

Annual Report 2019

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The Mining Association
of Canada
L'association minière
du Canada

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

Gordon Stothart, Chair of the Board of Directors, and Pierre Gratton, President and CEO



Gordon Stothart, Chair of the Board of Directors

Over the course of 2019, there were numerous issues that required strategic attention from the Mining Association of Canada (MAC) and its members to ensure that support for the country's minerals and metals industry were prioritized. Mining continues to be one of the only sectors in the Canadian economy where we can boast that we are a global leader. Around the world, countries want Canadian investment. They want us for how we go about our business, how we work with communities and raise standards. We are one of the safest jurisdictions for mining in the world, and the Canadian mining sector's commitment to responsible environmental and social practices is widely recognized internationally.

However, while Canada has long been the dominant global mining nation—in mineral production, mining finance, mining services and supplies, and sustainability and safety, there are signs that this leadership position is slipping, which has the potential to jeopardize Canada's ability to seize new opportunities for growth. In order to attract greater investment and enhance the competitiveness of the mineral sector, Canada's mining industry must be bold. The mining industry, one of the most important in Canada's economy, requires support to ensure its ongoing competitiveness.

Critical to bolstering the industry's domestic and international leadership is a predictable and consistent domestic policy and regulatory environment. Given several pieces of legislation and accompanying regulations were finalized last year – including several statutes that affect federal permitting of natural resources projects and federal carbon pricing – it is yet to be seen how the broader mining investment community looks at Canada as a place to do business.

2019 kicked off with continued significant focus on advocacy work pertaining to the new *Impact Assessment Act (IAA)*, the amended *Fisheries Act* and the new *Canadian Navigable Waters Act*. MAC was one of the leading lobbying organizations throughout the year due in large part to meetings to ensure the concerns of all of its members were being heard by political decision makers from all parties. In the end, if well implemented, we are confident that this new legislation can lead to a more efficient process for mining proponents.

2019 also saw the formal announcement of the Canadian Minerals and Metals Plan (CMMP), a federal-territorial-provincial initiative that MAC and its members played a role in developing. At the 2019 PDAC convention, MAC played a lead role in supporting the government's announcement on the CMMP through its sponsorship of the first ever Canada Day Reception, which included remarks from federal Ministers and Pierre Gratton, MAC's President and CEO. If all of Canada's governments take steps to put this plan into action, the competitive landscape for new mineral exploration and mining investment will be much improved. Action Plans for the CMMP remain forthcoming and will certainly be a point of focus for 2020.



Pierre Gratton, President and CEO

The 2019 Federal budget included several commitments that were welcomed by the mining sector, specifically the allocation of \$700 million over the next 10 years in new and focused funding to ensure Arctic communities have the opportunity to grow, a point of particular interest to MAC given the infrastructure deficit in Canada's North has long been a point of focus for the association and its members. Announcements pertaining to skills training were also included in the budget, with the new Canada Training Benefit being a step in the right direction to address the labour market issues impacting the mining industry.

The October 21st election of a Liberal minority government brings with it a new Cabinet, and mining-related policies and issues that will need to be addressed in the 43rd Parliament. The Liberal platform specifically included commitments on resource sector electrification and zero-emission vehicles, Indigenous reconciliation, and infrastructure investments, particularly in Canada's North where tremendous opportunities for the mining sector exist. Similarly, the other party platforms also included commitments related to infrastructure, innovation, investing in the North and sustainability, presenting opportunities for collaboration. MAC is well positioned for conversations with newly elected and returning MPs and Ministers, having met with close to 80 policy officials in numerous federal departments during its annual *Mining Day on the Hill* program in late November.

The year was not without its challenges, and the CN rail strike in November resulted in a significant disruption for the industry alongside the many other sectors held captive by rail shipping. MAC appeared in numerous media stories over the course of the week-long strike which resulted in costly disruptions for Canadian mining companies. More than anything, the strike illustrated that work remains to be done to ensure products can get to market as disruptions in the supply chain, such as those incurred by this strike, damage Canada's reputation as a reliable trading partner and must be avoided at all costs.

Innovation continues to be a buzzword in the mining industry, and 2019 saw the opening of Canada's first all-electric underground mine in Newmont's Borden Project. The many initiatives underway by Canadian mining companies focused on low carbon technology, including the use of solar and wind farms, show that the industry is committed to innovation and has an increasingly valuable role to play in ensuring the mined materials necessary for a greener future are sustainably sourced.

Beyond advocacy, MAC's ongoing sustainability work continued to progress and be recognized in 2019. Our made-in-Canada *Towards Sustainable Mining (TSM)* initiative continued to expand globally. This award-winning mining sustainability standard is now being implemented by mining associations in seven countries on six continents, including Finland, Argentina, Botswana, the Philippines, Spain and, as of September of this year, Brazil. Interest from other mining associations around the globe continues due to the strong reputation of *TSM*.

TSM is also continuing to evolve and this year saw the addition of the new *Indigenous and Community Relationships Protocol*, which was revised over the course of the last two years with input from multiple stakeholders, in addition to MAC's COI Panel and membership. The mining industry is the largest

private-sector industrial employer, on a proportional basis, of Indigenous peoples in Canada and a trusted partner of Indigenous businesses. With over 455 active agreements between mining companies and Indigenous communities currently in place, this new protocol will continue to build on the positive collaborative work underway in Canada's mining industry.

Following the tragic events in Brumadinho, where a tailings facility failure in January resulted in the death of almost 300 people, global action on tailings management is more of a focal point than ever before and MAC is pleased to be playing a leadership role in new tailings guidelines currently being developed by the ICMM. Our recently updated tailings management guides, including the 2018 revision of the *TSM Tailings Management Protocol*, has given MAC the tools and expertise to provide guidance on effective and responsible management of tailings at any facility around the world.

MAC's achievements in 2019 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

Chair: Peter Read, Vice President, Syncrude Canada Ltd.

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



Highlights

- Continued performance improvement in TSM protocols across the membership, with six facilities achieving TSM Leadership Award status.
- Completion of a comprehensive revision of the *TSM Indigenous and Community Relationships Protocol*, adopted by the MAC Board of Directors in November 2019.
- Growing recognition of TSM by investors, other standards and responsible sourcing initiatives, including Tradewinds, Sustainalytics, ResponsibleSteel and others.
- Brazil became the seventh country to adopt TSM, joining Canada, Finland, Botswana, Spain, Argentina and Philippines.

Improving Performance

The *2019 TSM Progress Report* shows steady improvement in company performance. Of note, in 2018, seven facilities that had previously reported at Level A were downgraded during external verification to Level B and C for two tailings management indicators on accountability and annual review. The 2019 results demonstrate corrective actions were taken, with overall performance increasing back to 90% of facilities achieving a Level A or higher across all tailings management indicators. Another notable improvement was the 10% increase in facilities achieving Level A or higher in commitment, accountability, and communications under the *TSM Biodiversity Management Protocol*, from 75% in 2017 to 85% in 2018.

Despite consistent improvements, opportunities to optimize performance remain. For example, the percentage of facilities achieving Level A or higher in energy use and greenhouse gas emissions management and reporting systems has decreased slightly as facilities new to *TSM* are still working to align their systems with the requirements of the protocol.

These examples demonstrate the relevance of applying *TSM* at members' facilities as a key component of in assessing and improving performance as standards improve and evolve.

