.
- Emphasizes that OMS manuals must be readily accessible to personnel involved in tailings management.
- Helps ensure that OMS manuals are effective tools for managing change.
- Reflects current approaches to surveillance, with greater emphasis on the use of surveillance results to make informed decisions about tailings management.

TAILINGS WORKING GROUP cont.

Chair: Mike Davies, Senior Advisor, Environment, Teck Resources Limited

The Tailings Working Group (TWG) reviews the management of tailings and mine waste to allow the identification of best practices that can then be used to develop industry guidelines for the safe and environmentally-responsible operation of tailings and water management facilities. The TWG also promotes effective facility management and risk assessment at MAC member facilities and throughout the broader mining industry. The TWG contributes to MAC's TSM initiative, specifically with the development and implementation of the TSM Tailings Management Protocol, and with joint delivery of tailings management workshops.

Version 3.1 of the Tailings Guide

The review of the OMS Guide led to a number of additional changes to the third edition of the Tailings Guide, which resulted in the need for Version 3.1. Most significantly, guidance regarding emergency preparedness has been moved from the OMS Guide to the Tailings Guide and is now more detailed and comprehensive. The revisions are based on the Canadian Dam Association's *Dam Safety Guidelines* but tailored to tailings facilities.

Other changes include:

- Alignment of terminology and definitions with the second edition of the OMS Guide.
- Clarifying the definition of an Accountable Executive Officer.
- Affirming that the scope of both Performance Evaluation and Management Review for Continual Improvement includes the tailings management system, emergency preparedness, and the OMS manual.

Revised Tailings Management Protocol

The 2017 version of the Protocol included requirements for emergency preparedness as part of Indicator 5 and referred to the OMS Guide. Those requirements have been moved to Indicator 2 to reflect the move of guidance on emergency preparedness from the OMS Guide to the Tailings Guide.

In addition, a number of changes have been made to make the Protocol clearer and easier to apply, including:

- Adding a section at the beginning of the Protocol that explains the relationship between the Protocol and the Table of Conformance and the basis for determining conformance with the Tailings Guide and the OMS Guide.
- Clarifying the descriptions of criteria for performance indicators.

Revised Table on Conformance

The Table of Conformance has been revised to align with the revisions to the OMS Guide and the Tailings Guide, including adding details on emergency response and OMS manuals.

TAXATION COMMITTEE

Chair: Jocelin Paradis, Vice President, Tax, Rio Tinto Canada

The Taxation Committee monitors finance-related issues of national importance, advocates for tax changes to enhance industry competitiveness, and serves as a useful network for members to exchange information on tax and fiscal issues.

Federal Budget Engagement and Industry Competitiveness Campaign

Finance Minister Bill Morneau tabled the Liberal government's third Budget on February 27th, 2018. Budget 2018 featured a number of provisions focused on workplace diversity but contained few measures to enhance the competitiveness of Canadian business at a time when recent regulatory and tax reform in the United States challenged aspects of Canada's traditional competitive advantage vis-à-vis that jurisdiction.

The lack of focus on competitiveness was disappointing and led to the establishment of a multi-association campaign to achieve improvements to the tax system that would enhance Canada's investment competitiveness and improve regulatory predictability. Over the course of spring and summer 2018, MAC and partners from other national industry associations met with more than 20 senior decision makers expressing concern and common cause on the need to enhance business competitiveness. This engagement also informed MAC's engagement in the Consultation for Budget 2019, which began in June 2018. MAC participated in this consultation process through a formal pre-budget submission and through an in-person appearance before the House of Commons' Finance Committee.

2018 Fall Economic Statement

The 2018 Fall Economic Statement (FES) was a welcome improvement from Budget 2018, and proposed several measures that will enhance the investment competitiveness of Canada's mining and metal manufacturing sectors, including:

- The Accelerated Investment Incentive, which will enable miners to write off three times the eligible cost of newly acquired assets in the year the investment is made.
- Extending the Mineral Exploration Tax Credit (METC) for a five-year term, bringing greater investment certainty for early stage mineral exploration.
- Allowing businesses to immediately write-off the full cost of clean energy equipment.

Other measures contained in the Fall Economic Statement that MAC welcomed include:

- An additional \$800 million over five years for the Strategic-Innovation Fund.
- A commitment to increase overseas exports by 50 percent by 2025.
- A proposed increase of \$13.6 million to the Multimodal Integrated Passenger-Freight Information System.
- Bolstering the Canadian Trade Commissioners Service, including a tripling of its CanExport program to help Canadian businesses move into new markets. The mining and mining supply sector significantly values the work of Trade Commissioners around the world that support our access to global markets.
- A suite of proposals to improve regulatory competitiveness, including the establishment of a dedicated External Advisory Committee on Regulatory Competitiveness.

TAXATION COMMITTEE cont.

Chair: Jocelin Paradis, Vice President, Tax, Rio Tinto Canada

The Taxation Committee monitors finance-related issues of national importance, advocates for tax changes to enhance industry competitiveness, and serves as a useful network for members to exchange information on tax and fiscal issues.

Finally, of particular note is the FES accelerated investment of \$773.9 million over the next five years of National Trade Corridors Initiative (NTCF) funding. On this last point, as part of Budget 2019 engagement, MAC specifically recommended the renewal of the \$400 million northern envelope as part of the NTCF, a measure the federal government delivered on in Federal Budget 2019.

Tax Deductibility

Since 2016, MAC has engaged with the federal government on a tax deductibility issue that, as structured, presented considerable challenges to mining companies that were required to pay additional mining tax retroactively for the previous tax year. MAC's engagements with Finance Canada and the Canada Revenue Agency resulted in the development of regulatory amendments to address the issue. Despite the delay, MAC remains confident the measures will be implemented in a satisfactory way.

Taxing Passive Income

In summer 2017, Minister Morneau proposed rules to address the taxation practices of small businesses operating in Canada. Part of that package included proposals that would change how passive income is treated by affected businesses. At issue was concern over the scope of application of these rules, and their potential to be captured by multi-national companies. MAC engaged constructively with decision makers at Finance and Natural Resources Canada on our concerns, which were addressed in Budget 2018.

TRANSPORTATION COMMITTEE

Chair: Brad Johnston, General Manager, Teck Coal

The Transportation Committee contributes to the federal policy, legislative and regulatory environment for the transport of minerals and metals to enhance the competitiveness of Canada's mining industry.

Each year, Canada's exports of minerals and metals amount to tens of billions of dollars. In 2017, Canada's mineral export value exceeded \$97 billion, representing ~20% of the value of Canada's total goods exports. These mineral and metal products account for much of the volume handled at Canadian ports, and over half of the revenue generated (and comparable volume of traffic shipped) by Canadian railways.

A low-cost, effective and reliable system of marine, rail and truck transportation is essential to the Canadian mining industry's international competitiveness. This is especially important as Canada must compete against other countries that have significantly shorter logistical supply chains. Given that trade starts at home, it is also key to enabling the industry to take advantage of current and future trade agreements.

Rail

In spring 2017, and building on Transportation 2030: A Strategic Plan for the Future of Transportation in Canada, the Minister of Transport, the Honourable Marc Garneau, tabled Bill C-49, the *Transportation Modernization Act*.

The package of reforms fell short of rebalancing the position of railways and customers in the rail freight market. On the backdrop of a costly and reputationally damaging supply chain disruption in winter 2018, MAC, in partnership with seven other resource shipping associations, advanced two recommendations to improve the bill. The first was to give shippers a right to a costing assessment in the context of a Final Offer Arbitration, one of the remedies under the Canada Transportation Agency (CTA). The second was to give the CTA unilateral "own-motion" powers to investigate service disruptions in the rail freight market – with the aim of expeditiously advancing solutions to reduce economic harm.

For decades, the one useful remedy for captive shippers was Final Offer Arbitration (FOA). For FOA to work properly, there has to be reasonable access to information on both sides of an arbitration, including with respect to costing. Without such information, shippers are negotiating in the dark, and arbitrators are unable to assess the reasonableness of bids. For many years, shippers requested such information during a FOA and the railways complied, leading to fair processes and reasonable outcomes. But that changed about a decade ago when railways started objecting to this information being shared, leaving shippers at a major disadvantage and significantly damaging the FOA remedy.

MAC's amendment would have made the provision of costing information a mandatory input into a FOA process, restoring the remedy to function as originally designed. The amendment was rejected on the basis of a false premise, and the own-motion powers proposal was reduced in scope, requiring the Agency to seek permission from the Minister instead of being able to act independently as a third-party regulator should be. MAC is committed to remain engaged on this file until balance is restored. Only then will Canada be able to curtail the periodic supply chain disruptions that continue to damage Canada's reputation as a reliable trade partner and reduce the country's attractiveness as a destination for foreign direct investment.

