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Mine Closure: A Canadian Perspective

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Modern Mine Closure: Tools for Companies and Governments
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Mine Closure: A Growing Priority

- An increasing number of mines globally are approaching the end of active production
- The social, environmental and economic impacts of improperly closed or abandoned mines are significant
- Interest in closure is increasing and effective policies and practices are a growing priority



Mine Closure in Canada

- Facts and figures
 - Between 2013 and 2017, 88 mines in Canada closed or suspended operations
 - By 2030, 80+ mines are projected to close
 - In 2018, 108 mining-related projects listed in Canada under construction or planned to begin construction within the next decade totalling \$72B CDN in projected investment
- Roles and responsibilities for mine closure are shared
 - Provinces and territories manage mine closure and post-mining transition via legislation and regulations for permitting
 - Companies must submit mine closure plans and provide financial assurance
 - Federal investments in green mining innovation and collaboration on mine closure
 - Government efforts are complemented by industry, including the Mining Association of Canada's *Towards Sustainable Mining: Mine Closure Framework*

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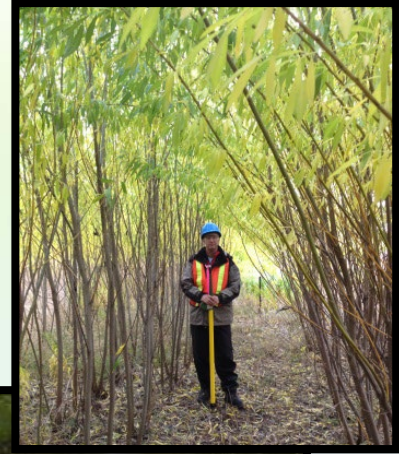
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Green Mining Innovation

- Water management
 - Development and application of novel and advanced water treatment options
 - Ecotoxicity to understand the behaviour of deleterious substances in the aquatic environment
- Waste management
 - Organic covers to stabilize tailings impoundments and produce secondary land use post-closure
 - Circular economy – *Mining Value from Waste*



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National Orphaned / Abandoned Mines Initiative

- Brings together federal, provincial and territorial governments, industry, Indigenous communities and NGOs
 - Prevents future orphaned / abandoned sites
 - Rehabilitates existing orphaned / abandoned sites
 - Maintains a National Repository of Inactive Mines
- NOAMI priorities are being reimagined...



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International Efforts on Mine Closure

- Canadian leadership on mine closure standards and best practices
 - IGF on Mining, Minerals, Metals and Sustainable Development
 - Canadian International Resources and Development Institute
 - APEC Mining Task Force and the APEC Mine Closure Checklist for Governments
 - ISO/TC 82/SC 7 Mine Closure and Reclamation Management



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In your perspective...

- **What is the most significant challenge faced by industry and regulators with respect to mine closure?**
 - Unknown residual risks and associated liabilities
 - Socio-economic development post closure
 - Long-term water treatment and management
 - Long-term stability of landforms
 - Uncertainty around regulatory requirements
 - Others... ?