Celebrating Outstanding Performance

TSM Leadership Awards

This year, six facilities were recognized with *TSM Leadership Awards*:

- Hudbay Minerals Inc. – Manitoba Business Unit
- New Gold – New Afton Mine
- Teck Limited – Elkview Operations
- Teck Limited – Highland Valley Copper
- Vale – Newfoundland and Labrador Operations – Voisey's Bay
- Vale – Ontario Operations – Sudbury

TSM Excellence Awards

The *TSM Excellence Awards* acknowledge innovative projects and initiatives that expand and promote sustainable development within the mining sector. Each year, companies, facilities and individuals that have raised the bar for the industry through environmental and social programs are recognized with *TSM Excellence Awards* at the Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Awards Gala. In 2019, MAC awarded the Community Engagement Excellence Award to the Tamatumani Program at Glencore's Raglan Mine, which aims to attract and retain local Inuit employees. The Environmental Excellence Award was awarded to IAMGOLD's Essakane Project in Burkina Faso for an innovative renewable solar energy system. More information on these award-winning projects can be found on the MAC website.

TSM Improvements and Developments

Indigenous and Community Relationships

In December 2019, MAC adopted a new *TSM Indigenous and Community Relationships Protocol* – a comprehensive update to the *TSM Aboriginal and Community Outreach Protocol*. The first public reporting on the new protocol will take place in 2022, using 2021 performance data. The revised protocol raises the bar on facility performance by strengthening criteria across indicators. It also features new indicators on effective Indigenous engagement and dialogue, as well as community impact and benefit management. Among other criteria, improved practices under the new protocol include:

- A response to the Truth and Reconciliation Commission of Canada's Call to Action 92 iii, which calls for the corporate sector to provide education and skills-based training for managers and staff in areas such as Indigenous history and intercultural competency;
- a demonstrated commitment to aim to obtain the Free, Prior and Informed Consent of directly affected Indigenous peoples for new projects and expansions where impacts to rights may occur, including criteria aimed at encouraging collaborative decision-making mechanisms with affected Indigenous communities;
- implementation of leading engagement processes designed to build meaningful relationships; and
- stronger commitments to collaborate with communities of interest, including in the management of impacts and benefits, engagement processes, and other areas.

Work of the Community of Interest Advisory Panel

In 2019, the Community of Interest Advisory Panel:

- Actively engaged in the review of the *TSM Indigenous and Community Relationships Protocol*.
- Conducted post-verification reviews of Vale and New Gold.
- Confirmed two new members, Richard Paquin of Unifor and Dennis Howlett of Canadians for Tax Fairness.
- Provided support on a minor interim review of the *TSM Biodiversity and Conservation Management Protocol*.
- Learned about sustainability in the exploration sector and responsible sourcing initiatives.

For more information on COI Panel activities this year, please refer to their [annual statement to MAC](#).

Global Adoption and Uptake of TSM

MAC continues to build capacity within the global mining industry by sharing its expertise in sustainable mining practices. MAC and its members have been sharing the *TSM* initiative with mining associations in other countries that are seeking tools to improve the environmental and social performance of their respective industries. In September, *TSM* was formally adopted by IBRAM, the national mining association of Brazil. As of the end of 2019, *TSM* is being implemented in Canada, Finland, Argentina, Botswana, the Philippines, Spain and Brazil. International interest in *TSM* continues to grow, and MAC is currently engaging with other governments and associations across the globe.

Growing Role of TSM in Responsible Supply Chains

Sustainalytics

Sustainalytics launched a new Tailings Hazard Indicator intended to provide data to investors to help them assess tailings risks when making investment decisions. Only companies participating in either *TSM* or IRMA will be able to receive the highest scores in this new indicator. Sustainalytics is planning to incorporate *TSM* data into additional indicators over the coming year.

Tradewinds

TSM was included as an indicator of responsible sourcing in a new blockchain project for gold called Tradewinds ORIGINS, a partnership that includes Agnico Eagle, IAMGOLD, Newmont, the Royal Canadian Mint, BMO and others.

ResponsibleSteel

The ResponsibleSteel (RS) standard was approved by its members in December 2019. While the RS standard will be available for steel plant certification immediately upon approval, it is estimated that an additional six months will be required to finalize the approach for raw materials that will feed into the RS supply chain. During this time, RS will work with *TSM* and IRMA to develop transparent criteria for how RS will recognize mining standards.

Integrated Audit Protocol

In partnership with the Responsible Jewelry Council (RJC), MAC has developed a new tool for aligning audits and reporting for standards. The Integrated Audit Protocol combines and blends the requirements of both *TSM* and RJC into a single set of criteria and automates the reporting for both standards. In November 2019, one MAC member that also has an RJC certified mine began piloting this new tool. Beyond RJC, MAC has developed a draft tool that incorporates the new ICMM Performance Expectations and the World Gold Council Responsible Gold Mining Principles.

ENVIRONMENT COMMITTEE

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

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

In 2019, the Environment Committee met jointly with the MAC Science Committee in February, May and October. 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 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 MAC Biodiversity Task Force was active on developments related to the *Species at Risk Act*, the *Migratory Birds Convention Act* and protected spaces.

The Committee continued its work related to air pollution, climate change, the Chemicals Management Plan, Federal Environmental Quality Guidelines, the National Pollutant Release Inventory, *Environmental Emergencies Regulations 2019*, the *Migratory Birds Convention Act* and the review of the *Canadian Environmental Protection Act*. The Committee engaged with officials of Environment and Climate Change Canada (ECCC), the Canadian Wildlife Service, Fisheries and Oceans Canada, the Impact Assessment Agency, Transport Canada and Natural Resources Canada.

Reviews of Key Environmental Legislation

The Senate Energy, Environment and Natural Resources Committee began its review of Bill C-69 in February. MAC made a written submission, appeared before the Senate Committee on February 26th, and continued to engage with Senators on the implications for the mining sector of the amendments being considered. The Senate concluded its review of the Bill in May, incorporating some 200 amendments. The House of Commons accepted or modified many of the Senate amendments, and the final Bill received Royal Assent on June 21st.

The final version of the *Impact Assessment Act* (IAA) incorporated most of the changes sought by MAC and avoided the most undesirable changes that had been under consideration. However, the Bill did not remove mandatory review panels for uranium projects and did not mandate a later Coming into Force. The provisions for the early planning phase remained largely intact. The early planning phase is important to the functioning of the IAA. If well implemented, it would improve coordination with provincial assessments and within the federal government, improve Indigenous engagement and public participation in assessments, and tailor assessments to each project. The IAA came into force on August 28th.

In addition to working on the text of the Act, MAC submitted comments and engaged with the Agency and the government on two discussion papers published on May 1st, on the Project List and on Information and Time Management. Both regulations were published in *Canada Gazette*, Part II, on August 21st, and are consistent with MAC's comments. Thresholds for mining projects were raised and the disparity in thresholds by type of commodity was reduced. The changes are particularly significant for uranium mines (from 0 to 2500 tpd ore) and gold (from 600 to 5000 tpd ore).

Bill C-69 amended the *Navigation Protection Act*, creating the *Canadian Navigable Waters Act* (CNWA), which also came into force on August 28th. In early 2019, MAC identified problems with the original wording of the CNWA, which would have created extensive administrative burden for many industry sectors as well as railways, municipalities, and agriculture. MAC worked with Transport Canada and advocated with the Senate and the House of Commons to find solutions while meeting the intent of Bill C-69. The Bill was amended and the final version of the CNWA no longer requires approvals for works that do not interfere with navigation and includes functional emergency provisions. Further reduction in administrative burden is possible with improvements to the Minor Works Order, expected in 2020.