TRANSPORTATION COMMITTEE cont.

Chair: Brad Johnston, General Manager, Teck Coal

The Transportation Committee contributes to the federal policy, legislative and regulatory environment for the transport of minerals and metals to enhance the competitiveness of Canada's mining industry.

Marine

Mining is also a leading customer of Canadian ports. The Port of Montreal handles large volumes of iron ore and salt, as well as other mineral products such as fertilizer, ores, gypsum, and scrap metal. The mining industry is a major contributor to Canada's St. Lawrence Seaway. Shipments of iron ore, coke and coal represent ~30% of total seaway traffic, with iron ore accounting for the single-largest share of any commodity shipped. Steelmaking coal accounts for ~30% of the total volume handled at the Port of Vancouver annually, which moves shipments to China, Japan, and other Asian markets. The ability to fluidly transition modes of transportation from ground to marine transport at ports is a critical determinant of Canada's supply chain competitiveness.

International Maritime Organization

The International Maritime Organization (IMO) is the global body that regulates pollution and safety practices at sea. The evolution of the International Maritime Solid Bulk Cargoes Code has implications for the way mining companies ship their products.

Over the course of 2018, MAC worked successfully with international partners on the development and advancement of regulatory proposals to modify existing testing requirements to assess the corrosivity of mineral and metal cargos transported in bulk at sea. The Port State Authorities in Canada, Australia, the United States, and Brazil, as well as the National Association for Corrosivity Engineering and the International Iron Metallurgical Association, all co-sponsored our submission and associated materials to CCC5 in September 2018. Chile and Peru spoke in support of the work at plenary. No member state spoke against the work, though some had questions about aspects of it. Nevertheless, the committee agreed to recommend that a circular be approved by MEPC (its parent committee) to enable the usage of our newly developed test methodology on an interim basis, thus alleviating a significant, and in some cases, disruptive regulatory burden for industry. Next steps include responding to the questions raised by member states and returning to CCC6 for a final determination about amending the IMSBC Code to permanently enact the new testing methodology in 2019.

More recently, a proposal at the IMO was advanced to ban "the carriage for use or consumption" of Heavy Fuel Oil in the Arctic as defined by the IMO's Polar Code (Canada, US, Russia, Norway and Greenland). Such a ban would present significant challenges to Canadian Arctic communities and mining operations that rely on marine shipping for critical supply inputs and market access. To date, MAC has had several meetings with Transport Canada Regulators, developed a submission, and participated on the Canadian Delegation to the IMO on this subject in February 2019.

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE

Chair: Christian Del Valle, Director, Corporate Affairs and Stakeholder Engagement, Newmont Goldcorp Corporation

The International Social Responsibility Committee's mandate is to review international issues that affect the interests of the members, as well as identify emerging issues, set priorities, and develop policy advice and strategies for the MAC Board of Directors.

Commitment to the Voluntary Principles on Security and Human Rights (VPs)

In early 2017, MAC announced the establishment of a new membership commitment related to the VPs. Among other elements, this commitment requires MAC member companies with international operations that employ security forces at their operations to report on their approach to aligning their security management with the VPs. In 2018, MAC included the first round of reporting on this commitment in this year's TSM Progress Report.

Additionally, as part of this commitment, MAC committed to working with the Mining Security Working Group (MSWG). This working group brings security professionals from both mining companies and independent service providers to share best practices and experiences. This year the MSWG published its first white paper to assist in sharing practices. This white paper provides important guidance on developing security management plans and can be found on the MSWG website.

Canadian Ombudsperson for Responsible Enterprise

In January 2018, the Minister of International Trade announced the creation of the Canadian Ombudsperson for Responsible Enterprise (CORE) with a role to investigate allegations of human rights abuses linked to Canadian corporate activity abroad. While focused initially on the extractive and garment sectors, the Minister also made a commitment to expand the mandate to all sectors within a year of the appointment of the CORE, a key recommendation made by MAC. As part of this announcement, the Minister also established the Multi-Stakeholder Advisory Body, made up of industry and civil society representatives, to provide advice to the Minister on issues pertaining to responsible business conduct abroad.

Over the course of 2018 the debate continued to focus on how the CORE would operate and whether the mandate would focus on joint fact-finding and collaborative dispute resolution or quasi-judicial processes with powers to compel evidence and testimony, possibly granted through the *Inquiries Act*. Throughout the year MAC continued to advocate for the former based on a view that a quasi-judicial process would not be workable given the extra-territorial nature of the issues and due to concern that such powers would compromise the ability of the CORE to successfully use more collaborative mechanisms. In order to contribute to the answering of important legal questions related to the potential powers and mandate of the CORE, MAC's ISR Committee commissioned Fasken Martineau to conduct a legal analysis focused on the implications of using the *Inquiries Act* to grant the powers to compel.

On May 29th, 2018, Global Affairs Canada published the Notice of Opportunity to recruit the CORE. The list of requirements was extensive and included strong human rights experience as well as knowledge in responsible business practices. The posting also required that the successful candidate come with the ability to remain objective and be experienced in conducting impartial investigations. At the end of 2018, the CORE position remained unfilled.

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE cont.

Chair: Christian Del Valle, Director, Corporate Affairs and Stakeholder Engagement, Newmont Goldcorp Corporation

The International Social Responsibility Committee's mandate is to review international issues that affect the interests of the members, as well as identify emerging issues, set priorities, and develop policy advice and strategies for the MAC Board of Directors.

Outreach and Engagement

Over the course of 2018, MAC's ISR Committee continued to prioritize engagement with a wide range of communities-of-interest related to Canadian mining abroad with the intent to advance objectives related to performance improvement, sharing of leadership and practices and enhancing the brand of responsible Canadian mining abroad. This year engagement focused on continued engagement with faith-based organizations, the investment community, development-oriented NGOs and our customers. Examples of engagement activities included:

Multi-Stakeholder Advisory Body (MSAB)

In January 2018, alongside the announcement of the CORE, the Minister of International Trade established the MSAB as a multi-stakeholder body with a mandate to provide the Minister with advice on responsible business practices. The membership for the MSAB draws its civil society members from the Canadian Network for Corporate Accountability and its industry members from MAC, the PDAC, CAPP and the Canadian Apparel Federation. The objective of the MSAB is to advise the Minister on potential actions that could be taken in the area of business and human rights. The MSAB met twice in 2018 and in both cases, the agendas were focused on establishing the structure of the MSAB and developing a work plan, both of which are still in progress. The MSAB has also identified a desire to focus on providing advice on the role of Global Affairs Canada in helping to establish responsible supply chains.

Dialogue with Investment Community

In May, MAC was invited to participate in a panel discussion at a conference in Vancouver hosted by the Western North American Chapter of the UN Principles for Responsible Investing (PRI). The panel focused on revenue transparency and MAC was included to help investors learn about how our work with Publish What You Pay led to the Extractive Sector Transparency Measures Act. MAC also highlighted TSM and the value facility-level reporting could provide to the investment community looking for clearer information on environmental, social and governance issues.

The ISR Committee also organized a roundtable in Toronto aimed at bringing together the Investor Relations and Corporate Responsibility representatives from ISR Committee member companies to dialogue with Canadian institutional investors such as the Canada Pension Plan Investment Board (CPIB), the Ontario Teachers' Pension Plan (OTPP) and the BC Investment Management Corporation among others. The aim of this dialogue was to explore possibilities around improving the state of disclosure related to environmental, social and governance factors. The roundtable was considered a positive outcome by participants and the ISR Committee will take the lessons learned to aid in organizing a follow up roundtable in 2019 focusing on one or two specific issues.

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE cont.

Chair: Christian Del Valle, Director, Corporate Affairs and Stakeholder Engagement, Newmont Goldcorp Corporation

The International Social Responsibility Committee's mandate is to review international issues that affect the interests of the members, as well as identify emerging issues, set priorities, and develop policy advice and strategies for the MAC Board of Directors.

St. Paul's University

In February, MAC was represented by one of its members at a dialogue on mining and human rights hosted by St. Paul's University in Ottawa entitled "Ethical Dimensions of Extractive Industries in Catholic Social Teaching". This dialogue is part of a series of dialogues and symposia hosted by St. Paul's and MAC has made a practice of participating in them whenever possible. This year MAC was invited to participate in developing the agenda for the dialogue which is an indication of increasing strength of the relationship between MAC and the university.

