Fair Mining Practices

A New Mining Code for British Columbia

Consultation
Consent
Negotiations
Prospecting
Permits
Resource Policies
Environmental Assessment
Mineral Tenure

By Maya Stano, P.Eng, LL.B., LL.M & Emma Lehrer, B.Sc, LL.B.

Commissioned by the Fair Mining Collaborative

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FAIR MINING COLLABORATIVE

Fair Mining Practices:

A New Mining Code for British Columbia

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Contents

Introduction V

Acknowledgements VI

Disclaimer VII

Executive Summary VIII

1: Negotiation of Agreements: Community Preparation Background Paper 1

2: First Nations' Resource Policies: Community Preparation Background Paper 33

3: Indigenous Rights, Consultation and Consent 51

4: Mineral Tenure and Land Use Planning 81

5: Mineral Prospecting and Exploration 117

6: Environmental Assessment for Mining Activities 159

7: Permits for Mine Development and Operation 243

8: Compliance and Enforcement in the Mining Sector 285

9: Mine Closure and Post Closure 321

10: Securing the Cost of Mine Clean-up 389

Introduction

Focusing on positive solutions to complex mining issues, *Fair Mining Practices, A New Mining Code for British Columbia* is a compilation of innovative mining laws from around the world applied to the issues faced by First Nations and other communities in British Columbia.

A multi-purpose document, it is a valuable resource for communities whether they are developing mining and resource policies based on traditional laws and customs, negotiating with mining companies, grappling with the tide of internet claim-staking, or searching for solutions to the legacy of mines.

* * * * *

This project began during a conversation over a cup of coffee. Since that initial conversation, *Fair Mining Practices: A New Mining Code for British Columbia* has taken on a life of its own, with help, input, and guidance generously provided by many.

The growth of *Fair Mining Practices* comes at a crucial time when many communities are grappling with how to develop resources in a way that will provide real long-term benefits that sustain communities, culture and nature.

Many communities affected by mining find that current mining laws and practices do not bring the promised benefits, nor reduce the impacts of extractive activities. This is particularly true for Indigenous peoples, whose traditional territories are commonly entered for mining purposes. The sheer size of modern mines, compared to relatively small local communities, can lead to an unbalanced relationship. The balance shifts further in favour of miners when mining laws promote the industry above all other interests – including those interests that have had the longest standing.

Many jurisdictions worldwide have enacted legislation that recognizes Indigenous peoples' rights and interests and incorporates long-term ecological health, strong social and cultural rights, and economic equity. *Fair Mining Practices: A New Mining Code for British Columbia*, provides an overview of innovative mining legislation from around the world, organized into solutions for many of the issues faced by communities.

The evaluation of 'best' practices is inherently a subjective decision, however guidance has been drawn from various leaders in the field, recognized for their strong respect of land, water, and the rights of Indigenous people.

We are grateful to the many people who have put their time and energy into creating, editing, and reviewing this document and for the privilege of working alongside communities courageously shaping their own visions of mining and land use.

We welcome your feedback.

Amy Crook

Executive Director, Fair Mining Collaborative

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Executive Summary

Chapter 1: Negotiation of Agreements (a Community Preparation Background Paper) is a primer for First Nations entering or considering mining-related agreements. Agreements are a powerful tool for ensuring development occurs in consideration of First Nations values and interests.

Agreements can be divided into three categories:

- Agreements between adjacent First Nations, that set out protocols for coordinated negotiations on the industrial issues affecting adjacent, shared or overlapping territories;
- Accommodation Agreements with provincial governments, which may include revenue sharing agreements; and
- Impact Benefit Agreements, negotiated with the proponent, which formalize relationships between First Nations and proponents, reduce the potential impacts of mines on and secure economic benefits of mines for First Nations, and serve as evidence of a First Nation's consent to a project. IBAs commonly include business and employment opportunities, community development program contributions and training and education programs.

BC mining law should include provisions that ensure agreements are entered into in advance of project development and mandate sufficient timeframes for fair negotiation. In addition, First Nations communities should develop resource plans, protocols and policies to better ensure mining activities are carried out in accordance with their interests and values. *Fair Mining Practices* is a resource to assist with achieving both these goals.

Chapter 2: Resource Policies (a Community Preparation Background Paper) discusses the contents of innovative resource policies developed by a number of First Nations to help assert more control over how resources are managed on their lands.

By establishing resource policies, First Nations can clearly inform proponents and other levels of government of their interests and expectations. For example, resource policies can set out appropriate consultation processes and terms and conditions to attach to exploration applications and mine permits. These policies can also guide First Nations' staff in the review of mining proposals and the protection of the traditional territory before and during mine operations.

Resource policies are often based on a number of guiding principles to be applied when evaluating proposed resource developments. Examples of these are: Meaningful Consultation, Consistency with First Nation's Land Use Plans, Protection of Cultural Activities and Heritage, Environmental Stewardship, Socio-Economic Benefits, Intergenerational Equity and Sustainability.

Each resource policy will be unique to each First Nations community. These policies can serve to promote shared-decision making by First Nations on the management and development of land and resources within their traditional territories.

Chapter 3: Indigenous Rights, Consultation and Consent discusses Canada's obligations to Indigenous people.

Indigenous communities worldwide are affected by resource development, and the United Nations has responded with a number of covenants designed to protect Indigenous rights: the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD). Canada is a signatory to all these covenants. Canada is also signatory of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

However, despite committing to these agreements, both BC and the Canadian Government have failed to create a legislative regime to ensure the protection of these internationally recognized rights.

A number of countries, and even other provinces in Canada, have enacted legal provisions that explicitly protect several types of internationally recognized indigenous rights. For example, Indigenous peoples' right to own and manage their traditional territories is recognized in Constitutions and laws around the world. Consultation and accommodation are also addressed in laws in other jurisdictions. Further, legal provisions in other jurisdictions ensure that compensation is provided to Aboriginal peoples for disturbances caused by mining activities, for example, through laws that require revenue sharing for resource development on traditional territories.

Finally, free, prior and informed consent is also required by numerous other jurisdictions in advance to mining activities on Indigenous people's traditional territories.

Chapter 4: Mineral Tenure and Land Use Planning discusses issues created by BC's "free-entry" mineral tenure system, which places mining above almost all other land uses.

"Free entry" is governed by the *Mineral Tenure Act,* which has remained largely unchanged since 1859. This system fails to require notification to or consultation with municipalities or First Nations, does not mandate consideration of regional and municipal land use plans, contains no provision to control the concentration of mining activities and cumulative impacts in a particular region, and does not adequately protect watersheds, cultural heritage, agricultural lands or parks. Under it, the government has no discretion to deny the issuance of a mineral lease to proponents.

BC laws also do not require landowner consent for proponents to enter land to conduct mining activities. BC lags behind Alberta, Newfoundland and Labrador, and New Brunswick in this regard.

Further, other jurisdictions have laws that allow communities and governments greater control over where, and when, mining activities occur. These laws protect parks, important watersheds, and ecologically sensitive areas from mining activities, allow for the conservation of minerals for future generations, and require land-use plans to be in place before mining activities commence.

Modernizing BC's Mineral Tenure Act could achieve a more equitable division of land use, with municipalities, First Nations and landowners all having greater input about where and how mining activities are undertaken.

Chapter 5: Mineral Prospecting and Exploration compares BC's current prospecting and exploration laws with laws from other jurisdictions in Canada and abroad, to highlight where BC could modernize and strengthen its legislation.

BC does not have any laws regulating the manner in which prospecting activities are conducted. Accordingly, prospecting occurs without any government guidance, direction or oversight. Other jurisdictions have laws that have strong legal requirements such as requiring a prospector obtain consent from Indigenous people to access the land, and requiring a permit for prospecting that has attached conditions to minimize environmental damage.

Exploration activities in BC require an exploration permit, obtained by submitting a Notice of Work application to the Ministry of Energy and Mines. The information currently required in a Notice of Work application is insufficient for the government to make an informed decision about the potential social, cultural, economic and environmental consequences of the proposed exploration activities and the proponent's capacity to manage these potential consequences. These Notice of Work applications are forwarded to First Nations and other stakeholders, who have 30 days in which to submit comments.

Exploration permits are usually issued with certain attached conditions. However, the Chief Inspector has discretion to waive most of these. In BC, exploration permits do not require mandatory posting of security bonds, do not adequately protect cultural heritage resources, and do not adequately regulate environmental issues in exploration camps. Laws in other jurisdictions attach conditions to exploration permits that address these issues.

Other jurisdictions also require Indigenous people's consent prior to issuing an exploration permit.

Modernization of BC mining laws pertaining to mineral prospecting and exploration would help clarify the relationship between First Nations and prospectors and ensure better protection against the environmental impact of exploration activities.

As discussed in ***Chapter 6: Environmental Assessment for Mining Activities,*** BC's EA Act needs revision. Much of the process is guided by policy rather than law, and is subject to the discretion of the ministers involved (the Minister of the Environment and the Minister of Energy and Mines) and the Environmental Assessment Office (EAO) Executive Director.

For example, there are few requirements regarding the scope of the EA and the information that must be included in an EA. There are few formal mechanisms for public consultation. BC's laws also fail to ensure meaningful consultation with First Nations, and the assessment of cumulative effects is not required for provincial EAs.

BC's current EA Act also lacks an explicit purpose provision and guiding principles on which to base decisions, and the ministers are not required to take into account the working group's recommendations, First Nations' positions, or public opinion when making their decision. Additionally, neither the EAO Executive Director nor the ministers are required to give reasons for their decisions or respond to the public's comments. Finally, once the EA Certificate is issued, the only way the public can appeal the decision is through a judicial review.

BC should follow the lead of other jurisdictions, and pass EA laws that encourage an open and accountable process. For example, public involvement could be encouraged through laws requiring that EA reports be written in clear language, with a maximum length and a concise summary, and that require that public comments be taken into consideration when reviewing and issuing decisions on EA applications. Transparency could be encouraged by laws that have clearly defined and enforceable purpose provisions, as well as clearly defined and substantive decision-making criteria and guiding principles. The entire impact of a project would be better understood when cumulative effects are assessed. BC should also develop a separate First Nations consultation protocol and agreements for EA review. Finally, by incorporating an appeal mechanism into BC's EA laws, members of the public would be permitted to challenge the EA decisions.

The mine permit phase follows a successful environmental assessment. ***Chapter 7: Permits for Mine Development and Operations*** considers the legal requirements associated with the application for and issuance of a mine permit in BC and identifies laws from other jurisdictions which, if adopted in BC, would strengthen BC's mining regime.

A major issue with BC's current mining laws is that Chief Inspector of mines in BC has significant discretion in many matters. This discretion includes that ability to allow even large-scale mines to proceed without a mine permit, and to waive the condition that mines file reclamation security. There are also problems regarding accountability: the Chief Inspector's decision to issue or deny a mine permit does not need to be accompanied by written reasons and is not subject to appeal (apart from by judicial review). Additionally, BC laws do not specify what the Chief Inspector must consider in deciding whether to grant a mine permit renewal application or a mine permit transfer. There is also no guarantee that the public will be notified that a mine permit has been applied for or that public opinion will affect the Chief Inspector's decision about whether or not to issue a mine permit.

BC's mining laws do not explicitly require the government to consult with First Nations in mine permit application reviews - consultation is only referred to in non-binding policy documents.

Finally, a permit is issued with attached conditions, but the only condition required by law is the requirement to post security. Additional mine permit conditions could help fill legislative gaps and promote more responsible mining practices.

Other jurisdictions have laws that, if adopted in BC, would further strengthen the permitting process. These include requiring permits for all large scale mines, and specific requirements for the content of the Mine Permit Application that include the miner's plans' for local employment, their technical and financial resources, and their past mining practices and compliance history. Consultation could be improved through laws that have specific requirements for the notification of, and the consideration of comments from other government agencies, First Nations, and the public. The evaluation of mine permit applications could be improved through specific criteria that requires, for example, the consideration of: First Nation's interests; Land Use Plans; cumulative effects, and the proponents history of compliance. Providing written reasons for mine permit decisions would improve accountability.

Finally, requiring that mines pay an application fee for mine permits, renewals and transfers would improve the governments capacity to review permits, and recover public funds expended on the review of mine permit applications. Many other jurisdictions require this.

Without adequate enforcement, mining companies may lack incentive to comply with mining laws and regulations. This leaves the public, and the environment, at risk. As described in **Chapter 8, Compliance and Enforcement in the Mining Sector**, other jurisdictions have many innovative laws that, if implemented in concert, would create a climate in BC where environmental law is taken seriously.

In BC, the regulatory authorities have broad discretion in implementing environmental and social protection measures. This is problematic, as it allows for inconsistent application of the law, and may result in the regulatory authority deciding not to enforce laws. Additionally, there is a trend towards toward replacing actual intervention with voluntary compliance and technical advice. This trend can be partly traced to government capacity.

Adequate funding is needed to ensure government capacity. Finally, environmental protection enforced by two levels of government is especially important to prevent against bias where one level is benefiting financially from the project.

Another avenue for ensuring compliance is through penalties. Although proponents may face harsh penalties for disobeying the law, the penalties are not necessarily proportional to or reflective of the damage caused by the offence. Nor does the sentence necessarily require the proponent to pay for remediation.

Other jurisdictions provide more direction to the regulatory authority, with laws that require inspections at all stages of the mining life cycle and at designated frequencies and establish sentencing for environmental offences. Public disclosure of the identities of violators has been recognized as a powerful deterrent to non-compliance. Accordingly, other jurisdictions have enacted laws that require the disclosure of monitoring reports, compliance results and offences to the public. Some jurisdictions have also enacted legal provisions that grant individuals the right to request or initiate public investigation of alleged offences and grant enforcement powers to the public and local communities. To address capacity issues, other jurisdictions charge fees to recover inspection and administrative costs associated with issuing orders and allow recovery of enforcement and remediation costs from proponents.

Laws in other jurisdictions expand liability to hold proponents financially responsible for damage they cause to Indigenous knowledge systems, local economies and livelihoods, and biological diversity. Recognizing that consultants hired by proponents to complete environmental assessments need to be held accountable, other jurisdictions have extended liability to consultants completing environmental assessments.

Mine closure has become an integral part of the planning process *before* mining activities begin. **Chapter 9: Mine Closure and Post Closure** discusses BC's laws related to mine closure and post closure and compares them with innovative legislation from other jurisdictions.

In BC, the requirement for and content of closure plans is subject to the Chief Inspector's significant discretion. In addition, there are inadequate legal requirements to promote transparent and consistent closure plan reviews, revisions, and amendments. For example, there are no mandatory legal requirements to have closure plan reviewed by other government departments, local communities, or the public. Additionally, no legal weight is given to comments or recommendations from any of these parties.