Bill C-68, amending the *Fisheries Act*, was reviewed by the Senate Committee on Fisheries and Oceans. MAC appeared before the Senate Committee on April 30th. The Senate made, and the House of Commons accepted, the most critical changes sought by MAC: removal of provisions deeming characteristics of water flow to be fish habitat and repairing provisions for designated project permitting. MAC's advocacy was helped by common positioning with other affected sectors. However, Parliament did not reinstate the original definition of "fish habitat" or defer coming into force. Bill C-68, amending the Fisheries Act, received Royal Assent on June 21st and the amendments came into force on August 28th. MAC continues to emphasize the importance of adequate implementation and is coordinating its engagement with a network of other affected sectors.

MAC held webinars for members in September and December on the *Impact Assessment Act*, the *Fisheries Act* and the *Canadian Navigable Waters Act*.

Biodiversity

Throughout 2019, 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* (SARA), the publication of proposed recovery planning documents and the development of Section 11 Conservation Agreements. MAC engaged in the consultation on the draft Conservation Agreement and Partnership Agreement for southern mountain caribou in British Columbia. Furthermore, MAC submitted comments on the draft Conservation Agreements for boreal woodland caribou in Saskatchewan and Alberta.

In June 2019, an amended recovery strategy, with critical habitat of the SK1 range (northern Saskatchewan) was released for public consultation. MAC was encouraged to see that the proposed amendment took the unique characteristics of SK1 – a range where the caribou population is thriving and there is very little anthropogenic disturbance – into consideration in the updated disturbance management threshold for the range. Unfortunately, other issues in the recovery strategy were not addressed during this review. MAC submitted comments encouraging ECCC to ensure that best available information, including recently peer-reviewed literature that contradicts the methodology used to develop the recovery strategy, be incorporated into the document. 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 for the working group on a knowledge plan for species at risk, which has developed recommendations for improving the accessibility of species at risk data and ensuring that decision-makers have access to all relevant information available. MAC is also an active member of the working group focused on conservation agreements.

MAC is also involved in the National Boreal Caribou Knowledge Consortium (NBCKC), which was created in response to the 2018 Action Plan for Boreal Woodland Caribou. 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.

MAC's Biodiversity Task Force engaged with the Canadian Wildlife Service (CWS) during the consultation on the proposed amendments to the Migratory Birds Regulations, which were published in June 2019. Overall, MAC saw the amendments as an improvement from the current regulations. Several of the proposed revisions will provide additional clarity, including the addition of Schedule 1, which identifies species that re-use their nests, and whose nests therefore are protected year-round, and establishes the minimum number of months for which the nest must have been unoccupied by a migratory bird before the protection can be lifted. Of the species listed on Schedule 1, the pileated woodpecker stands out as an anomaly, as this is a species that does not re-use its nests. MAC has submitted detailed comments to ECCC on this matter that aim to provide a constructive, reasonable way forward.

Following participation on the National Advisory Panel for the Pathway to Target 1, MAC has remained engaged on the implementation of Canada's 2020 Biodiversity Goals and Targets. This includes monitoring policy developments related to protected areas and engaging with other stakeholders to encourage recognition of privately protected areas and other effective area-based conservation measures as a contribution towards Canada's area-based protection target. In 2020, Canada and other Parties of the Convention on Biological Diversity will agree to a Post-2020 Biological Diversity Framework. This framework will guide the development of new biodiversity goals and targets for Canada for the next decade. MAC is engaged with ECCC on the development of the post-2020 framework.

Other Activities

To boost its effectiveness, MAC belongs to several formal and informal industry and multi-stakeholder groups. Brady Balicki (Cameco) represents MAC on 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 2019, the Aboriginal Affairs Committee (AAC) met in February, May and September. Throughout the year, the committee discussed a range of issues related to Indigenous participation in the mining sector.

The committee focused on the following in 2019:

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. The committee led MAC's response to the discussion paper on an *Indigenous Knowledge Policy Framework for Proposed Project Reviews and Regulatory Decisions*. In 2020, the AAC will continue to monitor emerging policies and guidance that deal with Indigenous participation in regulatory decisions.

TSM Indigenous and Community Relationships Protocol

The AAC has provided leadership on the review of the TSM Indigenous and Community Relationships Protocol (formerly the Aboriginal and Community Outreach Protocol). The committee worked closely with the TSM Initiative Leaders to revise this component of TSM 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.

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. The AAC developed a compilation of member company initiatives that demonstrate leading practices. These initiatives have helped inform the review of the *Indigenous and Community Relationships Protocol* and several were featured in MAC advertisements and newsletters over the past few years. The MAC website now showcases many of these initiatives.

Indigenous Awareness and Inclusion Training

Throughout 2019, MAC worked closely with the Mining Industry Human Resources Council (MiHR) to develop a set of common learning outcomes to help guide companies' Indigenous inclusion and awareness training programs, responding to the Truth and Reconciliation Commissions' Call to Action 92 iii. MAC actively participates on MiHR's project development committee and the AAC provides overall direction on the project. MiHR's guidance in this area will complement the criteria set out in the revised TSM Indigenous and Community Relationships Protocol.

United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

The AAC monitored Bill C-262, the NDP Private Members Bill to ensure that the laws of Canada are in harmony with UNDRIP. The AAC also followed the development of British Columbia's new *Declaration on the Rights of Indigenous Peoples Act*, which became law late in 2019. Throughout 2020, the AAC will monitor the government's commitment to re-introduce federal UNDRIP legislation.

Skills Training

Given that the mining industry is, proportionally, the largest private sector employer of Indigenous people in Canada, MAC continued to advocate for ongoing 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. MAC staff also attended several events related to Indigenous issues, including the National First Nations Indigenous Guardians Gathering (Vancouver) and the 4th Annual Indigenous Economic Development Forum (Ottawa).

MAC continues to engage with the Assembly of First Nations, Inuit Tapiriit Kanatami, and the Métis National Council through the TSM Community of Interest Advisory Panel, the Species at Risk Advisory Committee and through one-on-one meetings.

MAC continues to support Indspire, an Indigenous-led charity that is improving educational opportunities for First Nation, Inuit and Métis students through various initiatives.

PUBLIC AFFAIRS COMMITTEE

Chair: Dale Austin, Manager, Government Relations, Cameco

Vice-Chair: Steve Virtue, Director, External Relations, Yamana Gold

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.

2019 was a busy year for the PAC, as an election cycle brings with it the opportunity to communicate with both new and returning political decision makers on the importance of Canada's mining sector. The October 21st election of a Liberal minority government set in motion a series of events that helped to clarify key MAC contacts, including the new Cabinet, and mining-related policies and issues that will be addressed in the 43rd Parliament. The PAC plays a key role in the development of MAC's government relations and communications strategies, and the Committee's 2019 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 work supported engagement of federal decision makers in the following key areas:

- Provided thought-leadership and action on current and emerging government policy
- Articulated both challenges and opportunities facing the Canadian mining industry
- Specifically highlighted the role the Canada's mining industry plays as a leader in responsible practices, as a contributor to the low-carbon future, and a collaborator with Indigenous communities across the country.

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.

Regulatory confidence: The PAC provided feedback on strategies and supporting materials as part of MAC inputs along various stages of legislative and regulatory changes to Canadian project review and permitting during the 42nd and current 43rd 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.

Federal Advocacy

By providing feedback on strategy, messaging and materials used to engage federal decision makers on Canadian mining sector issues, the PAC provides valuable member perspective and insights to enhance the full suite of MAC's government relations activities. The Committee also monitors and discusses policy developments and actively participates in MAC advocacy activities and "lobby days" throughout the year.

Proving that a small team can do big things, and reflective of MAC's deep engagement in the federal policy ecosystem, 2019 saw MAC again at or near the top of lobbying activity by in-house advocacy organizations as tracked through monthly reporting under the federal *Lobbying Act*.