Centre of Excellence for Anti-Corruption

In April, MAC engaged with the newly established Centre of Excellence for Anti-Corruption to look at how the Centre can promote improved anti-corruption practices in mining. The new centre is headed by Patrice Poitevin, formerly with the RCMP anti-corruption unit, who has expressed a strong interest in collaborating with MAC. As part of our engagement activities this year, MAC agreed to work with the Centre on a joint proposal to the PDAC for a technical session on anti-bribery for the 2019 convention. This proposal was accepted and will provide a path for continued engagement with the Centre into 2019.

Participation in International Mining Fora

Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF)

In 2018, MAC continued to prioritize engagement with the IGF. This engagement included both a participation in the IGF AGM and direct engagement with the IGF secretariat as part of planning for the AGM. The engagement with the secretariat focused on ensuring that the content delivered at the AGM contained balanced perspectives and adequate representation of industry views. The IGF's AGM brings together representatives from over 70 national governments from around the world to address a range of mining related issues such as fiscal and tax policy, tailings, mine closure, local procurement and responsible sourcing to name a few. As part of MAC's participation in the forum, we worked with the IGF to organize a panel during the plenary session to provide the delegates with a state of play on responsible sourcing. The panel included MAC, OECD, Tesla, IISD and the German Federal Institute for Geosciences and Natural Resources. This panel also represented the first opportunity for MAC to engage directly with Tesla which compliments engagement already underway with brands such as Apple, Microsoft and BMW to advance responsible sourcing markets for metals and minerals.

Mining Indaba

This year's participation in Mining Indaba saw a significant step forward in terms of MAC's visibility at the conference. With the Canadian pavilion on firmer footing due to increased support from individual companies, MAC was able to work with the Canadian Council on Africa and the Canadian High Commission in South Africa to leverage higher profile roles for MAC's presence. To accomplish this, MAC was able to channel its financial contribution to the Canadian pavilion to be recognized as the lead sponsor of the Canada welcome reception which attracts an international attendance of approximately

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE cont.

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300 delegates. MAC and the High Commission were also able to work together to leverage the annual Canadian Interactive Breakfast to become the opening panel session in the main program for the Sustainable Development Day, which takes place on the main stage of the convention. This year's panel was entitled 'A Moment for Leadership on Responsible Sourcing for Metals and Minerals - From Mine to Product'. The panel featured MAC, Sherritt and ArcelorMittal, and was moderated by Steve D'Esposito from Resolve. The focus was on how the mining sector can most effectively respond, on its own terms, to growing pressure from the manufacturing sector to demonstrate that metals and minerals in the supply chain are responsibly sourced. During the discussion, ArcelorMittal made a compelling case that the industry needs to move quickly to adopt standards that are mine site specific, independently assured and based on multi-stakeholder oversight and that TSM and IRMA are at the forefront of what will be useful to manufacturers. This panel helped to reinforce TSM's place at the leading edge of the responsible sourcing discussion and helped to raise TSM's profile on the continent.

Value Distribution Reporting in Host Countries

As part of its continued work with members to quantify the value of company expenditures abroad, the ISR Committee prepared a summary of the amount of money spent in host countries on taxes and royalties, payments to suppliers, wages paid to employees and contributions to communities. The data collected from 10 MAC member companies representing 53 producing mines and non-producing operations can be found in the 2018 *Facts & Figures* report.

Supreme Court of Canada Intervention – Nevsun Resources Ltd. V. Gize Yebeyo Araya, et Al.

In late 2018, MAC intervened to the Supreme Court of Canada as part of an appeal launched by Nevsun, a Canadian mining company based in Vancouver. The appeal is with regards to a lawsuit alleging that Nevsun is complicit in forced labour issues related to their mine in Eritrea. MAC's intervention focused on cautioning the court on the implications of including the concept of Customary International Law in Canadian Civil Law. The Supreme Court hearing took place in mid-January 2019 with the court reserving its judgement. While Nevsun was not a member of MAC, it was decided that this case had larger implications for the industry that warranted intervention.

Plans for 2019

The ISR Committee remains committed to a number of key work areas, including: leadership in human rights, contributing to the establishment of sound remedy systems including seeking a positive outcome on the issue of the CORE, reporting on sustainability performance, and positioning mining as a preferred development partner, while at the same time ensuring that Canadian companies are well positioned to do business abroad. With no appointment of the CORE having been made before the end of 2018, it is anticipated that the ISR Committee will continue to dedicate the bulk of its attention to working to shape that mechanism to ensure that it provides an effective means of conflict resolution that will contribute to building the Canadian brand of responsible business practice.

ENERGY COMMITTEE AND CLIMATE CHANGE WORKING GROUP

Chair: Chris Adachi, Manager, Sustainability Implementation and Climate Change, Teck Resources Limited

The Energy Committee promotes overall energy management, including improved energy efficiency and greenhouse gas intensity performance.

Carbon Pricing and the Output-Based Pricing System (OBPS)

The federal government announced it would create a federal backstop for carbon pricing, whereby provinces and territories would be free to implement a carbon tax or a cap-and-trade system. Failing that, the federal government would impose a carbon pricing system on those jurisdictions. For the balance of 2017 and 2018, MAC has been actively engaged in consultations hosted by federal decision makers on the development of these systems.

The basis for our engagement in these consultations has been the *MAC Principles for Climate Change Policy Design*. In that document, in addition to supporting a revenue neutral price on carbon, MAC underscored the need for any climate change policy to ensure the competitiveness of emissions-intensive and trade-exposed (EITE) sectors, as well as the necessity of being sensitive to changing economic and geographical realities. For example, in remote and northern regions, where the energy infrastructure deficit is the most pronounced in Canada, diesel-reliant companies pay some of the highest energy costs in the country, with few viable options to economically fuel switch at the scale needed to avoid absorbing the carbon price as a penalty.

A draft regulatory proposal of the OBPS was released in December 2018. While a number of MAC recommendations for the OBPS were reflected in the system as proposed at that time, a number of important measures were absent. Among these include recognition of companies' limited abilities to abate process emissions and emissions in remote and northern regions, as well as how stringent the proposed federal system would be for mining companies compared to pre-existing sub-national carbon pricing regimes.

At the time of writing, MAC is continuing to engage with decision makers on establishing appropriately balanced policy and regulations. Climate change policy that fails to adequately address these concerns runs the risk of creating carbon leakage. Put simply, it could translate into mineral production—and its associated contributions—moving from jurisdictions that are taking action on climate change to those that are not. This will not only negatively impact Canada's economy, but it would also translate into higher global emissions.

Clean Fuel Standard

The Clean Fuel Standard (CFS) is a proposed regulation that would require carbon-based energy to meet a declining lifecycle carbon intensity over time. As currently proposed, the measure would include liquid, solid and gaseous fuels – a first in the world of its kind regulation for solid and gaseous fuels – targeting fuel consumption activities by industry, building and transportation sectors.

As large industrial energy consumers in EITE sectors, mining companies are unable to pass on their additional compliance costs to their customers. The vast majority of the compliance costs associated with the proposed CFS will be passed along by fuel suppliers and borne directly by energy consumers.

ENERGY COMMITTEE AND CLIMATE CHANGE WORKING GROUP cont. **Chair: Chris Adachi, Manager, Sustainability Implementation and Climate Change, Teck Resources Limited**

The Energy Committee promotes overall energy management, including improved energy efficiency and greenhouse gas intensity performance.

A regulation that requires the energy used at industrial facilities to meet a declining lifecycle carbon intensity over time is going to create yet another cost differential that is not currently borne by our global competitors – who rely on higher carbon fuels for electricity, and industrial processes – and is likely to increase carbon leakage.

MAC has been engaged in the ECCC Technical Working Group on the proposed CFS since the outset of 2018, and has persistently underscored the need:

- To recognize and protect the competitiveness of EITE sectors with a range of solutions.
- To generate EITE protections on the basis of cumulative carbon cost assessments.
- To reduce duplication and overlapping regulatory burden between competing policy and regulatory developments.
- To scientifically and transparently assess the feasibility of the 30 MT GHG emission reduction target mandated under the CFS and associated costs.
- To disclose and engage stakeholders directly through participation in ECCC's cost-benefit modelling and regulatory impact assessment study.

Progress in recognizing and incorporating these points in the consultation process was met with strong resistance at the outset of our engagement. However, over time, we have seen decision makers demonstrate an openness to incorporating elements of the above – including a commitment to develop cumulative cost assessment case studies for a subset of sectors, such as the establishment of a CFS EITE Working Group – into the regulatory development process.

