



Executive summary

Before new or expanding mines, mills and smelters get their permits and are built in Ontario, we need to know their impacts. The process to do this is known as environmental assessment (EA). On July 8, 2020, Government of Ontario proposed sweeping changes to the *Environmental Assessment Act* (EAA) as part of the omnibus *COVID-19 Economic Recovery Act*, Bill 197. One of these changes is to develop a list of high-risk projects that will be subject to EA.

Ontario has never required new or expanding mines, mills, smelters, and refineries to undergo an assessment of their impacts on the environment, the economy, or society. Out of 31 mines and mills currently operating in Ontario, only four have gone through an EA, and only one of those was by the province; the other three were reviewed by the federal government. With one exception, mines and smelters in Sudbury, Timmins, and Kirkland Lake have never completed an EA.

We are hopeful that mines and smelters will finally appear on a new Ontario list of projects that pose the most risk to us all and we welcome this opportunity to comment. This report recommends that Ontario base its project list – at the very least – on the Quebec and British Columbia lists of high-risk mines, mills and extractive metallurgy facilities. Quebec and B.C. are, with Ontario, the largest mining jurisdictions in Canada, and like Ontario, have a dependency on global investment to develop and expand the mineral sector, and have large unfunded liabilities for abandoned mines. Ontario's unfunded liability may be as high as \$7.6 billion.

As increasing concerns from communities and Indigenous Peoples about environmental and social impacts are causing delays for extractive projects, investors – and the general public – are demanding better evaluation of the impacts of mines and smelters before they are built or undertake major expansions. Both Quebec and B.C. have responded to this pressure with project lists that include most mines and smelters.

Ontario is the only jurisdiction in Canada that does not do EA on mining developments. For decades, it has been relying on piecemeal reviews of mines by the federal government, only applying provincial reviews to mining infrastructure like roads and transmission lines. The new federal *Impact Assessment Act* does not provide for environmental assessment of smelters or refineries, and will only assess the largest metal and diamond mines, in part purposely to let the provinces and territories fill the gap with their own processes.

Although some Ontario mining permits do require streamlined EAs as part of the permitting process, the Auditor-General of Ontario said in 2016 that this process allows too much proponent control of the process, cumulative impacts are not assessed, the public is inadequately informed, there is no independent review, and social, cultural, and economic factors are not addressed.¹

Mines, smelters and refineries, and major expansions of these projects have an awesome cost in terms of their impacts on Ontario's economy, on Indigenous Peoples, on communities, and on the natural environment. They need to be on the Project List for comprehensive environmental assessments.

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¹ Auditor-General of Ontario, 2016 report, Chapter 3, section 3.06. https://www.auditor.on.ca/en/content/annualreports/arreports/en16/v1 306en16.pdf

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1 Why mines and smelters must be on the EA project list in Ontario

There are three key reasons why mines and smelters must be on the EA project list in Ontario: 1) their enormous, risky and long-term impacts on the environment, regional development, and human health; 2) the long-term liabilities their wastes represent for the provincial government, indigenous peoples and citizens in Ontario, and creating investor, Indigenous and public certainty about environmental, social and governance (ESG) implications of individual projects.

1.1 Mining and smelting impacts on the environment, cultures and local economies

Mining is a rapid, continuous assault on the earth.² The mine and its wastes get larger every day that it operates. It is a waste management industry, where almost 100% of the rock extracted has been smashed to powder, mixed with water and reagents, and left to be managed forever in toxic tailings impoundments and waste rock dumps. Mines and smelters affect air, water and the land around them, often sterilizing them for other uses.³ They transform local economies, creating a situation where only finding more deposits can create jobs for people in the region.

The permitting of projects such as these must allow for substantial input from independent experts, affected Indigenous Peoples and "involuntary stakeholders". The mineral industry has short-term benefits and very long-term consequences.

1.2 Provincial government liability for mines and smelters

Ontario is Canada's major mining jurisdiction,⁴ and should not be abdicating all environmental oversight of its operations to the federal government.

Ontario issues significant permits that enable mines to operate and should assess the overall effects of the mine, smelter or refinery in the interests of the province and its citizens, including permits to take water, electrical generation and power supply, discharges of waste to water, building of roads, and so on. Faced with the plethora of Ontario permit requirements, a few mining companies have seen the advantage in volunteering to have a provincial EA concurrent with federal EA.⁵

The honour of the Crown requires the Ontario government to coordinate with Indigenous jurisdictions to properly assess cumulative impacts to water, land and society before providing financial and political

² See W. Scott Dunbar: How Mining Works, Englewood, CO: Society for Mining, Metallurgy and Exploration, 2016 and Joan Kuyek: Unearthing Justice, Between the Lines 2019 and The Big Hole: https://miningwatch.ca/publications/2014/12/30/big-hole-environmental-assessment-and-mining-ontario

³ https://www.ec.gc.ca/lcpe-cepa/documents/codes/famc-bmsr/famc-bmsr eng.pdf

⁴ https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-and-economy/20529

⁵ Recently Marathon Platinum, Magino Gold, Coté Gold volunteered for provincial EA. Rainy River Mine is the only operating Ontario Mine with provincial EA.

support to projects on traditional territories. The 2020 changes to the Environmental Assessment Act are already being challenged in the courts by a number of Ontario First Nations.⁶

Mines, mills and smelters also dramatically affect the economy of Ontario.⁷ The mineral industry is one of Ontario's largest employers, but in 2015, the Auditor-General found that "As of September 2015, Ontario's effective tax rate [for mines] was only 5.6%, considerably lower than the national average of 8.6%. However, the amount of mining taxes and royalties collected from mining companies over the last 20 years has averaged less than 2% of the value of minerals extracted. Ontario has collected very little in royalties from its only diamond mine. We also noted that the Ministry lacks adequate processes to manage mine closure plans and the rehabilitation of abandoned mines."

If and when a mine becomes uneconomic and is abandoned, or where there is a catastrophic failure of a tailings impoundment, it is the province that has to pay for remediation, containment and clean-up.⁹ Being able to determine which projects go ahead is the fiscally responsible approach. If, for example, there were a catastrophic failure of the Detour Lake Mine tailings impoundment, it is the province that would be liable for any amount over that held in the company's financial assurance of \$47 million.¹⁰

In 2015, the Auditor-General found that there were more than 4400 abandoned mines in Ontario, for which the province was responsible. On existing mines, the province currently holds just over \$2 billion in financial assurances, of which \$521 million is only a line on a Vale Canada balance sheet. Five years ago, in 2015, MiningWatch Canada estimated that the actual cost of containing toxins and cleanup of these mines would be \$7.6 billion.

It is anticipated that demands for metals will increase astronomically in the next decade, and with this, its impacts¹³. Many of the mines that will be required to meet the needs for "green technologies" like lithium for batteries and graphite for small scale nuclear reactors, are small mines with extremely toxic beneficiation technologies. The demand for green technologies will also affect older, large mining districts like Sudbury, Timmins and Kirkland Lake. Of all the mines, mills and smelters in these districts only one (Totten Mine) has received a completed environmental assessment, despite their extensive expansions.

