

Annual Report 2022



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

David Clarry, Chair of the Board of Directors, and Pierre Gratton, President and CEO



David Clarry, Chair of the Board of Directors

Much has happened over the past two years, with impacts from the ongoing pandemic and the invasion of Ukraine being felt on a global scale with both having brought the security of supply vulnerabilities into sharp focus for many countries and consequently accelerating the desire of Canadians to source and produce locally, with greater self-reliance. Our industry has a particularly important role to play in ensuring the supplies needed, both by us and our allies, are readily available and produced using the highest standards in the world. Our role in providing the raw materials essential to the global energy transition specifically has perhaps never been more critical. Canada mines some of the lowest carbon intensity mineral and metal products on the planet and can play a much more significant role in providing the materials the world needs to get to net-zero.

In 2022, the focus from government decision makers on the need to increase our sector's competitiveness to enable Canada's mining industry to provide the inputs essential to low-carbon tech was high. The spring unveiling of the 2022 Budget provided much reason for optimism for our sector, with the government's \$3.8 billion commitment significantly enhancing our ability to provide the minerals and metals required for the green economy. Budget 2022, and the November release of the Fall Economic Statement, sent a strong signal to our allies in the US and Europe that Canada is a trusted source for responsibly mined and processed materials essential for the world's low carbon future and security.

One reason countries from around the world want minerals, metals and energy products mined in Canada is due to our commitment to ESG, climate action and sustainable mining. As a resource rich nation that sets the global standard of excellence in sustainable mining practices through the Mining Association of Canada's (MAC) internationally recognized *Towards Sustainable Mining* (TSM) initiative, Canada is recognized for its high performance in mining with respect for the environment and engagement with communities where our business takes place. TSM has received international attention with eleven mining associations outside of Canada, including most recently in Guatemala, having adopted it to support meeting society's needs for raw materials in the most responsible way.

As a constantly evolving program, TSM is not static and seeks to encompass the many focal points of our industry, and that is particularly true as we establish a new standard focused on equity, diversity and inclusion (EDI). Throughout 2022, MAC and TSM partner associations worked on finalizing the new *Inclusive and Respectful Workplaces Protocol*, planned for publication in 2023. This new protocol, which has received significant multi-stakeholder input, is being drafted alongside numerous proposed revisions to the *Safety and Health Protocol* that will lead to improved psychological safety and respectful behaviour practices at the mine site. Once published, the new *TSM Inclusive and Respectful Workplaces Protocol* will drive transparency and improved EDI performance in the mining sector. MAC also was successful in 2022 in securing Church of England recognition of the *TSM Tailings Management Protocol* as a valid system for responsible tailings management, in addition to the Global International Standard on Tailings Management.



Pierre Gratton, MAC President and CEO

2022 also saw the establishment of a formal standalone brand for TSM, including an accompanying website, social media presence, and quarterly newsletter providing updates and information on the standard and work being done by international partners in the sustainability space. A coordinated public awareness campaign, featuring 25 testimonials on the power of TSM and importance of ESG in mining by leading politicians, business groups, Ambassadors, mining companies and international partners, was also developed. This campaign appeared on social media platforms and widely visited websites, and targeted Fortune 1000 companies, automakers and leaders in the sustainability space, and received 13 million impressions, bringing much wider awareness to the standard and its use globally.

The positive impact of TSM was also highlighted in our 2022 Abacus Data polling results focused on public perception of Canada's mining sector. The results, which included record high levels of approval for the industry particularly due to our commitment to climate action and ESG via TSM, reinforced the need for MAC to continue on its path of using strong messaging on climate action, critical minerals, Canada's leadership in sustainable mining, and the role mining plays in providing key inputs for low-carbon tech.

MAC played a very active role in communicating these facts throughout 2022, including through participation in the federal government's announcement unveiling Canada's Critical Minerals Strategy in December, multiple House of Commons committee appearances, participation in panels both within Canada and internationally, strategic public awareness advertising development and maintaining a constant presence in the media on the importance of our mining sector.

In terms of government advocacy specifically, 2022 saw a return to form for MAC with the first in-person Mining Day on the Hill program taking place since 2020. Mining Day on the Hill brought MAC members from across the country together in Ottawa and included meetings with over 100 MPs, Senators and senior government decision makers to discuss opportunities related to competitiveness, sustainable development, mining's significant role in Canada's battery electric vehicle supply chain, and much more. This close contact was essential with the myriad of issues affecting the sector and in 2022 MAC was once again recognized as being one of the top lobbying groups on Parliament Hill.

The year was not without its challenges and issues. The implementation of the *Impact Assessment Act*, revised *Fisheries Act*, and *Canadian Navigation Protection Act* has not been smooth. MAC has pressed hard for the IAA Agency to fulfill the Act's promise and properly tailor proposed project assessments. *FA* implementation of codes of practice for minor works has been very slow, while some members have faced delays with *CNWA* approvals. MAC's efforts have started to bear fruit. MAC has also continued to work with its oil sands and steel-making coal members to advance the development of federal effluent regulations.

Relating to supply chains and transportation, challenges with Canada's unpredictable rail shipping system continued in 2022. The March strike between Canadian Pacific Railway (CP) and the Teamsters Canada Rail Conference had a significant impact on the mining sector and the broader Canadian economy and highlighted how ongoing shipping disruptions effect our sector's ability to get essential

goods to customers both within Canada and around the world. MAC continues to push the federal government to make transportation issues a higher priority, particularly given the fact that Canada's mined products are in such high demand given their role as essential inputs in low-carbon technologies.

MAC's achievements in 2022 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: Carolyn Chisholm, General Manager, External Affairs, Rio Tinto Canada

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



Carolyn Chisholm
Chair of the TSM Governance Team

2022 TSM Performance

MAC members performed well across the performance indicators of the TSM protocols in 2022.

Indigenous and Community Relationships: Facilities reported for the first time on the revised *Indigenous and Community Relationships Protocol*, which includes two new indicators: one focused on effective engagement and dialogue with Indigenous communities and one on managing impacts and benefits associated with mining operations. Scores on the indicators of the previous *Aboriginal and Community Outreach Protocol* saw 90% or more of facilities reporting a Level A or higher across all indicators. With the enhanced requirements in 2022, scores dropped slightly; 80-90% of facilities reported a Level A or

higher on the performance indicators. Already, about half of facilities achieved Level AAA on the revised protocol. The protocol will undergo a minor review in 2023 to consider any adjustments after the first year of public reporting.

Crisis Management and Communications Planning: Facilities continued to perform well on the *Crisis Management and Communications Planning Protocol*, with a notable increase in the number of facilities reporting a Yes on Indicator 3 (Training). This protocol underwent a minor review in 2022, resulting in some modifications that will be reflected in public reporting in 2024.

Safety and Health: In 2022, facilities began reporting on a revised version of the *Safety and Health Protocol* that includes new requirements related to critical controls, high consequence hazards, and mental health. Despite these new requirements, scores remained very strong with around 90% of facilities reporting a Level A or higher across all indicators.

Preventing Child and Forced Labour Protocol: Facilities report on the *Preventing Child and Forced Labour Protocol* every three years during the external verification of TSM performance results. Facilities undergoing external verification continue to meet the requirements of this protocol.

Tailings Management: Facilities reported for the second time on the revised 2019 version of the *Tailings Management Protocol* and its associated guides, with increases of about 10 percentage points in facilities scoring Level A or higher across all indicators.

Biodiversity Conservation Management: Facilities continued to demonstrate satisfactory performance on the *Biodiversity Conservation Management Protocol*, with a notable improvement on Indicator 1 (Commitment, Accountability, and Communications).

Water Stewardship: Facilities reported publicly for the second time on the new *Water Stewardship Protocol*, with noticeable improvements in performance across indicators. Indicator 1 (Water

Governance) and Indicator 2 (Operational Water Management) saw the greatest increase in facilities reporting Level A or higher.

Energy Use and Greenhouse Gas Emissions Management: Facilities' performance varied across the three indicators of the *Energy Use and Greenhouse Gas Emissions Management Protocol*. There were slight improvements in performance on Indicator 1 (Management Systems) and Indicator 2 (Reporting Systems), but many facilities continued to struggle with Indicator 3 (Performance Targets); less than 60% of facilities reported a Level A or higher on that indicator. In 2023, facilities will begin public reporting on the new *Climate Change Protocol*, which will replace the *Energy Use and Greenhouse Gas Emissions Management Protocol*. The new protocol takes a more comprehensive approach to climate change, incorporating mitigation and adaptation measures at both corporate and facility levels.

Celebrating Excellence

The *TSM Community Engagement Excellence Award* went to the Gahcho Kué Mine for their Ní Hadi Xa initiative to support community environmental collaboration. The *TSM Environmental Excellence Award* went to Copper Mountain's electric trolley project. More information on the winning projects is available [here](#).

Continual Improvement

Equitable, Diverse, and Inclusive Workplaces: In November 2021, the MAC Board approved a scope of work for new TSM requirements on equity, diversity, and inclusion. In early 2022, a working group of MAC members, the Minerals Council of Australia, and external experts drafted a new protocol to address the areas outlined in the scope of work. A draft protocol was then posted for public comment in late summer 2022. After the working group reviewed and incorporated public comments, the TSM Governance Team instructed the protocol working group to move criteria on psychological safety and respectful behaviour, to the existing *TSM Safety and Health Protocol*. These revisions were underway as of the end of 2022.