At the time of writing, the proposed regulation had not yet reached the Canada Gazette process, but decision makers were planning this for spring 2019.

Proposed Stationary Diesel Regulations

In an earlier regulatory initiative, ECCC proposed that new stationary diesel generators would require a Tier IV post exhaust technology going forward. MAC and its members participated in webinars with ECCC reps to communicate our concerns over this proposal due to the unproven nature of this technology in frigid winter weather on remote mining sites. MAC was pleased to see that ECCC proposed flexibility for remote mining companies to be treated the same as remote communities at Canada Gazette 1. MAC will remain engaged in the Canada Gazette process for this regulatory proposal.

MAC Mining Adaptation Guidance Document

In November 2016, the Community of Interest Advisory (COI) Panel issued an advisory statement, *Rising to the Challenge*, encouraging MAC and its members to continue building upon its efforts, achievements and commitments in this space. The statement also recognized MAC and its members' commitment to be constructive partners in the global fight against climate change, citing MAC's recently released *Principles for Climate Change Policy Design*, which outlined the core elements of a successful carbon

ENERGY COMMITTEE AND CLIMATE CHANGE WORKING GROUP cont.
Chair: Chris Adachi, Manager, Sustainability Implementation and Climate Change, Teck Resources Limited

The Energy Committee promotes overall energy management, including improved energy efficiency and greenhouse gas intensity performance.

price regime to help inform the federal government as it developed the pan-Canadian climate change framework.

In relation to a commitment made in MAC's response to the COI Panel, MAC prepared a submission to Natural Resources Canada to develop a best practice risk management tool in a changing climate. Early in 2018, MAC was advised that its bid was successful. Over the course of 2018, MAC developed a steering committee to direct the project, hosted a workshop, and presented in Washington to the International Financing Corporation who then expressed an interest in partnering with MAC on the initiative. At the time of writing, work remains ongoing. The projected delivery of this guidance tool is March 2020.

NORTHERN AFFAIRS COMMITTEE

Interim Chair: Stephane Robert, Director of Regulatory Affairs and Sustainability, Agnico Eagle Mines Ltd.

The Northern Affairs Committee (NAC) contributes to the federal policy, legislative and regulatory environment to enhance the competitiveness of mining companies operating in Canada's remote and northern regions and to facilitate sustainable growth in the Canadian mining industry.

Mining is the largest private sector economic driver in Canada's North, employing approximately 8,500 people (1 in every 6 jobs). Direct GDP contributions in the Yukon, the Northwest Territories and Nunavut are approximately 13%, 30% and 21% respectively, as of 2016. Mining has had a transformative effect on northern and Indigenous communities through generating employment, skills training and, in some cases, royalty or direct equity shares, all while paying taxes and royalties to governments. While these contributions are substantial, the potential is even greater. MAC research indicates that new investments could exceed \$35 billion given the right investment and market realities.

Locating, developing and operating mines in the northern regions of Canada's provinces and across the three territories is challenging. Raising awareness of the costs, challenges and opportunities that mining presents for northern Canada is a key priority of MAC's Northern Affairs Committee. The Committee's focus is to work with governments to ensure the industry has a clear, effective and efficient regulatory permitting process, and to highlight the need for strategic infrastructure investments.

Northern Infrastructure Developments

The future of Canada's mineral industry lies increasingly in remote and northern regions, and the current infrastructure deficit acts as a major barrier to opportunities for greater wealth discovery and production. Exacerbating this is the historic under-eligibility of the territories to access federal infrastructure programs due to "public use" program criteria and "per capita" funding formulas.

Characterized by disparate communities, extreme temperatures, and virtually no infrastructure or people for hundreds of kilometres, remote and northern regions have some of the highest per-capita living costs in the country. Similarly, industry research, detailed in the *Levelling the Playing Field* report, has found that it costs over six times more to explore and twice as much to build new mines in northern regions compared to their southern counterparts.

MAC is encouraged by, and advocated for, recent federal infrastructure investment decisions that recognize northern challenges and opportunities, including the Trade and Transportation Corridor Initiative (TTCI), which dedicates \$400 million for trade-enabling infrastructure in the territories, and the Investing in Canada Plan, which allocated funding on a per-capita "plus" model – both announced in July 2017. These are creative and much-needed investments in Canada's North. Notably, MAC was pleased that this \$400 million envelope of funding for Canada's North was renewed in Budget 2019, establishing a precedent for a regionally based allocation going forward.

Additional projects that have received funding over the last 12-24 months include the Yukon Resource Gateway, the T'licho Road in the NWT, and a segment of the McKenzie Valley Highway in the NWT. Finally, MAC has continued engagement with the Canada Infrastructure Bank to ensure that remote and northern realities and project priorities are known and understood.

NORTHERN AFFAIRS COMMITTEE cont.

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Arctic Policy Framework

As part of the Shared Arctic Leadership report, which MAC participated in and which was released by Mary Simon in her capacity as a special ministerial representative to the Minister of Crown Indigenous Relations and Northern Affairs, the government launched consultations to develop an Arctic Policy Framework.

Late in 2017, MAC participated in an industry roundtable consultation on this subject, and developed a submission outlining the importance of economic development as an enabler of social benefits, and the mining industry as an enabler of Indigenous reconciliation in remote and northern communities. This engagement served as the groundwork for the development of a submission to Crown Indigenous Relations and Northern Affairs Canada as part of the official consultation in early 2018. In that work, MAC emphasized the importance of addressing the infrastructure deficit as central to advancing Indigenous reconciliation and climate change policy objectives, as well as broader social and economic development objects. Later in the year, the department released a draft to serve as the basis for further engagement. At the time of writing, the policy had not yet been released, and was anticipated in Spring 2019.

Climate Change

High energy costs in the North have long served as a strong incentive to maximize energy and fuel efficiency, but evidence suggests that the proverbial "low-hanging" fruit are gone, meaning future improvements will be incremental and gradual, barring a technological breakthrough. Moreover, fuel switching opportunities in remote and northern Canada are limited and contingent on geographical considerations. Together, the infrastructure deficit and the state of currently available technologies do not provide sufficient options to displace diesel (and associated emissions) in the timeframe needed, nor on the scale required, so that companies absorb the carbon price almost exclusively as a cost of business. Further, extreme temperatures have not demonstrated the viability of the clean fuel standard for an industrial application in a pan-Canadian context.

Accommodating for remote and northern limitations in a manner that does not unduly penalize business is critical for any northern climate change scenario to have the intended effect. This is especially true for the highest cost operating jurisdictions in the country. MAC has reiterated this principle in every meeting we have had on climate change in consultations ranging from the development of the federal Output-Based Pricing System to the proposed Clean Fuel Standard and the consultations on stationary and mobile diesel generators, all of which involved significant MAC engagement over the course of 2018.

INTERNATIONAL TRADE AND INVESTMENT

MAC monitors and participates in government trade activities and works to promote open flows of trade and investment to enhance the international competitiveness of the Canadian minerals and metals industry.

The mining industry ranks alongside financial services and oil and gas as the most international of Canada's industrial sectors. The industry accounted for over 19% of the value of Canadian goods exports in 2017, and consistently accounts for a significant share of Canada's direct investment abroad. Canada is also a global hub for mining finance, with the Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSX-V) hosting 57% of the world's publicly listed mining companies, and the exchange consistently transacts the majority of global mining equity financings on an annual basis.

Canada's success in mining is influenced in part by the federal government's trade efforts. This includes the overseas network of embassies and trade commissioners, the trade finance capacity through Export Development Canada and an array of Free Trade Agreements and Foreign Investment Promotion and Protection Agreements.

Foreign Investment Promotion and Protection Agreements

In recent years, the federal government adopted an ambitious agenda to broaden and modernize Canada's trade infrastructure, including through the negotiation of Foreign Investment Promotion and Protection Agreements (FIPAs). By late 2018, Canada had 37 FIPAs in place, had concluded negotiations with six additional countries and remains engaged in ongoing negotiations with 14 other countries.

FIPAs are bilateral agreements aimed at protecting and promoting foreign investment through legally binding rights and obligations. These agreements place investment-treatment obligations on each country and give foreign investors access to independent rules and arbitrators, should disputes arise between the investor and the host government. These mechanisms provide Canada's overseas investors with an added layer of security and, while the enforcement components are rarely used, the mere existence of a FIPA gives foreign governments a set of rules on fairness and transparency.

Investment in Latin America

Eight of Canada's 37 active FIPAs are with Latin American countries, reflecting the industry's presence in the region, as well as the continent's mineral wealth and potential. As of 2017, Canadian companies held \$88 billion in assets in Latin America, nearly half of the total value of Canada's overseas mineral assets.