10 https://www.mndm.gov.on.ca/en/news/mines-and-minerals/financial-assurance-table

¹² https://miningwatch.ca/news/2015/12/9/wake-call-ontario-ranks-worst-canada-environmental-liability-mine-sites

^{6 &}lt;a href="http://www.matawa.on.ca/matawa-chiefs-council-rejects-the-ontario-government-bill-197-crown-tactics-to-take-up-the-land-and-access-the-resources-and-wealth-of-the-north/">https://www.natawa.on.ca/matawa-chiefs-council-rejects-the-ontario-government-bill-197-crown-tactics-to-take-up-the-land-and-access-the-resources-and-wealth-of-the-north/ and https://www.oktlaw.com/ontario-continues-to-throw-environmental-pre-caution-to-the-wind-with-bill-197/

⁷ Auditor-General of Ontario https://www.auditor.on.ca/en/content/annualreports/arreports/en15/1.00en15.pdf

⁹ Ibid., figure 4, and page 438-40

¹¹ Ibid.

¹³ https://www.worldbank.org/en/news/press-release/2020/05/11/mineral-production-to-soar-as-demand-for-clean-energy-increases

1.3 Investor certainty and competitiveness

Mining companies and investors are increasingly demanding certainty about project compliance with EESG responsibility principles (economy, environment, social and governance responsibility). ¹⁴ Ontario is the only jurisdiction in Canada that cannot reassure investors through a comprehensive EA for mines.

A robust environmental assessment process that promotes effective environmental planning and adequately addresses investor, Indigenous and public concerns about social, economic and environmental impacts is precisely the kind of measure that can enhance the industry's competitiveness in capital markets, which are increasingly scrutinizing ESG performance. As the Toronto law firm Baker McKenzie notes, "Investors and lenders are increasingly focused on ESG factors when making investment decisions, which means that in many cases, in order to access capital, miners will need to demonstrate commitment to ESG concerns." In this context of heightened investor activism, the mining industry faces stiff challenges.

According to BlackRock, the world's largest investment management firm, financial markets are currently undergoing a transformative shift: Sustainable investing is no longer the preserve of nice investors, but has gone mainstream. ¹⁶ Globally, ESG-dedicated assets under management have grown significantly over the past decade, reaching over US\$1,000 billion in 2020. With more information available to investors than ever before, companies and industries that underperform on ESG may find themselves increasingly shut out of capital markets or facing ever rising financing costs. In RFC Ambrian's view, junior and mid-size firms are the most likely to face the biggest hurdles, unless they can prove they have "an existing ESG track record and positive momentum, or a robust ESG framework planned." ¹⁷

In our view, the government of Ontario can go a long way in helping the industry achieve such positive momentum by adding mines, mills and smelters to the Environmental Assessment Act's project list. A robust EA will not hinder Ontario's international competitiveness, but enhance it.

2 The federal environmental assessment process

2.1 Impact Assessment Act 2019 Project List

The federal Impact Assessment Act Physical Activities Regulation¹⁸ (the project list) came into force August 28, 2020.

¹⁴ https://www.mining-journal.com/partners/partner-content/1383066/the-esg-bar-has-just-been-raised-who-will-get-over-it, and see https://www.canadianminingjournal.com/features/5-esg-trends-to-watch-investor-focus-on-esg-continues-to-intensify/

¹⁵ Baker McKenzie, "Introduction to Environmental, Social and Governance (ESG) considerations for the mining sector: reporting obligations and investor expectations," available at: https://globalminingguide.bakermckenzie.com/-/media/globalmining-guide/files/bakermckenzie miningindaba esgconsiderationsfeb20.pdf?la=en/.

¹⁶ BlackRock, "Reshaping sustainable investing," available at: https://www.ishares.com/us/literature/whitepaper/reshaping-sustainable-investing-en-us.pdf

¹⁷ RFC Ambrian, "Mining Sustainability 5: ESG and the Financial Markets," September 2020.
https://www.rfcambrian.com/publications/system/files/equity_publications/Mining%20Sustainability%205%20-%20Sep%202020.pdf

¹⁸ https://laws.justice.gc.ca/eng/regulations/SOR-2019-285/index.html

The new federal Impact Assessment Act¹⁹ is (generally) limited to metal and diamond mines and mills with a production capacity of 5000 tpd (tonnes per day) or more, and expansions that result in an increase of 50% or more to the "mine area" **and** where the production capacity would increase by 50% or more.

As Jamie Kneen of MiningWatch Canada wrote in 2019: "The potential impact of smaller-scale mining on fish is clearly demonstrated by the history of the Mt. Washington mine on Vancouver Island. This was a small open pit that only operated for three years in the 1960s and would have come in under the 3,000²⁰ tonnes per day threshold in the existing regulations. Despite its short life span and small size, the amount of acid mine drainage generated was enough to wipe out resident and anadromous trout and salmon populations. The clean-up of the site has improved water quality and some of the fish are returning, but only after significant resources have been spent on clean up. It should be noted that the Noront Eagle's Nest project in the Ring of Fire – the precursor for what is anticipated to be a number of extensive mining projects in the area- is only projected to have a production capacity of 3000 tpd,²¹ and would escape federal scrutiny under the Act. ²²

Rare earth element mines are reviewable if production capacity is 2,500 tpd. New uranium mines are reviewable IF they are outside the licenced boundaries of an existing mine, and if their ore production is 2500 tpd or more. These thresholds are unacceptably high, as even very small projects can cause serious harm.

Expansions of rare earth element mines and uranium mines are reviewable if the expansion is 50% or more of the mine area and input capacity exceeds 2500 tpd. The list also limited review of uranium projects to those outside licenced existing facilities, a move that makes no sense.

The new project list actually increases the threshold for mines, especially gold mines (which had their own category under CEAA 2012).

The federal regulations are especially troubling for Ontario in that they do not include smelters, metal refineries, or other metal extraction facilities. This would mean that a ferrochrome smelter would not receive a federal review.²³ Currently, it would not receive a provincial review either. Highly toxic processing plants associated with rare earth element mines would similarly be exempt.

The federal Physical Activities list for mines and mills is attached as Appendix C.

2.2 Working with provincial jurisdictions

The federal Impact Assessment Act is intended to work with provinces, territories and Indigenous jurisdictions towards a "one project/one assessment" approach. This can be done through cooperation,

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¹⁹ https://laws.justice.gc.ca/eng/acts/I-2.75

Now 5000 tonnes per day with the enactment of Schedule 2

²¹ https://norontresources.com/projects/eagles-nest-mine/

²² Ibid

²³ https://www.sootoday.com/local-news/will-a-real-environmental-assessment-ever-be-done-for-the-ferrochrome-smelter-1726330

substitution of the provincial assessment, or a joint panel review, set out in a Cooperation Plan.²⁴ A cooperation plan does not change any existing Indigenous, federal or provincial legislative or regulatory jurisdiction, right, power, privilege, prerogative or immunity by virtue, nor does it create any new legal powers, duties or legally binding obligations.²⁵

The Impact Assessment Agency works with other jurisdictions to develop a project "Permitting Plan", to ensure that the information required to permit the project are addressed by EA Terms of Reference, etc.

The permitting plan should allow:

- proponents and regulators to identify the potential permits, licences and authorizations that would be required for a project and the information needed for the regulatory applications;
- at the proponent's request and where possible, regulators to streamline and coordinate the procedures for proponents to apply for applicable permits, licences and authorizations; and
- the public and Indigenous groups to learn about the regulatory processes, including the participation or consultation opportunities that are available with respect to the permits, licences and authorizations that may be required for a project following the impact assessment.²⁶

Within 180 days of the filing of a Project Description, the IAA must post a Public Participation Plan.