Other jurisdictions legally require notification and consultation with local governments, First Nations, and other government agencies at the closure planning stage. In addition, other jurisdictions require that closure plans be reviewed and updated at minimum intervals, and following unexpected environmental impacts. The importance of community involvement is recognised through laws that promote integration of closure plans with local land use plans. Future community needs are also recognised by laws that promote local processing and research and development.

When reclaiming mine sites in BC, the miner must meet certain reclamation standards. Although BC's Health, Safety and Reclamation Code states reclamation standards for re-vegetation, growth media, metal uptake, landforms, watercourses, water quality, disposal of chemicals and re-agents, monitoring and post-closure land use, other jurisdictions have stricter standards.

BC Law also has few requirements for the release of mine permit obligations. Additional requirements could promote further economic activity, and protect the public purse from unforeseen occurrences.

Finally, there are hundreds of orphaned mines across the province, which are now taxpayer's responsibility. One method other jurisdictions use to deal with similar problems is establishing a clean-up fund paid into by operating mines.

Despite advancements, gaps remain in BC's regulation of mine securities. **Chapter 10: Securing the Cost of Mine Clean-up** compares BC's laws regarding mine securities with laws from other jurisdictions that uphold the polluter-pays principle in a more comprehensive and effective manner.

The extensive environmental disturbance caused by mining activities, coupled with the fluctuating nature of mineral markets makes it imperative that adequate funds be secured in advance to cover any outstanding mine reclamation and decommissioning costs.

In BC, the Chief Inspector of Mines has the discretion to require security as a condition of the mine permit, select security instruments, amend security amounts, and apply security to reclamation. In all these cases, policy documents provide guidance, but it remains within the Chief Inspector's discretion. This leaves securities vulnerable to errors, omissions and bias. Additionally, there is inadequate legal guidance concerning when government should access security and when security should be released. Public participation in the process could provide needed oversight, but there are no specific laws in BC mandating public disclosure and participation in reclamation costing. Thus, the burden of reclamation may fall on taxpayers due to inadequate legal provisions on mine securities.

Other jurisdictions better protect the public purse with laws that require posting of security for all mines and mineral exploration activities. Additionally, numerous specific laws regarding the setting of security amounts exist in other jurisdictions. These provide guidance to the regulatory authority and help ensure

that the government holds adequate security. Legal guidance regarding types of security instruments is provided in other jurisdictions, along with mandatory timelines for posting security and consequences for failing to meet these timelines.

Review and amendments of securities are promoted in other jurisdictions by requiring reviews of security at frequent intervals, and providing broad legal powers to review and re-calculate security.

Other jurisdictions also set more specific rules on the circumstances in which the regulatory authority should apply the security to complete work. Examples include requiring forfeiture of security where mine reclamation is not completed within set time limits.

Finally, mine securities in other jurisdictions are not released until the miner has gone through more comprehensive checks and balances.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 1:

Community Preparation Background Paper

Negotiation of Agreements

By Maya Stano, P.Eng., LL.B., LL.M., Emma Lehrer, B.Sc., LL.B., and Glenn Grande B.A., B.Ed.
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Chapter Summary

British Columbia is in the midst of a rush of mineral exploration and mining. Communities are challenged to respond in a way that minimizes impacts and maximizes benefits from resource development. One way that First Nations communities can engage is through agreements with proponents, the provincial government, and other First Nations. **Chapter 1: Negotiation of Agreements** discusses inter-governmental agreements between First Nations, access agreements, impact-benefit agreements and accommodation agreements, and provides examples of innovative laws from other jurisdictions that may inform First Nations' policy documents and BC mining laws.

Developing written protocols or agreements with neighbouring First Nations for coordinated negotiations on the industrial issues affecting adjacent, shared or overlapping territories may help prevent the use by third parties of a 'divide-and-conquer' approach to exploiting resources on First Nations' traditional territories.

Mineral exploration potentially infringes aboriginal rights and title, so common law requires consultation and, if necessary, accommodation with First Nations in whose traditional territories mineral exploration would occur. Other jurisdictions protect Indigenous rights and title through laws that require finalized agreements to be made between Indigenous communities and proponents before mineral exploration activities may commence. In BC, proponents should similarly be required to enter into access agreements with First Nations before engaging in such mineral explorations. Absent this requirement, many First Nations resource policies require finalized agreements and consent between Indigenous communities and the proponent before mineral exploration activities may begin on traditional territories.

BC law provides 30 days for First Nations to review an exploration permit application (called Notice of Work). This may not be adequate time to review the permit, especially where a community has received a number of Notice of Work applications. BC law should follow the lead of other jurisdictions and provide sufficient time for meaningful negotiations to occur.

Impact Benefit Agreements (**IBAs**, also referred to as Resource Agreements) may be negotiated to formalize relationships between First Nations and proponents, reduce the potential impacts of mines on and secure economic benefits of mines for First Nations, and serve as evidence of a First Nation's consent to a project. IBAs commonly include business and employment opportunities, community development program contributions and training and education programs.

While several other jurisdictions have enacted laws that promote the negotiation of IBAs, in BC, there are no legal obligations for a proponent to enter IBAs with affected First Nations. Other jurisdictions also have laws that recognise and encourage Indigenous people's right to financial participation. Negotiation outcomes could be improved by enacting similar laws in BC, and by First Nation's including similar provisions in their resource policies.

Accommodation agreements are negotiated between a First Nation and the provincial government. In the Canadian mining context, "accommodation" often refers to the Crown's duty to address First

Nations' concerns and reconcile conflicting interests. Although not required by law, many First Nation resource policies call for these agreements to be signed before the First Nation will consent to the proposed project.

Many First Nations' resource policies require that accommodation agreements contain the following minimum requirements:

- provisions of technical, legal and financial resources to participate effectively;
- financial and community benefits from the project;
- the procedure for First Nation peoples participation in the regulatory process; and
- the procedure for harmonizing the regulatory process with the Crown's duty to consult and accommodate.

Irrespective of what type of agreement a First Nation community contemplates entering into, there are important preliminary tasks that can help prepare for negotiations, including:

1. Gathering adequate information;
2. Developing negotiation strategies and identifying negotiators;
3. Signing negotiation protocols (including funding agreements); and
4. Determining minimum agreement content requirements.

These steps are discussed in depth in Chapter 1.

In conclusion, agreements are a powerful tool for ensuring development occurs in consideration of First Nations values and interests. BC mining law should include provisions that ensure agreements are entered into in advance of project development and mandate sufficient timeframes for fair negotiation. In addition, First Nations communities should develop resource plans, protocols and policies to better ensure mining activities are carried out in accordance with their interests and values.

Table of Contents

Chapter Summary **4**

Introduction **7**

Agreements with other First Nations **7**

Issue *8*

Recommended Solutions *8*

Establish protocol agreements between neighbouring First Nations and those with shared or overlapping territories 8

Consider international examples in developing neighbouring protocol agreements 9

Agreements With Other Levels of Government and Proponents **9**

Types of Agreements *9*

Access / Exploration Agreements 9

Recommended Solutions 11

Require access or exploration agreements with First Nations as a prerequisite to approval of Notice of Work application 11

Ensure parties have sufficient time to negotiate agreement 13

Impact Benefit Agreements 14

Recommended Solutions 15

Legally require IBAs between First Nations and proponents as a prerequisite to the issuance of mine permits 15

Enact laws that encourage First Nations' rights to financial participation 17

Accommodation Agreements 18

Preparing for Negotiations *20*

Step 1: Gather adequate information 20

Step 2: Develop Negotiation Strategy 22

Step 3: Develop Negotiation Protocol with other Parties 22

Step 4: Identify Minimum Content of Agreement 23

Appendix A: What to Include in an Access / Exploration Agreement **27**

Liaison Protocols 27

Limitation of Consent 27

Exploration Details 27

Pledge 27

Financial Security 28

Socio-Economic Benefits Plan 28

Environmental Protection Plan 28

Appendix B: Recommended Sources for Further Information **31**

Introduction

Agreements negotiated between First Nations, other levels of government, and proponents may provide a variety of benefits to all participants. First Nations who enter agreements are more likely to benefit from mining activities, as agreements help ensure that mining activities are carried out in accordance with First Nations' interests and values. The provincial government can demonstrate it has met its duty to consult and duty to accommodate through Accommodation Agreements, and proponents can build local support for their projects through Impact Benefit Agreements ("IBAs").

This chapter discusses the negotiation of agreements from a First Nations perspective. Topics covered include: agreements between neighbouring First Nations, agreements between First Nations and proponents, agreements between First Nations and other levels of government, and a primer on preparing for negotiations.

Agreements with other First Nations

Unlike other parts of Canada, few First Nations in BC have signed treaties with the Crown. The only historic treaties in BC are the early Douglas treaties on Vancouver Island and Treaty 8, which extends from Alberta and the Yukon into parts of Northeastern BC. More recently, modern treaties ("final agreements") have been signed by the Nisga'a First Nation,[1] the Tsawwassen First Nation[2], Maa-nulth First Nations, [3] the Yale First Nation,[4] and the Tla'amin Nation[5] (at the time of writing the latter two had yet to come into force). With the exception of the Tsawwassen First Nation, these modern treaties grant the First Nations ownership of all minerals and precious metals on their settlement lands (although not in the rest of their traditional territory).[6] Thus, these First Nations are able to manage resource-extraction activities on their Treaty settlement lands and collect fees, rents, and royalties from new

[1] *Nisga'a Final Agreement*, Indian Affairs and Northern Development, British Columbia, 1999, online: <http://www.nnkn.ca/files/u28/nis-eng.pdf>.
[2] *Tsawwassen First Nation Final Agreement,* British Columbia Ministry of Aboriginal Relations and Reconciliation (Victoria, 2007), online: <http://www.gov.bc.ca/arr/firstnation/tsawwassen/down/final/tfn_fa.pdf>. The Tsawwassen First Nation Final Agreement recognizes the Tsawwassen First Nation as owners of subsurface resources except for the mines and minerals under English Bluff (at 57).
[3] *Maa-nulth First Nations Final Agreement,* Aboriginal Affairs and Northern Development Canada (Vancouver, 2009), online: <http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/mna_fa_mnafa_1335899212893_eng.pdf>.
[4] Yale First Nation Final Agreement, Ministry of Aboriginal Relations and Reconciliation (Victoria, 2011), online: <http://www.gov.bc.ca/arr/firstnation/yale/down/yale_final_agreement_english_unsigned_updated_2012_jan.pdf>.
[5] *Tla'amin Final Agreement,* Ministry of Aboriginal Relations and Reconciliation (Sliammon, 2011), online: <http://www.gov.bc.ca/arr/firstnation/sliammon/down/tliammon_final_agreement_2011.pdf>.
[6] E.g. the Maa-nulth First Nations Final Agreement states that each First Nation in the Maa-Nulth treaty group owns subsurface resources on or under its settlement lands, subject to any subsurface tenures existing before ratification of the Final Agreement, with the exception of one privately owned parcel of subsurface resources within the Uchucklesaht Tribe lands and certain lots within Ucluelet First Nation lands. The Maa-nulth First Nations have the right to set fees, rents, royalties and other charges, except for taxes, for exploration, development and production of mines and minerals and other subsurface resources.

mining exploration and development within these lands (although provincial administration may continue for pre-existing tenures).[7]

All remaining First Nation traditional territory in BC remains un-ceded and subject to First Nation land claims. Many such claims involve shared or overlapping traditional territories. However, the traditional laws and processes that First Nations previously used to share lands and resources with neighbouring First Nations have been largely displaced by federal and provincial laws and western concepts of mapping and ownership. [8]

Issue

Without agreements between neighbouring First Nations, third parties often succeed in exploiting resources on overlapping traditional territories by using a 'divide-and-conquer' approach.[9]

Recommended Solutions

Establish protocol agreements between neighbouring First Nations and those with shared or overlapping territories

[Tags: Shared Territories, Overlapping Territories; Neighbouring Territories; Boundaries; Border; Agreement; Protocol]

First Nations may find it useful to develop written protocols or agreements with neighbouring First Nations to achieve a coordinated negotiation front for issues affecting their adjacent shared or overlapping territories, and to improve relationships with proponents by providing clarity on how proponents should engage in consultation with multiple First Nations. Ideally, these protocols or agreements would set out the process for responding to resource proposals in a coordinated way (e.g. which group takes the lead in which areas), the process for decision-making, and the process for deciding how benefits will be shared.

Experiences from other jurisdictions can help guide the development of protocols for mining activities proposed on lands subject to shared or overlapping territories. For example, in the Yukon, the Champagne and Aishihik First Nations have signed draft overlap agreements with the neighbouring Little Salmon/Carmacks First Nation and Kluane First Nation.[10] The Cree and the Inuit of Quebec have a signed "Agreement Relating to the Cree/Inuit Offshore Overlapping Interests Area".[11] The Tla'amin (Sliammon) First Nation in Powell River has shared territory protocols with neighbouring First Nations built into their

[7] British Columbia Assembly of First Nations, *Governance Toolkit: A Guide to Nation Building*, (West Vancouver British Columbia Assembly of First Nations, 2011) at 354, online: <http://fnbc.info/bcafn-governance-toolkit-guide-nation-building-part-1>.
[8] *Shared Territories/Overlap Resolution Mechanism*, Draft Discussion Paper, November 2008 Chiefs' Forum, online: <http://www.ubcic.bc.ca/files/PDF/Doc9SharedTerritoriesOverlapResolutionMechanismFinal.pdf>.
[9] *Shared Territories/Overlap Resolution Mechanism*, Draft Discussion Paper, November 2008 Chiefs' Forum, online: <http://www.ubcic.bc.ca/files/PDF/Doc9SharedTerritoriesOverlapResolutionMechanismFinal.pdf>.
[10] Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* (February 2007) at 5, online: <http://www.cafn.ca/pdfs/bestprac.pdf>.
[11] Agreement Relating to the Cree/Inuit Offshore Overlapping Interests Area Between the Crees of Québec and the Nunavik Inuit, online: <http://pubs.aina.ucalgary.ca/makivik/CI174.pdf>.

Final Agreement.[12] Many other First Nation groups are working together to develop shared territory protocols or arrangements.