Investment in Africa

Since 2010, the Canadian government has concluded, signed or brought 12 FIPA negotiations into force with African countries. A further three FIPA negotiations are currently ongoing with African countries. In recent years, many African countries have been seeking to benefit from their natural resource endowments and have become more open to new mining investments and the expansion of existing mining projects. Some of the major resources mined in Africa are iron ore, diamonds, gold, platinum, uranium, copper and coal.

INTERNATIONAL TRADE AND INVESTMENT cont.

MAC monitors and participates in government trade activities and works to promote open flows of trade and investment to enhance the international competitiveness of the Canadian minerals and metals industry.

While significant opportunities for strong partnerships exist between mining companies and their host countries, challenges must be overcome to ensure projects can develop in ways that enable the host community, country and company to benefit.

FIPA Consultation - Investor State Dispute Settlement (ISDS) Mechanisms

MAC participated in a Global Affairs and Trade Diversification consultation on the FIPA program, underscoring that ISDS protections are critically important to the Canadian mining industry due to unique factors that define mineral investments. First, mining companies must go to where commercially developable mineral and metal deposits are located. While Canada is rich in many minerals and metals, a significant number of our members also have operations overseas, with particularly high concentrations in some countries. For example, nearly 70 per cent of foreign-owned mining companies operating in Mexico are based in Canada. On the macro level, Canadian mining companies possess \$163 billion in assets in more than 100 countries around the world.

These operations are more vulnerable than those of other sectors due to the tremendous up-front capital costs involved with mineral development. It is common for an average mine's initial capital expenditure to exceed \$1 billion before any minerals are produced or processed. After production begins, mines typically operate for several years to recover capital before any profit is realized. In the event of an interruption of mineral production beyond the miner's control that investment is as immobile as it is grounded in the host country.

ISDS mechanisms provide a strong enforcement tool that helps to ensure that Canadian investors, businesses and their workers will be treated fairly overseas and can continue to bring the international dollars home. While a last resort for companies, this mechanism is an essential part of modernized Canadian trade and investment agreements, including Canada's own FIPA model. It is critical that it remains so in agreements going forward.

Free Trade Agreements

The Canadian mining industry boasts a significant international presence. Its reliance on international market demand for its products makes the industry a major stakeholder in the trade policies, programs and services that Canada's Department of Global Affairs facilitates.

Canada's trade agenda has expanded aggressively in recent years, giving Canadian miners greater ability to expand into new and emerging markets, or to export their products more freely to an increasing number of destinations. MAC supports the following policy developments and, where appropriate, provides input to Canadian policy makers and negotiators.

INTERNATIONAL TRADE AND INVESTMENT cont.

MAC monitors and participates in government trade activities and works to promote open flows of trade and investment to enhance the international competitiveness of the Canadian minerals and metals industry.

North American Free Trade Agreement

On November 30th, 2018, Canada, the US and Mexico signed the Canada, the United States and Mexico Free Trade Agreement (CUSMA). CUSMA is based on the North American Free Trade Agreement which originally came into effect on January 1st, 1994. The present agreement was the result of more than a year of negotiations including threats of tariffs by the US against Canada.

MAC appreciates that the negotiations were protracted and welcomed the reduction in business uncertainty that the signing of the agreement achieved. MAC was disappointed, however, that the United States-Mexico-Canada Agreement (USMCA) did not include an ISDS mechanism. ISDS protections are critically important to the Canadian mining industry due to the unique factors that define mineral investments, and MAC supports their continued inclusion in trade agreements ongoing, as well as Canada's continued pursuit of Foreign Investment Promotion and Protection Agreements (FIPA) with key partners mentioned above.

Trans-Pacific Partnership

MAC supported the governments ratification of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in October 2018. A new free trade agreement between Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam, once the CPTPP enters into force it will be one of the largest free trade agreements in the world and will provide enhanced market access to key Asian markets.

From 2014 to 2016, Canada's exports of metals and minerals to CPTPP countries were worth, on average, \$6.8 billion per year. Metals and minerals exports currently face tariffs in a number of CPTPP markets, including Australia (up to 5%), Japan (up to 11.7%), Malaysia (up to 50%), New Zealand (up to 10%) and Vietnam (up to 40%). These tariffs will be fully eliminated under the CPTPP.

Free Trade with China

China is the single largest consumer of raw materials in the world. Recent estimates suggest that China accounts for 54% of aluminum, 48% of copper, 50% of nickel, and 45% of all steel (and, therefore, a significant percentage of steelmaking coal) consumed globally. China is also a major consumer of precious metals, buying or mining 23% and 15% of the world's gold and silver supply, respectively. The country also consumes 13% of the world's uranium production, a number poised to increase given the number of nuclear reactors under construction or being commissioned.

China is Canada's third-largest market for the export of minerals and metals after the US and the European Union, with an export value exceeding \$4.6 billion in 2017, or approximately 5% of our overall total. With 18 countries having free trade agreements in place with China, and 22 more countries in various stages of negotiation and pre-negotiation discussions, many nations have acknowledged that their economic futures are inexorably tied to it. Given this reality and China's importance to Canada's future, MAC has encouraged the federal government to continue enhancing economic and diplomatic relations with the aim of launching free trade negotiations.

INTERNATIONAL TRADE AND INVESTMENT cont.

MAC monitors and participates in government trade activities and works to promote open flows of trade and investment to enhance the international competitiveness of the Canadian minerals and metals industry.

Mercosur

Mercosur is a South American sub-regional common market trade bloc whose current full members are Argentina, Brazil, Paraguay and Uruguay. On March 9th, 2018 in Asuncion, Paraguay, negotiations toward a comprehensive Canada-Mercosur FTA were launched. MAC has supported the government's efforts to reassess the viability of an FTA with Mercosur and participated in consultations on the matter. Combined, the assets of Canadian companies operating in Brazil and Argentina account for 5% and 8%, respectively, of the value of Canadian mining assets abroad.

Beyond investments and assets, MAC and its members are exporting best practices in mining sustainability to Mercosur countries. The most significant recent example of this is in Argentina, where the Cámara Argentina de Empresarios Mineros (CAEM) adopted MAC's *Towards Sustainable Mining*[®] (TSM[®]) initiative. Argentina's adoption of TSM is an important step forward in cooperation on responsible mining standards between Canada and a major mining jurisdiction in Latin America.

Pacific Alliance

The Pacific Alliance is a regional initiative created in 2011 by Chile, Colombia, Mexico and Peru that seeks the free movement of goods, services, capital and people. Each of these countries are significant destinations for Canadian mineral investment, and closer trade-ties with this alliance is something that MAC supports.

With a combined GDP of \$2.5 trillion, and 223 million inhabitants, the Pacific Alliance constitutes an important market for Canada. The Alliance's overarching goals are to foster the free movement of goods, services, capital and people and to promote greater competitiveness and economic growth for member countries.

In June 2017, Canada was among the first countries invited to become an Associated State of the Pacific Alliance, along with Australia, New Zealand and Singapore.

MINING INDUSTRY HUMAN RESOURCES COUNCIL

Executive Director: Ryan Montpellier, Board Chair: Dean Winsor, SVP & Chief HR Officer, Teck Resources, Board Vice-Chair: Keith Harris-Lowe, VP People, Agnico Eagle Mines

The Mining Industry Human Resources Council (MiHR) is Canada's knowledge centre for mining labour market information. An independent, non-profit organization, MiHR drives collaboration among mining and exploration companies, organized labour, contractors, post-secondary educational institutions, industry associations and Indigenous groups to identify opportunities and address the human resource and labour market challenges facing the Canadian minerals and metals sector.

Financially supported by the Mining Association of Canada (MAC), the Government of Canada and program revenue, MiHR is governed by a 14-person Board of Directors that represent a cross-section of mining industry employers, organized labour, mining associations, equity groups, and educators from across Canada. MiHR also brings together a network of over 250 industry volunteers to help inform its research and guide its programs and project.

Key Priorities:

- **Labour Market Trends, Intelligence and Research:** To provide industry with a centralized, trusted and responsive knowledge centre for minerals and metals labour market trends, intelligence and research.
- **Optimizing Human Resources Supply:** To develop and distribute tools that help employers effectively engage all potential sources of labour, including women, Indigenous peoples and immigrants.
- **Standards and Workforce Readiness:** To develop and maintain a suite of National Occupational Standards and accompanying essential skills resources for select mining occupations.
- **Credentials and Recognition:** To recognize and promote the skills of individuals and the achievements and practices of employers and training providers.