Crisis Management and Communications Planning: The *TSM Crisis Management and Communications Planning Protocol* underwent a minor review in 2022. TSM Initiative Leaders proposed some changes to the protocol in early 2022, which were reviewed by the TSM Governance Team in June 2022. The document was then posted for public comment in late summer 2022, and ultimately approved by the MAC Board in November 2022. Minor revisions include:

- Clarification that a crisis control centre can be virtual, physical or hybrid.
- Engagement with communities of interest on the Local Crisis Management Plan.
- Review and update of media and stakeholder contact information.
- More frequent full-scale crisis simulations (every two years instead of every three).
- Review and update of the Local Crisis Management Plan with a change in business.
- Removal of two frequently asked questions that are less relevant in the digital age.

MAC members will report publicly on the revised protocol for the first time in 2024.

Community of Interest Advisory Panel

In 2022, the Community of Interest Advisory Panel held two hybrid meetings—one in Princeton, British Columbia, and one in Ottawa—and several intersessional activities. For more information on panel activities, please refer to the panel's [annual statement](#).

International Activities

Engagement with Supply Chain Stakeholders: MAC continues to raise awareness among key customers at the forefront of efforts to incorporate responsible sourcing into their supply chains. In 2022, MAC focused on advancing engagement with the automotive sector, holding discussions with Drive Sustainability, BMW, Ford and Mercedes-Benz. These companies have responded openly to the idea of working more closely with TSM as part of their supply chain assurance with conversations with BMW being most advanced in that they have agreed to accept TSM as an acceptable standard for sourcing metals and minerals. There was also interest TSM's new subscription process that allows TSM to be applied anywhere in the world and in changes made to enhance TSM's verification process. Part of the reason for more openness from the automotive sector to work with TSM is a growing sense that they need to be open to more standards other than IRMA if they are to meet their raw material needs.

Adoption of TSM in Guatemala: Guatemala's national mining association (GRENAT) became the eleventh national mining association to adopt TSM, joining Canada, Quebec, Finland, Botswana, Spain, Argentina, Brazil, Philippines, Colombia, and Australia. International interest in TSM continues to grow. In 2022, MAC engaged with governments and associations across the globe to support decisions around the program's adoption.

Standards Alignment

Alignment with other standards: Beginning in late 2021 and continuing to Q3 2022, TSM, IRMA and ICMM undertook discussions to explore possibilities for convergence between the three standards. However, it has become apparent that there is unlikely to be a path forward for a three-way convergence between the standards due to a strong desire by IRMA to remain with their current structure and standard. In the wake of these discussions, ICMM convened TSM, World Gold Council and the Copper Mark to explore a new set of convergence discussions that will proceed into 2023. In addition, 2022 saw TSM continue to demonstrate leadership in working with other standards to achieve stronger alignment, equivalency and interoperability. The most notable achievement in this area was the completion of the second version of the Integrated Audit Protocol, through the the M3 Partnership (an ISEAL grant) which saw IRMA added to the existing protocol that already included TSM and RJC. This protocol is now available on the M3 Partnership webpage.

ENVIRONMENT COMMITTEE

Chair: Allison Merla, Advisor – Environment, Vale

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

In 2022, the Environment Committee met in person in May and in September, while continuing monthly virtual meetings. The meetings were held jointly with the MAC Science Committee. Committee work was augmented by task forces. The MAC Reviews Task Force focused its efforts on the implementation of the *Fisheries Act*, the *Impact Assessment Act* and 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*, and the review of the *Canadian Environmental Protection Act*. The Committee engaged with officials from Environment and Climate Change Canada (ECCC), the Canadian Wildlife Service (CWS), Fisheries and Oceans Canada, the Impact Assessment Agency, Transport Canada and Natural Resources Canada.

Impact Assessment Act

The MAC Reviews Task Force monitored the implementation of the *Impact Assessment Act* and engaged with the Impact Assessment Agency to explore how the planning phase can be improved to arrive at truly Tailored Impact Statement Guidelines for each project to focus assessment on key relevant issues. As well, the Task Force discussed with the Agency how to improve the scoping and communication of Indigenous engagement plans to ensure appropriate focus towards directly affected Indigenous groups. Agency staff met with the MAC Reviews Task Force on May 17th and Agency and Natural Resources Canada met with the Task Force on December 7th.

MAC reviewed and submitted comments on the draft Tailored Impact Statement Guidelines for the Upper Beaver project.

MAC analyzed the opinion of the Alberta Court of Appeal on the constitutionality of the *Impact Assessment Act* and the appeal of that opinion by the government of Canada to the Supreme Court of Canada. MAC did not seek intervenor status in the case, but shared the mining sector's experience with federal assessment by publishing a paper titled [Project Permitting in Canada and the Mining Industry](#) prepared by the MAC Reviews Task Force.

Fisheries Act

Fisheries and Oceans Canada's implementation of the amended *Fisheries Act* has been very slow. Three years after the amendments came into force in mid-2019, the department continues to rely on site-specific reviews for most works, undertakings and activities near water, even though many have little or no impact on fish habitat. Other than finalizing six Codes of Practice, compliance instruments to support routine, low-impact projects have yet to be developed. Fisheries and Oceans Canada launched online engagement in 2021 in "waves" which continued as Wave 2 in 2022. The department indicated that the core compliance tool, the *Prescribed Works and Waters Regulations*, will not be in place until late 2024.

MAC participated in the online engagement, submitting comments and attending webinars. The MAC Reviews Task Force met with Fisheries and Oceans Canada officials on September 27th. In addition, MAC coordinated a cross-association letter to the Minister. The key request was accelerated deployment of additional compliance tools, particularly the Regulations, for common low impact projects.

Canadian Navigable Waters Act (CNWA)

MAC continued to engage with Transport Canada on implementation of the CNWA. The Environment Committee's September meeting included a session with officials. The CNWA is complex, and challenging to interpret whether a water body is "navigable water", as the determination includes social utility criteria. There is also complexity in assessing whether a proposed project or activity is a "work" and therefore which sections of the Act apply. MAC is urging Transport Canada to accelerate development of guidance and training of regional staff on interpreting the Act and on Indigenous engagement.

Canada Water Agency

Following the 2021 election, Ministerial mandate letters and public statements reiterated the government's commitment to creating a Canada Water Agency and amendments to the *Canada Water Act*, but no details emerged in 2022.

Canadian Environment Protection Act (CEPA)

The government re-tabled a bill to amend CEPA in the Senate, as Bill S-5, in February 2022. MAC analyzed the Bill, monitored discussions in Parliament, and participated in a network of interested industry associations. MAC appeared before the Senate Standing Committee on Energy, the Environment and Natural Resources in May. The Senate concluded its review of the Bill before its summer break.

MAC analyzed the Senate amendments over the summer and engaged with ECCC on the consequences of some of the Senate amendments. MAC objectives of maintaining a risk-based approach, avoiding litigation hooks and avoiding overly prescriptive limitations on use of expert judgement are shared by the government. In November, ECCC created a substance search tool that addressed one of MAC's key recommendations so that the status of a substance under the Act could be easy to determine.

MAC appeared before the House of Commons Standing Committee on Environment and Sustainable Development in late November. The House Committee completed hearing from witnesses in early December and began clause-by-clause review of the Bill.

Biodiversity

Species at Risk Act (SARA)

Throughout 2022, MAC's Biodiversity Task Force remained active and engaged on issues related to species at risk, including monitoring proposed amendments to Schedule 1 of SARA, the publication of proposed recovery planning documents and the implementation of SARA Section 11 Conservation Agreements. MAC's advocacy has focused on encouraging a more effective and cooperative approach for species at risk.

MAC continues to support the use of the SARA Section 11 Conservation Agreements as a tool to recover species at risk and encourage federal-provincial/territorial coordination. MAC was pleased to see the final Conservation Agreement between Canada and Ontario released in 2022.

Nature Advisory Committee

In 2022, MAC was appointed to the newly established Nature Advisory Committee for a five-year term. The Nature Advisory Committee is a multi-interest advisory body that was established to provide the Minister of Environment and Climate Change with advice to advance progress related to Canada's nature priorities, including the implementation of the *Species at Risk Act* and the *Migratory Birds Convention Act*, protected spaces, nature-based climate solutions and the implementation of the *Kunming-Montreal Global Biodiversity Framework*.

National Boreal Caribou Knowledge Consortium

MAC continues to participate in the National Boreal Caribou Knowledge Consortium (NBCKC), which was announced in the 2018 Action Plan for Boreal Woodland Caribou. The NBCKC is a forum for collaboration among federal, provincial, territorial, and Indigenous governments, NGOs, academics, and industry stakeholders to support information sharing, address knowledge gaps, pool capacity, identify and promote best-practices, and inform decision-making. The NBCKC and its working groups have produced practical tools over the past four years to inform action, including: a caribou monitoring toolkit, a boreal caribou conceptual ecological model, interactive map of caribou projects and a knowledge sharing portal. Since 2020, the NBCKC, in partnership with the Alberta Biodiversity Monitoring Institute, has coordinated a webinar series showcasing emerging research related to boreal woodland caribou conservation.

Migratory Birds

MAC's Biodiversity Task Force continues to monitor developments related to the *Migratory Bird Convention Act* and the *Migratory Bird Regulations* (MBR). Amendments to the MBR came into force in 2022. The amended regulations provide increased clarity in several areas, including protection of unoccupied migratory bird nests. MAC continues to work with CWS to explore opportunities for long-term modernization of the regulations, including the feasibility of new compliance tools.

Conservation Exchange

The 2021 federal budget allocated renewed funding for conservation, with \$2.3 billion over five years being allocated for protected spaces, Indigenous-led conservation and species at risk. Through this funding, CWS has launched a pilot of a conservation exchange initiative. The conservation exchange is meant to incentivize private funding for conservation initiatives, where a private organization funds a conservation organization to undertake a specific project. The biodiversity value of the project is then evaluated using CWS-established indicators and the private funder is issued a certificate indicating the biodiversity value of the project. If successful, there is potential for the conservation exchange to evolve and support programs and initiatives related to nature-related disclosures. MAC participates in the Conservation Exchange Advisory Working Group established to provide CWS with advice on the design of the program, including methodology to assess biodiversity value and the certification process.

