



The International Network for Acid Prevention

drives leading practice in acid and metalliferous drainage risk management so that mining companies can operate sustainably in their respective environments across the life of asset cycle. This is achieved through mining industry-led collaboration, knowledge development and sharing.

1. SUMMARY

Welcome to the first issue of 2021. 2020 has been challenging in every way, but as we enter the new year, change is on the horizon. Special thanks to all the courageous healthcare workers and dedicated frontline employees.

Membership continues to grow as INAP welcomed two new members in 2020 – New Gold and Kirkland Lake Gold.

INAP launched a webinar series that aims to provide a mechanism to share knowledge and to reach an expanded audience.

Updates to the GARD Guide were started; with Chapter 7 (Treatment) is the first chapter to be updated and the work is near completion. A contract was recently awarded to add a Mine Closure and Sustainability chapter to the GARD Guide.

This issue also features articles on the CRC-TiME Consortium in Australia, the Global Industry Standard on Tailings Management, ICARD 2022, the 2020 BC MEND Workshop and an update on the NOAMI program in Canada.

Happy reading to all. Comments and suggestions are welcomed!

Our coronavirus heroes
To all those working on the front lines of this pandemic, thank you for being there for us.



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Gilles Tremblay
INAP Technical Manager
gilles.tremblay@inap.com.au
www.inap.com.au

2. New Gold and Kirkland Lake Gold Join INAP

INAP is happy to announce that New Gold Inc. and Kirkland Lake Gold have joined INAP in the tiered membership category.

The INAP Operating Committee and Board welcome the expertise that both companies bring to INAP and looks forward to working together on AMD/ARD issues. New Gold will be represented by Scott Davidson, Manager – Environment, Lands and Permitting and Bethany Borody, Director, Sustainability. Kirkland Lake will be represented by Mohammed Ali, Vice President, Environment and Veronika Raizman, Senior Advisor, Mine Closure Planning and Geochemistry.

3. INAP Launches Webinar Series

INAP has launched a webinar series that aims to provide a mechanism for INAP Member Companies to share new technical knowledge on a more frequent basis. In addition, it would provide access to an expanded audience who do not typically attend AMD/ARD management related conferences or presentations and would introduce INAP to non-member companies with the goal to increase membership by demonstrating value. Mine Waste Management (MWM) of Perth, Australia were hired to coordinate and host the webinars. The webinars are presented in two different time slots, which allows participants to select the session that best suits their time zone.

INAP, via MWM, hosted two webinars to 2020 on projects funded by INAP. The first “Building Mine Rock Stockpiles to Enhance Operational and Closure Performance” was held in June and the “Update to Chapter 7 of the GARD Guide” was held in November. Videos of the presentations are posted on the INAP website for future viewing. The response to the webinar series has been excellent and more are planned. Information on future webinars can be found on the INAP home page and on the INAP LinkedIn page.

4. INAP on Social Media

INAP is now on LinkedIn and we invite you to follow our INAP Group page to keep up on the latest developments within INAP. Please search “INAP: International Network for Acid Prevention” to join or click on this link <https://www.linkedin.com/company/international-network-for-acid-prevention-inap/?viewAsMember=true>.

5. ICARD 2022 Brisbane, Australia

The Twelfth International Conference on Acid Rock Drainage (12th ICARD), originally scheduled for September 2021 in Brisbane, Australia has been rescheduled to September 2022. Please visit <https://www.icard2022.com.au/> for more information on this event.



6. Cooperative Research Centre (CRC) for Transformations in Mining Economies (CRC TiME) Consortium

A national consortium to support regional Australian communities facing mine closure has secured almost \$30 million from the Australian Government. The Commonwealth funding forms part of a total 10-year investment of \$135.4 million to support the successful transition of mining communities to form sustainable community and development opportunities.

With several large mines around Australia reaching their end and closing in the next ten years, this joint effort will undertake social, environmental, economic and technical research, work directly with industry and communities, and enable Australia to transition to a prosperous and sustainable post-mining future.

The consortium, which will now form a Cooperative Research Centre on Transformations in Mining Economies (CRC-TiME) has been led jointly by the University of Western Australia and the University of Queensland. CRC-TiME brings together 75 partners including BHP, Rio Tinto, Newmont, FMG, Alcoa, MMG, Deswik, Decipher, the State Governments of Western Australia, Queensland, and the Northern Territory, as well as researchers from eight universities and the CSIRO.



Australia's mining boom has contributed greatly to wealth and living standards, but as resources increasingly deplete, we will see an increasing number of projects approaching closure.

CRC TiME will help position Australia as a global leader in mine rehabilitation and closure and ensure regional communities have the capacity to capitalise on opportunities for post mine development. It will focus on more effective mine closure and lease relinquishment through reducing residual risks. CRC TiME has the potential to create hundreds of new opportunities and regional jobs through the implementation of restoration activities and increased supply of closure and post closure products and services.

The CRC's innovative research will provide new knowledge to help balance environment, economic and social outcomes and optimise post mine outcomes. CRC-TiME is expected to provide over \$2.4 billion of benefit by bringing Australia's leading mine rehabilitation and closure experts together, drawing on social, economic, engineering and biological sciences to address the complex challenge of a post mining future.