Consider international examples in developing neighbouring protocol agreements
[Tags: Shared Territories, Overlapping Territories; Neighbouring Territories; Boundaries; Border; Agreement; Protocol]

First Nations may consider using international treaties as guidance for managing proposed mining activities on adjacent, shared or overlapping traditional territories. For example, Argentina has signed a Mining Integration Treaty with Chilé and a Memorandum of Understanding with Bolivia to facilitate developments straddling those respective borders.[13] The European Union (EU) also offers some examples for collaborative management between neighbouring jurisdictions. Under the EU Directive, member states are required to notify neighbouring states and share information on projects likely to have significant effects on the neighbouring state's environment.[14]

Agreements With Other Levels of Government and Proponents

Types of Agreements

Different types of agreements can be negotiated at different stages of the mine life. Several First Nation resource policies mandate that agreements be signed between First Nation communities and proponents at different stages of mining activities, including exploration and development.[15] For example, the *Cree Nation Government Mining Policy* recognizes agreements with proponents as the most appropriate instrument to ensure that social, cultural, economic and environmental issues are properly addressed.[16] In this chapter, the following types of agreements are discussed: access/ exploration agreements, impact benefit agreements and accommodation agreements.

Access / Exploration Agreements

Mineral exploration potentially infringes aboriginal rights and title. Therefore, consultation and, if necessary, accommodation, are required by the common law. Despite this, BC's mining laws do not require proponents to consult with or obtain the consent of First Nations before entering their traditional territories to conduct exploration activities. To address this legislative gap, many First

[12] Government of British Columbia, Tla'amin Nation (Sliammon First Nation) Lands Agreement, online: <http://www.gov.bc.ca/arr/firstnation/sliammon/down/sliammon_lands_fact_final.pdf>.
[13] Elizabeth Bastida, Ricardo Irarrázabal and Ricardo Labó, "Mining Investment and Policy Developments: Argentina, Chile and Peru" at 1, online: <http://www.dundee.ac.uk/cepmlp/gateway/index.php?news=28244>.
[14] EC, Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, Article 7 [1985] OJ, L 175/40. Note that criteria is left to the discretion of the Member State of origin according to Article 4(2), online: <http://ec.europa.eu/environment/eia/full-legal-text/85337.htm>.
[15] Taku River Tlingit First Nation, *Mining Policy* (March 2007), ss 7, 22-25, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 10-11, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.
[16] Cree Nation Government, *Cree Nation Mining Policy 2010-07* at 6, online: <http://www.gcc.ca/pdf/Cree-Nation-Mining-Policy.PDF?.

Nations' resource policies require proponents to seek and obtain the First Nations' consent before carrying out mining activities on their traditional territories.[17] The negotiation of an access/exploration agreement between the First Nation and the proponent is one way to establish First Nation consent to the proposed exploration activities.[18]

The negotiation of access/exploration agreements may provide First Nations with opportunities to receive information and provide input on the type, timing and location of exploration activities on their traditional territories. These agreements can provide details on partnerships between the proponent and the First Nation, address concerns about entry and mining activities on the land, and facilitate ongoing information-sharing about a project at an early stage in the process. Although not (yet) required by provincial legislation, proponents may choose to enter into an access/exploration agreement with local First Nations as an initial step towards meeting common law requirements and developing a good working relationship.

Some First Nations' resource policies identify different levels of consultation and types of agreements depending on the impact of the proposed exploration activity. For example, the Taku River Tlingit First Nation may grant the proponent either a "Support Document"[19] or a "Cooperation Agreement"[20] where the proposed activities:

- do not raise any serious concerns after a preliminary evaluation by the First Nation community;
- involve the use of existing access roads, helicopter, fixed wing or walking surveys; and
- do not involve intrusive exploration activities (such as the creation of new roads, use of heavy equipment, significant site disturbance of advanced exploration programs).[21]

Where the proposed activity raises serious concerns, and entails the creation of new roads, use of heavy equipment, or significant site disturbance, the *Taku River Tlingit First Nation Mining Policy* mandates

[17] Teslin Tlingit Council, *Mining Policy* (March 2008) at 4, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>. For Category B Settlement Lands (i.e. lands now owned by the Teslin Tlingit Council (TTC)), the policy states: "Where TTC owns the surface rights only, access requires TTC consent which will be regulated by a permit system".
[18] Taku River Tlingit First Nation, *Mining Policy* (March 2007), s 19, 20, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.
[19] Taku River Tlingit First Nation, *Mining Policy* (March 2007), s 18, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.
[20] Teslin Tlingit Council, *Mining Policy* (March 2008) at 10, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>. This policy is only triggered when a proponent applies for consultation.
[21] Taku River Tlingit First Nation, *Mining Policy (*March 2007), s 118, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.

that an "Exploration Agreement," [22] similar to the Teslin Tlingit Mining Council's "Cooperation Agreement," [23] be negotiated between the proponent and First Nation community. [24]

Some First Nations seek input on exploration activities and also accommodation or compensation based on a percentage of the expenditures by the proponent. This approach received some judicial support in the *Platinex* case [25] where the court noted that the mining company had offered 2% of its exploration expenditures as a payment to a community benefit fund for the First Nation. The court did not rule on this matter but it is clear that a community benefit contribution based on a percentage of exploration expenditures is within the realm of possible options for interim accommodation in an access or exploration agreement.

The content of each access/exploration agreement will differ in each circumstance, depending on the parties involved and the proposed activities. A list of potential matters to include in access/exploration agreements is provided in Appendix "A".

Recommended Solutions

Require access or exploration agreements with First Nations as a prerequisite to approval of Notice of Work application
[Tags: Access Agreement; Exploration Agreement; Free, Prior & Informed Consent; Grant of Tenement]

There are several benefits to legally requiring proponents to negotiate and finalize access agreements with First Nations as a prerequisite to obtaining exploration licences. Perhaps most importantly is the opportunity that this approach provides First Nations to raise concerns and discuss exploration plans with proponents before exploration activities actually commence. Completed access agreements can also serve as evidence to the provincial government that First Nations have been consulted and have given their free, prior and informed consent to the exploration activity.

Unlike BC, laws in several other jurisdictions require finalized agreements between Aboriginal communities and proponents before mineral exploration activities may commence. For example, in Nunavut, whenever proposed surface land use is greater than mere casual or temporary use, "Participation Agreements" must be negotiated and concluded before the proponent may access the land. [26]

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[22] Taku River Tlingit First Nation, *Mining Policy* (March 2007), s 22, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.
[23] Teslin Tlingit Council, *Mining Policy* (March 2008) at 10-11, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.
[24] Taku River Tlingit First Nation, *Mining Policy*, March 2007, s 22, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.
[25] *Platinex Inc. v Kitchenuhmaykoosib Inninuwug First Nation*, 2007 CanLII 20790 (ON SC).
[26] *Inuvialuit Final Agreement*, Indian and Northern Affairs Canada, Ottawa, 1984, s 10(2), online: <http://www.eco.gov.yk.ca/pdf/wesar_e.pdf>.

In New Zealand, an "Access Arrangement" is a necessary precondition to explore on land owned or occupied by the Maori people.[27] Where there is no single Maori land-owner, a Maori Trustee serves as the counter-party in negotiations over the "Access Arrangement" with proponents.[28] On the opposite side of the globe, in Norway, proponents seeking to explore in traditional Sami territory need a special permit that, if granted, conditions any explorations in light of Sami interests.[29]

In Queensland (Australia), prior to the grant of exploration permits for minerals or coal, requirements under the *Native Title Act 1993* must first be satisfied. The grant of a tenement (similar to BC's mineral tenure) constitutes a 'right to mine' under the *Native Title Act*[30] and will generally trigger a right to negotiate process where native title rights and interests may be affected by the activity.[31] The right to negotiate process requires parties to negotiate an access agreement in good faith "*with a view to obtaining the agreement of each of the native title parties*" to the grant of the tenement or to the grant of the tenement subject to conditions.[32] Where a proponent is seeking to conduct low impact exploration activities, an 'expedited procedure' (i.e., fast-track process) may be activated,[33] under which the government seeks to grant the tenement subject to the 'native title protection conditions' (**NTPCs**). NTPCs are a set of conditions that the proponent must comply with and include:

- procedures for notification to the native title parties of proposed exploration;
- consultation on the work program;
- field inspections prior to exploration; and
- payment of an annual administrative payment to the registered native title parties.[34]

Registered native title parties may object to the expedited procedure by lodging an objection with the National Native Title Tribunal (**NNTT**).[35] If the objection is successful, the right to negotiate process will

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[27] *Crown Minerals Act*, New Zealand 1991, s 80, online: <http://www.legislation.co.nz/act/public/1991/0070/latest/DLM242536.html?search=ts_all%40act%40bill%40regulation_The+Crown+Mineral s+Act+1991_resel&sr=1>.

[28] *Crown Minerals Act*, New Zealand 1991, s 80(1).).

[29] *Minerals Act*, Norway, c 4, s 17, online: <http://www.regjeringen.no/upload/NHD/Vedlegg/lover/mineralsact_translation_may2010.pdf>.

[30] 'Mine' is defined in section 253 of the *Native Title Act 1993*, Australia, to include:

"(a) explore or prospect for things that may be mined (including things covered by that expression because of paragraphs (b) and (c)); or

(b) extract petroleum or gas from land or from the bed or subsoil under waters; or

(c) quarry;

but does not include extract, obtain or remove sand, gravel, rocks or soil from the natural surface of land, or of the bed beneath waters, for a purpose other than:

(d) extracting, producing or refining minerals from the sand, gravel, rocks or soil; or

(e) processing the sand, gravel, rocks or soil by non-mechanical means."

[31] Section 227 of the *Native Title Act 1993* (Australia) provides that "*an act affects native title if it extinguishes the native title rights and interests or if it is otherwise wholly or partly inconsistent with their continued existence, enjoyment or exercise.*"

[32] *Native Title Act 1993*, Australia, s 31(1).

[33] *Native Title Act 1993*, Australia 1993, s 32.

[34] Crown Solicitor, State of Queensland, *Native Title Protection Conditions, Conditions to Satisfy Requirements the Expedited Procedure, S. 237 Native Title Act 1993,* (Brisbane, Crown Law, undated), online: <http://mines.industry.qld.gov.au/mining/protection-conditions.htm>.

apply; if unsuccessful, the government may proceed to grant the exploration tenement subject to the NTPCs.[36] In practice, native title parties and proponents often reach agreement on the terms of an Access Agreement during the objection phase, as they both generally recognize the mutual advantage of a negotiated outcome for the development of long-term relationships. Notably, in Queensland the expedited procedure is not available to exploration permits for petroleum (oil or gas), for which the right to negotiate process applies in all cases.[37]

The previous regime in Queensland required proponents to reach an "Access Agreement" in all cases with all registered native title holders in the area marked for exploration, prior to accessing the land for exploration purposes.[38] This regime no longer operates in relation to new tenements, but provides an alternative model to the expedited procedure process outlined above.[39] Notably, under the Northern Territory (Australia)'s *Aboriginal Lands Rights (Northern Territory) Act 1973* (**ALRA**), an "Access Agreement" must be negotiated prior to the grant of an exploration tenement where the proponent wants to explore on Aboriginal Land.[40] The ALRA effectively grants Aboriginal land holders (through Aboriginal Land Councils) a *de facto* veto right over mining on Aboriginal Land, although this can be overridden by a decision of the Governor-General where the grant is in the national interest.[41]

<u>Ensure parties have sufficient time to negotiate agreement</u>
[Tags: Community Evaluation; Time Frames]

Adequate time is imperative to negotiate successful access agreements. The 30-day period provided under BC law for First Nations to share their concerns about a proposed Notice of Work is often too short a period to allow for meaningful negotiations to occur, especially considering the complexity of predicting the impacts of proposed exploration activities.

Other jurisdictions provide Aboriginal peoples longer time periods to respond to proponents' proposals to explore on their traditional territories. For example, in New Zealand, legal provisions provide for sixty

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[35] *Native Title Act 1993*, Australia 1993, s 32. Also, a full explanation of the expedited procedure regime is available on the NNTT's website at <http://www.nntt.gov.au/Future-Acts/Procedures-and-Guidelines/Pages/default.aspx>.
[36] *Native Title Act 1993*, Australia 1993, s 32.
[37] Department of Natural Resources and Mines, State of Queensland, *Guide to the Native Title Process*, (Brisbane, 2012) at 5, online: < http://mines.industry.qld.gov.au/assets/native-title-pdf/native-title-process-guide.pdf>.
[38] *Queensland Mineral Resources Act 1989*, Queensland, Australia, s 488(3), online: <http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/M/MineralReA89.pdf>. This was an alternative procedures regime at the State level and has been discontinued. It remains in the *Mineral Resources Act* to deal with a number of old exploration tenements. All new grants of exploration tenements are under the State's 'expedited procedures' regime discussed in text.
[39] See Queensland's Department of Natural Resources and Mines website for a full explanation of the alternative state provisions at <http://mines.industry.qld.gov.au/mining/alternative-provisions.htm>.
[40] *Aboriginal Land Rights (Northern Territory) Act,* Northern Territory, Australia 1976, s 3. Aboriginal Land is defined as "land held by a Land Trust for an estate in fee simple; or land the subject of a deed of grant held in escrow by a Land Council."
[41] *Aboriginal Land Rights (Northern Territory) Act,* Northern Territory, Australia 1976, s 42, online: <http://www.austlii.edu.au/au/legis/cth/consol_act/alrta1976444/>.

days for negotiations before the parties must proceed to arbitration.[42] Under Australia's *Native Title Act 1993* right to negotiate process, there is no statutory timeframe for completing the agreement negotiations. However, where agreement cannot be reached, the parties must wait a minimum of six months before seeking arbitration from the National Native Title Tribunal (NNTT).[43] Notably, the Australian Government is considering amendments to the *Native Title Act 1993* to increase the minimum negotiation period to eight months.[44]

Impact Benefit Agreements

Impact Benefit Agreements (**IBAs**, also referred to as Resource Agreements) are often viewed as the main negotiation instrument between First Nations and proponents.[45] Many excellent resources exist for First Nations who are considering entering into these types of agreements with proponents.[46]

IBAs are signed between proponents and First Nations "*in order to establish formal relationships between them, to reduce the predicted impact of a mine and secure economic benefit for affected communities*."[47] IBAs can also serve as evidence of a First Nation's conditional consent to a project, providing the project is carried out in accordance with the terms and conditions specified in the agreement.[48] IBAs vary considerably in their scope and complexity, and "*there is no limit except imagination concerning the topics that may be included in an IBA relating to major mining projects*".[49] Some common themes include business and employment opportunities, community development

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[42] *Crown Minerals Act*, New Zealand 1991, s 63, online: <http://www.legislation.co.nz/act/public/1991/0070/latest/DLM242536.html?search=ts_all%40act%40bill%40regulation_The+Crown+Mineral s+Act+1991_resel&sr=1>.

[43] *Native Title Act 1993,* Australia 1993, s 35(1)(a): the six month period starts from the date the proposed grant of the tenement was publically notified by the relevant State/Territory government.