COP15 and the Kunming-Montreal Global Biodiversity Framework

In December, MAC had the privilege of participating in the 15th meeting of the Conference of Parties (COP15) to the United Nations Convention on Biological Diversity (CBD) as a member of the Canadian delegation. After nearly three years of negotiations, CBD parties agreed to a new set of global biodiversity goals and targets at COP15, which are articulated in the *Kunming-Montreal Global Biodiversity Framework*. MAC intends to engage with Environment and Climate Change Canada through the Nature Advisory Committee and bi-laterally as Canada's National Biodiversity Strategy is updated to align with the new global framework.

INDIGENOUS RELATIONS COMMITTEE

Chair: Krista Maydew, Director of Community Relations, IAMGOLD

The Indigenous Relations Committee works to identify, evaluate and offer informed advice to the MAC Board of Directors on strategies to foster and strengthen the relationship between Indigenous peoples and the mining industry in Canada.

In 2022, the Indigenous Relations Committee met in February, May, September and October. 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 2022:

United Nations Declaration on the Rights of Indigenous Peoples Act

In 2021, the federal *United Nations Declaration on the Rights of Indigenous Peoples Act* (UNDA) came into force. In 2022, MAC's Indigenous Relations Committee provided direction on MAC's engagement with the federal government and others on the implementation of the new UNDA. While continuing to seek clarity on key issues (e.g., practical expectations with respect to free, prior and informed consent), the committee was focused on the government's approach to the development of the federal UNDA Action Plan.

In May 2022, MAC staff and members participated in a roundtable hosted by Natural Resources Canada (NRCan), Justice Canada and Crown-Indigenous Relations and Northern Affairs Canada on UNDA implementation. During this meeting, officials provided an update on the federal government's engagement process to inform the development of the UNDA Action Plan and efforts to ensure that federal laws are consistent with the UN Declaration.

MAC will welcome opportunities to participate in the development and implementation of the federal UNDA Action Plan, which is to be finalized by June 2023. The mining sector has an important role in reconciliation and is positioned to meaningfully contribute to discussions related to economic development and regulatory consultation processes. MAC also has a strong track record of constructive collaboration with decision-makers, Indigenous organizations and non-governmental organizations in advancing public policy.

National Benefits Sharing Framework

The Indigenous Relations Committee continues to follow developments related to the federal government's commitment to establish a National Benefits Sharing Framework to ensure that Indigenous peoples benefit from natural resource development in their territories. In 2022, the committee met with NRCan several times to discuss the scope of the framework and to provide early input. Engagement on the framework's development is expected to continue in 2023.

Safety and Inclusion of Indigenous Women, Girls and 2SLGBTQI+ People

In 2022, the House of Commons Standing Committee on the Status of Women (FEWO) launched a study on *Resource Development and Violence Against Indigenous Women and Girls*. The Indigenous Relations Committee developed a brief for the Standing Committee that outlined MAC's commitments in this area as well as steps the industry is taking to ensure that mining facilities, industrial camps and corporate offices are safe, welcoming and inclusive. MAC's brief referenced member commitments to equity, diversity and inclusion (EDI); the implementation of the TSM Indigenous and Community Relationships Protocol; efforts to incorporate EDI into TSM; and MiHR's research and programming.

In December 2022, the Standing Committee's report, which includes a number of recommendations intended to address this important issue, was released, many of which are focus areas for Canada's mining sector.

Indigenous Awareness Training

In June 2022, MAC organized an Indigenous awareness training session for MAC members. The session was facilitated by Eva Wilson-Fontaine and E.J. Fontaine with AMIK, an Indigenous consulting firm specializing in cultural sensitivity training. The training focused on raising awareness of the history and legacy of residential schools; demystifying myths and misconceptions and good practices for engaging with Indigenous communities and relationship building. The session was well attended, with participation from over 140 individuals from MAC member companies.

Ongoing Engagement and Collaboration

MAC continues to engage with the Assembly of First Nations, Inuit Tapiriit Kanatami, and the Métis Nation through the *Towards Sustainable Mining* Community of Interest Advisory Panel, multi-interest fora and through one-on-one meetings.

In April 2022, MAC participated in the First Nations Major Projects Coalition's (FNMPC) Toward Net Zero by 2050 Conference. MAC contributed as a sponsor and participated in a panel session on mining and sustainability. This was an opportunity for MAC to highlight the role of critical minerals in the path to net zero and the industry's commitment to meaningful Indigenous engagement and inclusion. The conference also featured several speakers from mining companies, including representatives from Rio Tinto, Teck Resources and Anglo American.

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

Committee Engagement

The Indigenous Relations Committee is an ongoing and open forum for MAC members to share best practices related to Indigenous participation in mining. In 2022, the committee exchanged information and lessons learned on a variety of issues and topics, including:

- Implementation of the *TSM Indigenous and Community Relationships Protocol*
- Indigenous participation in mining
- Advancing reconciliation
- Honouring the National Day for Truth and Reconciliation
- Indigenous awareness and inclusion
- Regulatory consultation processes
- Good practices in benefits sharing

PUBLIC AFFAIRS COMMITTEE

Chair: Dale Austin, Head, Government Relations, Cameco Corporation

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.

Over the course of 2022, MAC's PAC played an important role in providing a forum for communications and public affairs experts to exchange information on issues affecting the sector including, but not limited to, economic competitiveness, critical minerals development, Indigenous engagement, sustainability, supply chain and labour market shortages, and the role the industry can play in supporting a low carbon future.

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.

For the first time since 2019, MAC's annual large scale advocacy event took place in-person in Ottawa on November 15th where staff, Board of Directors and PAC members met with over 100 MPs, Senators and senior government decision makers. Meetings focused on discussing mining's role in Canada's transition to a greener future, and how we can position Canada in a leading competitive position for new investments up and down the minerals and metals sector and beyond. MAC's PAC participated in this advocacy initiative and also provided essential input into the presentations that were circulated as part of this important GR outreach.

MAC's 2022 engagement with federal decision makers included significant focus on the April federal budget (and November Fall Economic Statement) that included support for Canada's minerals and metals industry, with the goal of seizing opportunities relating to critical minerals, supply chain resiliency, and growing Canada's Battery Electric Vehicle (BEV) supply chain. Throughout, MAC continued to highlight challenges with project review and permitting, an enabling policy essential to Canada's mineral competitiveness. In Parliament, Bill S-5, legislation amending the Canadian Environmental Protection Act (CEPA), was also a significant focus in 2022, as were several Private Members' Bill relating to human rights, supply chains, and child and forced labour, including MAC engagement and support for Bill S-211, the *Fighting Against Forced Labour and Child Labour in Supply Chains Act*.

Communicating the Mining Industry's Challenges and Opportunities

In 2022, 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. Critical minerals development was highlighted in MAC's communications and advocacy efforts as did TSM and the ongoing expansion of the program continues to be an important element of our public outreach strategy. This narrative aligns with the government's priorities and serves to advance MAC's advocacy efforts.

Newsletters

In 2022, MAC highlighted numerous themes of importance to Canada's mining sector with newsletters focused on Indigenous collaboration in Canadian mining, innovation, biodiversity conservation (in advance of COP15) and leadership in sustainable mining practices. PAC members are routinely highlighted in these newsletters and provide content suggestions for each issue.

Digital Communications and Social Media

MAC continues to have a very active presence on both Twitter and LinkedIn, with a combined following of over 44,000 as of December 2022. The PAC plays a valuable role in providing social media content and suggestions and is key to MAC's success in social engagement.

Now in its fifth year, MAC highlighted the contributions of women in the mining industry in conjunction with October's Women's History Month. Since 2018, MAC has promoted the accomplishments of 85 different women in Canada's mining sector. This initiative has resulted in a surge of social media activity and positive feedback for MAC.

In addition to running MAC's social media channels, the association also runs social channels associated with TSM which recently launched in the summer of 2022 where MAC member work in sustainability is profiled.

Canadian Mining Public Awareness Campaign

Since 2012, MAC has produced annual communications campaigns on the contributions of Canada's mining sector, primarily to federal decision makers in Ottawa, with a focus on social media channels. The PAC plays an integral role in this process, from providing concept ideas to refining the campaign's messaging.

This year, MAC's annual public awareness campaign focused on the essential role of mined materials to the products we use every day, the industry's commitment to sustainable mining and the opportunity before Canada regarding critical minerals development. MAC's new public awareness tagline, *Canadian Mining – Bold from the Ground Up*, is accompanied by a [microsite](#) that focuses on Canada's leadership in sustainable mining and the role the industry can play in providing the materials needed for technologies Canadians and our allies depend on. This campaign centres on digital advertising, using PAC member b-roll video, and is focused on the below audiences:

- Ministers, MPs and Senators, political staff, relevant public servants, policymakers and influencers, including the Parliamentary Press Gallery.
- Political Ecosystem Community including organizations representing the business community, sector specific stakeholders representing extractive, transportation, finance and manufacturing and technology sectors and influential policy groups.
- Provincial Ministers of Mining, Finance, Resources, Environment, Economic Development and their staffs and top level officials.
- Business media that cover national policy issues (e.g., Bloomberg, ROB, Financial Post, etc.)

Sustainability/TSM Branding

Over the course of 2022, MAC launched the new standalone TSM brand, specifically focusing on how to better convey how the standard is leading to improved practices in environmental stewardship, energy efficiency and community engagement not just in Canada, but around the world.