A Public Participation Plan will be tailored to a project and will include:

- 1. Objectives of the plan that reflect the views heard during the Planning phase.
- 2. A list of groups and individuals who have indicated that they have an interest in participating in the impact assessment.
- 3. How groups and individuals indicated they wish to participate in the assessment.
- 4. A table that describes the phases of the impact assessment and the engagement opportunities during each phase. ²⁷

The draft plan is then posted for public comment on the Registry and then revised as necessary.²⁸

2.3 The Impact Assessment Act and Indigenous Peoples

The Act says:

Section 63: Factors — public interest. The Minister's determination ...in respect of a designated project referred to in that subsection, must be based on the report with respect to the impact assessment and a consideration of the following factors: ...(d) the impact that the designated project may have on any

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²⁴ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-cooperation-plan.html

²⁵ Ibid.

²⁶ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-impact-assessment-permitting-plan.html

²⁷ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-public-participation-plan.html

²⁸⁸ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html

Indigenous group and any adverse impact that the designated project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982;

The IA Act also requires the development of an Indigenous Engagement and Participation Plan: "which sets out at a high level the groups that will participate in the impact assessment, and how they will participate, including, where available, information on proponent-led engagement activities." Indigenous groups can then respond and comment on the plan. The decision appears to still rest with the IAA. IA policy guidance re: Indigenous peoples is set out in a separate document. 30

Throughout the impact assessment process, the Agency is the Crown Consultation Lead on behalf of the federal government and the one-window for Indigenous groups participating in the impact assessment. Federal funding for Indigenous participation in the IA is a key part of the Indigenous Plan.³¹

Respect for Indigenous Knowledge is required in assessments, and any decisions throughout the process need to take into consideration the possible adverse impacts the project may have on Aboriginal and treaty rights. Community-specific plans or protocols may also be developed to provide further details on engagement in the impact assessment process on issues identified in the Indigenous Engagement Partnership Plan.³²

2.4 CEAA 2012

The few current mining EAs in Ontario are still proceeding under CEAA 2012.

Under CEAA 2012, the federal interest is limited to those matters under federal jurisdiction: fisheries, navigable waters, and species at risk, as well as Indigenous affairs. Mines that are still being reviewed under CEAA 2012 do not have a "whole of project" approach.

There are two types of environmental assessment conducted under the Canadian Environmental Assessment Act, 2012 (CEAA 2012): environmental assessment by a responsible authority, or by a review panel.

An environmental assessment by a responsible authority is conducted by the Agency, the National Energy Board or the Canadian Nuclear Safety Commission. The review by the responsible authority has resulted in a substantial drop in the number of full environmental assessments done by the federal government. Prior to CEAA 2012, thousands of projects were assessed annually; but since its implementation, only 25-50.³³

An environmental assessment by review panel is conducted by a panel of individuals appointed by the

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²⁹ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-indigenous-engagement-partnership-plan.html

³⁰ https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/interim-policy-indigenous-participation-ia.html

^{31 &}lt;a href="https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/interim-guidance-indigenous-participation-ia.html">https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/interim-guidance-indigenous-participation-ia.html

³² Ibid.

³³ EPA Caucus. Achieving a Next Generation of Environmental Assessment Submission to the Expert Review of Federal Environmental Assessment Processes, 2016-12-14 page 21.

Minister of the Environment and Climate Change and is supported by the Agency. Often a review panel will be done in harmonization with a provincial authority, and – occasionally – with an Indigenous government, with each party appointing one member. Generally speaking, the quality of the experts appointed to these panels is good. The only review panel ever in Ontario for mines/smelters is Marathon Palladium. This review was started in 2012, suspended due to low prices in 2014, and recommenced in 2020, and provides a good example of why a feasibility study should come before EA – as well as why EA processes and decisions need to have expiry or "best before" dates.

There are tight timelines for each step in the EA process for government, Indigenous and public input to the process, but none for delays caused by the mine proponent. These deadlines create anxiety, stretch resources and also result in improper consultation. The Minister can extend the deadlines, but this rarely happens.

3 The current state of EA for mining/smelting in Ontario

Of 31 mine projects currently operating in Ontario, only one – the Rainy River Mine (2015) – underwent both a provincial and federal EA. Three others underwent only a federal EA (Totten, 2006; Detour Lake, 2012; Musselwhite, 1996). All the federal EAs were under CEAA 2012 or CEAA 1992.

Detour Lake and Musselwhite have both undergone massive expansion since they were first reviewed. In fact, Ron Thiessen, CEO of Hunter Dickinson Inc., has stated that *there are no mines in North America that have not expanded beyond the boundaries anticipated in their environmental assessments*³⁴ (if they had them at all).

With one exception (Totten), no mines, mills, or smelters in established mining districts like Timmins, Sudbury and Kirkland Lake have ever received an EA, either federally or provincially. Federal EAs proposed for expansions of Pamour and Dome mines were discontinued.

Of non-operating mines, Marathon Palladium Project was being assessed by a joint panel review from 2011-2014. The EA was suspended at the request of the project proponent in January 2014, and resumed in October of this year, still under CEAA 2012. It is the only joint panel review for mining that Ontario has conducted with the federal government

Federal comprehensive studies were conducted for Aquarius (under CEAA 1992; mine never opened), Hammond Reef (under CEAA 1992; mine never opened), Pamour Gold Mine (where it was found in 2005 that EA was not required) and Victor Diamond Mine (assessed under CEAA 2012; now closed). A few other EAs were initiated federally (under CEAA 2012) and then terminated without a decision: Cliffs Chromite, Eagle's Nest, and Josephine Cone Mine.³⁵

Of 24 proposed mines in Ontario,³⁶ the following are currently listed as under federal EA (all under CEAA 2012): Marathon Palladium (#54755), Springpole Gold (#80149), Griffith Iron Ore Redevelopment Project (#80035), and Bending Lake Iron Ore (#80181).

³⁴Ron Thiessen interviewed on The Pebble Tapes #1, August 2020. https://eia-global.org/reports/20200921-the-pebble-tapes

³⁵ Information from the CEAA registry https://www.ontario.ca/page/environmental-assessment-projects-category - section-1

³⁶ Figure from Ontario Mining Association, 2020

There are three other federal EAs underway that are associated with portions of the Ring of Fire projects: Regional Assessment of the Ring of Fire area (#80468), Webequie Supply Road (#80183) and Marten Falls Community Access Project (#80184)

Two other projects, Magino Gold Mine and Coté Gold, had both provincial and federal EAs approved in September 2020. The owners had requested a voluntary EA from the province concurrent with a federal EA under CEAA 2012. The federal EA was required for Schedule 2 authorizations to turn a number of fish-bearing water bodies into tailings impoundments.

Table: Environmental Assessment of all operating mines in Ontario 2020

Name	Location	Production began	Federal EA	Provincial EA
Bell Creek	Timmins	2012	No	No
Black Fox Mine	Timmins	1998	No	No
Borden Mine	Chapleau	2019	No	No
Cochenour Mine	Red Lake	2019	No	No
Detour Lake Gold Mine	Cochrane	2013	Yes, CSR	No
Eagle River Mine	Wawa	1996	No	No
Hollinger Mine	Timmins	2014	No	No
Holloway - Holt Mine	Timmins	2009/10	No	No
Hoyle Pond Mine	Timmins	1985	No	No
Island Gold Mine	Wawa	2007	No	No
Macassa Mine	Kirkland Lake	2005	No	No
Mishi Gold Mine	Wawa	2002	No	No
Musselwhite Mine	Opapimiksan Lake	1997	Yes, CSR	No
Rainy River Mine	Chapple	2017	Yes	Yes, voluntary
Red Lake Gold Mine	Red Lake	1949	No	No
Sugar Zone Mine	Hornepayne	2018	No	No
Taylor Mine	Timmins	2015	No	No
Timmins West Mine	Timmins	2012	No	No
Williams Mine	Marathon	1985	No	No
Young - Davidson Mine	Matachewan	2012	No	No
Kidd Creek Mine	Timmins	1966	No	No
McCreedy West	Sudbury	2004	No	No
Coleman Mine	Sudbury	1992	No	No
Copper Cliff North Mine	Sudbury	1886	No	No
Creighton Mine	Sudbury	1901	No	No
Garson Mine	Sudbury	1907	No	No
Totten Mine	Worthington	2014	Yes	No
Fraser Mine	Sudbury	1968	No	No
Nickel Rim South Mine	Sudbury	2010	No	No
Tomclid Iron Mine	South Canonto	1997	No	No
Lac des Iles Mine	Thunder Bay	1993	No	No