[44] See the exposure draft of the amendment bill at <http://www.ag.gov.au/Indigenouslawandnativetitle/NativeTitle/Pages/Nativetitlereform.aspx.>

[45] "Exploration Agreements (also referred to as Access Agreements, Memorandum of Understanding, Memorandum of Agreement or Feasibility Partnering Agreements) [*sic*] are entered into with resource companies as early as possible in the Project cycle. ... Impact Benefit Agreements are entered into prior to the commencement of operations and normally apply during the entire operational period of the project", BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010) at 9-10, online: <http://fnbc.info/sites/default/files/documents/Sharing%20the%20Wealth%20v2.pdf>.

[46] Ginger Gibson and Ciaran O'Faircheallaigh, "IBA Community Toolkit: Negotiation and Implementation of Impact and Benefit Agreements" (Toronto: Walter & Duncan Gordon Foundation, 2010), online: <http://www.ibacommunitytoolkit.ca>. Murray Browne and Krista Robertson, "Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses and Governments" (Victoria: Ecosystem-Based Management Working Group, undated), online: <http://www.woodwardandcompany.com/media/pdfs/4487_benefit_sharing_final_report_-_updated.pdf>.

[47] Irene Sosa and Karyn Keenan, "Impact benefit agreements between aboriginal communities and mining companies: Their use in Canada" (Canadian Environmental Law Association, 2001) at 1.

[48] Taku River Tlingit First Nation, *Mining Policy* (March 2007 ss 29, 30, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 12, online: http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf;
Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* (February 2007) at 8, online: http://www.cafn.ca/pdfs/bestprac.pdf;
Innu Nation, *Mineral Exploration in Nitassinan: A Matter of Respect: Innu Nation Guidelines for the Mining Industry* at 9, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.

[49] Jean-Paul Lacasse, "Impacts and Benefits Agreement on Aboriginal Title Lands", in Dwight Dorey and Joseph Magnet eds, "Legal Aspects of Aboriginal Business Development" (Markham: LexisNexis Butterworths, 2005) at 311.

program contributions, training and education programs, etc.[50] For a list of potential topics to include in an IBA, see the sources listed in Appendix "B".

As there are currently no legal obligations on proponents to enter into an IBA with affected First Nations in BC, this discussion paper focuses on jurisdictions whose laws do require the negotiation of IBAs between proponents and Aboriginal peoples.

Recommended Solutions

Legally require IBAs between First Nations and proponents as a prerequisite to the issuance of mine permits
[TAGS: Free, Prior & Informed Consent; Duty to Consult; Condition]

> *"Past practices have shown that it is unrealistic to expect that industry, who are understandably concerned primarily with their shareholders and their bottom line, will voluntarily seek to involve First Nations in any meaningful way through employment opportunities, business opportunities and sharing of the financial benefits of the project, unless they are required to do so."*
>
> – BC First Nations Energy & Mining Council (2010)[51]

In BC, the provincial government encourages proponents and First Nations to negotiate IBAs. The completion of an IBA, however, is not a mandatory prerequisite to project approval.[52] This omission significantly undermines First Nations' bargaining position when seeking to negotiate strong, mutually beneficial IBAs. As such, First Nations and practitioners alike have expressed the need for mandatory agreements between proponents and affected First Nations before the government approves a mining project (i.e. by issuing a mine permit or an environmental assessment certificate).[53]

Unlike BC, several other jurisdictions have enacted laws that promote the negotiation of IBAs. For example:

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[50] BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010), s 3.2, s 6 online: <http://fnbc.info/sites/default/files/documents/Sharing%20the%20Wealth%20v2.pdf>. "Benefits refers to a sharing of the wealth of the resources that are being extracted from traditional lands. Traditional lands were given by the Creator to First Nations and First Nations have the right to benefit from the riches of those lands".

[51] BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010) at 4, online: <http://fnbc.info/sites/default/files/documents/Sharing%20the%20Wealth%20v2.pdf>.

[52] BC, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 11, online: <http://www.eao.gov.bc.ca/pdf/EAO_Service_Code_20090115.pdf>.

[53] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 29, 31; Centre for First Nation Environmental Resources, "Meaningful Involvement of Aboriginal Peoples in Environmental Assessment" (Winnipeg: Centre for First Nation Environmental Resources, 2008) at 78; Tony Pearse, "Mining in Aboriginal Communities" (Speaking Notes at the Pacific Business & Law Institute, 11-12 March, 2009) [unpublished] at 15-16.
Pat Larcombe, "Determining Significance of Environmental Effects: An Aboriginal Perspective" (Winds and Voices Environmental Services Inc. for the Research and Development Monograph Series, 2000), s 6 (Schedule 7), online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.

- In the Philippines, legal provisions grant Indigenous Peoples and Cultural Communities priority rights in the harvesting, extraction, development and exploitation of any natural resources within their ancestral domains.[54] Where a non-Indigenous person is interested in extracting natural resources (including mineral ores) from these ancestral lands, a formal and written agreement must be entered into with the Indigenous community before the resource development can commence.[55]
- Under Yukon's oil and gas legislation, when work is anticipated to exceed $1,000,000 in any twelve month period, the licensee must enter into a benefits agreement, and this agreement must be in place before work can begin.[56]
- In Nunavut, economic and social benefits agreements with proponents must be finalized before projects can commence on Inuit-owned lands.[57]
- In Australia, the *Native Title Act 1993* provides a process for negotiating agreements between Indigenous peoples and proponents under the "right to negotiate" process for the grant of rights to mine.[58] The parties ultimately determine the main features of the agreements, although some guidance is found in the legislation[59] and there is no statutory timeframe for completing the agreement negotiations. However, where agreement cannot be reached, the parties must wait a minimum of six months before seeking arbitration from the NNTT.[60]
- The *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act* requires developers to complete a benefits plan before the regulatory authority will approve the development plan required under the Act.[61] This benefits plan is intended as a means to promote employment of "*members of the labour force of the province*", with the possibility for extra provisions to support "*disadvantaged individuals or groups*"[62] (which could include Aboriginal communities).

Until the provincial government or the courts impose requirements for proponents to enter into IBAs with First Nations before mining activities commence, First Nations can attempt to enter into MOUs, letters of understanding, or access/exploration agreements that commit the proponent to negotiate an IBA prior to beginning mining operations. In some cases, this requirement has been included in agreements between First Nations and territorial governments. For example, the 'Economic Measures'

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[54] *The Indigenous Peoples' Rights Act of 1997,* Philippines (Rep Act No 8371) ss 57.
[55] *The Indigenous Peoples' Rights Act of 1997,* Philippines (Rep Act No 8371) ss 57.
[56] *Oil and Gas Act*, RSY 2002, C 162 ss 68; *Oil And Gas License Administration Regulations,* YOIC 2004, C 157, ss 14.
[57] Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, (Northwest Territories, 1993). Online: <http://nlca.tunngavik.com/> s 26.2.1. "Any matter ... that could have a detrimental impact on Inuit or that could reasonably confer a benefit on Inuit, on a Nunavut Settlement Area-wide, regional or local basis."
[58] *Native Title Act 1993,* Australia 1993, s 31.
[59] *Native Title Act 1993,* Australia 1993, s 33.
[60] *Native Title Act 1993,* Australia 1993, s 35(1)(a): the six month period starts from the date the proposed grant of the tenement was publically notified by the relevant State/Territory government.
[61] *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act*, RSNL 1990 C-2, s 45 (Canada- Newfoundland and Labrador benefits plan).
[62] *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act*, RSNL 1990 C-2, s 45(4).

provisions of the *Champagne & Aishihik First Nations Final Agreement* provides for the Yukon government to require that proponents enter into Project Agreements when a proposal for a development on traditional territories is submitted to the EA regulatory authority.[63]

Enact laws that encourage First Nations' rights to financial participation
[Tags: IBA; Financial Participation]

One of the main purposes of an IBA is to ensure that First Nations benefit from the mining project. In addition to the provision of employment opportunities, many IBAs contain some form of financial participation rights for First Nations. There are many different financial participation options, including:[64]

- **Gross Overriding Royalty**: This involves sharing a percentage of the mine's gross revenue (i.e., pre-deduction of expenses) from the sale of ore. It is a common approach adopted by provincial governments for resource royalty payments. Unfortunately, it has seldom been adopted in resource agreements with First Nations.
- **Equity:** This is an ownership interest in all or part of the mining company. For public companies, the interest is held in the form of shares or stock options, and profits are generally distributed through dividend payments.
- **Profit Share**: This is a right to a percentage of the total profits from the mine (over its entire life). This approach may be of limited benefit to First Nations since proponents often offset revenue to reduce their profits.
- **Guaranteed Base with Upside:** This is a right to a percentage of the expected profits (as stated in the proponent's bankable feasibility study). The right also includes a percentage of any profits exceeding the expected profits (i.e. the "upside").
- **Fixed Payments:** This is a right to a predetermined and fixed annual payment that does not fluctuate with the mine's profitability.

Financial participation rights are provided in the laws of some jurisdictions. In South Africa, for example, resource agreements are increasingly being signed between local communities and proponents. These agreements include provisions that grant local communities shares in the mining company.[65] Under the *Inuvialuit Final Agreement*, resource "Participation Agreements" may include a land rent (separate from royalty payments).[66] Although not mandatory, under Australia's *Native Title Act 1993,* negotiations may

[63] Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* (February 2007) at 7, online: http://www.cafn.ca/pdfs/bestprac.pdf.
[64] BC First Nations Energy and Mining Council, *Sharing the Wealth, First Nations Resource Participation Models* (March 2010), online: <http://web.cim.org/csr/documents/Block669_Doc130.pdf>.
[65] Lee Godden et al, "Accommodating Interests in Resource Extraction: First Nation Peoples, Local Communities and the Role of Law in Economic and Social Sustainability", Vol 26 J. Energy and Natural Resources No 1 (2008) at 14: "These arrangements can also incorporate aspects of the government's policy of Black Economic Empowerment, in that the communities acquire the shares at a discount rate."
[66] *Inuvialuit Final Agreement*, Indian and Northern Affairs Canada, Ottawa, 1984, ss 10(3), online: <http://www.eco.gov.yk.ca/pdf/wesar_e.pdf>

include an entitlement for native title parties "*worked out by reference to: (a) the amount of profits made; or (b) any income derived; or (c) any things produced*" from the activity.[67]

Accommodation Agreements

In the Canadian mining context, "accommodation" often refers to the Crown's duty to address First Nations' concerns and reconcile conflicting interests.[68] Accommodation is often described as the outcome of the consultation process. According to the Supreme Court of Canada, "*where consultation is meaningful, there is no ultimate duty to reach agreement. Rather, accommodation requires that Aboriginal concerns be balanced reasonably with the potential impact of the particular decision on those concerns and with competing societal concerns*".[69]

At present, the common law has not defined the Crown's duty to accommodate as granting First Nations' a right to consent. Nevertheless, consultation may oblige the Crown to make changes to its proposed actions to incorporate First Nations' views and concerns.[70] Although the Crown is not legally required to do so, one possible form of accommodation is the provision of financial or economic benefits to First Nations.[71] This form was employed in the BC provincial government's agreement to share 37.5% of provincial Mineral Tax revenue from the New Afton Mine project with the Stk'emlupsemc of the Secwepemc Nation.[72] This is part of a new provincial policy to provide revenue-sharing with First Nations affected by major mine expansions or projects. This is a policy, not a legislative requirement and the provincial government can unilaterally decide how much revenue to share, if any.[73] In addition, this revenue sharing is based on mineral taxes derived from profits so a First Nation may receive little or nothing if a mine operates at a break-even point or loss on paper.

Another practical application of accommodation can take the form of shared decision-making. Some First Nations living along the central and northern BC coast have entered into "Reconciliation Agreements" with the provincial government. These agreements, although not mining related, deal with

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[67] *Native Title Act 1993,* Australia 1993, s 33.
[68] *Haida Nation v British Columbia (Minister of Forests),* 2004 SCC 73.
[69] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director),* [2004] 3 SCR 550, 2004 SCC 74, paras 2, 29; *Haida Nation v British Columbia (Minister of Forests),* 2004 SCC 73; *Kwikwetlem First Nation v British Columbia (Utilities Commission),* 2009 BCCA 68. Although consultation does not require reaching an agreement, consultation cannot from the outset exclude accommodation, see: *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage),* 2005 SCC 69.
[70] *Delgamuukw v British Columbia,* [1997] 3 SCR 1010, [*Delgamuukw*], para 168.
[71] BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010) at 11, online: <http://fnbc.info/sharing-wealth-first-nation-resource-participation-models>; Province of British Columbia, "Updated Procedures For Meeting Legal Obligations When Consulting First Nations: Interim" (May 2010) at 6, online: <http://www.gov.bc.ca/arr/reports/down/updated_procedures.pdf>. "The courts have not been clear on whether economic or financial accommodations are legally required before aboriginal rights or title is proven. The Province has been found to have fulfilled its duty to accommodate in the absence of providing such financial or economic benefits. In certain situations, however, it may be reasonable to offer financial or economic benefits to accommodate Aboriginal Interests."
[72] *Economic and Community Development Agreement,* Stk'emlupsemc of the Secwepemc Nation and British Columbia (24 August 2010), ss 3.1.c, online: <http://www.newrelationship.gov.bc.ca/shared/downloads/secwepemc_ecda.pdf>.
[73] BC Ministry of Forests, Mines and Lands, "News Release: BC Committed to Sharing Mine Revenue With First Nations" (7 March 2011), online: <http://www2.news.gov.bc.ca/news_releases_2009-2013/2011FOR0014-000201.htm>.

carbon capture issues and recognize First Nations' "ownership" of the carbon values in the standing forests. The agreements provide for shared decision making and revenue sharing processes.[74]

Another manner of employing shared-decision making is through joint decision boards. For example, the Clayoquot Sound Central Region Board (**CRB**) was established in 1994 through the *Interim Measures Agreement between the Hereditary Chiefs of the Nuu-chah-nulth Central Region and the Province of British Columbia*. The CRB consists of thirteen members: five appointed by the Province, five appointed by the Central Region First Nations, one co-chair appointed by the Province, one co-chair appointed by the First Nation community, and one Elder Advisor. The Board is responsible for resource management and land-use planning in Clayoquot Sound and reviews all plans produced by any BC agency or ministry empowered to make resource management and land-use decisions. [75]

The terms of the Crown's accommodation measures can be codified in an accommodation agreement between the Crown and a First Nation. Although not required by law, many First Nation resource policies mandate that these agreements be signed before the First Nation will consent to the proposed project and before the proposed project is approved.[76]

Like all other agreements, the scope and complexity of an accommodation agreement will vary according to the circumstances. However, many First Nation resource policies require that accommodation agreements contain the following minimum requirements:

- provisions of technical, legal and financial resources to participate effectively;[77]

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[74] Grand Chief Edward John, Presentation to the United Nations Department of Economic and Social Affairs International Expert Working Group, First Nation Peoples and Forests, (New York, 12-14 January, 2011), para 26 at 11; Haida Nation and Coastal First Nation 2009 Reconciliation Protocols with the Province of British Columbia, ss 4.2.(b), 7.1, Schedule C, online: <http://www.newrelationship.gov.bc.ca/agreements_and_leg/reconciliation.html>.