A coordinated communications strategy, involving advertising, newsletter content and web/social media

development was put in place in early 2022 with positive results. TSM advertisements specifically, featuring testimonials from 25 stakeholders, high-level government officials and partner associations, were delivered over 13 million times to the target audiences and earned close to 20,000 clicks to the [microsite](#) created in support of the campaign. MAC will be continuing its efforts in the ESG space through 2023.

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, Mineral Outlook Dialogue, and many others. MAC also plays an active role in international mining events, participating in a variety of discussions at Africa's Mining Indaba, Mines & Money, and TSM partner events around the world. MAC participated in its annual flagship address to the Greater Vancouver Board of Trade in September of 2022, focusing remarks on the opportunity critical minerals development represents for Canada, public support for mining and the importance of incorporating EDI into ESG standards.

Annual Opinion Polling on Canadian Attitudes on Mining

To understand how Canadians view our sector, MAC conducted its 12th annual national public opinion poll in 2022. 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. For only the second time, polling results were made public via a press release and op-ed and were amplified widely by PAC members and MAC member companies.

In 2022, support for the sector was at an all time high, with 80% reporting that they have a positive feeling about producers of minerals and metals in Canada and 78% saying they have a positive feeling about Canadian mining companies. Other highlights include:

- 84% give mining companies in Canada a good or acceptable performance in contributing new materials for use in greener and cleaner technologies.
- 83% say they would like to see more mining projects in Canada provided they have a plan to reduce GHG emissions.
- 81% say Canada should remain in the oil business provided our barrels are produced by companies that achieve a net zero emissions target.
- 80% say we need a strong mining sector for Canada's economy to be healthy over the long term.
- 80% give Canadian mining companies good or acceptable ratings when it comes to the way they operate in other jurisdictions. This includes measures of how these companies help raise environmental standards and ensure that local communities benefit economically from their mining activities.
- 79% give mining companies operating in Canada a good or acceptable performance in their efforts to reduce environmental impact.
- Upon learning about Canada's leadership in sustainable mining via TSM, 88% believe it is a good idea for government to support Canadian companies that adhere to such standards in their efforts to win in export markets and to attract investment to Canada.

SCIENCE COMMITTEE

Chair: Kent England, Director, Climate Change, Environmental Affairs and Geo-Environmental Engineering, 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.

The Science Committee focuses primarily on issues related to regulations under the *Fisheries Act*, specifically the *Metal and Diamond Mining Effluent Regulations* and proposed regulations for coal mines and oil sands mines. In 2022, MAC's Science Committee met jointly with the MAC Environment Committee, holding two face-to-face meetings and monthly virtual meetings.

Metal and Diamond Mining Effluent Regulations (MDMER)

In late 2021, MAC decided to undertake development of MDMER guidance independent of ECCC and established a task force to do so. In 2022, this task force developed draft guidance, focused on providing "fit for purpose" guidance tailored to the specific requirements of the MDMER. In the summer of 2022, the final draft was sent for peer review to ECCC, Natural Resources Canada, the North American Metals Council Selenium Working Group and several other subject matter experts. Constructive comments were received, and by the end of 2022 the document was close to being finalized. It will be released in 2023 and will be publicly available on the MAC website.

Proposed Coal Mining Effluent Regulations (CMER)

In January 2022, ECCC provided an updated proposal for *Fisheries Act* regulations for coal mines. This was much more detailed than previous proposals provided by ECCC, which was a positive development, as the lack of detail in previous proposals had been a significant concern. In March, MAC submitted detailed comments on this proposal, including:

- Support for a number of the proposed provisions, including:
 - Exclusion of non-contact water from the regulations.
 - Exception from limits for suspended solids in the event of an exceptional rainfall event.
 - Total selenium limits for new mines being the same as for existing mines.
 - Environmental compliance points (ECPs) to be located based on existing water monitoring stations within the Elk Valley.
 - Flexibility in monitoring and sample collection in the event of unforeseen circumstances that cause safety concerns.
- Concern that proposed end-of-pipe effluent discharge limits for total selenium cannot be met on a consistent basis using existing technology, and the proposal does not provide sufficient evidence to justify the proposed limits.
- Proposed requirements for total selenium at ECPs are below existing, science-based limits developed as part of the Elk Valley Water Quality Plan, and ECCC has not provided sufficient evidence to demonstrate that the proposed limits are necessary or consistently achievable.
 - In absence of such evidence, MAC recommended that limits for total selenium at ECPs for mines in the Elk Valley be aligned with existing limits.
- Concern that ECCC's proposal that EEM studies to investigate the cause of effects and studies to identify possible solutions be completed during the same three-year period would be impossible to meet.

As of the end of 2022, there was no formal response or update from ECCC, although in late-2022 ECCC did engage bi-laterally with a number of key players.

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 this water is essential to be able to close and rehabilitate oil sands mines.

ECCC was expecting to release an initial proposal for the regulation in 2021 but as of the end of 2022, no proposal had been released.

In late 2021, ECCC formed a Crown-Indigenous Working Group (CIWG) to work collaboratively with Indigenous groups, and ECCC continued to work with the CIWG throughout 2022. In 2022, the CIWG initiated technical analyses to support the process, including studies of alternatives to water release, and water treatment technologies.

In January 2022, ECCC sent a detailed data request to companies to:

- Help better understand the scale and nature of the planned releases.
- Fill knowledge gaps about the characteristics of the effluent to help identify substances of concern and evaluate appropriate risk management approaches.
- Inform development of the cost benefit analysis for the proposed regulations.

To help inform the response to this request, a workshop was held with ECCC to:

- Provide context regarding the data being submitted
- Provide an opportunity for ECCC to ask questions
- Seek further clarification from ECCC

In June 2022, ECCC provided an additional information request on behalf of the CIWG. MAC members developed a joint response to this information request which was submitted by MAC in early September. MAC used this opportunity to introduce the association to Indigenous representatives on the CIWG, including providing information about TSM. It had become evident that MAC was largely unknown to most of the CIWG members. A third information request was provided by ECCC on behalf of the CIWG in December 2022.

Throughout 2022, MAC and oil sands mining members continue to engage with ECCC. In September 2022, a site visit was held for ECCC officials and representatives of the Government of Alberta. Indigenous members of the CIWG were also invited to participate in the site visit, but none did.

In 2022, MAC also provided communications support to oil sands mining members. In August, MAC hosted a media technical briefing to deliver some of these key messages and help ensure that media are better informed regarding oil sands water release.

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 and is a supporting member of the Canada Mining Innovation Council (CMIC), including being represented on the 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.

National Orphaned and Abandoned Mines Initiative (NOAMI)

In 2022, NRCan decided to wind down NOAMI. In its place, annual workshops are planned to facilitate information sharing, diverse and inclusive engagement, and broad collaboration on remaining challenges related to orphaned and abandoned mines.

Mine Environment Neutral Drainage (MEND) Program

MAC chairs the multi-stakeholder MEND Steering Committee and is the sole source of funding for the initiative. In 2020, MEND launched a project focused on a study related to the geotechnical implications of geochemical reactions in tailings and waste rock, to be completed in partnership with the International Network for Acid Prevention. This project was largely completed by the end of 2022.

Canadian Ecotoxicity Workshop (CEW)

CEW 2022 was held in October in Winnipeg. MAC was a workshop sponsor and co-chaired a session on mining that featured 12 presentations. In addition, 2022 marked the 30th anniversary of the introduction of the first EEM requirements in the Pulp and Paper Effluent Regulations in 1992, and the 20th anniversary of the introduction of the MMER in 2002. A session was held on EEM that looked at the development and current state of these programs. In addition, there were several mining-related presentations in other sessions.

TAILINGS WORKING GROUP

Chair: Greg Puro, Manager Dams - Vale Base Metals

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.

Global Tailings Review and the *Global Industry Standard on Tailings Management*

In 2019, MAC became much more engaged in tailings management initiatives at the international level due in part to the Brumadinho tailings facility failure in Brazil. In the wake of this tragedy, the Global Tailings Review was launched in the spring of 2019 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 Tailings Review was 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 included 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) was a significant acknowledgement of MAC's global leadership and expertise on tailings management.

The *Global Industry Standard on Tailings Management Standard* (GISTM) was released in August 2020 and prescribes 77 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

MAC Response to the Release of the GISTM

After the release of the GISTM, MAC conducted a detailed analysis of its requirements compared to those in the:

- *TSM Tailings Management Protocol*
- *TSM Indigenous and Community Relationships Protocol*
- *TSM Water Stewardship Protocol*
- *TSM Climate Change Protocol*

This analysis concluded that there is good alignment between TSM and the requirements in the GISTM, with TSM requirements exceeding many of the requirements in it, most related to the prevention of catastrophic failures. Commonalities between TSM and the GISTM include:

- Both standards share very similar objectives, focused on minimizing harm

- Both address many of the same themes and topics, including:
 - Establishing corporate commitment and accountability
 - Implementing a tailings management system
 - Developing, implementing, and reviewing OMS manuals
 - Managing change
 - Conducting independent review
 - Developing and testing plans for emergency preparedness and response
 - Engaging communities
- There are many technical aspects addressed by both TSM and the GISTM, including:
 - Setting performance objectives, indicators, and criteria and evaluating performance to ensure that they are met
 - Assessing risk and developing and implementing risk management plans
 - Documenting information on site characterization, and tailings facility design and construction
 - Managing quality
 - Water management
 - Climate change adaptation

These analyses also identified significant strengths of TSM, compared to the GISTM, including:

- The tailings management component of TSM reflects continual improvement based upon more than 20 years of implementation at mines sites around the world, and input from a 2015 independent review.
- TSM requirements for tailings management are supported by leading practice guidance.
- The Table of Conformance provides a very high level of rigor in performance measurement.
- For tailings management, TSM provides guidance and requirements to effectively implement an integrated and systematic approach to tailings management which is essential to improved decision-making and mitigating key risks associated with human factors in tailings management.
- TSM has a demonstrated system for performance measurement, third-party verification, and public reporting of results for nearly 20 years.