MAC's engagement with decision makers in the 42nd Parliament was focused on legislative and regulatory changes to federal project reviews and approvals, rail issues and market access, Canadian mining abroad and federal support for mining innovation. Of note, and a new element throughout the 42nd Parliament was the changing, and more activist role, of the new "Independent" Senate. MAC seized these opportunities and successfully influenced several pieces legislation late in the legislative process, generally not possible when dealing with the traditional "rubber stamp" Senate.

Communicating the Industry's Challenges and Opportunities

In 2019, MAC's communications efforts highlighted the sector's commitments to sustainability, our strong record of Indigenous participation, and the industry's innovation efforts. MAC also underscored the importance of the industry in a low carbon economy, which will serve to increase the demand for minerals and metals. *TSM* and the ongoing expansion of the program continues to be an important element of our communications/public affairs strategy. This narrative aligns with the government's priorities and serves to advance MAC's advocacy efforts.

Newsletters:

In 2019, MAC completed a rebrand of its newsletter to have it focused to a greater degree on information from *Facts & Figures*, its flagship annual publication, and relevant themes including Indigenous collaboration, the relationship between mining and a low carbon future, HR issues in mining and the importance of responsible business practices abroad. Newsletters are now designed to complement MAC's public facing advertising campaign.

30 Things:

MAC created its *30 Things* document which focuses on 30 every-day things, ranging from public transportation to smartphones, that require mining to function. This document was sent in hard copy to every Member of Parliament and Senator and was actively promoted on MAC's social media channels (see more below).

Social Media:

Twitter Highlights

2019 saw the first ever Tweet Chat hosted by MAC in recognition of World Water Day, which proved successful in engaging multiple accounts on the importance of effective water stewardship and raised awareness on the work being done by Canada's mining sector in this space.

LinkedIn Highlights

Long used as a landing space for MAC's public facing ads, 2019 saw the development of a formal LinkedIn presence by MAC where organic content is now posted regularly with engagement rising steadily month over month.

Targeted Organic Social Media Campaigns: 30 Things and Women's History Month

MAC, to coincide with Women's History Month, profiled close to 20 women in Canada's mining sector to showcase their outstanding contributions in the industry. These social media shareables (used throughout the month of October on MAC's Twitter and LinkedIn channels) performed extremely well

and resulted in a significant uptake in MAC's social media engagement while also highlighting the many contributions of women in the mining industry. The campaign was very well received, with tweets for the month of October earning over 382,500 impressions over a 31-day period and the top post on LinkedIn during this period receiving close to 200 likes and over 7,600 organic impressions. This campaign will continue to be an annual feature for MAC in the years to come.

MAC also implemented a targeted social media campaign to promote its *30 Things* initiative, where posts and accompanying social media text were posted each day throughout the month of December, which significantly boosted MAC's social media presence. PAC members played a key role in promoting this initiative via their own personal/company profiles.

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 Canadian Mining advertising campaign in 2019 featured the made-in-Canada *Towards Sustainable Mining (TSM)* program, reclamation, innovation, and focus on how the role mining plays in contributing to a low carbon future. MAC's 2019 campaigns included video elements and animation which resulted in a more dynamic and engaging digital viewing experience.

The *Stories* campaign compliments MAC advocacy priorities and will continue to be expanded in order to provide more detailed background information on its advertising themes.

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 (attended by over 25,000 people), CIM Convention, Nunavut Symposium, AME BC's Mineral Exploration Roundup (attended by over 7,000 people), the annual federal/provincial Energy and Mines Ministers' Conference, and the South Africa Indaba Mining Conference. At the 2019 PDAC convention, MAC played a lead role in supporting the government's announcement on the Canadian Minerals and Metals Plan (CMMP). MAC was a sponsor of the first ever "Canada Day" Reception on March 4th, which included remarks from federal Ministers and MAC's CEO Pierre Gratton. The reception was widely attended by political decision makers, federal officials, industry representatives and stakeholders, and provided an important opportunity for MAC to speak to the CMMP and what the industry hopes to see in the Action Plans currently being developed.

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

- **Mineral Outlook Dialogue**

MAC, in partnership with PDAC and NRCan, presented the 6th annual Mineral Outlook Dialogue on May 2nd. The event, entitled *Unearthing Novel Solutions-Mining the Best Ideas Beyond Your*

Industry, featured panel discussions on mining's relationship to innovation, a keynote on the importance of branding for the sector, and keynote speeches from Marc Serré, Parliamentary Secretary to the Minister of Rural Economic Development, MAC and NRCan. Group discussion at the event focused on providing input towards the CMMP's upcoming Action Plans which are in the process of being developed.

- **Mining Day on the Hill and Annual Reception**

MAC held successful advocacy focused events in 2019, specifically through its annual *Mining Day on the Hill* (MDOTH) in November, when MAC members from across Canada descended on the national capital for meetings with close to 80 key policy officials. As a result of this annual MDOTH, MAC was named the top lobbyist organization for the month of November by iPolitics, a highly read political publication. The Mining Day program concluded with MAC's annual reception, which was well attended by industry representatives, stakeholders and government officials.

Annual Opinion Polling on Canadian Attitudes on Mining

To understand how Canadians view our sector, MAC conducted its seventh annual national public opinion poll in 2019. 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. Overall findings found that while reputation continues to be positive, there is more hesitation about new projects, continuing challenges in understanding the role around climate, and continuing pressures on appeal of the mining sector for younger workers.

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 2019, the MAC Science Committee met jointly with the MAC Environment Committee in February, May and October 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 *Metal Mining Effluent Regulations* (MMER) were published. These amendments renamed the MMER the *Metal and Diamond Mining Effluent Regulations* (MDMER).

Some of these amendments came into force on June 1st, 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.

In addition, more stringent requirements for effluent quality will come into force in 2021, including:

- Requirement for all mines that effluent be non-acutely lethal to *Daphnia magna*.
- Effluent discharge limits for all mines for un-ionized ammonia.
- Lower limits for existing metal and diamond mines for arsenic, cyanide and lead.
- Lower limits for new metal and diamond mines for arsenic, copper, lead, nickel and zinc.

In March 2019, Environment and Climate Change Canada (ECCC) rolled out a new electronic reporting system for MDMER compliance data. MAC members participated in pre-rollout testing of the system, and also provided feedback to ECCC following roll-out.

Schedule 2 of the MDMER

The MDMER include a mechanism to allow natural water bodies that are frequented by fish to be used for the management of tailings, waste rock, and untreated water. Since 2002, the legal mechanism to do this has been to amend the Regulations to add the water body to Schedule 2 of the Regulations.

The amendments process is complex and time consuming, and for projects that have been subject to an environmental assessment, the process is not initiated until the EA is complete. MAC members expressed concern about the timelines and regulatory uncertainty associated with the Schedule 2 process.

MAC began engaging with ECCC officials and Minister's office staff in 2016, seeking to reduce timelines and uncertainty in the current process, and an improved process for allowing the use of natural water

bodies in this manner. Most of these water bodies are very small creeks or ponds (less than 1 km² in area) that cannot be avoided in developing large tailings facilities. In advocating for this, MAC emphasized that the concern of our members is with the regulatory process and timelines. MAC and our members did not seek any changes that would reduce environmental protections. Indeed, MAC expressed strong support for the process that companies must follow to assess alternatives for mine waste management as a pre-condition by ECCC of being considered for a possible addition to Schedule 2.