4 Permitting practice for mines in Ontario

Mines require a number of permits from Ontario to operate. The list is available on the OENDM website: https://www.mndm.gov.on.ca/sites/default/files/regulatory requirements outside mndm.pdf

These permits include:

- Permits to take water
- Waste discharges to water
- Permits for power (electricity transmission lines, power generation, diesel farms, etc)
- Permits for transportation (road construction, connecting to provincial highway)
- Permits to cut Crown timber
- Exploration
- Mine closure plans
- Taking aggregates from crown land
- Industrial sewage works and waste management systems
- Drinking water systems

As they relate to infrastructure, some of these permits are reviewed under class EAs, a process that is currently being shelved in favour of other forms of "streamlined EA". The consultation on class EA changes is not scheduled until after this project list process. There is no guarantee at this time that projects not covered by federal EA will receive any environmental review at all.

For permits requiring an Environmental Compliance Authorization (ECA), the province is required to solicit input from the public and First Nations through the Environmental Registry. The time given for comment is usually 30 days. Hearings are rarely, if ever, conducted and are at ministerial discretion.³⁷ Ministry staff make a determination, and the permit is usually issued. Appeal may be had to the Environmental Review Tribunal but –again– this is not a public process.³⁸

In a scathing report in 2016, the Auditor-General of Ontario found that this process allows too much proponent control of the process, cumulative impacts are not assessed, the public is inadequately informed, there is no independent review, and social, cultural and economic factors are not addressed³⁹.

For mines, Ontario has a class EA for some activities undertaken by the provincial government, like abandoned mine remediation. Class EAs cover some aspects of infrastructure but not the mining activity itself, or tailings or waste or effluent management or controls. The class EA is being reconsidered after the Project List consultation.

5 Comparative practice in other jurisdictions in Canada

Québec, along with Ontario and British Columbia is a premier mining jurisdiction in Canada. Many of the same companies and investors operate in all these jurisdictions. In response to investor and public

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³⁷ https://www.ontario.ca/document/guide-applying-environmental-compliance-approval-0#section-12

³⁸ Ibid

³⁹ Auditor-General of Ontario, 2016 report, Chapter 3, section 3.06. https://www.auditor.on.ca/en/content/annualreports/arreports/en16/v1 306en16.pdf

concerns about unfunded liabilities and lack of social licence to operate, both BC and Québec have modernized their environmental assessment regimes. Ontario can learn a lot from both.

Both Québec and BC apply EA to new and expansions of mines and smelters, based on the size of the project.

We recommend that Ontario take the approach of BC and Quebec and require the comprehensive review of most, if not all mines, mills, smelters and refineries, as well as major expansions of the same, based on land area as well as daily production capacity.

Mining is an ongoing, expanding assault on the land by its very nature, and a mining company looks for more ore throughout a mine's life. It is very hard to stop a mine once it starts, so the initial EA cannot possibly cover possible future expansion. For example, the Borden Mine, Lac des Iles, Kidd Mine, and mines and smelters in the Sudbury Basin, Kirkland Lake, Timmins and Red Lake have all undergone massive expansion in the past few years with no environmental assessment whatsoever.

5.1 Québec

The latest modernization of the Québec Environmental Assessment regime came into effect on March 23, 2018 with the passage of the appropriate regulations. The Environmental Quality Act and Regulations govern the EA system. ⁴⁰ The new regulation enhanced public participation, created a registry and established a list of high-risk projects that would require comprehensive EA.

It is to create a "modern, clear and predictable environmental authorization scheme".

An official guide to the new Act states: 41

The environmental assessment process should begin as soon as possible, ideally at the start of a project. Based on the principle that every person has a right to a healthy environment and to its protection, and to the protection of the living species inhabiting it, environmental assessments are intended to:

- Prevent the deterioration of the environment's quality and maintain the biodiversity, connectivity, productivity, and sustainability of ecosystems;
- Ensure respect for the sensitivity of the physical, biological, and human components of the receiving environment;
- Protect the life, health, safety, well-being, and comfort of humans;
- Promote and support the population's participation in the assessment of projects influencing their living environment.

Environmental assessment is a preferred instrument for sustainable development. Its primary goal is to foster informed decision-making by the government when authorizing major projects or projects that raise significant concerns, particularly on the part of the public and Indigenous communities. It also allows for considering environmental and social concerns at all stages of a project, from its initial design to its completion, when applicable. It helps the proponent design a project that, in addition to

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⁴⁰ http://legisQuébec.gouv.qc.ca/fr/ShosDocs/cs/Q-2 June 2020 version of the Act

⁴¹ http://www.environnement.gouv.qc.ca/evaluations/inter en.htm

being economically and technically feasible, has been optimized to be more fully integrated into the receiving environment and more broadly acceptable from an environmental perspective.

Environmental assessment takes into consideration the opinions, reactions, and main concerns of the people, groups, organizations, and local and Indigenous communities impacted by the project. In this respect, it indicates how the various stakeholders that are involved or interested were included in the project's planning process and takes the outcomes of the consultations that were held into account.

5.1.1 There are two different regimes in Québec⁴²

In the southern part of the province, Title I of the Act applies and, in the north, Title II applies and accommodates modern treaties signed with the Inuit, the Cree and the Naskapi, as well as to any developments north of the 55th parallel.⁴³ The northern environmental assessment procedures provide for substantial participation of the Indigenous signatories in the EA process on their lands. The level of this participation varies with whether the lands are considered to be Category I (A,B,C), II or III lands in the treaty.

Like most other provinces, Québec has a harmonization agreement with the federal government regarding EA.

All the EA regimes proceed through the same five steps. For Title I projects, the Evaluation is conducted by the Environment Ministry and by an independent review panel under the Bureau des Audiences Publiques sur l'Environnement (BAPE)⁴⁴, and for Title II projects, similar steps apply but are conducted by evaluation committees which include the participation of Indigenous governments: COMEV (Comité d'évaluation) for projects south of the 55th parallel or CQEK (Commission de la qualité de l'environnement Kativik) for projects north of the 55th parallel.⁴⁵

Québec has a legislated list of projects deemed to be "high risk" which automatically require a full EA. The Minister does have discretion to add projects not on the list.

The list for Title II projects⁴⁶ in northern Québec effectively requires all mines and mine expansions, no matter what size, to undergo a full EA.⁴⁷

For Title I projects in southern Québec, there is more specific categorization set out in Schedule 1 to the Act, ⁴⁸ and it requires a comprehensive EA for all uranium and rare earth mines and processing facilities (although there has been an administrative moratorium on uranium mines in Quebec since 2014), all metal mines and processing facilities above 2000 tpd, all other mines and processing facilities above 500 tpd, and all expanding mines and processing facilities surpassing any of the above thresholds, or with a 50% increase in production capacity and/or surface area affected (see Appendix A to this

⁴⁴BAPE description in the EQA: http://legisQuébec.gouv.qc.ca/fr/showdoc/cs/Q-2?langCont=fr#ga:l_i-gb:l_ii_1-h1

⁴² http://www.environnement.gouv.qc.ca/evaluations/mil-nordique/deuxregimes.htm#obligat

⁴³ http://www.naskapi.ca/documents/documents/JBNQA.pdf

⁴⁵ http://www.environnement.gouv.qc.ca/evaluations/inter_en.htm. See also title II of the Environmental Quality Act, sections 153-167 and 187-204

⁴⁶ For title II projects: annexe A and B of the Environmental Quality Act and the James Bay and Northern Québec Agreement.