The 2020 analysis also identified a number of areas aligned with MAC's commitment to continual improvement in the tailings management component of TSM. In November 2020, the MAC Board of Directors approved a proposal to proceed with updates to improve alignment with the GISTM and further strengthen the TSM requirements and guidance for tailings management. The Board also approved expanding the scope of application of the *Tailings Management Protocol* to include closed and inactive tailings facilities.

Updates to the Tailings Guide and the OMS Guide

Following the MAC Board decision in November 2020, MAC proceeded with developing updates to the Tailings Guide and the OMS Guide. These updates, approved by the MAC Board in March 2021, include:

- Increased level of detail in the Tailings Guide about the roles and responsibilities for the key roles of Accountable Executive Officer, Responsible Person, and Engineer of Record.
- Added details to the Tailings Guide regarding the documentation of site characterization information, the design and construction of tailings facilities, and closure plans. This information had been in the 2004 version of the OMS Guide but had been omitted in the 2017/2019 updates to the Tailings Guide and the OMS Guide.

- Moved text on control of documented information from the OMS Guide to the Tailings Guide and revised it to make it applicable to a wider range of documents, not just OMS manuals.
- Added details in the Tailings Guide about communications, including moving relevant text from the OMS Guide to have a single, consolidated discussion of this important topic.
- Deleted the checklists previously included as an appendix. Given the role and scope of the Table of Conformance, it was agreed that the checklists in the Tailings Guide were no longer useful.

Updates to the *Tailings Management Protocol* and Table of Conformance

Following the release of the updated Tailings Guide and OMS Guide, the TSM Tailings Management Protocol and the Table of Conformance were updated accordingly. The updated versions, approved by the MAC Board in June 2022, include:

- Significant new details in the Table of Conformance to align with the 2021 changes to the Tailings Guide. New requirements were added related to:
 - Accountability and responsibility, and the roles and responsibilities of the Accountable Executive Officer, Responsible Person, and Engineer of Record
 - Documentation of information related to site characterization, tailings facility design and construction, and closure planning
 - Communications
- Extended the mandatory scope of application of the Protocol to include inactive tailings facilities (closed facilities and those on long-term care and maintenance).
 - The Table of Conformance was updated accordingly to reflect this change, by adding an additional column to identify items that may potentially be non-applicable to inactive tailings facilities.

The MAC Tailings Working Group (TWG) undertook further work in 2022 to define conditions under which the frequency of reporting of performance against the TSM Tailings Management Protocol could be reduced for inactive tailings facilities. However, the TWG felt that additional time was needed in order to finalize this text, and it was not completed in 2022.

Engagement with the Church of England Pensions Fund and the Global Tailings Management Institute

As a leader of the investor group (Principles for Responsible Investment) that was one of the co-convening partners of the Global Tailings Review, the Church of England Pensions Fund (CofE) has been a key player in tailings management since 2019. In early 2022, the CofE announced that it would vote against the re-election of chair of boards of directors of companies that had not committed to GISTM implementation, and it would encourage other investors to take similar actions.

This announcement caused considerable concern among MAC members as few have committed to implementing the GISTM, given their commitment to TSM. MAC engaged with the CofE shortly after this announcement was made, and the CofE stated that they “recognize there is a high degree of alignment” between TSM and the GISTM. However, further information from the CofE, released in March 2022, portrayed TSM as a “second rate” standard that is inferior to the GISTM, which caused further concern. In response, MAC developed a detailed analysis, comparing the GISTM and TSM, highlighting the strengths of TSM relative to the GISTM, and noting gaps in the GISTM relative to TSM.

Based on this analysis, MAC stressed to the CofE that investors, communities, regulators, and others should recognize that companies committed to TSM are implementing a very effective standard for

responsible tailings management. MAC further stated that TSM implementation should be encouraged and seen as a strong, viable alternative to implementation of the GISTM. In response to this engagement, the CofE revised documentation on its website, portraying TSM in a more positive light.

Engagement with the CofE continued through 2022 with two key goals in mind: continuing to strengthen the positioning of TSM as an alternative to implementation of the GISTM and providing constructive input to the implementation of the GISTM, while seeking opportunities to work collaboratively. In the fall, the CofE sought MAC input on a draft proposal for the formation of the Global Tailings Management Institute. This Institute, which was formally launched in January 2023, will oversee implementation of the GISTM. Throughout 2022, MAC had ongoing contact with the staff person involved in the development work leading to the Institute's launch.

TAXATION COMMITTEE

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

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

Federal Fiscal Policy Engagement

Throughout 2022, MAC worked with the Tax Committee on engagement with the federal government in order to advocate for sound, competitive fiscal and tax policies and underscore the importance of the fiscal environment to Canada's competitiveness for new mineral investment. In general, 2022 was a quiet year on the tax front. Most collaboration within the Committee took place ahead of the Government of Canada's Fall Economic Statement (FES) and 2022 Federal Budget through MAC's budget submissions.

Budget 2022: MAC welcomed the government's forward-looking vision for the sector as proposed in Budget 2022. With unprecedented support and extensive measures, Budget 2022 positioned Canada's minerals and metals industry for success as a partner in accomplishing Canada's goal of a greener future while also enhancing greater supply chain resiliency, particularly in battery and advanced manufacturing materials.

Budget 2022 reinforced the government's commitment to climate action and supply chain security goals by providing strategic funding and programmatic supports to Canada's minerals and metals sector, underscoring a recognition that the world is better off on climate change when Canada wins on critical minerals. With respect to tax and fiscal policy, the budget:

- Doubled the Mineral Exploration Tax Credit for targeted critical minerals, including nickel, copper, cobalt, rare earths and uranium.
- Allocated \$1.5 billion to invest in new critical minerals projects, with a priority focus on mineral processing, materials manufacturing and recycling for key mineral and metal products in the battery and rare-earths supply chain.
- Renewed the Centre of Excellence on Critical Minerals for three more years with an allocation of \$10 million.

Fall Economic Statement: The FES is the Government of Canada's first response to the US' introduction of the Inflation Reduction Act (IRA) – a historic climate bill designed to supercharge clean energy development, foster energy security and facilitate decarbonization across the US economy.

Approximately \$369B will be invested across multiple areas that will lower consumer energy costs, build out clean technology and reduce emissions in nearly every sector of the economy. The broad suite of incentives ranging from grants, tax credits and innovative climate solutions is forecasted to reduce the country's emissions by 40% by 2030. The Government of Canada has noted that the Act has created an "unlevel playing field" that Canada must level out, especially when it comes to mineral processing and battery manufacturing plants. FES 2022 included a number of measures and policy statements on: Canada Growth Fund details; investment tax credits for clean technology and clean hydrogen; Canada's advanced manufacturing competitiveness; ensuring the resilience of Canada's transportation supply chains; improving regulatory processes for major projects; ensuring Indigenous communities benefit from major projects; skills training; and a tax on share buybacks.

TRANSPORTATION COMMITTEE

Chair: Michael O'Shaughnessy, Director, Logistics Strategy and Planning, Teck Resources

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.

Canada's strength in mining rests on its ability to produce and process minerals competitively and to transport products efficiently to and from domestic and international markets.

The mining industry is one of the largest users of Canada's transportation sector and is a major stakeholder in transportation policy:

- Mining is the single largest industrial customer group of Canada's railways and is a major user of Canada's ports.
- Annually, the industry accounts for approximately 52% (2020) of total rail freight revenue generated and is the largest single shipping sector in volume by both rail and marine modes of transit.
- Accounting for approximately 22% of Canada's total export value annually (\$127 billion in 2021), mining companies require a reliable transportation network to compete internationally. This is especially true for Canada, the world's second largest country by land mass.

Global Supply Chain Fluidity

Global supply chain fluidity continued to be heavily strained due to sharp swings in consumer demand during the pandemic, disruptions to global shipping, and a battered airline industry. Shippers continued to wrestle with COVID-related absences among port workers and shortages in the UK, Europe and the US of truck drivers, who help transport goods to their final inland destinations and return the empty containers.

Strained Confidence in Canada's Supply Chain

The reliability of the supply chain is a significant determinant for mining industry investment given the volume of mineral and metal products transported in Canada.

In recent years, Canada's domestic supply chain has deteriorated significantly due to labour actions by railway and port workers, civil disruption in the form of random and sporadic rail blockades, and transportation infrastructure failures as result of extreme weather events.

Noteworthy is that these disruptions are separate and distinct from the additional supply chain impacts stemming from COVID-19 absenteeism, the associated shortages of goods due to the pandemic, and the general delays associated with the delivery of in demand products, which persisted in 2022.

Transport Canada Regulations Amending the Transportation Information Regulations (Freight Rail Data)

Throughout 2022, MAC engaged in the Transport Canada "rail data" regulatory development process, flowing from Bill C-49 that was passed during the 42nd Parliament. Final regulations failed to go far enough to make much improvement, particularly in regard to transparency of railway shipping data, and

therefore failed to rebalance the railway/shipper relationship most especially for companies who are captive to a single rail carrier, as is the case for most mining companies operating in Canada.

Supply Chain/Transportation Network

MAC was encouraged by the objectives of the National Supply Chain Task Force (NSCTF). Launched by the Minister of Transport early in 2022, MAC was pleased to engage with the Task Force that consulted stakeholders and relevant, impacted industries, to provide independent advice to the Minister on the supply chain and transportation network challenges gripping the country.