PROGRAM HIGHLIGHTS:

Labour Market Trends, Intelligence and Research

National Labour Market Intelligence (LMI): MiHR's LMI forecasting model is sector specific and recognized as the go-to labour market resource for industry and stakeholders. It strengthens the mining industry's capacity to understand labour market demand and supply factors and how they are influenced by a variety of conditions.

MiHR's labour market models, tools and capabilities continue to provide stakeholders with relevant LMI reports, studies, forecasts and other related information:

- *The Canadian Mining Labour Market Outlook 2019* was published in November 2018. It provides a profile of the Canadian mining workforce, forecasts anticipated hiring requirements and available talent over the next decade and highlights three special topics: (1) the representation of women, (2) the impact of new technologies, and (3) the increased demand for science, technology, engineering and math (STEM) skills.
- The quarterly HR Data Miner LMI dashboard is available on MiHR's website. The Q2 2019 edition will be upgraded to an interactive format.

MINING INDUSTRY HUMAN RESOURCES COUNCIL cont.

Executive Director: Ryan Montpellier, Board Chair: Dean Winsor, SVP & Chief HR Officer, Teck Resources, Board Vice-Chair: Keith Harris-Lowe, VP People, Agnico Eagle Mines

- In partnership with the Prospectors & Developers Association of Canada (PDAC), a multi-stakeholder survey launched to better understand the labour market, employment and educational challenges in the mineral exploration sector. A report will be published in late 2019.
- In addition, MiHR is currently conducting primary research on the changing nature of work in the mining sector. The *Impact of New Technology, Automation, and Innovation on the Canadian Mining Work Force* research study is set for release in late 2019.

Optimizing Human Resources Supply

Gearing Up: Developing Mining Talent Through Work-Integrated Learning: On April 10th, 2018, the Government of Canada announced \$7.8 million in funding support for MiHR's Gearing Up project. Gearing Up increases awareness of, and access to, mining-related post-secondary programs by uniting mining employers and post-secondary educational institutions in creating 850 new work-integrated learning (WIL) opportunities in mining for post-secondary students studying science, technology, engineering and math (STEM) and business fields.

Gender Equity in Mining Works (GEM Works): GEM Works training expedites the institutional change necessary to improve gender equity in the Canadian mining and minerals industry. The original 12-month pilot project is documented in a case study report, highlighting the experiences and results of participating companies Agnico Eagle, Hatch, Mosaic Potash Esterhazy, Taseko Gibraltar Mine, Teck and Vale. MiHR has since developed a GEM Works subscription model and secured two new projects to implement GEM Works programming:

1. IMII has supported a pilot project in Saskatchewan utilizing GEM Works to develop a new cohort of Gender Champions, Change Agents and policy and procedure review within mine operations and mine supply organizations.
2. GEM Works regional workshops are being held in Vancouver, Saskatoon, St. John's and Toronto between February and April 2019 with support from NRCan.

Mining Professional Immigrant Network (M-PIN): In partnership with the Toronto Region Immigrant Employment Council (TRIEC) and Professions North/Nord (PNN), and funded by the Government of Ontario, MiHR's 2018-2021 M-PIN project is helping Ontario mining employers connect and collaborate with like-minded experts and internationally trained professionals in search of meaningful employment. Networking events have taken place in Sudbury, Toronto and Timmins, and *Leading the Journey Towards Inclusion in Mining* employer training developed and launched in March 2019. A virtual networking session is planned for Q4 2019.

MINING INDUSTRY HUMAN RESOURCES COUNCIL cont.

Executive Director: Ryan Montpellier, Board Chair: Dean Winsor, SVP & Chief HR Officer, Teck Resources, Board Vice-Chair: Keith Harris-Lowe, VP People, Agnico Eagle Mines

Standards and Workforce Readiness

National Occupational Standards (NOS): In collaboration with industry, MiHR develops and maintains NOS for key mining occupations. MiHR's 2014-2018 NOS project funding was used to review and update the four existing standards; Underground Miner; Surface Miner, Minerals Processing Operator and Diamond Driller – and to develop three new standards: Industry Trainer, Hoist Operator and Frontline Supervisor. A national training standard for Diamond Drillers and Industry Trainers is being developed and piloted, as well as a standalone standard for the competencies common to most mining operational and production occupations. A flexible accreditation/recognition program to recognize educational institution and employer training programs that align to the NOS is also being developed.

Mining Essentials: Mining Essentials is the only national industry-developed essential skills training program for Indigenous people. Developed in partnership with the Assembly of First Nations, it provides Indigenous people with the skills and confidence needed to enter the mining workforce. Delivered 41 times, 347 individuals have graduated from Mining Essentials. The majority achieve employment or further their mining education within six months of graduating.

Credentials and Recognition

The Canadian Mining Certification Program (CMCP): The measure of mining expertise, CMCP has issued over 1500 certificates since its inception and over 1,750 people have registered in the program. Certification is available for workers in the following occupations: Underground Miner; Surface Miner; Minerals Processing Operator; Diamond Driller; Industry Trainer; Frontline Supervisor; and Hoist Operator. MiHR is currently piloting an alternative worker certification process under the Canadian Mining Certification Program.

For More Information:

Visit www.mihhr.ca or contact Ryan Montpellier, Executive Director, at rmontpellier@mihhr.ca

MAC BOARD OF DIRECTORS

Chair (June 2017-): Anne Marie Toutant, Suncor Energy Inc.

Matthew Andrews, Pan American Silver Corp
Lyn Anglin, Imperial Metals Corporation**
Brent Bergeron, Goldcorp Inc.
Amanda Bernier, Royal Canadian Mint***
Joe Boaro, First Quantum Minerals
Marc Boissonneault, Glencore
Brendan Cahill, Excellon Resources Inc.
Carolyn Chisholm, Rio Tinto Canada****
David Clarry, HudBay Minerals Inc.
Alan Coutts, Noront Resources Ltd.
Lisa Damiani, New Gold Inc.
Blair Dickerson, Rio Tinto Canada**
Patrick Evans, Dominion Diamond Mines ULC***
Ross Gallinger, Yamana Gold Inc. ***
Patrick Godin, Stornoway Diamond Corporation****
Pierre Gratton, Mining Association of Canada
Sara Harrison, BHP Billiton Canada Inc.****
Steve Higgins, Royal Canadian Mint*
Elliot Holland, Dominion Diamond Mines ULC*
Michel Julien, Agnico Eagle Mines Limited
John Kearney, NorZinc Ltd*
Belinda Labatte, Mandalay Resources Corporation***
Pierre Lapointe, ArcelorMittal Exploitation Minière Canada s.e.n.c.*
Erik Madsen, De Beers Group of Companies
Tina Markovic, BHP Billiton Canada Inc**
John McConnell, Victoria Gold Corp.**
Don McDonald, NorZinc Ltd***
Cory McPhee, Vale
Krista Muhr, Eldorado Gold Corporation
Clynton Nauman, Alexco Resource Corp.
Shawn Neilson, Canadian Natural Resources Limited
Ed Opitz, Kinross Gold Corporation*
Jean Ouellet, ArcelorMittal Exploitation Minière Canada s.e.n.c.***
Tom Paddon, Baffinland Iron Mines Corporation
George Read, Star Diamond Corporation
Peter Read, Syncrude Canada Ltd.
Neil Reeder, B2Gold Corp.
Derek Riehm, Lundin Mining Corporation
Hélène Robitaille, Stornoway Diamond Corporation**
Luke Russell, Hecla Quebec Inc.****
Sahba Safavi, MMG Limited**
Maciej Sciazko, Nyrstar***
Walter Sencza, Newmont Canada Corporation*
Peter Sinclair, Barrick Gold Corporation**
Marcia Smith, Teck Resources Limited
Bruce Sprague, NexGen Energy Ltd.
Kelly Strong, Nyrstar*
Scott Stringer, Newmont Canada Corporation***
Travis Temple, Hudbay Minerals Inc.
Mike van Akkooi, Kinross Gold Corporation***
Paul West-Sells, Western Copper and Gold Corporation
Steve Wood, Sherritt International Corporation
Penggui Yan, HD Mining International Ltd

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

EXECUTIVE COMMITTEE

Brent Bergeron, Goldcorp Inc.
Marc Boissonneault, Glencore***
Carolyn Chisholm, Rio Tinto Canada****
David Clarry, HudBay Minerals Inc.
Pierre Gratton, Mining Association of Canada
Elliot Holland, Dominion Diamond Corporation
Michel Julien, Agnico Eagle Mines Limited***
John Kearney, Canadian Zinc Corporation*
Pierre Lapointe, ArcelorMittal Exploitation Minière Canada s.e.n.c.*
Cory McPhee, Vale
Peter Read, Syncrude Canada Ltd.
Marcia Smith, Teck Resources Limited
Gordon Stothart, IAMGOLD Corporation
Travis Temple, Hudbay Minerals Inc.
Anne Marie Toutant, Suncor Energy Inc.
Alice Wong, Cameco Corporation

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

OFFICERS

Anne Marie Toutant, Chair
Gordon Stothart, Vice-Chair
Cory McPhee, Vice-Chair
Travis Temple, Treasurer
Pierre Gratton, President and CEO and Secretary

HONORARY LIFE MEMBERS

Jim Carter
Doug Horswill
William James
Norman Keevil

TSM GOVERNANCE TEAM

Chair: Peter Read, Syncrude Canada Ltd.