⁴⁷ http://legisQuébec.gouv.qc.ca/en/showdoc/cs/Q-2/20180101 Schedule A The projects listed below are automatically subject to the assessment and review procedure contemplated in sections 153 to 167 and 187 to 204: all mining developments, including the additions to, alterations or modifications of existing mining developments;

⁴⁸ http://legisQuébec.gouv.qc.ca/en/showdoc/cr/Q-2,%20r.%2023.1

document for more details). The Minister can also subject any mining project to an EA if he/she deems it to present significant environmental risks, and/or if there is significant social concern, and/or if it proposes to use new and untested, unproven technologies and methods.

Schedule I lists the projects – both new and expanded – that are considered high risk, such as mining activities, extractive metallurgy, and associated activities such as extensive transmission lines and power stations, all smelters, explosives manufacture, wetland and river disruptions and diversions. These are rolled into an EA for the mine itself, and do not require separate EAs.

5.1.2 These high risk mine projects are:

- "Mining Activity" (paragraph 22) including:
 - o all uranium and rare earth mines,
 - o the establishment of a metal mine with a daily ore extraction capacity of equal to or greater than 2000 metric tons per day, or
 - any other mine with a daily capacity of extraction of 500 tpd, any mine within 1000 meters of a municipal land use area or an "Indian reserve", and any expansion of 50% or more of the mine operation area.⁴⁹
 - Resumption of operation of a mine is considered to be a new mine for the purposes of the Act.
 - All mine expansion that would see their production level increasing above the thresholds stated above (e.g. a metal mine that was permitted to operate without an initial EA at 1500 tpd capacity and now wanting to go to 2000 tpd would need an EA)
- The treatment of ore (milling and concentrating) is dealt with in paragraph 23 of the regulation.
 - o Any concentration of uranium ore, rare earth ore,
 - o Any metal mill with a daily capacity of over 2000 metric tonnes,
 - o Any other mining material with a daily capacity of 500 tpd,
 - o Any plant situated within 1000 meters of an urbanized area or Indian reserve
 - o This applies to new plants as well as to expansions of 50% or more.
- Note: the words "daily" and "capacity" are very important and more protective than "yearly average" or "mine planned production". For example, if a mine "plans" to extract 1500 tonnes per day "on average" over 1, 10, or whatever number of years, but has "the capacity" to extract 2000 tonnes per day even just for 1 day with its extracting, trucking and crushing equipment onsite, then it is legally subject to an EA.
- The Minister has discretion to "bump-up" any development projects if environmental or social concerns warrant it
- The Schedule includes smelters and refineries in paragraph 17.

5.1.3 Requirement for a feasibility study and open pit backfilling study

Mining approvals in Québec face further scrutiny at the point where a proponent wants to convert claims to a mining lease.⁵⁰ Under the Québec Mining Act, before a mining company can get a lease and proceed with production, not only must it have proof that it has rights to the property in question and

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⁴⁹ Paragraph 22

⁵⁰ https://mern.gouv.qc.ca/en/mines/mining-rights/extraction-rights/

have its Certificate of Environmental Compliance, but it has to prove that the deposit itself is "mineable". The latter requires a feasibility study before the lease will be granted.

To obtain a mining lease, a claim holder must first establish the existence of indicators showing the presence of a workable deposit, and must submit a report certified by an engineer who is a member of the Ordre des ingénieurs du Québec or a geologist who is a member of the Ordre des géologues du Québec, describing the nature, extent and probable value of the deposit, as well as a project feasibility study and a scoping and market study as regards processing in Québec.⁵¹

In addition, it will have to provide a scoping and marketing study indicating if the mine production can and will be processed in Québec.⁵² If the project is likely to affect agricultural land, it will also need approval from the CPTAQ (Commission de protection du territoire agricole du Québec). The CPTAQ process also requires public hearings.⁵³

Perhaps more importantly, it has been the policy of the Environment Ministry at least since 2015 to require a Feasibility Study that meets the NI 43-101 standards from the Canadian Securities Administrators before triggering the EA process.

5.2 British Columbia

Like Ontario and Québec, mines, mills and smelters in BC have to obtain a number of permits from the province to open, to operate and to expand. The ability to look at overall impacts on environment and society depends upon an effective EA process.

The most recent overhaul of British Columbia's environmental assessment act and regulations (Reg 67/2020) that impacted mines and smelters took effect on March 26, 2020.⁵⁴ Some key sections of the revised Environmental Assessment Act of BC include the following.

5.2.1 The Reviewable Projects Regulation (RPR)⁵⁵

The regulation sets out the criteria for determining which projects should be required to undergo an environmental assessment (EA), by defining prescribed project categories and providing thresholds for each category that seek to indicate the potential for adverse effects for their specific project type. Projects that fall into a prescribed category and meet the thresholds specific to its category require an assessment under the RPR. These are called reviewable projects.⁵⁶ The Act states:

9 (1) The Lieutenant Governor in Council may make regulations prescribing what constitutes a reviewable project for the purposes of this Act.

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⁵¹ Ibid

⁵² https://mern.gouv.qc.ca/wp-content/uploads/guide processing en.pdf

⁵³ http://www.cptaq.gouv.qc.ca/index.php?id=7

⁵⁴ https://www.bclaws.ca/civix/document/id/complete/statreg/243 2019#part3

⁵⁵ https://www.bclaws.ca/civix/document/id/complete/statreg/18051#section9

⁵⁶ https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments/act-regulations-and-agreements/2018-act-regulations-and-agreements

- (2) For the purpose of a regulation under subsection (1), the Lieutenant Governor in Council may, by regulation,
- (a) categorize projects on the basis of size, production or storage capacity, timing, geographical location, potential adverse effects, type of industry to which the projects are related, type of proponent or any other basis that the Lieutenant Governor in Council considers appropriate...

Section 11 of the Act gives the Minister power to decline or accept a project for review regardless of the list, subject to certain criteria.

5.2.2 Indigenous peoples and EA in BC

The Act also sets out the process for project review: Submission by proponent of a project description to the "chief executive assessment officer" followed by a period of public comment and consultation with "participating Indigenous nations":

- 14 (1) Within 80 days of the first day of publication of the initial project description, an Indigenous nation may provide notice to the chief executive assessment officer that the Indigenous nation intends to participate in the assessment of the project.
- (2) After giving an Indigenous nation that has provided notice under subsection (1) an opportunity to be heard, the chief executive assessment officer may provide notice to the Indigenous nation that the chief executive assessment officer has determined that there is no reasonable possibility the Indigenous nation or its rights recognized and affirmed by section 35 of the Constitution Act, 1982 will be adversely affected by the project.
- (3) A notice provided by the chief executive assessment officer under subsection (2) must set out the reasons for the determination.

The chief executive assessment officer makes a determination as to whether the project can proceed. If the project is classified as high risk on the reviewable projects list, s/he does not have discretion to refuse an EA for the project. In Section 17, the Minister can make the decision as to whether to terminate or exempt a project, and is to "have consideration for the sustainability and reconciliation purposes of the legislation."