Since 2016, the fundamental regulatory mechanism has remained unchanged, but we are pleased with two important developments:

- ECCC has significantly reduced the overall timelines for the approvals process for all projects.
- ECCC has made increasing use of a 2012 policy that describes conditions for streamlining the regulatory process by exempting some proposed amendments from pre-publication in the *Canada Gazette*, Part I.
 - Until 2017, the policy had not been applied.
 - Since 2017, several proposed amendments have qualified for this process, shortening the overall approvals process by several months.

In 2020, MAC will continue to engage with ECCC on the process for allowing water bodies to be used for mines waste management.

Proposed *Fisheries Act* Regulations for Coal Mines

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

Consultations were held in early 2018 and MAC submitted detailed comments, as did several MAC members. In December 2018, ECCC released an update on their proposal. MAC submitted detailed comments in early 2019. These comments included an expression of concern about the consultation process and the next steps in that process, and a request for more active engagement from ECCC with MAC and other stakeholders. There was no further engagement by ECCC in 2019, and no further updates. This work will continue in 2020.

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 of water is essential to be able to close and rehabilitate 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 2023. However, to date they have not released a proposal for the regulation. In August 2019, MAC supported and participated in a tour of Syncrude and Suncor pilot project sites for federal and provincial officials, followed by meetings to share perspectives on recent developments and plans for next steps.

Innovation and Support for the Canada Mining Innovation Council

MAC continues to track and support innovation activities and engage with the federal government as appropriate. In October, MAC participated in a mining innovation workshop in Waterloo, Ontario where NRCan presented a vision of what Canada's mining innovation eco-system could look like, and then consulted on them.

MAC is a supporting member of the Canada Mining Innovation Council (CMIC) and is represented on the CMIC Board of Directors. CMIC is a national non-profit organization that coordinates and develops projects and programs in response to life of mine challenges defined by its industry members. A key part of CMIC's vision is "towards zero waste mining" with the goal of enabling deployment of technologies that reduce energy use, water use and environmental footprint by 50% by 2027.

Several CMIC projects are proceeding, and three projects for alternative ore grinding technology were selected as finalists in NRCan's Crush It! Mining Challenge. The winner of the Challenge, to be selected in 2021, will receive \$5 million.

National Orphaned and Abandoned Mines Initiative (NOAMI)

MAC continues to be a member of the NOAMI Advisory Committee, which 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.

The Canadian Minerals and Metals Plan makes specific reference to NOAMI, but NRCan has not determined how best to proceed in terms of the potential future of the program. A workshop is planned for early 2020.

Mine Environment Neutral Drainage (MEND) Program

MAC chairs the multi-stakeholder MEND Steering Committee and is the sole source of funding for MEND. In 2018, MEND completed an update of a review of sediment monitoring methods that can be applied to understanding biogeochemical interactions in subaqueous tailings. Building on this study, in 2019 MEND conducted a reconnaissance field study at a closed site with subaqueous tailings. This study examined the current water quality, bathymetry within the facility, and the extent of natural colonization by aquatic vegetation, in order to determine the suitability of the site for more detailed

field work. Such detailed field work would be aimed at understanding the biogeochemical interaction between the tailings and the various types of plants that have been established. A decision on the suitability of the site used in the 2019 reconnaissance is pending. A study of in-situ application of batch treatment for water management at closed sites, in partnership with Ecometrix and Newmont, is nearing completion.

Canadian Ecotoxicity Workshop

The 2019 Canadian Ecotoxicity Workshop (CEW) was held in Quebec City in October. There was a session on mining as part of the technical program, but unfortunately there were only two presentations in the session. CEW 2020 is in Halifax, and MAC will work with members and organizers to have a more comprehensive mining related session. MAC is represented on the CEW Advisory Committee.

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. In 2004, MAC launched the TSM initiative, with tailings management as a core component and the introduction of the *Tailings Management Protocol* (the Protocol) to measure performance.

In 2015, in response to the failure of a tailings facility at the Mount Polley Mine in British Columbia, MAC launched both independent and internal reviews 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 from MAC's membership with collective experience and expertise in tailings management in Canada and around the world.

As an outcome of these reviews, the Protocol, Tailings Guide and OMS Guide were revised to respond to recommendations of the independent review, reflect current best practices, and to incorporate lessons learned in the implementation of the previous versions of these documents. Revisions were completed in two steps:

November 2017:

- Third edition of the Tailings Guide
- Revised *TSM Tailings Management Protocol*
- Introduced a new Table of Conformance

March 2019:

- Second edition of the OMS Guide
- Version 3.1 of the Tailings Guide (minor edits)
- Revised *TSM Tailings Management Protocol*
- Revised Table of Conformance

All documents are available for download at www.mining.ca/tailings-management and are available in English, French and Spanish.

The updated documents have been extremely well received within the MAC membership and far beyond. MAC has presented to many audiences to raise the level of understanding of best practices for tailings management, including participation in short courses at the Tailings and Mine Waste Conference in Colorado and at the annual symposium of the International Commission on Large Dams, and at events

in Brazil and Sweden. MAC has also been involved in discussions with the insurance industry focused on risks related to tailings. The various efforts have assisted in building the momentum of use of the MAC guides around the world.

In 2019, MAC also became much more engaged in tailings management initiatives at the international level. In late January 2019, a tailings facility failed in Brazil, killing 270 people. In the wake of this tragedy, a large group of institutional investors called for the development of an international standard for tailings management. In response to this call, the Global Tailings Review was launched in the spring by the International Council on Mining and Metals (ICMM), the United Nations Environment Programme, and the Principles for Responsible Investment.

The objective of the Global Review is to develop a Global Tailings Standard. A seven-member Expert Panel and Chair were tasked with this work. To support them, the co-convening partners appointed a 14-member multi-stakeholder Advisory Group, which includes MAC's tailings-lead and a senior tailings expert from a MAC member. The strong MAC role on the Advisory Group (the only representatives of the mining industry on the group) is a significant acknowledgement of MAC's leadership and expertise on tailings management.

The draft Standard was released for public comment in November 2019 and presented more than 74 requirements across the following six topics:

- Knowledge base
- Affected communities
- Design, construction, operation and monitoring of tailings facilities
- Management and governance
- Emergency response and long-term recovery
- Public disclosure

This work will continue in 2020. The Standard is expected to be finalized by the end of May, but there will be further work related to the development of mechanisms for implementation of the Standard and verification of performance.

In parallel with the development of the Standard, ICMM undertook development of international guidance on tailings management. This guidance will:

- Support implementation of the Standard.
- Provide guidance on a comprehensive, holistic approach to tailings management, including incorporating elements of the MAC Tailings Guide and OMS Guide.
- Provide guidance on a performance-base, risk-informed approach to tailings management.

MAC's Charles Dumaresq is the lead author of the ICMM guidance and is collaborating with a small subgroup which includes representatives of three MAC members who were also involved in the MAC Tailings Working Group. A first draft of the guidance was completed in August 2019 and a second draft was completed in October. The guidance will be finalized after the Standard is finalized.

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.

Over the course of 2019, MAC's Taxation Committee focused on a number of initiatives, including spearheading an advocacy campaign in support of expanding preferential tax treatment for clean energy technology to include mining equipment. The Taxation committee also focused its efforts on engaging with Finance Canada to advance industry perspective and recommendations on proposed OECD digital taxation reforms and advancing a tax deductibility issue with Finance Canada and the Canada Revenue Agency.

Federal Budget Engagement

Finance Minister Bill Morneau tabled the Liberal government's fourth Budget on March 19th, 2019. Budget 2019 was positive for Canada's mining sector, proposing programmatic and policy support to bolster skills training and reduce the remoteness of Canada's Arctic for both communities and industry. MAC had actively participated in consultations with the federal government on the budget and the review of federal tax expenditures through MAC's pre-budget submission, engagement with mines ministers and government officials, and other activities.