In early October, the NSCTF released their final report, summarizing their consultations and making recommendations for immediate and long-term strategic actions.

Several of the 13 recommended “immediate response actions” have some relevance to mining, as do some of the more ambitious/aspirational long-term strategic actions. In particular, the proposal to digitize the supply chain is consistent with MAC calls for more data transparency, and the proposed overhaul of the Canada Transportation Agency (CTA) that reinforces the need for CTA independence and ability to investigate. MAC has long been calling for more robust CTA own motion powers and ability to investigate. MAC continues to support follow-up action on the NSCTF recommendations.

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 Japan, Korea, India, China and Taiwan, with movements also directed to Europe and South America. 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, reliability and credibility.

The International Maritime Organization (IMO) is the global body that regulates pollution and safety practices at sea. Over the course of 2022, MAC engaged, supported, and partnered with the Canadian Delegation (led by Transport Canada) on the October IMO meeting that focused on issues related to the International Maritime Solid Bulk Cargoes (IMSBC) Code.

INTERNATIONAL SOCIAL RESPONSIBILITY (ISR) COMMITTEE

Chair: Monica Moretto, Vice President, Social Sustainability, Diversity and Inclusion, Pan American Silver

Vice Chair: Simon Jimenez, Chief Advisor, Human Rights & Social Performance, Rio Tinto

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.

Federal Policy Related to Canadian Mining Abroad

Canadian Ombudsperson for Responsible Enterprise (CORE)

2022 was the first complete calendar year in which the CORE operated with full procedures in place to receive and process complaints. Consistent with the period following the launch of the complaint process in April 2021, a large number of complaints received failed to meet eligibility criteria to proceed and were classified in CORE's quarterly reports as "inquiries" along with all other more general requests for information. During 2022, and at the time of Annual Report publication, the majority of complaints being processed by the CORE are related to the garment sector (13) and two related to the mining sector neither of which are MAC members.

MAC's constructive engagement with the CORE continued in 2022 with MAC providing feedback on the development of a methodology for how the CORE will approach inquiries that it chooses to launch on its own ("ombuds initiated reviews"), and a Risk Management Process for Non-Review Country Visits. The CORE is undertaking studies on each of the three sectors it has responsibility for, and 2022 saw the completion and release of the first, a garment sector focused study: *Respect for child rights and the risk of child labour in the global operations and supply chains of Canadian garment companies*. While timing and focus of a mining sector study has yet to be confirmed, MAC continues to engage with the CORE on potential focus areas.

Bill S-211, the *Fighting Against Forced Labour and Child Labour in Supply Chains Act*

Throughout 2022, MAC engaged in the legislative progression of Bill S-211, that seeks to establish a reporting regime for Canadian companies (from all sectors) and federal government institutions, to reduce the risk that forced or child labour is used by them or in their supply chains and includes enforcement and penalty (including remedy) provisions.

The ISR Committee provided feedback to guide MAC's positioning in response to the Bill, including a February appearance before the Senate Committee studying S-211. In addition to offering general support, MAC proposed three constructive amendments which were not incorporated in the final text (the Committee did not accept amendments proposed by any stakeholders). Flowing from their 2021 election platform commitment to eradicate forced labour from Canadian supply chains, in June, the Liberal government announced their support for Bill S-211 and attempted to secure support within Parliament for amendments that would "strengthen" the Bill, however, this was not successful.

Global Affairs Canada (GAC) introduces new Responsible Business Conduct (RBC) Strategy

On April 28th, 2022, the federal government unveiled its new Responsible Business Conduct Strategy, *Responsible Business Conduct Abroad – Canada’s Strategy for the Future*. Of note is the Strategy’s application to all sectors and its reference to *Towards Sustainable Mining* (TSM) as an example of industry leadership.

MAC Participation in the Development of a RBC Standard for Canada

2022 saw the commencement of work on one of the key components of the RBC Strategy, the development of a voluntary national standard for human rights due diligence. The process is being run by the Canadian General Standards Board and MAC staff are participating, including serving as Vice Chair of the Technical Committee.

Dialogue with Investment Community

In May, MAC worked with the ESG consulting firm Millani to host a full-day series of panel discussions and dialogues between MAC members and investors, focusing on the topics of equity, diversity, and inclusion (EDI), as well as investor engagement on tailings management.

The importance of EDI to the investor community was a central theme, including their increasing interest and demand for performance data around key sustainability issues, notably consistent with new TSM requirements on EDI and respectful workplaces.

ENERGY COMMITTEE AND CLIMATE CHANGE WORKING GROUP

Chair: Chris Adachi, Director, Climate Change, Teck Resources Limited

The Energy and Climate Change Committee promotes overall emissions performance and energy management.

The Energy and Climate Change committee had a busy year in 2022, participating in multiple consultations on a range of climate change policies, mechanisms, regulations and legislation.

Clean Electricity Standard

ECCC released the “Proposed Frame for the Clean Electricity Regulations (CER)” in support of establishing a net-neutral electricity grid in Canada by the year 2035. From MAC’s perspective, the regulatory framework document released to outline the key components of the CER continued to be limited in providing the necessary context that would inform draft regulatory text to be published in Canada Gazette Part I (CGI) this fall with the desire for final regulations to be published in Canada Gazette Part II by the end of 2022.

MAC has reiterated perspectives that were included in our April 2022 submission as a means to continue stressing the importance of these topics as the government drafts regulatory text for the CER, including: sensitivity to off-grid operations and increased access to clean non-emitting electricity, as well as an efficient federal permitting regime to ensure that large scale power generation projects don’t get gummed up in red tape, delaying the urgent decarbonization progress Canada requires. ECCC has indicated that draft regulations are to be published in CGI in the spring of 2023.

Industry/Government Climate Policy Working Group

In 2022, MAC advanced through ISC3 the reinstatement of a modified Multi-Stakeholder Advisory Panel (MSAP) at the federal level. The 1.0 version of this was an industry and ENGO working group at an ADM level with representatives from ECCC, ISED, Finance Canada, NRCan, ACOA, and Transport. The renewed vision is an industry only working group with relevant departments’ ADMs. ISC3 saw value and has taken action to advance this proposal. MAC staff have participated in two working group meetings to discuss climate and energy transition policy with industry colleagues and Government of Canada ADMs.

Carbon Contract for Difference

MAC was invited by the Cement Association of Canada to join a multi-sector, multi-stakeholder lobby effort to secure federal government support for advancing a policy on carbon contract for difference (CCfD), for which there appears to be growing support.

The Government’s 2022 Fall Economic Statement (FES) stated that the Growth Fund will be a financial solution provider that will use a flexible suite of investment tools, including but not limited to concessional loans and contracts for difference. For example, CCfDs are a tool that ensures businesses can plan long-term investments in decarbonization and clean technologies based on a predictable price on carbon pollution and carbon credits.

MAC’s Climate Change Committee decided to organize a learning session meeting on CCfD for early 2023 where colleagues from the International Emissions Trading Association (IETA) could present on: (1) the Basics on what CCfDs are, and why they are being considered by governments; and, (2) the status of CCfD discussions and outlook in Canada.

SMRs

In both the updated 2030 Emissions Reduction Plan and in Budget 2022, language and programmatic support underscored the inclusivity of SMRs as a component of Canada's decarbonization framework. Budget 2022 specifically announced \$120 million over 5 years to research waste reduction and support regulatory preparedness.

The 2022 FES proposed a refundable tax credit equal to 30 per cent of the capital cost of investments in: Electricity Generation Systems, including solar photovoltaic, SMRs, concentrated solar, wind, and water (small hydro, run-of-river, wave, and tidal). Companies that adhere to certain labour conditions will be eligible for the full 30 per cent credit, while those that do not will only be eligible for a credit of 20 per cent. Labour conditions will include paying prevailing wages based on local labour market conditions and ensuring that apprenticeship training opportunities are being created.

NORTHERN AFFAIRS COMMITTEE

Chair: Vacant

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.

As the largest economic driver in Canada's North, the mining's presence in Nunavut, the Northwest Territories, and the Yukon is significant. Minerals sector GDP contributions for 2021 for the Northwest Territories, Nunavut, and the Yukon were at 31 per cent, 38 per cent, and 15 per cent, respectively, totalling \$3-billion.

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.

Building off this research platform, MAC has actively advocated for strategic programs that help reduce the infrastructure deficit and improve the investment attractiveness of the North. In recent years, successful measures include the creation of a northern specific allocation in the National Trade Corridors Initiative program, funding that was renewed in Budget 2021 reflecting recommendations in MAC's pre-budget submission. Beyond this, more project-specific funding for strategic projects has been forthcoming in recent years than in living memory, including the Yukon Resource Gateway, the T'licho Road in the NWT, a segment of the McKenzie Valley Highway in the NWT, and the Kivaliq Hydro Fibre Link. MAC has actively supported these projects through letters of support, joint advocacy with Indigenous communities, and presentations at northern forums.

In addition to the above, MAC provided support for two NWT government infrastructure applications: first, with a letter of support to renew the Frank Channel Bridge, noting the criticality of this bridge in supporting broader supply chain and logistical activities that the territory's diamond mines rely on; second, to review a preliminary mining power demand study that was undertaken for the territory by Ian Murray & Company Ltd. The report was projecting anticipated power demand and potential as a scoping exercise in support of the Taltson Power project.