The BC Environmental Assessment Act provides numerous opportunities for Indigenous governments to influence and – supposedly stop – a mining project if they wish to. Section 25 the Act states that: (1) The effects of a project on Indigenous nations and rights recognized and affirmed by section 35 of the Constitution Act, 1982 must be assessed in every assessment. The law has not yet been tested in court.

5.2.3 The thresholds for mining projects

The BC Reviewable Projects Regulation Part 3 – Mine Projects, sets out the criteria for mines requiring full EA. The regulation itself can be found in Appendix B.

Table 6 – Mine Projects

Project Category	New Project	Modification of Existing Project	
Coal Mine	A new mine facility that during operations will have a production capacity of ≥250,000 tpy of clean coal or raw coal or both	Modification of an existing mine facility that meets threshold E	
Mineral Mine	A new mine facility that during operations will have a production capacity of ≥75,000 tpy of mineral ore	Modification of an existing mine that meets threshold E	
Sand and Gravel pits	A new pit facility that will have a production capacity of 500,000 tonnes/year of excavated sand or gravel during at least one year of its operation, or Over a period of +4 years of operation ≥1 million tonnes of excavated sand or gravel or both	Modification of an existing facility that meets threshold F	
Placer Mineral Mine	A new mine facility that during operations will have a production capacity of $\geq 250,000$ tonnes/year of pay dirt	Modification of an existing facility that meets threshold F	
Construction stone and Industrial Mineral quarries	A new quarry or other operation that a) includes the removal of construction stone or industrial minerals or both b) is regulated as a mine under the Mines Act, and c) during operations will have a production capacity of ≥250,000tonnes/of quarried product.	Modification of an existing mine facility that meets threshold E	
Offshore mines	A new offshore mine facility	Modification of an existing facility that meets threshold G	

- Unlike the Québec regulation, the BC regulation uses tonnes per year instead of tonnes per day to set the thresholds. A capacity of 250,000 tonnes per year is equivalent to 265 tonnes per day (assuming a 365-day year); a capacity of 75,000 tonnes per year is equivalent to 205 tonnes per day.
- Both Québec and BC use "capacity" instead of production as benchmarks. These are low thresholds and would capture most mines.
- All offshore mining is reviewable.
- BC has a moratorium on uranium mining currently, ⁵⁷ so uranium is lumped in with metal mining.
- The province makes no distinction for rare earth mines.
- There is placer mining in BC and the Act and regulations apply to it.

5.2.4 BC reviews smelters and refineries as Industrial Projects

BC considers smelters and refineries to be "Industrial Projects" under the regulation (iron and steel mills and ferro-alloy manufacturing, alumina refining and primary aluminium production, non-ferrous metal smelting and refining)⁵⁸.

New facilities and major expansions (over 30% increase in total waste discharge from the plant) are subject to EA.

⁵⁷ https://www.bclaws.ca/civix/document/id/lc/billsprevious/36th3rd:mem203-1

⁵⁸ https://www.bclaws.ca/civix/document/id/complete/statreg/243 2019#part3

However, "If refining processes, precious metal distillate processes or ore roasting processes are integrated with ore milling operations at, or in the vicinity of, a mine site and are dedicated to the mining operations at the mine site, those processes are not reviewable as part of a project that is a reviewable project under subsection 1." ⁵⁹

6 Regulatory red tape and investment

The mining industry frequently reminds the public that Canada's competitiveness as a destination for international mineral investment cannot be taken for granted. From the industry's perspective, "policy uncertainty" is a major concern. The idea is that onerous legislation — or "red tape" — that increases costs and makes it harder for mining companies to obtain permits negatively impacts investor sentiment. The implication is that by enhancing environmental oversight, governments put themselves at a competitive disadvantage.

Of course, there is *some* truth to this: If the government passed laws that made it all but impossible for a mine to be approved, then no investor would bother risking his or her money on mine development. Nevertheless, the industry's narrative does not give a full picture of how investment decisions are made. Swings in commodities prices have had a far greater influence in shaping Canadian and international mineral investment trends than have any recent legislative changes. Just as importantly, with capital markets increasingly scrutinizing the mining industry's environmental and social impacts, a robust environmental assessment process that clarifies industry responsibilities and meaningfully addresses the concerns of Indigenous peoples, investors, and the public would enhance investor certainty, not undermine it.

A clear and robust regulatory system – including environmental assessments – provides regulatory certainty, which is something the mining industry claims is essential to its success.

6.1 Recent trends in mineral investment

In Facts & Figures 2018, the Mining Association of Canada wrote: "MAC maintains that federal regulatory policies have dampened Canada's competitiveness as a destination for mineral investment." The Association pointed specifically to changes in federal environmental assessment processes and climate change legislation as two key drivers in undermining Canada's competitiveness. To make its case, MAC compared investment levels in Australia and Canada in 2016, noting that while Canada's investment totals had decreased by \$50 billion, "Australia's capital expenditures rose for 18 consecutive months." The clear implication was that unless Canada lowered its regulatory burden on mining, it could expect to continue to lose out on investment to Australia.

However, reports from Australia painted a different picture: A 2019 report from the Minerals Council of Australia showed that, much as was the case in Canada, Australian mineral investment spending

⁶⁰ Mining Association of Canada, Facts and Figures: 38. Available at: https://mining.ca/wp-content/uploads/2019/03/Facts-and-figures-English-Web 0.pdf

⁵⁹ Ibid.

⁶¹ Ibid., p. 38

dropped off steeply after 2012. For instance, while Australian exploration spending had peaked at A\$4 billion in 2012, by 2016, the amount had fallen by more than half to about A\$1.5 billion.⁶²

Similar trends were seen on a global level, undermining the claim that "red tape" was the reason for declining mineral investment in Canada. For example, a March 2017 report on global mining capital expenditures showed that capex among the world's six biggest mining companies fell from about US\$80 billion in 2012 to about US\$20 billion in 2016.⁶³ Credit Suisse explained the trend with reference to shifts in demand for minerals, noting:

...The [mining] sector reached unprecedented levels of capex from 2011 to 2013 but then needed to cut investment sharply in reaction to weaker demand growth, falling prices and the resultant pressure on balance sheets and cash flows. From strategies led by volume and market share gains only 4-5 years ago, the large cap CEO mantra is now one of value over volume and a prudent approach to growth is likely to remain.⁶⁴

An October 2015 report from the International Monetary Fund (IMF) similarly underscores the importance of commodities prices in shaping mining investment decisions. Driven by China's formidable economic growth and its growing consumption of raw materials, metals prices rose significantly through the 2000s. As the IMF wrote, "after a period of high metal prices, ...investment and in turn, capacity in the [metals] sector have increased substantially." Nevertheless, the report continued, "[a]t the same time, high prices have led to downward adjustments on the demand side. Those adjustments have contributed to a gradual decline in metal prices since 2011, which has led to less investment in the sector, especially in high-cost mines, considering the lower expected profits." 65

The key takeaway is that there is no reason for governments to allow the mining industry to leverage temporary downturns in investment into weaker environmental oversight. Mining is a cyclical industry, and year-to-year fluctuations in investment levels are nothing out of the ordinary.