Joe Boaro, First Quantum Minerals
Marc Boissonneault, Glencore ***
David Clarry, HudBay Minerals Inc.
Bryan Cox, Mining Association of British Columbia **
Scott Davidson, New Gold Inc. ***
Blair Dickerson, Rio Tinto Canada *
Craig Ford, Excellon Resources Inc.
Caitlin Glynn-Morris, First Quantum Minerals
Rhys Jenkins, Rio Tinto ***
Michel Julien, Agnico Eagle Mines Limited
Ed Kniel, Teck Resources Limited ***
Erik Madsen, De Beers Group of Companies
Tina Markovic, BHP Billiton Canada Inc.
Cory McPhee, Vale
Josée Méthot, Québec Mining Association
Shirley Neault, HudBay Minerals Inc.
Sheila Risbud, Teck Resources Limited ***
Tom Syer, Teck Resources Limited**
Anne Marie Toutant, Suncor Energy Inc.
Dennis Wilson, New Gold Inc.*
Penggui Yan, HD Mining International Ltd.

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

COMMUNITY OF INTEREST ADVISORY (COI) PANEL

Theresa Baikie, Aboriginal Category
Dan Benoit, Aboriginal Category
Jocelyn Fraser, International Development Category****
Tim Johnston, Economic and Community Development Category
Stephen Hazell, Environmental NGO Category
Sujane Kandasamy, ENGO Category ****
Joy Kennedy, Social NGO Category (includes faith-based groups)
Nathan Lemphers, Environmental NGO Category*
Doug Olthuis, Labour and Workplace Category
Dr. Philip Oxhorn, International Development Category*
Maya Stano, Expert Category
Stephen Walker, Finance and Investment Category
Chief David Walkem, Economic and Community Development Category

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

INDUSTRY REPRESENTATIVES ON THE COI PANEL

Pierre Gratton, Mining Association of Canada
Michel Julien, Agnico Eagle Mines Limited
Josée Méthot, Association minière du Québec
Cory McPhee, Vale*
Shirley Neault, HudBay Minerals Inc. (observer)
Peter Read, Syncrude Canada Ltd.
Mark Wiseman, Avalon Rare Metals Inc.
Alice Wong, Cameco Corporation***
Scott Yarrow, Glencore

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

TSM INITIATIVE LEADERS

Chair: Shirley Neault, HudBay Minerals Inc.

Vice Chair: Shane Borchardt, Cameco Corporation

Chris Adachi, Teck Resources Limited
Tracy Anderson, First Quantum Minerals
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Annie Blier, Hecla Quebec Inc.
Chris Browne, Vale
Bob Butler, Glencore
Carolyn Chisholm, Rio Tinto Canada
Chantal Clement, Goldcorp Inc.
Nick Cotts, Newmont Hope Bay Mining Ltd.
Scott Davidson, New Gold Inc.
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Guy Dufour, Glencore
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Kris Frederickson, Suncor Energy Inc.
Patrice Gilbert, Agnico Eagle Mines Limited
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Rhys Jenkins, Rio Tinto
Liane Kelly, B2Gold Corp.
Laurie Kelly, Teck Resources Limited
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Emma Leith, Agnico Eagle Mines Limited
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Karen Paquette, Vale
Michael Patterson, Anglo American
Serge Pelletier, Glencore
Nicole Pesonen, Nyrstar
Jennifer Prospero, Sherritt International Corporation
Cara Rockwood, IAMGOLD Corporation
Lyle Safronetz, Vale
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Johan Skoglund, Nyrstar
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Joe Boaro, First Quantum Minerals
Brendan Cahill, Excellon Resources Inc.
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Hasan Zolata, Juarez Environmental Consultants Inc.

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Meera Bawa, Teck Resources Limited
Suzanne Belanger, Teck Resources Limited
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Debbie Berthelot, BHP Billiton
Charles Birchall, Willms & Shier
Annie Blier, Hecla Québec Inc.
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Stephane Brienne, Teck Resources Limited
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Bob Butler, Glencore Canada
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Derek Chubb, ERM Consultants Canada Ltd.
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Alan Hair, Hudbay Minerals Inc.
Brent Hamblin, First Quantum Minerals
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Shawn Harriman, NexGen Energy Ltd.
Shane Hayes, Barrick Gold Corporation
Holly Heffner, BHP Billiton

Frances Hilderman, Rio Tinto
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 Tom Hoefler, NWT and Nunavut Chamber of Mines
 Bradley Horne, Stantec
 Jane Howe, Advisian (WorleyParsons Group)
 Carolyn Hunt, Vale
 Matt Hynes, Vale
 Michaela Ilie, ArcelorMittal Exploitation Minière Canada s.e.n.c.
 Rhys Jenkins, Rio Tinto
 Troy Jones, Teck Resources Limited
 Ana Gabriela Juarez, Juarez Environmental Consultants Inc.
 Lou Kamermans, Baffinland Iron Mines Corporation
 Laurie Kelly, Teck Resources Limited
 Harry Kim, Hatch & Associates Inc.
 Lindsay Kislock, Mining Association of British Columbia
 Dale Klodnicki, Wood (formerly AMEC)
 Nural Kuyucak, Golder Associates
 Maxime Lachance, Association minière du Québec
 Donald Laflamme, Rio Tinto
 Anthony Lambert, BHP Billiton
 Lisa Lanteigne, Vale
 Simon Latulippe, WSP Group
 Patrick Lauzière, Iron Ore Company of Canada
 Jacques Leclerc, Nyrstar
 Claudine Lee, Dominion Diamond Mines ULC
 Carolina Leseigneur, Golder Associates
 Janice Linehan, Suncor Energy Inc.
 Megan Lord-Hoyle, Baffinland Iron Mines Corporation
 Gordon Macdonald, Diavik Diamond Mines Inc.
 John Machin, Syncrude Canada Ltd.
 Erik Madsen, De Beers Group of Companies
 Scott Maloney, Teck Resources Limited
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 Kristen Mariuzza, Lundin Mining Corporation
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 Dennis Martin, Vale
 Shane Matson, Goldcorp Inc.
 Samantha McGarry, Glencore
 Andrea McLandress, Mining Association of Manitoba
 Sarah McLean, De Beers Canada
 Jennifer McPhail, Stantec
 Allison Merla, Vale
 Sean Miller, Maxxam Analytics International Corporation
 Dewayne Mills, The Chemours Canada Company
 Mary Mioska, Western Copper and Gold Corporation
 Shannon Mitchell, Vale
 Loris Molino, Vale
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 Christine Moore, Intrinsic Corp.
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 Kevin Nagy, Cameco Corporation
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 Bryan Neeley, Goldcorp Inc.
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 Karen Paquette, Vale
 Alvaro Paredes, Wood (formerly AMEC)
 Mark Passi, Glencore
 Michael Patterson, Anglo American Metallurgical Coal Canada
 Chad Pearson, Glencore
 Steve Pelletier, Glencore
 Nicole Pesonen, Nyrstar
 John Petherick, Glencore