Budget 2019's focus on Canada's North, exemplified through the commitment of over \$700 million over the next 10 years in new and focused funding, will support Arctic communities and industry growth. These measures are reflective of priorities that MAC developed and advanced in the consultation for Budget 2019, which began in June 2018. MAC participated in this process through a formal pre-budget submission and also appeared before the House of Commons' Finance Committee as part of its consultation, and multiple meetings with key decision makers at the political and senior officials levels also took place.

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.

OECD Developments and Engagement

In spring 2019, MAC met with Finance Canada to discuss recent developments on an evolving OECD tax proposal. The OECD has developed and is advancing a tax proposal that would provide a taxing right to importing jurisdictions on the goods and services they consume. The rationale offered for this proposal is that the markets in these jurisdictions have a value – the marketing intangible – that is currently undervalued and without which international transactions could not occur.

Principal concerns from the mining industry are over double taxation (where Canada, for example, is unlikely to reduce current tax payable on mining companies despite the tax right for these same profits being made eligible for claim by importing jurisdictions) and social license for international operators

(whereby developing countries for whom resource development is a major economic driver could see the value of mining reduced as a portion of that benefit now becomes taxable by another jurisdiction, in many cases, China).

Beyond engagement with Finance, MAC participated in the OECD Tax Committee, as well as participated in the OECD public consultations on the subject in November 2019.

TRANSPORTATION COMMITTEE

Chair: Brad Johnston, General Manager, Logistics, 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 2019, Canada's mineral export value exceeded \$104 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

As part of the implementation of Bill C-49, the *Transportation Modernization Act*, a number of important regulatory and policy activities remain ongoing on the rail file. Transport Canada is undertaking consultations on rail data transparency to establish a permanent data transparency regime and a Canadian Transportation Agency consultation on a plurality of measures that come to bear on railway costing and federally regulated interswitching rates. MAC has made submissions to these consultations, both of which will continue throughout 2020.

MAC will remain engaged on this file until balance is restored. Other activities include regular engagements through the Commodity Supply Chain Table, participation in the Collaborative Forward Planning Initiative, and through the Rail Resources Working Group, overseen by Natural Resources Canada.

A priority for the association remains focused on shippers receiving a right to a costing assessment in the context of a Final Offer Arbitration (FOA), one of the remedies under the CTA. For decades, the one useful remedy for captive shippers was FOA, and in order for it to work properly, there has to be reasonable access to information on both sides of an arbitration, including with respect to costing.

Marine

Mining is 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. Beyond Montreal, the mining industry is a major contributor to Canada's St. Lawrence Seaway. Shipments of iron ore, coke and coal represent ~20% of total seaway traffic, with iron ore accounting for the second-largest share of any commodity shipped. Steelmaking coal accounts for ~19% of the total overall volume of goods handled at the Port of Vancouver annually, which moves shipments to China, Japan and other Asian markets.

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. 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.

Over the course of 2019, MAC remained actively engaged on a corrosivity issue and a proposed ban on the carriage and consumption of Heavy Fuel Oil in Arctic waters. MAC participated on two Canadian delegations to the IMO, one for each issue, and has supported the development of technical work, policy recommendations and submissions on both files. An important part of this work is maintaining regular contact with the various aspects of the marine supply chain, including ports, carriers, terminals and others. MAC maintains regular engagement with decision makers on these files at Transport Canada, Northern Affairs Canada and Environment and Climate Change Canada.

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE

Chair: Christian Del Valle, Director, External Relations, Newmont Canada 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.

Canadian Ombudsperson for Responsible Enterprise

Through 2019, the ISR Committee remained focused on working with Global Affairs Canada and the Office of the Minister of International Trade Diversification to implement the Canadian Ombudsperson for Responsible Enterprise (CORE) with a mandate that is both effective at dispute resolution and provides a fair process for all involved.

In early April, the Minister of International Trade Diversification announced the appointment of Sheri Meyerhoffer as the first CORE. As part of her introduction, Ms. Meyerhoffer characterized her vision for her role as CORE as being about three things: 1) to support Canadian business, 2) to protect human rights, and 3) to promote the Canadian brand.

As part of the announcement, the Minister also announced an Order-in-Council (OIC) mandate for the CORE that focused on collaborative dispute resolution and joint fact finding, with the possibility of independent investigation where companies subject to complaints are unwilling to participate. The Minister also commissioned a third-party legal review to examine how powers to compel evidence and testimony could be provided as part of the CORE's mandate should the need arise. As part of this review, MAC and the PDAC engaged Fasken Martineau to provide a detailed legal analysis that was shared with the Minister as part of this legal review. MAC also initiated a letter writing campaign to support the need for a mandate that remains focused on collaborative dispute resolution and avoids granting quasi-judicial powers. This campaign included many MAC members including some of our Associate Member law firms.

In September, just before the writ was dropped for the federal election, the Government amended the OIC for the CORE to provide clarity on how the control of subsidiary entities is addressed and removed a provision allowing companies to make complaints against third parties, including NGOs. The changes also provide additional clarity by giving the CORE the ability to determine that an allegation of human rights abuse is 'unfounded'.

As of the end of the year, the office of the CORE had a staff of four with plans to hire four more and had engaged the services of a lawyer from the Canadian Human Rights Commission to help draft procedures for the mechanism.

Outreach and Engagement

Over the course of 2019, 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. Examples of engagement activities included:

Multi-Stakeholder Advisory Body (MSAB)

Established in 2018 alongside the announcement to create the CORE, the MSAB was created with a mandate to provide the Minister of International Trade Diversification 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, the Canadian Chamber of Commerce, the Canadian Association of Petroleum Producers and the Canadian Apparel Federation. This year the MSAB held one meeting in January to continue setting priorities and begin exploring the first priority topic, supply chain responsibility. A second meeting was in the midst of being set up when the entire contingent of civil society representatives resigned in July to signal their displeasure with the direction of mandate of the CORE. While the industry representatives, including MAC and the PDAC, remained at the table and engaged, the MSAB has been dormant through to the end of the year with no direction provided by the Minister's office on a path forward.

Dialogue with Investment Community

Following on a successful initial engagement with a number of Canadian institutional investors last year, the ISR Committee held a follow-up dialogue in early May to discuss environmental, social and governance (ESG) disclosure practices. This recent dialogue included ISR Committee members and their Investor Relations counterparts who met with representatives from the Caisse de depot et placement du Quebec, CPPIB, Fiera Capital, the Ontario Teachers' Pension Plan and both RBC Capital Markets and RBC Dominion Securities. The half day dialogue focused on better understanding of each other's perspectives on two priority issues related to investor disclosure expectations; tailings and climate change. From the investor perspective, the interest in tailings disclosure related to understanding industry reactions to the Church of England's tailings letter. The investor interest on climate change was primarily focused on how the mining sector is acting on the Task Force on Climate Related Financial Disclosure (TCFD) recommendations, including our role in the transition to the low carbon economy. The dialogue was well received by both the investors and MAC's members and there continues to be an interest in ongoing engagement. Feedback after the meeting indicated that there is a strong desire from the investors to dig into a greater level of detail on issues of priority shared by both miners and investors.

Participation in International Mining Fora

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

In October, MAC participated in the IGF annual general meeting. The IGF has grown to include over 70 countries and continues to be an important forum that brings together governments from mining countries all over the world to discuss important developments related to mining policy. This year, MAC participated on a responsible sourcing panel alongside the Initiative for Responsible Mining Assurance (IRMA) and ResponsibleSteel to highlight our leadership in advancing the use of standards for responsible sourcing and efforts to reduce the complexity of dealing with multiple standards.