[75] *Interim Measures Agreement,* Hawiih of Clayoquot Sound and British Columbia (10 December 1993), ss 10(d), online: <http://www.woodwardandcompany.com/media/pdfs/IMA.pdf>; *Clayoquot Sound Interim Measures Extension Agreement, A Bridge to Treaty,* Hawiih of Clayoquot Sound and British Columbia (31 March 2008), ss 6, online: <http://www.gov.bc.ca/arr/treaty/key/down/clayoquot_imea_signed_march_31-08.pdf>.

[76] Taku River Tlingit First Nation, *Mining Policy* (March 2007), ss 29, 30, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 12, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.
Specific content of these agreements may also be provided: Taku River Tlingit First Nation, *Mining Policy* (March 2007), s 36, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 9, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.

[77] Taku River Tlingit First Nation, *Mining Policy* (March 2007), ss 27, 33(c), online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 11, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>. Note that guaranteed participation funding is already required by law in the United States. *Indians,* USC tit 25 § 2106, online: <http://www.law.cornell.edu/uscode/html/uscode25/usc_sup_01_25.html>: "In carrying out the obligations of the United States, the Secretary shall ensure that upon the request of an Indian tribe or individual Indian and to the extent of his available resources, such tribe or individual Indian shall have available advice, assistance, and information during the negotiation of a Minerals Agreement. The Secretary may fulfill this responsibility either directly through the use of Federal officials and resources or indirectly by providing financial assistance to the Indian tribe or individual Indian to secure independent assistance." *Indians,* USC tit 25, Chapter 23, § 2106, USC tit 25, Chapter 4, § 123c, online: <http://www.law.cornell.edu/uscode/html/uscode25/usc_sup_01_25.html>; "On and after October 12, 1984, tribal funds may be advanced to Indian tribes during each fiscal year for such purposes as may be designated by the governing body of the

- financial and community benefits from the project;
- the process for First Nation peoples participation in the regulatory process;[78] and
- the process for harmonizing the regulatory process with the Crown's duty to consult and accommodate.[79]

For more information regarding what to include in an accommodation agreement, see the sources listed in Appendix "B".

Preparing for Negotiations

Irrespective of what type of agreement a First Nation community contemplates entering into, there are a few preliminary tasks that can help prepare for negotiations, including:

5. Gathering adequate information;
6. Developing negotiation strategies and identifying negotiators;
7. Signing negotiation protocols (including funding agreements); and
8. Determining minimum agreement content requirements.

Step 1: Gather adequate information

Prior to entering into negotiations, First Nations should obtain information relating to what is being proposed, who is proposing it, and what impacts are likely to result from the proposed activities.

Normally, the proponent will be able to provide information about the proposed activity. This information should be presented in a clear manner that is easy to understand.[80] Because this information is prepared by proponents with a vested interest in ensuring the project is approved, it should not be considered unbiased. Therefore, First Nations may wish to perform an independent review of any technical information provided by the proponent. Ideally, the proponent should provide funding for the First Nation to carry out this independent review.

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particular tribe involved and approved by the Secretary including: ... compensation and expenses of attorneys and other persons employed by Indian tribes under approved contracts."

[78] Taku River Tlingit First Nation, *Mining Policy* (March 2007), ss 33(a), online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 12, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.

[79] Taku River Tlingit First Nation, *Mining Policy* (March 2007) ss 33(b), online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 12, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.

[80] This was recognized as an issue for negotiations around the Ekati diamond mine: Michael Lewis and Sara-Jane Brocklehurst, Canadian Centre for Community Renewal, Aboriginal Mining Guide: How to negotiate lasting benefits for your community (Port Alberni: Canadian Centre for Community Renewal, 2009) at Introduction, 12, online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>.

The proponent should also provide background information about itself. However, First Nations should conduct their own due diligence to find out more about the proponent. [81] Relevant information may include details about the proponent, including its:[82]

- size, number of employees, ownership structure, headquarters location, profit margins and reputation in the industry;
- status and commercial objectives in the mining sector (e.g. whether it is a junior company looking for a short-term opportunity or a larger mining company looking to create long-term relationships);
- representatives, including whether they are authorized to negotiate and sign agreements; and
- social and environmental track record, including their track record with other indigenous communities and First Nations.

Finally, it is important to determine the potential impacts of the proposed activities. Often, it is impossible to predict the impacts of an activity without conducting social, economic and environmental baseline studies**.** These studies could help determine: [83]

- the current state of the environment, resources and habitat and the potential impacts on them;
- the potential impacts on aboriginal rights, title and interests;
- the community's long-term interests (based on its interests, priorities and opportunities);
- the benefits for the proponent that the First Nations community can bring to the negotiation table (for example, existing buildings, land, community skills, trades, businesses, etc.); and
- the benefits that the First Nations community expects from the proposed development (for example, training, jobs, a share of profits, etc.).

Unfortunately, these studies can be very costly and First Nations often lack the financial or technical resources necessary to undertake their own studies. To address this problem, many First Nations are negotiating provisions into their agreements to secure funds to conduct baseline studies and to ensure that the communities either set or have input on the terms of reference for these studies. Some agreements specify studies and data that need to be compiled over and above the minimum requirements set out by regulators.

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[81] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009) at 4-8, online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>; much of this information can be obtained from the federal SEDAR site on securities disclosure, online: <www.sedar.com>. Company websites and annual reports (where available) are also useful sources of information.

[82] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009) at 4-12 to 4-15, online:<http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdff>; much of this information can be obtained from the federal SEDAR site on securities disclosure, online: <www.sedar.com>.

[83] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009), Module 4, online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>.

Step 2: Develop Negotiation Strategy

Prior to entering into negotiations, First Nations should consider developing internal negotiation strategies. These strategies can help ensure that important benefits to the community are adequately captured in the agreements and can help avoid or minimize internal conflicts over negotiation processes and procedures. Negotiation strategies can, for example, identify: [84]

- leverage (for example, how much delay may be caused to a project or regulatory process if the First Nation is not fully supportive and involved);
- minimum and maximum benefits that will be sought;
- important benefits that the First Nation can offer;
- levels of protection that the other party will be asked to uphold; and
- measures and targets for the delivery of benefits.

Negotiation strategies should also identify the First Nations' appointed representative(s). In addition, efforts should be adopted to ensure that negotiators are capable, representative, accountable, and have access to a support team of technical specialists. Furthermore, their mandate, roles and responsibilities should be clearly determined in advance of negotiations,[85] including the extent of their decision-making authority. To avoid conflicts of interest, representatives responsible for negotiating economic agreements with proponents should not be the same as those who have responsibilities in the Environmental Assessment process.[86]

Step 3: Develop Negotiation Protocol with other Parties

Finally, First Nations may wish to enter into negotiation protocols (sometimes referred to as memoranda of understanding) with the other parties. Negotiation protocols are short agreements that set out the identity of the authorized representatives of each party; the procedures and timelines to guide the negotiation; and appropriate dispute resolution procedures.[87]

Some negotiation protocols require that the dispute be referred to arbitration if an agreement cannot be reached by the parties within a reasonable amount of time. This is practiced in Australia, under the

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[84] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009) at 4-20, 4-21, online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>.

[85] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009) at 4-26, online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>.

[86] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia,* Best Practice #31 (West Vancouver: New Relationship Trust, 2009) at vii, online: <http://www.newrelationshiptrust.ca/downloads/environmental-assessments-report.pdf>.

[87] In some jurisdictions arbitration is prescribed by law. For example, in the Yukon, agreement dispute resolution processes are specified in the oil and gas legislation for Settlement 'B' (non-mineral title land) agreement impasses [*Oil and Gas Act*, RSY 2002, C 162, s 68(9)]. Under Australia's *Native Title Act*, if after six months of negotiations an agreement cannot be reached, parties may seek an arbitral determination [*Native Title Act 1993*, Australia, s 35, online: <http://www.comlaw.gov.au/Details/C2012C00273/Download>.

'right to negotiate' process.[88] If the negotiation parties (the State, proponent and the native title party) are unable to negotiate an access agreement within six months, despite 'good faith' negotiations taking place,[89] any negotiation party may request the National Native Title Tribunal (NNTT) to make a determination that the tenement not be granted, the tenement be granted, or the tenement be granted subject to conditions to complied with by any of the parties.[90] Prior to requesting such a determination, the parties can ask the NNTT to mediate during negotiations to assist them to reach agreement.[91]

As is the case with the NNTT, arbitration bodies can act as neutral third-parties to mediate the process with the goal of reaching a mutually-agreeable decision or, where negotiations fail, make a binding decision taking into account various factors. In the case of the NNTT, these factors include the effect of the exploration/mining activities on the enjoyment of registered native title rights and interests and the "*way of life, culture and traditions*" of the native title parties.[92]

As participation in negotiations can be costly, some negotiation protocols address who will provide First Nations with the technical, legal and financial resources to participate effectively in the negotiations. These funding agreements are often required in First Nations' resource policies as a pre-requisite to that First Nations' participation in negotiations.[93] Limited funding may also be obtained from the federal government, which recognizes the need to provide First Nations with financial assistance to enable them to enter into various types of negotiations with proponents.[94]

Step 4: Identify Minimum Content of Agreement

The final content of Exploration Agreements, Impact Benefit Agreements, and Accommodation Agreements will ultimately depend on the project-specific negotiations. While this paper does not purport to provide legal advice regarding the terms and conditions of various types of agreements, First Nations may wish to consider including provisions relating to the following:

- The purpose, principles and objectives of the parties with regard to the proposed mining activity, as early agreement on these provisions helps set the stage for negotiating the rest of the agreement and may be useful to interpret the contract should a dispute arise in the future;[95]

[88] *Native Title Act 1993,* Australia, s 31.
[89] Section 31 of the *Native Title Act 1993* requires the parties to negotiate in good faith.
[90] *Native Title Act 1993,* Australia, ss 35, 38.
[91] *Native Title Act 1993,* Australia, s 31(3).
[92] See section 39 of the *Native Title Act 1993* for a complete list of factors.
[93] Taku River Tlingit First Nation, *Mining Policy* (March 2007) ss 27, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 11, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>; Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* (February 2007) at 8, online: <http://www.cafn.ca/pdfs/bestprac.pdf>.
[94] Government of Canada, "Mining Information Kit for Aboriginal Communities" (Ottawa: Her Majesty the Queen in Right of Canada, 2006) at 36.
[95] Courtney Fidler, Michael Hitch, "Impact and Benefit Agreements: A Contentious Issue for Environmental and Aboriginal Justice" (2007) 35:2 Environments Journal 49 at 59.

- Protocols for communication and translation, information exchange and on-going liaison, implementation funding mechanisms, and dispute resolution processes;[96]
- Types of activities covered by the agreement;
- Terms of permissible entry onto traditional territory;
- Measures to avoid and mitigate environmental harm, and protect First Nations' land-use practices and rights;
- Financial assistance, benefits and compensation for impacts on land-use activities and interests;[97]
- First Nations' rights to monitor and inspect activities covered by the agreement;[98]
- Parties' obligation to re-negotiate where a mining activity is significantly changed or expanded;[99]
- Commitments to negotiate (and fund) additional agreements at later stages of the mining-cycle;
- Ability to bind future mine owners and operators to the agreement;
- First Nations' ability to discuss the content of the agreement versus requirements to keep it, or particular sections of the agreement, confidential (such as potentially sensitive compensation provisions or issues of cultural significance);[100] (On one hand, confidentiality provisions may result in mistrust and misunderstandings about the agreement amongst community members.[101] On the other hand, First Nations may prefer not to publically disclose the contents of agreements which would make them accessible to the provincial and federal government.[102] One option is provided by the state of Queensland (Australia)'s approach. That approach

[96] Taku River Tlingit First Nation, *Mining Policy* (March 2007), Schedule E, online: <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008), Schedule E, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.

[97] BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010), s 3.2 at 7, online: <http://fnbc.info/sites/default/files/documents/Sharing%20the%20Wealth%20v2.pdf>: "Mitigation & Compensation is owed to First Nation for interference by projects with Aboriginal rights. This includes both physical interference and non-physical interference. Examples of physical interference include things like property damage, damages to the environment and restricted access to traditional lands as result of project infrastructure. Non-physical interference must also be mitigated and compensated and includes things like loss of quiet enjoyment of traditional lands, impact on wildlife and socio-economic impacts on members and the community"; *Platinex Inc v Kitchenuhmaykoosib Inninuwug First Nation,* (2007) CLB 7132, [2007] 3 CNLR 181, 29 CELR (3d) 116, para 188, sub 5.

[98] *Inuvialuit Final Agreement*, Indian and Northern Affairs Canada, Ottawa, 1984, ss 10(6), online: http://www.eco.gov.yk.ca/pdf/wesar_e.pdf.

[99] This clause should commit the mining company to providing adequate notice, disclosure, and other procedural considerations when mine expansions are planned.

[100] Janet M. Keeping, "Local Benefits from Mineral Development: The Law Applicable in the Northwest Territories" (Calgary: The Canadian Institute of Resources Law, 1999) at 78 (there is a possibility that agreements that have been negotiated confidentially may be unenforceable because they are unconscionable (i.e., it is grossly unfair to one of the parties because of stronger bargaining powers of the other party)).

[101] Carmen L. Diges, Canadian Mining Law & Finance 2008: "The Aboriginal Tool-kit: What every Mining Principal needs to know when dealing with Aboriginal Peoples in Canada" (Toronto: McMillan Binch Mendelsohn, 2008) at 10; Jason Prno, "Assessing the Effectiveness of Impact and Benefit Agreements from the Perspective of their Aboriginal Signatories" (Guelph: University of Guelph Thesis, 2007) at 92: "The use of confidentiality clauses and vague language within the agreements also appeared to affect the degree to which positive relationships and trust were built".