Closer to home, we can see that Québec's decision to enhance its environmental assessment regime in 2018 did not undermine its competitiveness. While the annual figures fluctuated, Natural Resources Canada's data show that Québec increased its share of Canadian mineral exploration spending from 14.1 percent of the national total in 2015 to 22 percent in 2019, a year after the new EA regime had come into force. While spending in Québec fell from 2018 to 2019, it did so elsewhere, and Québec's levels fell less than Ontario's.⁶⁶

Meanwhile, in 2019, the Fraser Institute ranked Québec the 4th best place in the world for mining, while Ontario ranked 20th. Clearly, adopting Québec's EA model in Ontario would not be a barrier to investment.

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⁶² Minerals Council of Australia, The Next Frontier: Australian Mining Policy Priorities, 2019: 24.

⁶³ Credit Suisse, "Global Mining 2020 Capex," 3 March 2017: 6.

⁶⁴ Ibid., p. 6.

⁶⁵ International Monetary Fund, World Economic Outlook, October 2015: 40.

⁶⁶ Natural Resources Canada, "Table 27: Exploration Plus Deposit Appraisal Expenditures, by Province and Territory, 2015-2018. Annual and 2019 Revised Spending Intentions," Available at: https://sead.nrcan-rncan.gc.ca/PDF/ExploTable272018-en.pdf

7 Recommendations

- All new mines, mills, and metal extraction facilities (smelters and refineries) must be on the reviewable projects list and receive a comprehensive environmental assessment.
- Ontario's project list must be as strong as that of Quebec and British Columbia the two other largest mining jurisdictions in Canada with Ontario.
- Expansions of over 25% of ore production capacity or of land area must be reviewed.
- Re-opening of mines, mills, and metal extraction facilities closed for an extended length of time should be treated as new mines and reviewed.
- A feasibility study should be required as part of the environmental assessment for any new mine, or re-opening of a former mine.
- Cooperative environmental assessment with the federal government should be undertaken with a view to one project-one assessment with an aim of the most stringent requirements.
- Recognition of Indigenous rights is required to enable affected Indigenous jurisdictions to exercise
 Free Prior Informed Consent on their traditional territories.

8 Appendix A: List of Projects Subject to the Environmental Impact Assessment and Review Process [Southern Québec]

17. EXTRACTIVE METALLURGY

The following projects are subject to the procedure:

- (1) the construction of an extractive metallurgical plant with a maximum annual production capacity of 40,000 metric tons or more;
- (2) any increase in the maximum annual production capacity of such a plant that reaches or exceeds 40,000 metric tons;
- (3) for a plant with a maximum annual production capacity of 40,000 metric tons or more:
 - (a) any increase in this capacity of 50% or more;
 - (b) any increase in this capacity that results in an expansion of 25% or more of the plant's operating area;
- (4) the construction of an extractive metallurgical plant for the production of rare earths or rare earth compounds, any increase in the maximum annual production capacity or any expansion of the operating area of such a plant;
- (5) the construction of an extractive metallurgical plant for the production of radioactive elements or radioactive compounds or refining or enrichment of uranium, as well as any increase in the maximum annual production capacity or expansion of the operating area of such a plant.

Paragraph 2 of the first paragraph does not apply to an existing plant on March 23, 2018. However, for these plants, any project to increase the maximum annual production capacity of 50% or more is subject to procedure, if this increase brings it to or above 40,000 metric tons.

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22. MINING ACTIVITY

For the purposes of this article, we mean:

- (1) "mine": all surface and underground infrastructure required for ore extraction, including ore storage areas, handling areas, tailings accumulation areas, over-land depots, and mining wastewater treatment and holding ponds;
- (2) "operating area": the area occupied at ground level by the mine. For an existing mine as of March 23, 2018, the operating area corresponds, depending on the case:
 - (a) to that authorized under section 22 and, if applicable, section 31.5 of the Act;
 - (b) to the existing date if the facility and, if applicable, its expansion, has not required prior authorization under the Act.

The following projects are subject to the procedure:

- (1) the establishment of a uranium or rare earths mine:
- (2) the establishment of a mine with a maximum daily capacity to extract any other metal ore is 2,000 metric tons or more;
- (3) the establishment of any other mine with a maximum daily ore extraction capacity of 500 metric tons or more;
- (4) the establishment of a mine in whole or in part within an urbanization perimeter identified in the development and development scheme applicable on the territory or in an Indian reserve, as well as within 1,000 m of such a perimeter or reserve, regardless of the ore mined and the extraction capacity;
- (5) any increase in the maximum daily extraction capacity of a mine covered in paragraph 2 or 3, causing it to reach or exceed, as appropriate, one of the thresholds provided for;
- (6) any expansion of 50% or more of a mine's operating area in the following cases:
 - (a) a uranium or rare earth mine;
 - (b) the maximum daily extraction capacity of a mine covered by paragraphs 2 or 3, depending on the case, is reached or exceeded;
 - (c) the mine is located in whole or in part within an urbanization perimeter identified in the development and development scheme applicable on the territory concerned or in an Indian reserve, as well as within 1,000 m of such a perimeter or reserve.

Paragraph 5 of the second paragraph does not apply to an existing mine on March 23, 2018. However, for these mines, any plan to increase the maximum daily extraction capacity of 50% or more is subject to procedure, if this increase causes it to reach or exceed one of the thresholds set out in paragraph 2 or 3 of that same paragraph, as the case may be.

For the application of paragraphs 1 to 4 of the second paragraph, the resumption of mine operations is considered to be the establishment of a new mine when the following conditions are met:

- (1) the mine was dismantled or restored after its operation was shut down;
- (2) the establishment of the mine had not required prior authorization under the Act.

However, excluded from the application of this article are:

- (1) work subject to the Oil, Natural Gas and Underground Reservoir Regulations (Chapter M-13.1, r. 1);
- (2) Quarries and sandpits within the meaning of the Quarry and Sandpit Regulations (Chapter Q-2, R. 7).

23. ORE PROCESSING

For the purposes of this article, we mean:

- (1) "processing": any enrichment activity of ore, concentrate or tailings by a mineral process that allows the separation of minerals as well as the manufacture of agglomerates;
- (2) "processing plant": all infrastructure required for ore processing, including handling areas, storage areas, tailings accumulation areas, and mining wastewater treatment and holding ponds.

The following projects are subject to the procedure:

- (1) the construction of a processing plant for one of the following materials:
 - (a) uranium ore;
 - (b) rare earth ore;
 - (c) any other metal ore with a maximum daily processing capacity of 2,000 metric tons or more;
 - (d) any other ore with a maximum daily processing capacity of 500 metric tons or more;
 - (e) of any ore, in the event that the processing plant is located, in whole or in part, within an urbanization perimeter determined in the development and development scheme applicable on the territory or in an Indian reserve, as well as within 1,000 m of such a perimeter or reserve;
- (2) any increase in the maximum daily processing capacity of a plant covered in one of the sub paragraphs (c) or (d) of paragraph 1 that will achieve or exceed, as appropriate, one of the treatment thresholds provided for in it;
- (3) any expansion of 50% or more of a processing plant in the following cases:
 - (a) processing of uranium or rare earth ore;
 - (b) the maximum daily processing capacity of the plant covered in one of the sub paragraphs (c) or (d) of paragraph 1 of the second paragraph is reached or exceeded;
 - (c) the ore processing plant is located, in whole or in part, within an urbanization perimeter determined in the development and development scheme applicable on the territory or in an Indian reserve, as well as within 1,000 m of such a perimeter or reserve.

Paragraph 2 of the second paragraph does not apply to an existing plant on March 23, 2018. However, for these plants, any plan to increase the maximum daily processing capacity of 50% or more is subject to procedure, if this increase causes it to reach or exceed one of the thresholds set out in sub paragraph c or d of paragraph 1 of that same paragraph.