Mining Indaba

During this year's Mining Indaba conference, MAC partnered with Global Affairs Canada (GAC) to organize a panel discussion on responsible sourcing. This is the second year in a row MAC has partnered with GAC to organize the introductory panel for the Sustainable Development Day of the convention. The panel was moderated by a representative from the International Finance Corporation and included Pierre Gratton and speakers from B2Gold, IRMA, New Gold, the Global Battery Alliance and a Canadian human rights lawyer. The panel focused on how discussions between manufacturers and miners on how the move towards responsible supply chains for metals and minerals has evolved over the last year.

The panel provided MAC with an opportunity to highlight the growing role of TSM in this space and to showcase it as an emerging international standard that can be used to help demonstrate that metals and minerals are responsibly sourced. The panel was attended by approximately 140 people, making it one of the most popular panels at the conference.

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

In late 2018, MAC made a decision to intervene to the Supreme Court of Canada, as part of an appeal launched by Nevsun, at the time a Canadian mining company (though not a MAC member) based in Vancouver. The appeal was regarding a lawsuit alleging that Nevsun is complicit in forced labour issues related to their mine in Eritrea. There were two issues involved in the appeal, the application of the Doctrine of State and the role of Customary International Law (CIL). MAC's intervention only addressed the latter and focused on cautioning the Court about the uncertainty that would result and the steps that would be needed to provide clarity should the Court disregard that caution and incorporate CIL into Canadian Common Law. As of the end of 2019, the Supreme Court had not rendered its verdict.

Plans for 2020

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 the CORE now appointed, the 2020 ISR Work Plan anticipates that the ISR Committee will need to continue to dedicate the bulk of its attention to working to shape that mechanism, including through the CORE's development of operating procedures, 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 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 first six months of 2019, MAC was actively engaged in consultations hosted by federal decision makers on the finalization of these systems.

The basis for our engagement in these consultations has been MAC's *Principles for Climate Change Policy Design*. In this 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.

Several measures consistent with our principles document had already been incorporated into the OBPS, including a separate diesel standard for the electricity OBS (in recognition of remote and northern operators), and the disaggregation from a single standard for all mining and metal manufacturing as originally proposed into a plurality of standards on the basis of commodity groupings and activities.

One of the final measures that MAC engaged on over the first half of 2019 was the need for the system to provide coverage from process emissions. Consistent with this request, MAC was pleased to see that the final OBPS program, announced in June 2019, provides recognition and greater relief for facilities for which >30% of their emissions are process emissions.

Other areas where MAC engaged on carbon pricing include carbon revenue recycling and the development of a federal offset system. These consultations were launched at the same time in June 2019, and MAC made submissions to both of them. These consultations remained ongoing.

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 of regulation for solid and gaseous fuels – targeting fuel consumption activities by industry, building and transportation sectors.

As large industrial energy consumers in an 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.

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 Environment and Climate Change Canada’s (ECCC) Technical Working Group on the proposed CFS since 2018 and has persistently underscored the need to:

- Recognize and protect the competitiveness of EITE sectors with a range of solutions.
- Generate EITE protections on the basis of cumulative carbon cost assessments.
- Reduce duplication and overlapping regulatory burden between competing policy and regulatory developments.
- Scientifically and transparently assess the feasibility of the 30 MT GHG emission reduction target mandated under the CFS and associated costs.
- 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. The proposed regulation has not yet reached the Canada Gazette process, but decision makers were planning this for spring 2020.

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 representatives to communicate its concerns over this proposal due to the unproven nature of these 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, MAC’s 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 the climate change 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 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 and 2019, MAC developed a steering committee to direct the project, hosted workshops, and presented in Washington, D.C. 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 late 2020.

NORTHERN AFFAIRS COMMITTEE

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 5%, 36% and 23%, respectively, as of 2018. Mining has had a transformative effect on northern and Indigenous communities through generating employment, skills training, procurement and business development 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 investment 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 NAC. 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.

Strategic projects that have recently received funding 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 by bank staff.

Most recently, MAC was encouraged by, and advocated for, the renewal of the northern envelope in the Trade and Transportation Corridor Initiative (TTCI), for which Budget 2019 allocated an additional \$400 million for trade-enabling infrastructure in the territories starting in 2020, as well as additional funds to initiate and support the ongoing implementation of the Arctic and Northern Policy Framework (ANPF).

Arctic and Northern Policy Framework (ANPF)

MAC has long supported the government's adoption of a new ANPF – an initiative that, as implemented, will plug a significant policy gap at the federal level and has as its goal bridging multiple gaps in the quality of life between northerners and southerners, including Indigenous communities. MAC participated and made a submission to consultations on the proposed ANPF.

After several years of engagement at multiple levels of government, MAC was pleased to see upon release that the ANPF recognizes how critical addressing the infrastructure gap is to achieving social and economic objectives in Goal 2 (which focuses on strategic infrastructure), and calling out the importance of optimizing resource development, including the mining and energy sectors, as a foundation on which strong, sustainable, diversified and inclusive local and regional economies can be built.

While the ANPF is a holistic policy designed to achieve multifaceted progress in the Arctic, the document recognizes the importance of mining as a pillar of the economy and reflects the industry's priority for infrastructure build-out as essential for future growth.

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 doing business. Further, extreme temperatures have not demonstrated the viability of the clean fuel standard for an industrial application in a pan-Canadian context.

A core component of MAC's engagement with decision makers, in all consultation contexts that pertain to climate change policy or regulation, is ensuring the sensitivity to remote and northern off-grid operations is understood and taken into account.

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 approximately 20% of the value of Canadian goods exports in 2018, exceeding \$104 billion, 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 FIPAs.

Free Trade Agreements

Free trade, investment and taxation agreements help facilitate the trade of mining products and investment flows. These agreements reduce barriers for investment, enhance transparency and advance cooperation. The reduction and elimination of tariffs increases the competitiveness of Canadian mineral products in foreign jurisdictions by levelling the playing field from a cost standpoint, thus enabling companies to capture greater market share.

Part of maintaining Canada's global leadership is ensuring that Canadian mining and supply sectors have access to modern and comprehensive trade and investment vehicles to meet the world where it does business. MAC is pleased to see the Government of Canada pursuing a robust trade agenda and supports participation in the following engagements.

Canada, US, Mexico Free Trade Agreement

On November 30th, 2018, Canada, the US and Mexico signed the Canada, 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.

In Canada, the legislation to ratify CUSMA was introduced in Parliament in May 2019 but didn't become law prior to the dissolution of Parliament in advance of the 2019 federal election. The ratification of the CUSMA is a significant government priority, with legislation tabled and progressing well through Parliament. As the single largest market for Canadian mineral and metal exports, MAC has consistently supported the need for the ratification of the updated agreement.

Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)

On December 30th, 2018 the CPTPP entered into force in the first six countries to ratify the agreement – Canada, Australia, Japan, Mexico, New Zealand and Singapore. Vietnam was the seventh country to ratify the agreement on January 30th, 2019.

MAC supported the government's ratification of the agreement as well as its coming into force as it creates greater possibilities for new markets. In the years prior to the agreement's completion, 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. 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.

A free-trade agreement (FTA) with China is a significant opportunity for Canada to capture greater share of Chinese market demand for raw materials, but MAC underscores it is essential that any agreement must be developed with reciprocity.