[102] Murray Browne and Krista Robertson, *Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses, and Governments.* (Victoria: Ecosystem-Based Management Working Group, undated), online: <http://www.woodwardandcompany.com/media/pdfs/4487_benefit_sharing_final_report_-_updated.pdf>.

operates under a 'dual deed' system in cases where the right to negotiate applies to the grant of a tenement.[103] Basically, the native title parties, the proponent and the Queensland government enter a tri-partite deed that shows evidence of the proponent's negotiation of an agreement with the native title parties regarding grant of the relevant tenement, however, the 'substance' of the deal (such as compensation payments) is in a confidential ancillary agreement between the proponent and the native title parties, which is not disclosed to the government.[104])

- First Nations' ability to continue to participate in the regulatory process after signing the agreement; (Notably, in Nunavut, laws prohibit agreements from preventing First Nations from freely participating in regulatory proceedings relating to proposed projects.[105])
- Recognition that the terms of the agreement do not "*derogate or abrogate from any Aboriginal rights, titles, claims, or interests*";[106]
- First Nations' right to refuse to support the proposed project after further studies and negotiations have been carried out (for example, a First Nations' negotiation of an access agreement for exploration activities should not automatically indicate their consent to any subsequent related development[107]); and
- Terms of departure and termination clauses.

As mentioned above, each agreement will differ according to the parties involved, the stage of the mining life cycle the project has reached at the time negotiations take place, and the nature of the proposed activity (e.g. extent of ground disturbance involved, the proposed duration of activities, and the potential impact on cultural heritage or sites of significance). Nevertheless, minimum content requirements can be useful to guide agreement negotiations. Many First Nations have incorporated such minimum content requirements into their resource policies to help ensure that important matters are not accidentally overlooked or not given appropriate weight in negotiations.[108]

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[103] I.e., a right to negotiate under section 31 of the *Native Title Act 1993*, Australia.

[104] See discussion at paragraph 94 of *Xstrata Coal Queensland Pty Ltd & Ors/Mark Albury & Ors (Karingbal #2); Brendan Wyman & Ors (Bidjara People)/Queensland*, [2012] NNTTA 93 (23 August 2012), online: < http://www.nntt.gov.au/Future-Acts/Search-FA-Determinations/Documents/QLD/FutureActsDeterminations/2012/August%202012/QF12_2%2023082012.pdf>.

[105] *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada,* Northwest Territories, 1993, s 26.9.2, online: <http://nlca.tunngavik.com/>.

[106] *The Raglan Agreement,* Makivik Corporation, Qarqalik Landholding Corporation, Salluit (Québec), Nunatulik Landholding Corporation, Kangiqsujuaq (Québec), Société minière Raglan du Québec ltée (1995) at 12.4.2, online: <http://pubs.aina.ucalgary.ca/makivik/CI236.pdf>; see also: Taku River Tlingit First Nation, *Mining Policy* (March 2007), s 42, online: http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf; BC First Nations Energy & Mining Council, "Sharing the Wealth: First Nation Resource Participation Models" (March 2010) at 5, online: <http://fnbc.info/sharing-wealth-first-nation-resource-participation-models>.

[107] Taku River Tlingit First Nation, *Mining Policy*, March 2007, ss 25, 28, online: http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf.

[108] Taku River Tlingit First Nation, *Mining Policy*, March 2007, ss 24, 34, online: <http://fnbc.info/sites/default/files/documents/TRTFN Mining Policy.pdf>; Teslin Tlingit Council, *Mining Policy* (March 2008) at 11, 13, online: <http://fnbc.info/sites/default/files/documents/Teslin Tlingit Mining Policy.pdf> Wahnapitae First Nation, *Resource Development Policy* (9 March 2010), ss 5.6-5.15, online: <http://fnbc.info/sites/default/files/documents/Wahnapitae First Nation Resource Development Policy 2010.pdf>; Tahltan Central Council, *Resource Development Policy* at 3; Innu Nation

Guidelines for the Mining Industry: *A Matter of Respect* at 10, online: http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf.

Appendix A: What to Include in an Access / Exploration Agreement

Liaison Protocols

Protocols for communication, information exchange, reporting requirements, and ongoing liaison throughout the duration of the Exploration Activity, including requiring the proponent to:

- provide regular (e.g. quarterly) updates/progress reports on exploration activities (ongoing and proposed);
- notify the First Nation of any new authorizations or permits when they are applied for and if they are approved;
- develop and implement an environmental monitoring plan;
- provide all monitoring data in electronic format, with photographs where applicable; and
- allow uninhibited access, on reasonable notice, to perform site inspections with a clear, agreed-upon list of any safety concerns of any of the parties that would prevent or delay this (including any requirements for First Nation representatives to comply with health and safety requirements before attending the site, such as obtaining medicals or undertaking site inductions). The option to re-schedule site inspections should remain open as part of the duty to accommodate.

Limitation of Consent

Explicit provision to ensure that First Nations' participation in an access/exploration agreement does not interfere with the First Nations' right to withhold support for any future developments that may result from the exploration activities.[109]

Exploration Details

Details about the Exploration Activity, including:

- exploration methodology;
- types of machinery to be used;
- location and number of drilling sites;
- level of ground disturbance; and
- timing, duration and frequency of activities, particularly in relation to First Nation activities (fishing or hunting times) or wildlife activities (caribou calving or migration times, fish spawning windows, etc.).

Pledge

A pledge/undertaking by the proponent to respect cultural heritage, including commitments:

[109] Taku River Tlingit First Nation, *Mining Policy* (March 2007 , ss 25, 42, online: http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf.

- not to conduct any Exploration Activity within an agreed radius (e.g. 100 meters)[110] of known cultural heritage sites or areas of traditional significance without written consent from the First Nation;
- to immediately cease work if a cultural heritage site or object is discovered during prospecting or the Exploration Activity;
- to immediately notify the First Nation of the discovery of all cultural heritage sites and objects;
- to provide the First Nation with the option to inspect the site of the discovery and monitor any ongoing activity near the site; and
- not return to resume work within, for example, 100 meters of a discovered cultural heritage site or object until the First Nation has given written consent to do so and any management strategies to ensure the cultural heritage is not harmed.

Financial Security

Details about the posting of financial security, including requirements that:

- the Proponent post reclamation security with the First Nation to cover any potential damage the Exploration Activity may cause to the First Nation interests, including damage to cultural heritage sites and objects, damage to harvesting areas, interference with fishing or hunting rights, reduction in water quality or quantity, alterations of watercourses, impacts to wildlife, remediation of wastes, and any costs associated with reclamation;
- any damage or encroachment upon the First Nation interests resulting from the Exploration Activity shall be paid:
  - first, from the reclamation security; and
  - second, directly by the Proponent and/or the Crown, if the reclamation security is inadequate.

Socio-Economic Benefits Plan

Including commitments to:

- preferentially hire members of the First Nation and retain local indigenous businesses for contracting and activities related to the Exploration Activity;
- contribute to community development programs; and
- provide training and education programs.

Environmental Protection Plan

Including commitments to:

- not cause Irreparable Harm to the Environment of the Stewardship Area;

[110] The actual area to be excluded (ie the Exclusion Zone) will depend on the nature of the cultural heritage at issue and the nature of the exploration activities being undertaken. This may be greater or less than 100 meters, depending on the circumstances.

- comply with all laws (including indigenous laws);
- notify the First Nation immediately of any and all environmental spills or hazards; and
- adhere to the following requirements:

Water

- provide adequate riparian setbacks of at least 30 meters for minimal Exploration Activities and at least 70 meters for disruptive mineral exploration;
- identify the water source for drilling;
- describe any impact of water withdrawals on fish bearing streams and on water supplies used by the First Nation;
- require use of sediment screens to reduce erosion and sedimentation of stream beds;
- prepare contingency plans to restore potable water and provide emergency water supply in the event that Exploration Activities adversely impact potable water quality and/or quantity;

Roads

- develop and implement monitoring plan for roads (culvert maintenance, sedimentation control, road bed maintenance);
- if necessary, carry out baseline wildlife studies to identify populations and movements that may be adversely impacted by linear disturbances;
- suspend or relocate vehicle use in the event of road degradation;
- develop road closure and de-commissioning plan;

Camps & Workers

- provide ongoing refuse management and site maintenance at exploration camps;
- remove exploration camps within set time period;
- require all wastes (human and garbage) be appropriately handled and disposed of;
- prohibit workers from hunting or fishing on the Stewardship Area;

Machinery & Drilling

- use, to maximum extent possible, of biodegradable and non-toxic drilling fluids;
- identify all additives that are used in drilling;
- secure all fuel and lubricants in secondary containment storage to prevent accidental spills;
- describe all equipment used (backhoes generally cause less disturbance than bulldozers);
- minimize impacts on fish and wildlife;
- remove drilling water and mud from the Stewardship Area for disposal; and

- preserve all drill cores, and, after use, give geologic information to the First Nation (subject to agreement on confidentiality and protecting commercial information).

Remediation of Drill Sites

- store overburden in a manner that preserves its use and biological viability for reclamation;
- require the use of native seed blends important to stop introduction of invasive species;
- seal drill holes immediately after drilling to prevent the contamination of surface or groundwater;
- fill areas of ground subsidence caused by drilling with clean fill that is free from noxious or invasive plant species and/or contaminants
- backfill trenches by using removed overburden and bedrock, followed by replacement of the vegetative mat;
- use only plant species in re-vegetation that are approved by the First Nation; and

Timing

- avoid sensitive wildlife calving and roosting times when conducting airborne surveys or creating linear disturbances (the First Nation can impose timing limits on flights in the Stewardship Area).

Appendix B: Recommended Sources for Further Information

The following sources contain valuable information on what to include in Impact Benefit Agreements and Accommodation Agreements:

Ginger Gibson and Ciaran O'Faircheallaigh, "IBA Community Toolkit" (Toronto: Walter & Duncan Gordon Foundation, 2010), online: <http://www.ibacommunitytoolkit.ca>. Contains extensive and detailed information on negotiating an Impact Benefit Agreement.

Murray Browne and Krista Robertson, "Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses and Governments" (Victoria: Ecosystem-Based Management Working Group, undated), online: <http://www.woodwardandcompany.com/media/pdfs/4487_benefit_sharing_final_report_-_updated.pdf>.

Krista Robertson, "Accommodation Agreements" (Vancouver: Ecotrust Canada & Aboriginal Mapping Network, 7 November 2007), online: <http://www.nativemaps.org/?q=node/2905>. Contains an overview of topics to consider when negotiating accommodation agreements.

Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009), online: <http://www.communityrenewal.ca/sites/all/files/resource/Aboriginal_Mining_Guide.pdf>**.**

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 2:

Community Preparation Background Paper

First Nations' Resource Policies

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
March, 2013

The opinions expressed in this document are solely those of the authors. They should not be taken as reflecting the views of the Fair Mining Collaborative, the University of Victoria Environmental Law Centre, the Real Estate Foundation, the Wilburforce Foundation, the West Coast Environmental Law Environmental Dispute Resolution Fund, The Nature Conservancy, or Advocates for International Development. This publication is presented with the understanding that neither the publisher nor the authors are engaged in rendering legal, engineering, or other professional services or advice. In no event, including negligence on the part of the authors, the reviewers, the funders or the publisher, will the authors, reviewers, funders or the publisher be liable for any direct, indirect or consequential damages resulting from the use of this material. The authors offer no opinion as to the accuracy of the information summarized in this report and disclaim any responsibility for the accuracy or inaccuracy of such information. Readers interested in the specific details of the law or regulations of a country or jurisdiction cited in this report should consult original and up-to-date sources for that information.

Update: July 2, 2015

Chapter Two: First Nations' Resource Policies, was written prior to the development and adoption of the Northern Secwepemc te Qelmucw (NStQ) Mining Policy.

A joint effort with the Fair Mining Collaborative, the NStQ Mining Policy was adopted in November of 2014 by the NStQ Leadership Council, (made up of Tsq'escen', Stswecem'c/Xgat'tem, Xat'sull, and T'exelc First Nations). It incorporates many provisions from *Fair Mining Practices: A New Mining Code for British Columbia,* and is, we believe, the best policy of its kind in the world. Interested researchers should consult the NStQ Mining Policy, found at www.fairmining.ca/resources/, in addition to this chapter.

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Chapter Summary

Communities from around the world have formulated policies that assist in their responses to industrial activities within, and surrounding, their communities. For many First Nations in BC, resource development on their traditional territories is a major issue. **Chapter 2: First Nations' Resource Policies** discusses the contents of innovative resource policies developed by a number of First Nations to help assert more control over how resources are managed on their lands.

By establishing resource policies, First Nations can clearly inform proponents and other levels of government of their interests and expectations. For example, resource policies can set out appropriate consultation processes and terms and conditions to attach to exploration applications and mine permits. These policies can also guide First Nations' staff in the review of mining proposals and the protection of the traditional territory before and during mine operations.

First Nations' resource policies generally begin by specifying the objectives or purpose that a First Nation wants to achieve through its policy. Some commonly stated objectives are to promote collaborative decision-making, protect or minimize harm to the environment and provide social and economic benefits to First Nations communities.

Principles to guide decision-making by First Nations' governments are also often included in resource policies. These guiding principles are essentially standards to be applied when evaluating proposed resource developments. Below are examples of guiding principles from First Nations' resource policies:

- **Meaningful Consultation**: Resource policies often define what consultation means from a particular First Nation's perspective. Consultation may be defined broadly, for example, as a two-way dialogue that facilitates the exchange of information to assist in making fully informed decisions. It may also be given a very detailed definition that includes, for example, specific requirements regarding notice, funding to retain appropriate expertise, and full disclosure of the effects of the proposed project.
- **Consistency with First Nations' Land-use Plans:** Land-use plans are a tool First Nations can use to identify what parts of their traditional territories are necessary or suitable for different activities. First Nations who have a land-use plan can include guiding principles in resource policies requiring consideration of whether proposed projects are consistent with that plan.
- **Protection of Cultural Activities and Heritage:** Some resource policies include guiding principles to ensure social and cultural sustainability and protection of cultural heritage sites. For example, a policy may require that projects do not interfere with or create obstacles to the transmission of land-based culture and practices to future generations.
- **Environmental Stewardship:** Many First Nations' resource policies include environmental stewardship (sometimes called environmental sustainability) as a guiding principle. For example, the Ta'an Kwach'an Council *Lands and Resources Act* adopted the polluter pays principle, under which the proponent will not be released from its legal obligations until a First Nations land steward conducts a site visit, confirms compliance with all terms and conditions attached to resource licences and issues a letter of clearance.

- **Socio-Economic Benefits:** First Nations' resource policies commonly set out principles regarding social and economic benefits. These principles may be set out broadly, such as by requiring that any mining activity have a positive financial impact on the First Nation. They may also contain specific provisions, such as requiring that proponents conduct interviews at First Nations' community offices and schedule work rotations to allow employees to take part in traditional cultural practices. The social and economic benefits outlined in First Nations' resource policies are often divided into "Employment and Business Opportunities" and "Financial Benefits and Compensation".
- **Intergenerational Equity**: Similar to the principle of sustainability (below), this principle requires that the present generation not act in a way that jeopardizes the well-being of future generations. An intergenerational equity principle may include requiring scaling back the pace of development within a traditional territory to ensure that wealth associated from mineral extraction will be available for future generations, and establishing trusts to preserve capital paid under impact benefits agreements for the benefit of future generations.
- **Sustainability:** Rather than identifying different cultural, environmental, social, and economic principles, many First Nations' resource policies organize their guiding principles around the concept of sustainability. Sustainability involves consideration of economic, environmental and socio-cultural factors, such as the management of natural resources without compromising the needs of future generations, conservation of cultural and spiritual values and traditions, ecological conservation and restoration of damaged ecosystems.