9 Appendix B: British Columbia Reviewable Projects List Regulation, Part 3

Definitions for Part 3

9 In this Part:

"clean coal" means coal that has undergone a washing process to remove waste before it is transported from the mine site for marketing or testing;

"industrial minerals" means the substances listed in Appendix 3;

"mine" has the same meaning as in the Mines Act;

"mineral mine" means a mine where a mineral, as defined in the <u>Mineral Tenure Act</u>, is or could be mined, but does not include a mine where industrial minerals are or could be mined;

"offshore mine" means a platform, artificial island or other physical work or structure, including any associated facilities, that is intended to be used, or is used, for the exploration for or production of a minable substance from the foreshore or submerged land along a marine coastline, or from an offshore site located in salt water;

"pay dirt" means mined placer gravel that is or could be processed in a sluice box, wash plant or other device for extracting precious metals;

"permitted for disturbance" in relation to land, means that the land would be or has been disturbed by mining activities approved under a <u>Mines Act</u> permit or another permit that was issued as part of a previous mine approval;

"placer mineral mine" means a mine where a placer mineral, as defined in the <u>Mineral Tenure Act</u>, is or could be mined:

"production capacity", in relation to a mine project, means a capacity to generate product for marketing or testing, not including waste materials;

"proposed project", in relation to the proposed modification of the existing facility referred to in section 10 (1) or (2), means all of the physical works and structures of the existing facility together with all of the physical works and structures that would be constructed as part of the proposed modification;

"quarry" means a quarry or other operation where construction stone, an industrial mineral or another substance is or could be mined, but does not include a mineral mine, placer mineral mine or coal mine or a sand or gravel pit;

"raw coal" means coal that does not require processing in a coal preparation plant before it is transported from the mine site for marketing or testing;

"threshold E" means the criteria described in section 10 (1);

"threshold F" means the criteria described in section 10 (2);

"threshold G" means the criteria described in section 10 (3).

Criteria for proposed modifications of mine projects

- **10** (1) For the purposes of this Part, threshold E is met for a proposed modification of an existing project if
 - (a) the existing project, or the proposed project, were it a new project in the same category as the existing project as described in Column 1 of the applicable table, would meet the criteria set out opposite in Column 2, and
 - (b) the modification will result in the disturbance of an area of land that was not previously permitted for disturbance and that is at least 50% of the area of land that was previously permitted for disturbance at the existing project.
- (2) In this Part, threshold F is met for a proposed modification of an existing project if
 - (a) the existing project, or the proposed project, were it a new project in the same category as the existing project as described in Column 1 of the applicable table, would meet the criteria set out opposite in Column 2, and
 - (b) the modification will result in the disturbance of an area of land that was not previously permitted for disturbance and that is at least 35% of the area of land that was previously permitted for disturbance at the existing project.
- (3) In this Part, threshold G is met for a proposed modification of an existing project if
 - (a) the existing project, or the proposed project, were it a new project in the same category as the existing project as described in Column 1 of the applicable table, would meet the criteria set out opposite in Column 2, and
 - (b) the chief executive assessment officer has determined under subsection (4) that the modification has the potential to result in a significant adverse environmental, economic, social, cultural or health effect.
- (4) For the purposes of a modification of an existing project in the offshore mine project category, the chief executive assessment officer must determine whether the modification has the potential to result in a significant adverse environmental, economic, social, cultural or health effect.

Table 6 — Mine Projects

Column 1 Project Category	Column 2 New Project	Column 3 Modification of Existing Project
1 Coal Mines — SIC code 063.	Criteria: (1) A new mine facility that, during operations, will have a production capacity of ≥ 250 000 tonnes/year of clean coal or raw coal or both.	Criteria: (1) Modification of an existing mine facility that meets threshold E.
2 Mineral Mines.	Criteria: (1) A new mine facility that, during operations, will have a production capacity of ≥ 75 000 tonnes/year of mineral ore.	Criteria: (1) Modification of an existing mine facility that meets threshold E.
3 Sand and Gravel Pits — STC code 082.	Criteria: (1) A new pit facility that will have a production capacity of (a) ≥ 500 000 tonnes/year of excavated sand or gravel or both during at least one year of its operation, or (b) over a period of < 4 years of operation, ≥ 1 000 000 tonnes of excavated sand or gravel or both.	Criteria: (1) Modification of an existing pit facility that meets threshold F.
4 Placer Mineral Mines.	Criteria: (1) A new mine facility that, during operations, will have a production capacity of ≥ 250 000 tonnes/year of pay dirt.	Criteria: (1) Modification of an existing pit facility that meets threshold F.
5 Construction Stone and Industrial Mineral Quarries.	Criteria: (1) A new quarry facility or other operation that (a) involves the removal of construction stone or industrial minerals or both, (b) is regulated as a mine under the <i>Mines Act</i> , and (c) during operations, will have a production capacity of ≥ 250 000 tonnes/year of quarried product.	Criteria: (1) Modification of an existing mine facility that meets threshold E.
6 Offshore Mines.	Criteria: (1) A new offshore mine facility.	Criteria: (1) Modification of an existing facility that meets threshold G.

10 Appendix C: Federal project list

Mines and Metal Mills

- **18** The construction, operation, decommissioning and abandonment of one of the following:
 - (a) a new coal mine with a coal production capacity of 5 000 t/day or more;
 - (b) a new diamond mine with an ore production capacity of 5 000 t/day or more;
 - (c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5 000 t/day or more;
 - (d) a new metal mill, other than a uranium mill, with an ore input capacity of 5 000 t/day or more;
 - (e) a new rare earth element mine with an ore production capacity of 2 500 t/day or more;
 - (f) a new stone quarry or sand or gravel pit with a production capacity of 3 500 000 t/year or more.
- 19 The expansion of an existing mine, mill, quarry or sand or gravel pit in one of the following circumstances:
 - (a) in the case of an existing coal mine, if the expansion would result in an increase in the area of mining operations of 50% or more and the total coal production capacity would be 5 000 t/day or more after the expansion;
 - (b) in the case of an existing diamond mine if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore production capacity would be 5 000 t/day or more after the expansion;
 - (c) in the case of an existing metal mine, other than a rare earth element mine, placer mine or uranium mine, if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore production capacity would be 5 000 t/day or more after the expansion;
 - (d) in the case of an existing metal mill, other than a uranium mill, if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore input capacity would be 5 000 t/day or more after the expansion;
 - (e) in the case of an existing rare earth element mine if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore production capacity would be 2 500 t/day or more after the expansion;
 - (f) in the case of an existing stone quarry or sand or gravel pit if the expansion would result in an increase in the area of mining operations of 50% or more and the total production capacity would be 3 500 000 t/year or more after the expansion.
- **20** The construction, operation and decommissioning, outside the licensed boundaries of an existing uranium mine, of a new uranium mine with an ore production capacity of 2 500 t/day or more.

- 21 The expansion of an existing uranium mine, if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore production capacity would be 2500 t/day or more after the expansion.
- 22 The construction, operation and decommissioning, outside the licensed boundaries of an existing uranium mill, of a new uranium mill with an ore input capacity of 2 500 t/day or more.
- 23 The expansion of an existing uranium mill, if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore input capacity would be 2 500 t/day or more after the expansion.
- **24** The construction, operation, decommissioning and abandonment of a new oil sands mine with a bitumen production capacity of 10 000 m³/day or more.
- 25 The expansion of an existing oil sands mine, if the expansion would result in an increase in the area of mining operations of 50% or more and the total bitumen production capacity would be 10 000 m³/day or more after the expansion.