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 participates in consultations on the matter regularly. Beyond investments and assets, MAC and its members are exporting best practices in mining sustainability to MERCOSUR countries. The most significant example of this is in Argentina and Brazil, where both the Cámara Argentina de Empresarios Mineros and the Instituto Brasileiro de Mineração have adopted MAC's Towards Sustainable Mining (TSM) initiative. Argentina and Brazil's adoption of TSM is an important step forward in cooperation on responsible mining standards between Canada and major mining jurisdictions 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 the above 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.

Foreign Investment Promotion and Protection Agreements (FIPA)

A FIPA is a bilateral agreement aimed at protecting and promoting foreign investment through legally binding rights and obligations. At the time of writing, Canada had 38 FIPAs in force, had signed two others yet to come into force, concluded negotiations with five additional countries, and remains engaged in ongoing negotiations with 14 other countries.

While the enforcement components of FIPAs are rarely used, such as the ISDS mechanisms discussed below, the mere existence of a FIPA provides foreign governments with a set of rules and expectations for fairness and transparency and gives investors additional confidence. Global Affairs Canada is reviewing its FIPA program, a component of which includes consulting with stakeholders. MAC will remain engaged in this process and underscores the importance of the continued inclusion of robust ISDS mechanisms in these agreements going forward.

Investor State Dispute Settlement (ISDS) Mechanisms

ISDS is a mechanism in a FTA or investment treaty that provides foreign investors, including Canadian investors overseas, with the right to access an international tribunal to resolve investment disputes. 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.

Mining 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 immobile as it is grounded in the host country.

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.

An independent, non-profit organization, the Mining Industry Human Resources Council (MiHR) is Canada's knowledge centre for mining labour market information. It is the only source of industry driven, made in Canada human resource solutions specific to the minerals and metals sector. MiHR's Board of Directors and staff undertook an extensive exercise in 2018 to update and implement the Council's strategic plan for 2019-2024. Renewed vision, mission, strategic priorities and values guide MiHR as it continues to lead collaboration across Canada's mining sector to understand labour market trends, identify opportunities, and develop solutions.

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. The Board ensures the organization's mission, values and activities deliver tangible results, and MiHR also brings together a network of over 250 volunteers to help inform its research and guide its project committees.

MiHR's 2019-2024 Strategic Plan focuses on four key priorities.

- **Labour Market Information:** To be the trusted, relevant and responsive knowledge centre of labour market information, expertise and analysis for Canada's mining sector.
- **Inclusion, Diversity and Career Development:** To lead, develop and implement programs and tools that help build an inclusive, diverse and sustainable workforce for Canada's mining sector.
- **National Occupational Standards and Workforce Development:** To establish and maintain a suite of National Occupational Standards to develop, assess and recognize the training and competencies of workers in Canada's mining sector.
- **Strategic Engagement and Partnership:** To engage, coordinate and collaborate with partners to identify and respond to labour market trends that impact Canada's mining sector.

Program Highlights:

Labour Market Information

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 – thus enabling the sector to address challenges such as recruitment, retention, inclusion, training, talent gaps and barriers to employment.

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 2020* was published in December 2019. It provides forecasts for hiring requirements and available talent over the next decade and includes: (1) a brief economic update on the industry, (2) labour supply challenges and trends, and (3) uncovers skills in demand.
- The quarterly HR Data Miner LMI dashboard is available on www.MiHR.ca. The November 2019 edition highlights key findings from the 2020 Outlook.
- In partnership with the Prospectors & Developers Association of Canada (PDAC), a second bi-annual mineral exploration sector survey was distributed to employers, contractors, workers, students and educators. The survey focused on issues and challenges facing the mineral exploration industry to help determine the strategic priorities for human resource development in the industry. The resulting Canadian Mineral Exploration HR Outlook 2020 is set for release at the PDAC 2020 Convention.
- A new research report on the Changing Nature of Work: Innovation, Automation and Canada's Mining Workforce is set for release in 2020.

Inclusion, Diversity and Career Development (IDCD)

Gearing Up

Developing Mining Talent Through Work-Integrated Learning: The Government of Canada provided MiHR with \$7.8 million in funding support over four years through its Student Work Placement Program to create the Gearing Up program and 700 new work-integrated learning (WIL) opportunities for post-secondary students from science, technology, engineering and math (STEM) and business-related fields. Wage subsidies of up to \$7,000 are available to employers who create new WIL opportunities for students in mining related post-secondary programs.

Gender Equity in Mining Works (GEM Works)

GEM Works expedites the institutional change necessary to improve gender equity in the Canadian mining industry through the application of tools, strategic HR processes and activities. MiHR is implementing GEM Works in Saskatchewan with funding secured from the International Minerals Innovation Institute (IMII). The pilot project utilizes GEM Works to develop a new cohort of gender champions, change agents and policy and procedure review within mine operations and mine supply organizations.

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. Multiple networking events have taken place in Toronto and Sudbury; an information session was held as part of MiHR's virtual career fair; an in-person career fair and networking dinner was hosted in Toronto; and diversity and inclusion training was delivered for mining employers in Sudbury, Toronto and North Bay.

National Occupational Standards and Workforce Development (NOS-WD)

National Occupational Standards (NOS)

In collaboration with industry, MiHR develops and maintains NOS for key mining occupations: Underground Miner; Surface Miner, Minerals Processing Operator, Diamond Driller, Industry Trainer, Hoist Operator and Frontline Supervisor. MiHR received over \$1.3 million as part of the Government of Canada's Sectoral Initiatives Program for the second phase of the NOS project (April 2018-April 2021). Building on MiHR's existing Canadian Mining Certification Program (CMCP) to improve access to certification and explore alternative implementations of the NOS, a pilot of the new Examiner Panel Certification Process for Underground Miners, Surface Miners, Mineral Processing Operators and Diamond Drillers identified computer skills and literacy as key barriers to uptake of the process. MiHR is also exploring alternative NOS implementation by developing national training program curriculum for Diamond Driller and Industry Trainers, and developing a flexible accreditation program to recognize various training programs that align to the NOS. Lastly, in response to the Truth and Reconciliation Commission Call for Action 92iii, MiHR is developing a training standard that mining company training programs should strive to achieve with respect to Indigenous inclusiveness.

The Canadian Mining Certification Program (CMCP)

The industry standard for validating the skills, knowledge, and experience of workers in the mining sector. The CMCP has certified more than 1,200 workers in the NOS occupational groups. Companies implementing this program include Dominion Diamond, Diavik Diamond Mine, Teck Resources, Hy-Tech Drilling Ltd and New Gold.

Mining Essentials and Mining Potential

Mining Essentials is the only industry validated national mining training program for Indigenous people. Developed in partnership with the Assembly of First Nations, it provides the skills and confidence needed to enter the mining workforce. Since the program's inception, nearly 650 learners have enrolled with 53% of graduates moving on to more education or employment in mining. MiHR secured approximately \$1.9 million from ESDC's Office of Literacy and Essential Skills to update and enhance Mining Essentials and increase opportunities for employment of non-Indigenous audiences who face barriers to entry into mining by developing and piloting a new essentials skills program for women, youth and newcomers. The enhancements resulted in the creation of the Mining Potential training program, launching in 2020, for women, youth and newcomers, and were piloted at the following four sites:

- Northern College – Moose Factory, ON (in partnership with Detour Gold)
- École Secondaire Catholique Thériault – Timmins, ON (in partnership with Newmont-Goldcorp - Porcupine)
- Oshki-Pimache-O-Win: The Wenjack Educational Institute, Thunder Bay, ON (in partnership with Newmont-Goldcorp – Musselwhite)
- Pessamit Innu Council, Pessamit, QC (in partnership with Mason Graphite)

For More Information: Visit www.mihr.ca or contact Ryan Montpellier, Executive Director, at rmontpellier@mihr.ca.

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