The North is essential for Canada's critical minerals and battery value-chain objectives, as most of Canada's current nickel and cobalt production are mined off-grid. Strategic investments in energy infrastructure, such as the Taltson and Kivalliq Hydro grids, the British Columbia/Yukon power grid interconnection, and promising emerging technologies like off-grid small modular reactors are all essential to reducing northern reliance on costly and higher-emitting fossil fuels. Communications and transportation infrastructure are also essential to enhancing the mining supply chain and come at a much higher cost than those sites located in less-remote jurisdictions. Investments in projects like the Gray's Bay Road and Port Project in the Northwest Territories' Slave Geological Province are required if we are to bring northern projects into production.

MAC welcomed the government's forward-looking vision for the sector as proposed in Budget 2022. With unprecedented support and extensive measures, Budget 2022 positioned Canada's minerals and metals industry for success as a partner in accomplishing Canada's goal of a greener future while also enhancing greater supply chain resiliency, particularly in battery and advanced manufacturing materials.

Budget 2022 reinforced the government's commitment to climate action and supply chain security goals by providing strategic funding and programmatic supports to Canada's minerals and metals sector, underscoring a recognition that the world is better off on climate change when Canada wins on critical minerals. With respect to supporting northern resource exploration and development, the budget:

- Committed \$80 million to public geoscience and exploration programs to help find the next generation of critical minerals deposits.
- Doubled the Mineral Exploration Tax Credit for targeted critical minerals, including nickel, copper, cobalt, rare earths and uranium.
- Dedicated \$1.5 billion for new infrastructure investments to unlock new mineral projects in critical regions, such as the Ring of Fire.
- Allocated \$1.5 billion to invest in new critical minerals projects, with a priority focus on mineral processing, materials manufacturing and recycling for key mineral and metal products in the battery and rare-earths supply chain.
- Allocated \$144 million to critical minerals research and development to support the responsible extraction and processing of critical minerals.
- Renewed the Centre of Excellence on Critical Minerals for three more years with an allocation of \$10 million.
- Added \$40 million to support northern regulatory processes in reviewing and permitting critical minerals projects.
- Invested \$70 million for global partnerships to promote Canadian mining leadership.

Arctic and Northern Policy Framework

MAC has long supported the government's adoption of a new Arctic and Northern Policy Framework (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.

After several years of engagement at multiple levels of government, MAC was pleased to see upon its release that the ANPF recognizes how critical addressing the infrastructure gap is to the social and economic objectives in Goal 2 that focuses on strategic infrastructure. The focus on the importance of

optimizing resource development, including in the mining and energy sectors, as a foundation on which strong, sustainable, diversified and inclusive local and regional economies can be built, was appreciated. Unfortunately, work on the Framework was delayed due to COVID-19 and did not resume in 2022.

Climate Change and Energy

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

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 as well as advocating for recognition of off-grid mining operations in government programs. Better policy cohesion is required in the critical minerals, climate, Indigenous reconciliation, and clean technology spaces to ensure the prosperity that mining has brought to Canada’s North, and the future Canada needs the North to play, isn’t compromised.

Off-Grid Energy Funding: After years of engagement, recent conceptual recognition of the need to address off-grid carbon vulnerability has begun to translate into practical programmatic pathways at both ISED and NRCan. In Budget 2022, Canada committed to investing an additional \$600 million over seven years via [The Smart Renewables and Electrification Pathways Program \(SREPs\)](#), to continue to support renewable electricity and grid modernization projects. SREPs will provide up to a maximum of \$25M to large-scale renewable energy projects capable of providing grid services, energy storage or grid modernization projects. The program intake process is now closed. Additionally, elements of Canada’s Critical Minerals Strategy, launched in December 2022, directly focus on reducing remoteness and improving project viability.

Clean Fuel Regulation – Off-Grid Mining – Just Transition: The final Clean Fuel Regulations and the Regulatory Impact Analysis Statement was published in Canada Gazette, Part II on July 6, 2022. MAC welcomed the Government of Canada’s decision to exempt liquid fuels utilized for power generation for off-grid mining contexts in the Clean Fuel Regulations.

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.

Canada's mining sector is a global leader. Its presence in more than 100 countries raises living standards and reduces poverty. Canada boasts the industry's best exploration firms and a capital market that is home to more than half of the world's publicly traded mining companies. Canada's international mining leadership, powered by innovative and dynamic approaches, boosts our strong reputation for sustainable mining and responsible business conduct, and creates new opportunities to increase investment, particularly in the critical minerals space, and enhances market access for Canadian products, goods and services.

Canada's mining sector produces valuable goods that are used both domestically and internationally. Canada's mineral exports make up a substantial portion of the products that we export: 22% of the total value in 2021. The value of Canada's domestic exports of mineral and metal products, including coal, increased in the five years from 2017 through 2021 from \$97 billion to \$127 billion. The bulk of the exports, 54.1% in 2021, are to the United States. The United Kingdom (9.7% in 2021) and the European Union (8.3%) are also significant export destinations.

Canada is also the leading global centre for mining finance. The Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSX-V) list 43% of the world's publicly traded mining companies, which combined accounted for more mining equity capital raised (\$44 billion, or 36% of the total raised worldwide over the past five years) than any other exchange.

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.

Investment agreements, complete with dispute resolution mechanisms, provide mining investors with greater certainty over the investments that companies make in foreign jurisdictions. Labour mobility and regulatory cooperation mechanisms enable companies to secure the key skills they need for project development and operation and promote dialogue through the complex process of obtaining regulatory approvals. 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.

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.

Critical Minerals

In 2020, Canada and the US finalized the Canada–U.S. Joint Action Plan on Critical Minerals Collaboration, advancing mutual interest in securing supply chains for the critical minerals needed for

important manufacturing sectors, including communications technology, aerospace and defence, and clean technology.

Over the course of the last several years, MAC engaged in various conversations on battery minerals and electric vehicle supply chains, built partnerships with organizations across the supply chain, and worked to position Canada well for investment on the basis of Environmental, Social and Governance credentials, including *Towards Sustainable Mining*. This work included deepening relationships with key US officials in the State and Commerce departments, as well the US Embassy in Canada.

MAC also engages in the Critical Minerals Dialogue (which has several bi-lateral forums with key partners), the Raw Materials Dialogue under the Canada-EU Comprehensive Economic and Trade Agreement, and ongoing consultations on trade negotiations, as appropriate.

Trade Working Group Activities in 2022

Considering heightened geo-political tensions, new trade disputes, and trends towards national protectionism, MAC established a working group focused on trade-related issues in late 2021. This resulted from an initial survey of MAC members about the association's trade-related engagement and members' respective trade-related priorities. Of the four survey respondents who saw opportunities for MAC to enhance engagement in this space, members felt that MAC could be more supportive in understanding how trade negotiations and irritants directly affect mining companies and the broader Canadian economy. MAC will engage with this group of members over the course of 2023.

Earlier in 2021, the Government of Canada began consultations on Free Trade Agreements with Indonesia and the United Kingdom. In both instances, MAC made submissions, participated in workshops, and met with officials to discuss opportunities to deepen free trade, including related to critical minerals.

In August 2022, MAC engaged with the Chamber of Commerce in response to a request for input on interests and policy priorities relating to sanctions and export controls. MAC engaged with the Trade Working Group to prepare recommendations and facilitated a follow-up call between the Chamber and a MAC member to provide more detail. Additionally, MAC engaged with the Trade Working Group to prepare responses to trade related questions raised by the U.K. government on critical minerals.

MINING INDUSTRY HUMAN RESOURCES COUNCIL

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The Mining Industry Human Resources Council (MiHR) is Canada's knowledge centre for mining labour market information. An independent, non-profit organization, MiHR leads collaboration among mining and exploration companies, organized labour, contractors, 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.

The Mining Industry Human Resources Council (MiHR) is Canada's knowledge centre for mining labour market information (LMI). An independent, non-profit organization, MiHR leads sectoral collaboration to understand labour market trends, identify opportunities and develop solutions. Sector-specific LMI and human resource (HR) research, National Occupational Standards (NOS), worker certification, essential skills and work-readiness training form the backbone of industry's collaborative approach to addressing workforce issues.

MiHR's vision is to build an inclusive, skilled and sustainable Canadian mining workforce that anticipates and adapts to volatility and innovation. 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 includes nine representatives from MAC and its member companies. Members include representatives from Agnico Eagle, Cameco, Newmont, Ring of Fire Metals, Rio Tinto, Suncor, Teck and Vale. Other Board seats are filled with representatives from organized labour, industry contractors and post-secondary educational institutions. The Board ensures the organization's mission, values and activities deliver tangible results. MiHR also brings together a network of over 250 volunteers to help inform its research and guide its project committees.

Key Priorities

MiHR's 2019-2024 Strategic Plan focuses on increasing awareness of mining careers, identifying and addressing skills gaps, delivering essential and work-readiness skills to Indigenous peoples and underrepresented groups, providing more work-integrated learning opportunities, increasing inclusion and diversity, and promoting recognition of skills and training across the sector.

To address challenges caused by a tightening mining labour market, MiHR submitted a proposal to Employment and Social Development Canada's (ESDC) new Sectoral Workforce Solutions Program (SWSP) for the Mining Sector Skills and Solutions Strategy for the Clean Economy (M4S) project. In late 2022, MiHR secured \$14.5 million in funding from the federal government for M4S to support industry's efforts in attracting, recruiting and developing its workforce – the largest agreement in MiHR's history.

M4S is a collaborative, multi-stakeholder project that includes strategic initiatives in response to the numerous labour market challenges currently being faced by the sector, including: an aging workforce; a lack of diversity; increased need for Indigenous recruitment and training; negative perceptions of mining careers among youth; a disconnect between employer needs and education programs; lack of national training standards and employee credentialing; and skills recognition and challenges with labour mobility.