The Commonwealth Governments announcement is the culmination of over 12 months of extensive consultation across Australia. Australia has a unique opportunity for effective collaboration between the mining industry, government and community, with the CRC to play a major facilitating role.

7. Global Industry Standard on Tailings Management Released



Following the catastrophic tailings incident at Brumadinho, Brazil in January 2019, a Global Tailings Review was co-convened by the United Nations Environment Programme (UNEP), the Principles for Responsible Investment (PRI) and the International Council on Mining and Metals (ICMM). The Review culminated in August 2020 with the launch of the Global Industry Standard on Tailings Management (the Standard). The Standard was developed by a multi-disciplinary Expert panel, with input from a multi-stakeholder Advisory Group. The review process also involved extensive public consultation with affected communities, government representatives, investors, multilateral organisations and mining industry stakeholders. The Standard is informed by existing best practice and findings from past tailings facility failures.

The stated objective of the Standard is to provide a framework towards achieving the ultimate goal of zero harm to people and the environment with zero tolerance for human fatality. Comprising six Topic areas, 15 Principles and 77 auditable Requirements, the Standard will ultimately be supported by continued efforts by the co-conveners. ICMM has been developing a Good Practice Guide and implementation Conformance Protocol in response to the Standard with both of these documents scheduled for release in early 2021. The Conformance Protocol will provide detailed guidance for how to implement the Standard, or provide assurance as applicable, and will also provide direction for equivalence with other guidance across the 77 requirements (e.g. existing ICMM, Mining Association of Canada or UNEP documents). The standard can be downloaded from <https://globaltailingsreview.org>.

The core principles provided in the Standard are well-aligned with the aims of industry continual improvement embraced by INAP. As INAP membership also includes ICMM members, there will be good ability to see cross-learning as the Standard becomes integrated into planning, operations and closure. Everything from source control to water covers, and most certainly closure configurations, will have a renewed focus for tailings facilities and this will influence INAP's focus in coming years.

8. 2020 BC MEND ML/ARD Virtual Workshop a Success

As occurred for other conferences in 2020, the 27th Annual BC-MEND ML/ARD Workshop was changed to a virtual event. The conference retained the half-hour presentation format and there were eighteen presentations with three-half-day sessions on December 1, 2 and 3. Seven hundred registrants from across Canada and abroad watched the range of interesting presentations. Topics included challenges and best practices, pit lakes, extreme sulphide self-heating, First Nation perspectives and waste rock performance. Mine case studies included sites in Indonesia, Sweden, Peru, United States and Canada.

The 2020 presentations are now available for viewing, along with all presentations from past BC MEND workshops, at <http://bc-mlard.ca/>. The 2021 BC MEND ML/ARD Workshop is planned for December 8 and 9 at the SFU Goldcorp Centre in Vancouver. For more information, please contact Bill Price at bill.price@canada.ca

9. Re-Imagining NOAMI in Canada

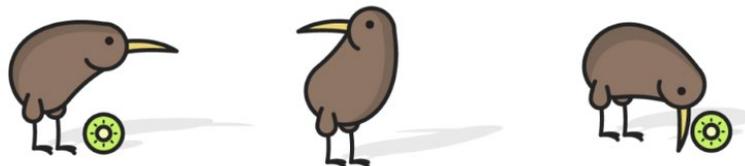
Many of you are familiar with the work by the National Orphaned and Abandoned Mines Initiative (NOAMI) in Canada (www.abandoned-mines.org). In June 2020, Natural Resources Canada (NRCan) hosted a multi-stakeholder webinar to explore and develop an updated scope, mandate and commitment for NOAMI. A range of new challenges were identified such as climate change and it was recognized that significant remediation and reclamation closure work still exists. Stakeholders concluded that a re-imagined NOAMI could contribute significant value to addressing issues related to orphaned/abandoned mines in Canada.



Since NOAMI is the product of the Canadian Energy and Mines Ministers', a proposal for a renewed NOAMI was presented at their annual gathering in September. Ministers agreed to the establishment of a design team with a representative from each jurisdiction and a select group of NOAMI stakeholders to work with NRCan (led by the NOAMI Secretariat) to discuss and develop a governance model, budget and draft a 5-year work plan for their consideration. The work started in late November. For more information on the re-imagining of NOAMI, please contact Patrick Chevalier at Patrick.chevalier@canada.ca.

10. IMWA 2020 Proceedings Available

The International Mine Water Association's (IMWA) 2020 conference was planned for Christchurch, New Zealand in November. But like many other conferences, was postponed in response to disruption by the COVID-19 pandemic. Although postponed to 2022, the organizers had accepted 223 abstracts; 40 of these had submitted papers which were reviewed and published. They cover the full range of mine water related topics by experts from all around the world. The



Proceedings of the 14th IMWA Congress are now available at: <https://www.IMWA.info/proceedings2020>

Future IMWA conferences include Wales in 2021 (www.IMWA2021.info) and a return to Christchurch, New Zealand in 2022.



INAP MEMBERS