Operational principles are also often found in First Nations' resource policies. These explain how First Nations' decision-making processes will be implemented. Many First Nations explicitly recognize the need to use traditional knowledge and incorporate it into planning, management and operational decisions in a manner acceptable to the community.

In conclusion, First Nations' resource policies provide a means by which First Nations can articulate and communicate their goals, values and decision-making processes to proponents and to other government agencies. These policies can also help clarify internal decision-making and information-sharing processes within a First Nations community.

Each resource policy will be unique to each First Nations community. These policies can serve to promote shared-decision making by First Nations on the management and development of land and resources within their traditional territories.

Table of Contents

Chapter Summary **36**

Introduction **39**

Content of Resource Policies **39**

Objectives *40*

Guiding Principles *41*

Meaningful Consultation 41

Consistency with First Nations' Land Use Plans 42

Protection of Cultural Activities & Heritage 42

Environmental Stewardship 43

Socio-Economic Benefits 44

a) Employment and Business Opportunities 44

b) Financial Benefits & Compensation 45

Intergenerational Equity 46

Sustainability 46

Operational Principles *47*

Management & Governance *47*

Shared-Decision Making Protocols *49*

Conclusion **50**

Introduction

"Recent court decisions, and the establishment of political agreements such as the New Relationship, have affirmed the central role of First Nations in decision-making and management related to the mining sector."
– BC First Nations Energy & Mining Council (2008)[1]

First Nations who are well prepared to respond to proposed mining activities on their traditional territories are more likely to ensure that such activities provide real long-term benefits to their communities and that they are carried out in a manner that protects their Aboriginal rights and title, interests and values.

One way for First Nations to assert more control over resource management on their traditional territories is to develop strong resource policies. First Nations' resource policies can help inform proponents and other levels of government of First Nations' interests and expectations. For example, resource policies can set out appropriate consultation processes and minimum terms and conditions to attach to mine permits.[2] Such policies can also guide First Nations' staff in the review of mining proposals and the protection of the traditional territory before and during operations.[3]

Such policies may also be useful to discharge First Nations' obligations (as set out by the Supreme Court of Canada) "to carry their end of the consultation, to make their concerns known, to respond to the government's attempt to meet their concerns and suggestions, and to try to reach some mutually satisfactory solution."[4]

Content of Resource Policies

As First Nations' resource policies are community-specific, the specific provisions of each policy will vary. Many First Nations' resource policies, however, share much of the content and themes described below. More information and resources about First Nations' resource policies are available from the BC First Nations Energy and Mining Council.[5]

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[1] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 3.
[2] Nunavut Tunngavik Inc., *Reclamation Policy* at 2: "The [Reclamation] policy will be the basis for the development of reclamation guidelines and appropriate terms and conditions to be included in licences, leases, and other authorizations issued by the RIAs and NTI".
[3] Teslin Tlingit Council, *Mining Policy,* at 4; Cree Nation Government, *Cree Nation Mining Policy,* at 3.
[4] *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage)*, 2005 SCC 69, [2005] 3 SCR 388, para 65.
[5] B C First Nations Energy and Mining Council, *First Nations Mining Protocols & Agreements* (2011), online: <http://fnbc.info/fnemc/first-nations-mining-protocols-agreements-materials-cd>.

Objectives

First Nations' resource policies generally begin by specifying the objectives (purposes) that each First Nation wants to achieve through its policy. Below are examples of objectives from different First Nations' resource policies.

The Taku River Tlingit First Nation (TRTFN) *Mining Policy* mandates that the TRTFN Government exercise its authority in a manner that ensures mining activities are only approved where they promote the following objectives:

- protection and accommodation of TRTFN's Aboriginal rights, title and interests;
- satisfaction of TRTFN principles for sustainability (see below); and
- provision of social and economic benefits for the TRTFN community.[6]

Under the Cree Nation Government's *Cree Nation Mining Policy*, the following fundamental pillars must guide mining activities:

- promotion and support of mining activities as a tool for social and economic development;
- mining activities should be compatible with sustainable development; and
- mineral exploration and mining activities should be a transparent and collaborative process. [7]

The objectives of the Nunavut Tunngavik Inc. *Mining Policy* are to:

- minimize negative effects on the environment, wildlife, habitat, and on the lives and culture of Inuit;
- maximize the retention of benefits from mining to the Inuit;
- promote the development of a political and economic climate that attracts mining investment;
- resolve conflicts between stakeholders regarding land use;
- improve consultation and decision-making through communications processes, participation by stakeholders and coordination among decision-makers. [8]

The objectives of the *Wahnapitae First Nation Resource Development Policy* are to:

- protect native values and the environment;
- protect the environment;
- advocate joint activity and involvement in resource management and decisions affecting Wahnapitae First Nation territory;
- provide a clear framework for miners to engage with the First Nations community; and

[6] Taku River Tlingit First Nation, *Mining Policy* (March 2007), ss 4, online <http://fnbc.info/sites/default/files/documents/TRTFN%20Mining%20Policy.pdf>.
[7] Cree Nation Government, *Cree Nation Mining Policy* at 4.
[8] Nunavut Tunngavik Inc., *Mining Policy* at 2, online: <http://www.tunngavik.com/documents/publications/1997-12-00-Mining-Policy.pdf>.

- work towards an Agreement. [9]

Guiding Principles

"Take care of the land and water and the land and water will take care of you"
– BC First Nations Energy & Mining Council (2008)[10]

First Nations' resource policies generally contain principles that guide the decision-making of First Nations' governments. These guiding principles are essentially standards that are applied to evaluate proposed resource developments. For example, one common guiding principle is non-opposition to resource development provided certain requirements are upheld during mining activities.[11] Below are some other examples of guiding principles from various First Nations' resource policies.

Meaningful Consultation

Resource policies often define what consultation means from a particular First Nation's perspective.[12] The Wahnapitae First Nation's *Resource Development Policy* defines consultation as a two-way dialogue that facilitates the exchange of information to assist in making fully informed decisions.[13] Consultation is also generally described as an ongoing process through all stages of mining activities. Ongoing consultations often requires companies to report to the First Nations community before, during, and after mining activities are carried out.[14]

Other First Nations' resource policies provide a more detailed definition of consultation.[15] For example, the Teslin Tlingit Council *Mining Policy* defines consultation as providing, in good faith, the following: [16]

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[9] Wahnapitae First Nation, *Wahnapitae First Nation Resource Development Policy* (9 March 2010), ss 3, online: <http://www.wahnapitaefirstnation.com/images/stories/wfn_pdfs/resource_development2010.pdf>.
[10] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 13.
[11] BC First Nations Energy & Mining Council, *Sharing the Wealth: First Nation Resource Participation Models* (March 2010), at 4, online: <http://fnbc.info/sharing-wealth-first-nation-resource-participation-models>; Tahltan Central Council, *Resource Development Policy*; Nunavut Tunngavik Inc., *Mining Policy* at 2.
[12] Innu Nation, *Guidelines for the Mining Industry: A Matter of Respect*, *Building a Successful Relationship* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), paras 11-12, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.
[13] Wahnapitae First Nation, *Resource Development Policy*, s 4.8.
[14] Nunavut Tunngavik Inc. *Mining Policy* at 6; Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land,* at 6-7.
[15] Teslin Tlingit Council, *Mining Policy* (March 2008) at 5, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>; Innu Nation, *Guidelines for the Mining Industry: A Matter of Respect, Building a Successful Relationship* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 2, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>; Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* at 6. Note that these criteria are similar to the criteria for consultation set out by the Supreme Court of Canada in a number of consultation cases.
[16] Tesling Tlingit Council*, Mining Policy* (March 2008) at 5-6, online: <http://fnbc.info/sites/default/files/documents/Teslin%20Tlingit%20Mining%20Policy.pdf>.

- notice in sufficient form and detail to allow the First Nation to prepare its views in the matter;
- sufficient time for the First Nation to prepare its views on the matter,
- an opportunity for the First Nation to present its views to the consulting party;
- sufficient resources to retain appropriate expertise;
- adequate financial and other resources to ensure equity of bargaining strength;
- full and fair consideration of the views presented;
- a demonstrated integration of the interests and concerns presented; and
- full disclosure of the effects of the proposed project.

Consistency with First Nations' Land Use Plans

Land use plans, while time-consuming and costly to produce, are a tool that First Nations can use to identify what parts of their traditional territories are necessary or suitable for different activities. Land use plans can classify areas required for traditional land uses and protections, such as harvesting areas, salmon spawning streams, moose calving areas, etc. Land use plans can also identify cultural heritage sites. Assembling traditional knowledge of elders, and conducting baseline studies into existing cultural and environmental conditions can support the development of land use plans. Once assembled, First Nations can use this information to identify areas of their territory where resource extraction may be appropriate.

First Nations who already have a land use plan, such as the TRTFN, can refer to their plan in their resource policy. Under the TRTFN *Mining Policy*, for example, the lands and resources manager must determine if a proposal is consistent with any TRTFN land use plan.[17]

Protection of Cultural Activities & Heritage

A common guiding principle among First Nations' resource policies is the protection of cultural activities and heritage. The TRTFN *Mining Policy*, for example, states that the TRTFN Government will ensure that all mining activities and developments in TRTFN territory will promote environmental, economic, social and cultural sustainability.[18] Cultural sustainability is defined in the TRTFN *Mining Policy* as meaning that projects do not:[19]

- interfere with individual or collective rights involving land-based cultural pursuits;
- interfere with the health and well-being of the natural resources on which Tlingit land-based cultural pursuits depend;
- infringe or adversely impact the Aboriginal rights that support TRTFN culture; or
- interfere with or create obstacles to the transmission of land-based culture and practices to future generations.

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[17] Taku River Tlingit First Nation, *Mining Policy* (March 2997), s 14(d)(iii), online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[18] Taku River Tlingit First Nation, *Mining Policy* (March 2997), s 4(b), online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[19] Taku River Tlingit First Nation, *Mining Policy* (March 2007), Schedule C, ss 14-16, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.

Some First Nations' resource policies also address cultural heritage sites. The Champagne & Aishihik First Nations' *Best Practices Code for Mining*, for example, explicitly distinguishes the non-renewable nature of heritage resources and recognizes that an absence of registered sites does not automatically indicate that there are no heritage concerns.[20] Under the Innu Nation's *Guidelines for the Mining Industry*, the Innu Nation must be involved in an archaeological survey of any areas potentially affected by exploration activities before they start. In the event that a burial or archaeological site is identified during mining activities, miners must suspend operations and contact the Innu Nation to determine appropriate next steps.[21]

Environmental Stewardship

Many First Nations' resource policies include environmental stewardship (sometimes called environmental sustainability) as a guiding principle.[22] This principle can be sub-divided into related concepts, including:

- measuring cumulative impacts;
- considering the land's carrying capacity;
- protecting critical habitat for fish or wildlife;
- safeguarding water quality and quantity;
- adopting the polluter pays principle; and
- prohibiting activities that would cause irreparable harm.

As part of the guiding principle of environmental sustainability, the TRTFN *Mining Policy* requires that:

- it is reasonably certain that any environmental impacts are adequately understood and can be mitigated to the satisfaction of the TRTFN;
- projects be consistent with any TRTFN land use plan;
- TRTFN play a role in environmental protection measures throughout the mine life; and
- developments take place at a sustainable pace in TRTFN territories.[23]

To help ensure compliance with environmental stewardship principles, the Ta'an Kwach'an Council *Lands and Resources Act* adopted the polluter pays principle. Their policy states that the proponent will not be released from its legal obligations until a First Nations land steward:

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[20] Champagne & Aishihik First Nations, Best Practices Code for Mineral Interests on Non-Settlement Land, at 4.
[21] Innu Nation, Guidelines for the Mining Industry: A Matter of Respect, Building a Successful Relationship (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 5, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.
[22] Innu Nation, Guidelines for the Mining Industry: A Matter of Respect, Building a Successful Relationship (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 8, at 7, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>; Tahltan Central Council, Resource Development Policy; Wahnapitae First Nation, Resource Development Policy, s 5.6.
[23] Taku River Tlingit First Nation, Mining Policy, Schedule C, s 5.

- conducts a site visit;
- confirms compliance with all terms and conditions attached to resource licences; and
- issues a letter of clearance.[24]

This principle thus requires that proponents bear responsibility for the full cost of their mining activities and the long-term care and maintenance of the mine sites.

Socio-Economic Benefits

First Nations resource policies commonly require the provision of social and economic benefits.[25] Some resource policies, such as the TRTFN *Mining Policy*, set out these principles in broad terms, such as:

- consistency with First Nations' long-term economic development goals;
- consistency between the scale and pace of development, the size and infrastructure of the community, and the employment and economic needs of the Tlingit and other local people;
- contribution to local economic diversity;
- provision of reasonable economic benefits and an economic benefits legacy;
- reasonable certainty for TRTFN with regards to social impacts, such as a community impact assessment;
- enhancement of the human capital of the community; and
- enhancement of the social capital of the community.[26]

In evaluating the socio-economic impact of a project, First Nations may consider other factors, including the:

- composition of local population;
- cohesion of community and family;
- need for social and municipal services;
- impacts to public safety and health, including drug and alcohol use; and
- management of wealth.

The social and economic benefits outlined in First Nations' resource policies are often divided into "Employment and Business Opportunities" and "Financial Benefits and Compensation".

a) <u>Employment and Business Opportunities</u>

Employment and business opportunity benefits include preferential training, employment, and business opportunities.[27] Policies can identify specific roles for First Nations to meaningfully participate in a mine

[24] Ta'an Kwach'an Council, Lands and Resources Act (First Reading), s 36(1).
[25] Taku River Tlingit First Nation, *Mining Policy*, s 6(b).
[26] Taku River Tlingit First Nation, *Mining Policy*, Schedule C, ss 14-16. See also Teslin Tlingit Council, *Mining Policy*, Schedule C, ss 6-12.

project,[28] such as involvement in environmental data collection and identification of mitigation measures.[29] These benefits do not need to be limited to mining activities: they can also include long-term alternative employment and business opportunities in non-mining related sectors.[30]

Some policies provide direction to proponents for hiring First Nations peoples. These policies suggest that proponents:[31]

- conduct interviews at First Nations community offices;
- schedule work rotations to allow employees to take part in traditional cultural practices;
- set up a mentoring program;
- provide or enable transportation to and from the work-site and assist members in obtaining drivers' licenses;
- conduct cross-cultural orientation and training; and
- invest in education and training to build technical capacity and expertise.

b) Financial Benefits & Compensation

First Nations' resource policies often include the guiding principle that any mining activity must have a positive financial impact on the First Nation. Financial benefits can be achieved in various ways, including royalties, revenue sharing and equitable interests in the project. The terms of such arrangements are often laid out in an impact benefit agreement between a proponent and a First Nation or an accommodation agreement between the Crown and a First Nation. Resource policies sometimes require that such agreements be finalized as a precondition for First Nations consent.