Supported by MAC, the Prospectors and Developers Association of Canada (PDAC), the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), organized labour and numerous other mining stakeholders in Canada, M4S is delivering a series of activities to attract, recruit and develop a diverse, skilled and safe Canadian mining workforce in support of the industry's role in building a clean economy. It focuses on:

- The importance of labour market intelligence for the Canadian mining sector.
- Initiatives to attract more youth to mining careers.
- A national mining skills development and recognition strategy.
- Sector-based equity, diversity and inclusion solutions.

Program Highlights

Labour Market Information (LMI): MiHR's sector specific and recognized go-to LMI forecasting model 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 provide stakeholders with relevant LMI reports, studies, forecasts and other related information.

Through M4S, MiHR is analyzing labour supply gaps, workforce barriers and diversity goals – and developing occupational and skills labour force profiles, career planning tools, an engagement and outreach strategy and an LMI analytics system. Most recently, MiHR released two companion research reports that offer an analysis of the acute mining labour market tightness that has emerged since the COVID-19 pandemic and how it links to the Canadian mining workforce: The [2023 Canadian Mining Outlook](#) and the [2023 Canadian Mining Workplace Profile](#). Materials and tools such as videos, infographics and webinars will soon be published to increase industry awareness of MiHR's custom LMI capabilities, as well as an update to MiHR's [Interactive Labour Market Dashboard](#).

Mining Career Awareness and Engagement: In 2020, MiHR led the development of the [National Youth Mining Career Awareness Strategy 2021-2026](#). The Strategy guides research, program development and stakeholder engagement to make youth more aware of the careers available to them in mining, transform their perceptions and promote diversity within the industry.

Stemming from the Strategy, MiHR developed the [We Need Mining. Mining Needs You.](#) career awareness campaign to showcase modern mining with the goals to raise awareness of mining and its profile, support industry human resource efforts, and make mining a career of choice for students.

Through M4S, MiHR is expanding the career awareness campaign to increase industry, employer, employee, youth and mining job seeker participation. Highlights for 2022 include:

- [The We Need Mining. Mining Needs You. Career Ambassador Program](#) – In 2021, the Government of Canada provided MiHR a \$30,000 grant to develop a modern, post-COVID-19 national career ambassador program that would involve industry leaders in promoting mining careers through outreach and engagement activities across Canada. Developed in partnership with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), the program has recruited over 25 Career Ambassadors and 18 speaking engagements have taken place.
- [The National Mining Needs You Virtual Career Fair](#) – An annual event that has been presented in partnership with the Prospectors and Developers Association of Canada (PDAC) and the

Canadian Institute of Mining Metallurgy and Petroleum (CIM). The November 2022 event featured 33 exhibitors and nearly 700 job seekers.

- [**The I Chose Mining. Mining Chose Me. Scholarship Program**](#) – Launched in 2021 to celebrate MiHR’s 25th anniversary, the program is awarding 10 scholarships of \$2,500 each over five years to support mining students; raise awareness of mining careers and the important contributions students can make; and support industry commitment to diversity – with a minimum of one of the two scholarships awarded each year provided to a member of an underrepresented group.

Canadian Mining Skills Development Strategy (CMSDS): Through M4S, MiHR is developing and implementing the CMSDS that consists of a series of programs and initiatives built on relevant and current National Occupational Standards (NOS) used to inform and align training and guide workplace experience – culminating with the development and recognition of training, skills and competencies.

- [**The Mining Industry’s Suite of NOS**](#) – The NOS are the foundation for the industry’s CMSDS. They are being updated to ensure they reflect the shifting skills resulting from technology, automation and emerging environmental, social and governance standards.
- [**The Canadian Mining Training Recognition Program \(CMTRP\) & National Occupational Training Standards \(NOTS\)**](#) – The creation of a suite of NOTS will inform standardized training development and delivery across the industry. The CMTRP recognizes and provides employers, educational institutions and training organizations with up to \$10,000 to support the alignment of training programs to the NOTS.
- **Training & Micro-Learning** – Provides employers, educational institutions or training organizations funding to deliver MiHR’s Essential and Work Readiness Training Programs; face-to-face Common Competency, Diamond Driller, Underground Miner and Minerals Processing Operator training; and the delivery of upskilling opportunities to the existing workforce through the delivery of face-to-face Industry Trainer and Frontline Supervisor occupational training.
- [**Canadian Mining Work Placement Program \(CMWP\)**](#) – Provides a wage subsidy to hiring organizations who provide a meaningful work placement to participants to enable them to practice newly acquired skills and competencies from recent and relevant training.
- [**Canadian Mining Certification Program \(CMCP\)**](#) – Recognizes workers who have demonstrated their competencies and expertise by meeting the NOS developed by the Canadian mining industry available for diamond drillers, frontline supervisors, hoist operators, industry trainers, mineral processing operators, surface miners and underground miners. Having certified over 1,600 workers, the CMCP is governed by a multi-stakeholder standing committee that reports to the MiHR Board. Through M4S, MiHR will certify over 1,000 individuals through the CMCP; provide employers with a \$1,000 honorarium for each worker certified; provide workers with a \$200 incentive for the completion of certification; and provide Examiner Panel Members with a \$500 honorarium for each worker they assess and certify.
- [**Mining Essentials and Mining Potential**](#) – Industry validated national mining training programs for Indigenous peoples and for youth, women and new Canadians to develop the essential skills, knowledge and confidence needed to achieve rewarding employment in mining. Since Mining Essentials’ inception, 732 learners have enrolled in the program with 436 graduates.

Equity, Diversity and Inclusion Supports: Through M4S, MiHR has begun development on action-oriented programs, tools, resources and indicators that help build an inclusive, diverse and sustainable Canadian mining workforce:

- **Employment Barriers Facing Equity-Deserving Groups** – Producing a research report and infographic created in collaboration with mining stakeholders identifying effective practices and indicators for reducing equity-deserving groups’ workplace barriers and supporting Indigenous reconciliation in the mining sector.
- **Mining for Diversity Toolkit and Sectoral Hub** – Producing a toolkit and eLearning modules within a web-based hub focusing on issues such as bias and systemic racism worldviews and sexual harassment – and researching, analyzing and reporting on opportunities for integrating newcomers into the mining sector by researching existing federal and provincial funding and support programs as well as any regional and community-based programs/proponents.
- **Augmented Integration of Persons with Disabilities into the Workforce** – Identifying and producing a report on the opportunities for enhanced integration of persons with disabilities in the sector owing to automation.

Other Strategic Programs to Address Labour Market Challenges

Gearing Up: Developing Mining Talent Through Work-Integrated Learning: The Government of Canada has provided MiHR over \$12 million in funding over the past five years through ESDC’s Student Work Placement Program for the Gearing Up program. Gearing Up helps ensure the mining sector’s sustainability and competitiveness by creating work-integrated learning (WIL) opportunities for post-secondary students. Mining employers who create WIL opportunities are offered a wage subsidy of up to \$7,000.

Gearing Up has seen significant uptake by MAC members, with MiHR having provided over \$10 million in wage subsidies to over 180 companies in the mining sector to support nearly 1,900 students taking a WIL placement, including new co-ops, internships, field placements, applied projects, capstone projects or case competitions.

Green Jobs: In 2021, the Government of Canada provided \$1.4 million in funding support over two years for the Green Jobs wage subsidy program, which provided job-ready youth aged 15-30 with 50 paid placement or training opportunities of up to 12 months that have a focus on clean technology and innovation and ultimately provide an environmental benefit to Canada. Having been recently renewed for another two years, with 40 placements available each year, the program provides 80% of each participant’s compensation to a maximum of \$24,000 for job-ready youth and \$30,000 for those furthest from employment (Indigenous youth, youth in northern regions (Yukon, Northwest Territories, and Nunavut) and remote communities (a permanent or long-term (five years or more) settlement with at least 10 dwellings that does not have year-round road access)).

eLearning: MiHR provides professional development and micro credentials for Canada’s mining industry through three online learning training programs. Indigenous Awareness Training – which MAC mandated that all its staff undertake – introduces Indigenous values, histories, peoples and experiences. Learners reflect on their understanding of Indigenous histories, peoples and the vital roles we may all play to advance reconciliation in Canada while enhancing awareness and ability to build respectful relationships with Indigenous peoples in communities as well as in the mining workplace and supply chain.

Intercultural Awareness Training promotes intercultural competencies that are critical to our changing industry and strategies that help attract, integrate and retain a more diverse workforce. It deepens mining stakeholders' understanding of the value of inclusive and diverse workplaces, helps drive change and encourages professional integration of more immigrants within Canada's mining sector. The 12-month Gender Equity in Mining Works (GEM Works) program includes an online learning suite consisting of four 30-minute modules that can be purchased separately from the 12-month cohort option. Registration is available at www.MiHR.ca, with the eLearning continuing to have significant uptake from industry stakeholders:

- Gender Equity in Mining Training: over 1,600 enrolments
- Intercultural Awareness Training: over 1,700 enrolments
- Indigenous Awareness Training: over 1,100 enrolments

Safe Workplaces for All: Addressing Sexual Harassment in the Canadian Mining Industry: In 2021, the Government of Canada provided nearly \$400,000 in funding over three years for Safe Workplaces for All, which supports mining and mineral exploration companies to expand their knowledge of, and response to, sexual harassment in the workplace by developing and disseminating public legal education and information (PLEI) on workplace sexual harassment to employers, unions and employees. Posters and postcards on sexual harassment and violence in mining were developed as part of the program and are [available for download](#). They highlight rights, responsibilities and supports for employers, unions, employees, including complainants, respondents and witnesses.

FOR MORE INFORMATION:

Visit MiHR.ca, MiningNeedsYou.ca, or contact Ryan Montpellier, Executive Director, at rmontpellier@mihr.ca.

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