Greg Poholka, Sherritt International Corporation
Kristin Pouw, SRK Consulting (Canada) Inc.
Lisa Ramilo, EcoReg Solutions Inc.
Felipe Ramirez, Juarez Environmental Consultants Inc.
Chris Ransom, Glencore
George Read, Star Diamond Corporation (Formerly Shore Gold Inc.)
Stephane Robert, Agnico Eagle Mines Limited
Lindsay Robertson, Klohn Crippen Berger Ltd.
Keith Russell, Partners in Performance
James Russell, Goldcorp Inc.
Mark Ruthven, Wood (formerly AMEC)
Lyle Safronetz, Vale
Jared Saunders, Vale
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Dale Shafer, Barrick Gold Corporation
Sean Sharpe, Glencore
Neil Shelly, Alberta Chamber of Resources
Isabelle Shelvey, Syncrude Canada Ltd.
Jody Shimkus, HD Mining International Ltd.
Brad Sigurdson, Saskatchewan Mining Association
Sean Sinclair, Diavik Diamond Mines Inc. (Rio Tinto)
Sharon Singh, Bennett Jones LLP
Johan Skoglund, Nyrstar
Helga Sonnenberg, EcoReg Solutions Inc.
Roger Souckey, Goldcorp Inc.
Adrianna Stech, Ontario Mining Association
Sylvie St-Jean, New Gold Inc.
Stephanie Thibeault, Goldcorp Inc.
Yves Thomassin, BBA Inc
Ryan Tibbles, Knight-Piesold Ltd.
Ryan Todd, New Gold Inc.
Petrina Torgerson, Goldcorp Inc.
Kirk Tourout, Newmont Canada Corporation
Nick Tremblay, Rio Tinto
France Trépanier, Goldcorp Inc.
Ian Turpin, Quadra Chemicals Ltd.
Richard Viflantzoff, Charles Tennant & Company (Canada) Ltd.
Kelly Wells, Canada North Environmental Services
Kathryn Wherry, Hatch & Associates Inc.
Lesley Williams, Prospectors and Developers Association of Canada
Blake Williams, Bennett Jones LLP
Melissa Winfield-Lesk, Hatch & Associates Inc.
Mark Wiseman, Avalon Advanced Materials Inc.
Steve Woolfenden, IAMGOLD Corporation
Linda Wrong, Lundin Mining Corporation
David Yaschyshyn, Glencore
Hasan Zolata, Juarez Environmental Consultants Inc.
Warren Zubot, Syncrude Canada Ltd.

PUBLIC AFFAIRS COMMITTEE

Chair: Tom Ormsby, De Beers Canada

Dale Austin, Cameco Corporation
Meera Bawa, Teck Resources Limited
Doug Brown, Teck Resources Limited
Scott Brubacher, HudBay Minerals Inc.
Heather Bruce-Veitch, Iron Ore Company of Canada
Louise Burgess, Eldorado Gold Corporation
Carolyn Chisholm, Rio Tinto Canada
Anne Currie, ERM Consultants Canada Ltd.
Nicolas Dalmau, ArcelorMittal Exploitation Minière Canada s.e.n.c.
Melissa Desrochers, Agnico Eagle Mines Limited
Blair Dickerson, Rio Tinto Canada
Kyle Dufresne, Rio Tinto Canada
Christina M. Erling, Barrick Gold Corporation
Nathalie Frackleton, Agnico Eagle Mines Limited

Peter Fuchs, Glencore
Claudine Gagnon, Rio Tinto Canada
Joel Giebelhaus, Canadian Natural Resources Limited
Daniel Goodwin, Suncor Energy Inc.
Jean-Pierre Gregoire, Rio Tinto Canada
Wellsley Hamilton, Goldcorp Inc.
Angela Hamlyn, Canadian Institute of Mining, Metallurgy and Petroleum
Jeff Hanman, Teck Resources Limited
Joshua Hardy, Rio Tinto
Jeff Hryhoriw, Cameco Corporation
Tracey Irwin, Saskatchewan Mining Association
Matt Johnson, Lundin Mining Corporation
Kristy Kenny, Prospectors and Developers Association of Canada
Dany Laferriere, Suncor Energy Inc.
Joseph Lanzon, NorZinc Ltd. (formerly Canadian Zinc Corporation)
Benjamin Little, IAMGOLD Corporation
Andy Lloyd, Barrick Gold Corporation
Poonam Madan, Sherritt International Corporation
Christine Marks, Goldcorp Inc.
Andrea McLandress, Mining Association of Manitoba
Ryan McEachern, Canadian Association of Mining Equipment and Services for Export
Cory McPhee, Vale
John Mullally, Goldcorp Inc.
Jennifer Prospero, Sherritt International Corporation
Neil Reeder, B2Gold Corp.
Sheila Risbud, Teck Resources Limited
Cheryl Robb, Syncrude Canada Ltd.
Emily Robb, Vale
Luke Russell, Hecla Quebec Inc.
Christopher Ryder, BHP Billiton Canada Inc.
Alaina Shams, IAMGOLD Corporation
Jody Shimkus, HD Mining International Ltd.
Michael Southern, Suncor Energy Inc.
Mathieu St-Amant, Québec Mining Association
Steve Virtue, Yamana Gold Inc.
Tracey Wolsey, Suncor Energy Inc.

TAILINGS WORKING GROUP

Chair: Michael Davies, Teck Resources Limited

Jennifer Abols, Lundin Mining Corporation
Tracy Anderson, First Quantum Minerals
Chris Anderson, Teck Resources Limited
Matthew Andrews, Pan American Silver Corp.
Paul Bedell, Golder Associates
Debbie Berthelot, BHP Billiton Base Metals
David Bleiker, AMEC Foster Wheeler Inc.
Annie Blier, Hecla Quebec Inc.
Cameron Brown, Western Copper and Gold Corporation
Bob Chambers, Klohn Crippen Berger Ltd.
Carolyn Chisholm, Rio Tinto Canada
Chantal Clement, Goldcorp Inc.
Jay Cooper, HudBay Minerals Inc.
Scott Davidson, New Gold Inc.
Randy Donato, Vale
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Barry Esford, Cameco Corporation
Ivo Gonzalez, Sherritt International Corporation
Helen Harper, Glencore
Stephen Hebb, Iron Ore Company of Canada
Carlos Iturralde, De Beers Canada
Karlis Jansons, Tetra Tech
Troy Jones, Teck Resources Limited
Ana Gabriela Juarez, Juarez Environmental Consultants Inc.
Dr. Adrian Juarez, Juarez Environmental Consultants Inc.
Michel Julien, Agnico Eagle Mines Limited

Anthony Lambert, BHP Billiton
Simon Latulippe, WSP Group
Isabelle Levesque, Rio Tinto
Marc Lincoln, De Beers Canada.
Scott Martens, Canadian Natural Resources Limited
Wayne Mimura, Syncrude Canada Ltd.
Peter Mooney, Dominion Diamond Corporation
Shirley Neault, HudBay Minerals Inc.
Greg Noack, Klohn Crippen Berger Ltd.
Luciano Piciacchia, BBA Inc.
Trevor Podiama, SRK Consulting Inc.
Michael Richardson, Advisian (WorleyParsons Group)
Stephane Robert, Agnico Eagle Mines Limited
Lyle Safronetz, Vale
Conrad Savoie, Syncrude Canada Ltd.
Rick Schwenger, Glencore
Brad Sigurdson, Saskatchewan Mining Association
Rick Siwik, Siwik Consulting Inc.
Greg Smyth, Knight Piésold Ltd.
Michelle Velez, Syncrude Canada Ltd.

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Chair: Kent England, Cameco Corporation

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Brady Balicki, Cameco Corporation
John R. Barber, Goldcorp Inc.
Meera Bawa, Teck Resources Limited
Fariel Benameur, Rio Tinto
Debbie Berthelot, BHP Billiton
Valerie Bertrand, Golder Associates
Annie Blier, Hecla Québec Inc.
Kofi Boa-Antwi, Diavik Diamond Mines Inc. (Rio Tinto)
Andréanne Boisvert, ArcelorMittal Exploitation Minière Canada s.e.n.c.
Daniel Bouillon, Teck Resources Limited
Marc Butler, Glencore
Michael A. Cameron, The Chemours Canada Company
Kathryn Campbell, Hatch & Associates Inc.
Carolyn Chisholm, Rio Tinto Canada
Richard Cook, Knight Piésold Consulting Ltd.
Denise Cormier, Iron Ore Company of Canada
Sheila Daniel, Wood (formerly AMEC)
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Mark Deans, Goldcorp Inc.
David Derosa, Teck Resources Limited
Cora Devoy, Lundin Mining Corporation
Guy Dufour, Glencore Canada (Nickel)
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Monika Greenfield, RWDI
Shawn Harriman, NexGen Energy Ltd.
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Jane Howe, Advisian (WorleyParsons Group)
Carolyn Hunt, Vale
Michaela Ilie, ArcelorMittal Exploitation Minière Canada s.e.n.c.
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Saskatchewan Mining Association
Yukon Chamber of Mines

*left 2018

** left early 2019

*** joined 2018

****joined early 2019

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