In addition to encouraging financial benefits, First Nations' resource policies often address compensation for harm resulting from the project, including harm to First Nations' lands, resources and interests. One of the factors listed under TRTFN *Mining Policy's* definition of economic sustainability is that projects must not impose any uncompensated economic losses on the TRTFN Government or the local community.[32] Another example is provided in the Nunavut Tunngavik Inc. *Water Policy*, which relies on its guiding principles as a basis for determining when compensation is payable.[33]

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[27] Innu Nation Guidelines for the Mining Industry: A Matter of Respect, *Building a Successful Relationship* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 3, at 6, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>; Nunavut Tunngavik Inc., *Mining Policy,* at 4.
[28] Innu Nation, *Guidelines for the Mining Industry: A Matter of Respect*, *Building a Successful Relationship* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 10, at 7, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.
[29] Innu Nation, *Guidelines for the Mining Industry: A Matter of Respect*, *Building a Successful Relationship,* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 11, at 7, online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.
[30] Cree Nation Government, *Mining Policy*, at 6.
[31] Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land,* at 12.
[32] Taku River Tlingit First Nation, *Mining Policy*, Schedule C, s 9.
[33] Nunavut Tunngavik Inc., *Water Policy,* at 6: these guiding principles specify in which way the significance of change may be influenced (e.g. volume of water impacted, duration of the change, and the permanence or reversibility of the change).

Intergenerational Equity

Intergenerational equity is another principle contained in many First Nations' resource policies. This concept is similar to the principle of sustainability (below) and suggests that the present generation not act in a way that jeopardizes the well-being of future generations.

First Nations have sought to achieve intergenerational equity in different ways. For example, under the Inuvialuit Final Agreement, financial distributions from Inuvialuit corporations may be restricted to encourage the preservation of financial compensation to future generations of Inuvialuit.[34]

The Vuntut Gwitchin community of Old Crow in the Yukon invested capital from resource development in a trust for future generations, and to support cultural initiatives and priorities.[35] Similarly, the Innu and Inuit in Labrador have established trusts to preserve capital paid to them under their impact benefits agreements with the Voisey's Bay Nickel Company for the benefit of future generations.[36] Another way to promote intergenerational equity is to scale back the pace of development within a traditional territory to ensure that wealth associated from mineral extraction will be available for future generations.[37]

Sustainability

Sustainable development is commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".[38] This concept involves consideration of economic, environmental and socio-cultural factors. It overlaps with many of the guiding principles outlined above, including the principle of intergenerational equity.[39]

Rather than identifying different cultural, environmental, social, and economic principles, many First Nations' resource policies organize their guiding principles around the concept of sustainability. For example, the Cree Nation Government *Mining Policy* includes a sustainable development policy that recognizes the importance of:

- traditional land-use and management;
- administration of natural resources without compromising the needs of future generations;
- management of natural resources based on respect for the land;
- conservation of cultural and spiritual values and traditions;
- ecological conservation;

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[34] First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia* 2008, (Prince George: First Nations Mining Summit, 2008), at 25; *Inuvialuit Final Agreement Between the Committee for Original Peoples' Entitlement and the Government of Canada*, 26 October 1985, s 6.4.
[35] Stephanie Irlbacher-Fox & Stephen J. Mills, *Devolution and Resource Revenue Sharing in the Canadian North: Achieving Fairness across Generations*, (Walter and Duncan Gordon Foundation, 2007) at 15, online: <http://www.gordonfn.org/resfiles/Irlbacher-Fox_Mills_2007_DevolutionAndResourceRevenueSharing.pdf>.
[36] First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia, 2008* (Prince George: First Nations Mining Summit, 2008), at 25.
[37] First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia, 2008* (Prince George: First Nations Mining Summit, 2008), at 25.
[38] World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), at 43.
[39] The Government of Canada, *Sustainable Development Principles*, online: <http://www.ainc-inac.gc.ca/enr/sd/princ-eng.asp>.

- restoration of damaged ecosystems; and
- application of the precautionary principle in all decision-making processes. [40]

In the TRTFN *Mining Policy,* achieving environmental, economic, social and cultural sustainability is one of the core objectives of the TRTFN *Mining Policy* and a primary consideration in TRTFN's decision-making process.[41]

Operational Principles

First Nations' resource policies often specify operational principles, which explain how First Nations' decision-making processes will be implemented. Many First Nations, such as the Innu Nation, explicitly recognize the need to use traditional knowledge and incorporate it "into planning, management and operational decisions in a manner acceptable to the Innu Nation."[42]

Likewise, the TRTFN *Mining Policy* states that decision-making is based on the best available Tlingit Knowledge, other scientific information and expert opinion.[43] The policy goes on to list other operational principles, such as:

- TRTFN participation costs must normally be borne by the proponent;
- any agreements drafted under the policy will be legally reviewed before finalizing; and
- intellectual property agreements are mandatory for using First Nations' knowledge.[44]

Management & Governance

> "*The Tahltan have learned when dealing with major issues such as land use planning and resource development projects, they must speak with one voice — not many whispers*."
> – Mining Watch Canada (1999)[45]

The resource industry is extremely complex and it is important that someone from each First Nation is familiar with the issues surrounding resource use. Many First Nations, including the TRTFN, the Teslin Tlingit First Nation and the Tsilhqot'in National Government, have a designated lands and resources manager (or 'mining coordinator' or 'stewardship coordinator').[46] Other First Nations have councillors

[40] Cree Nation Government, *Cree Nation Mining Policy* at 5.
[41] Taku River Tlingit First Nation, *Mining Policy*, Schedule C.
[42] Innu Nation, *Guidelines for the Mining Industry: A Matter of Respect*, *Building a Successful Relationship* (Sheshatshiu, Labrador: Director of Innu Rights and Environment), para 6, at 6; online: <http://www.miningwatch.ca/sites/miningwatch.ca/files/Innu_guidelines.pdf>.
[43] Taku River Tlingit First Nation, *Mining Policy* (March 2008), s 38.
[44] Taku River Tlingit First Nation, *Mining Policy* (March 2008), s 41.
[45] Innu Nation & MiningWatch Canada, *Conference Results from Between a Rock and a Hard Place: Aboriginal Communities and Mining, Ottawa, September 10-12, 1999*, (Ottawa: Mining Watch Canada, 1999) at 28.
[46] See, e.g., Taku River Tlingit First Nation, *Mining Policy*, ss 11,14, 17; Teslin Tlingit Council, *Mining Policy,* at 7-8.

with designated mining or resource portfolios. The designated person's contact information should be kept up-to-date and provided to proponents and government representatives.[47]

Although First Nations typically have limited resources to hire and train new staff, it is important to attempt to maintain and utilize the same staff for effective communication and to promote an efficient resource governance process.[48] Ideally, proponents and government ministries would contribute to building First Nations' capacity by helping to support the hiring and training of full-time lands and resources managers from the community.

Resource policies often describe the manager's role and responsibilities in the context of the First Nation's government and community. For example, many First Nations' resource policies contain information to answer the following questions:

- What is the community's governance structure?[49]
- What is the authority and responsibility of the lands and resources manager?
- How will decisions be made and by whom? E.g.:
    - Which decisions can the lands and resources manager make?
    - Which decisions require the approval of Chief and council?
- How will Chief and council be kept informed about resource proposals, projects and issues?
- How will community members be kept informed about resource proposals, projects and issues?

The answers to these questions can guide internal community information-sharing and decision-making.[50] They can also promote greater certainty, transparency and consistency in First Nations' decision-making processes to those both within and outside the community.[51]

Proponents often have concerns about the flow of information from First Nations' resource managers to Chief and Council.[52] A clear resource policy can help to set out the process for information-sharing. Ideally, mining companies and provincial ministries will help facilitate this process by providing financial assistance to cover meeting costs between First Nations' resource managers, community members and Council.

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[47] Contact information for First Nations resource managers could be also provided in an improved provincial Mineral Titles Online system. This would assist proponents to identify the appropriate contacts in the First Nations community on whose traditional territories they are proposing to carry out mining activities.

[48] Elmar Plate, Malcolm Foy & Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia,* (West Vancouver: New Relationship Trust, 2009), at Best Practice #19.

[49] One way of doing this is by illustrating a community's governance organization in a chart and attaching it as a schedule to the First Nations' resource policy.

[50] Innu Nation & MiningWatch Canada, *Conference Results from Between a Rock and a Hard Place: Aboriginal Communities and Mining, Ottawa, September 10-12, 1999*, (Ottawa: Mining Watch Canada, 1999), at 5.

[51] Taku River Tlingit First Nation, *Mining Policy*, Schedule B, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.

[52] Annie Booth and Norm Skelton, *Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process* (Environmental Impact Assessment Review 31 (2011) 216–25), at 222. Mining companies and provincial ministries can improve communications by making contributions to First Nations to cover meeting costs with community members and Council.

Shared-Decision Making Protocols

In 2005, First Nations representatives and the BC provincial government signed the "New Relationship" agreement committing to a new government-to-government relationship. The agreement includes commitments for the development of shared decision-making processes and institutions for land and resources.[53] Protocols for shared-decision making and collaborative working have today been incorporated into numerous First Nations' resource policies.[54] The right to maintain and develop First Nations' decision-making institutions is also recognized under the United Nations Declaration on the Rights of Indigenous Peoples.[55] By outlining First Nations' government decision-making procedures for assessing proposed resource activities, resource policies provide First Nations with a way to exercise this right.[56]

First Nations resource policies commonly list specific requirements for agreements with proponents and shared-decision making processes with other levels of government, including other First Nations.[57]

Several First Nations' resource policies specify decision-making procedures for the following activities:

- preliminary evaluation;[58]
- exploration activities;[59]
- development activities;[60]
- environmental assessments;[61]
- agreements with proponents;[62] and
- agreements with other levels of government.[63]

Resource policies can require that, at each stage of decision-making, the decision be consistent with the policy's objectives and guiding principles.[64] For example, a First Nation may choose not to decide in

[53] Government of British Columbia, *The New Relationship with First Nations and Aboriginal People,* online: <http://www.newrelationship.gov.bc.ca/shared/downloads/new_relationship.pdf>.
[54] Taku River Tlingit First Nation, *Mining Policy*, s 5, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[55] *UN Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, 61st Sess, Supp No 53, UN Doc A/61/295, (2007) [*UNDRIP*].
[56] Law Commission of Canada, *Justice Within: First Nations Legal Traditions*, (Ottawa, August 2006), at8.
[57] Taku River Tlingit First Nation, *Mining Policy*, s 5, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>; Teslin Tlingit Council, *Mining Policy,* at 3; Cree Nation Government, *Mining Policy,* at 6.
[58] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 14-16, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[59] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 18-25, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[60] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 16-31, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[61] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 32-33, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[62] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 34-35, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[63] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 36-37, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>.
[64] Taku River Tlingit First Nation, *Mining Policy* (March 2008), ss 14-16, online: <http://trtfn.yikesite.com/downloads/mining-policy-2.pdf>; Teslin Tlingit Council, *Mining Policy* at 8; Goldfields Land & Sea Council, *Mining Policy* (Australia), s 3.2.

favour of an activity where the proponent has not provided the information necessary for the community to give its free, prior and informed consent. A First Nation may also choose to consent to an activity that has economic or employment benefits so long as it does not conflict with the resource policy's guiding principles (for example, environmental stewardship).

Conclusion

First Nations' resource policies provide a means by which First Nations can articulate and communicate their goals, values and decision-making processes to proponents and to other government agencies. These policies can also help clarify internal decision-making and information-sharing processes within a First Nations community.

Although each resource policy will be unique to each First Nations community, these policies can serve to promote shared-decision making by First Nations on the management and development of land and resources within their traditional territories.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 3:

Indigenous Rights, Consultation and Consent

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
March, 2013

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Chapter Summary

In Canada, approximately 1,200 Indigenous communities are located within 200 km of mining activities. Around the world, mining activities are often carried out with little regard for, and in violation of, the rights of Indigenous peoples on whose traditional territories the mines are located.

Canada is a signatory of the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), which recognize that Indigenous groups have vested rights owing to their historical possession and occupation of the land. Canada is also a signatory to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which enshrines the principle that Indigenous peoples have the right to participate meaningfully in decisions affecting them.

As a signatory to the ICCPR and the ICESCR, Canada is bound to respect the special relationship that Indigenous peoples have with the land they inhabit and to protect Indigenous peoples' rights to use their traditional land. As a signatory to UNDRIP, Canada has committed to recognizing First Nations' right to use, develop and control their traditional territories, obtaining their "free, prior and informed consent" before taking steps that may affect their rights or the use of their land and consulting with them in good faith.

Unfortunately, both BC and the federal government have failed to create a legislative regime to ensure the protection of these rights.

In BC, First Nations rights are sometimes enshrined in historic Crown-First Nations treaties and modern land claim agreements. These agreements span only a small area of the province, leaving the majority of BC's First Nations without control of their traditional territories. Lands not subject to a treaty are at greater risk of being exploited by logging, mining, and oil and gas interests as First Nations struggle, with limited financial resources, to regain control over their territories.

In addition to modern land claim agreements, First Nation communities seeking to protect their traditional territories may attempt to do so in the courts. Over the course of a number of cases, Canada has developed an extremely complex, costly and difficult common law test for recognizing and protecting Aboriginal rights and title. To bring a case in Canada seeking recognition of Aboriginal title can cost a First Nation tens of millions of dollars and take decades to conclude. Often, the Crown will raise dozens of technical issues and create significant delays, which result in further costs to the First Nation claiming the right.

It doesn't have to be this way. A number of countries, and even other provinces in Canada, have enacted legal provisions that explicitly protect several types of internationally recognised Indigenous rights. These provisions include recognizing and affirming Indigenous rights in mining legislation, supporting the preservation and development of Indigenous culture, and protecting Indigenous peoples' rights to traditional use of land. Also, recognizing that traditional knowledge is an important method of promoting meaningful participation of Indigenous peoples in decision-making, a number of other jurisdictions have also made strong commitments to protect and promote Indigenous knowledge. These include granting equal weight to traditional and scientific knowledge, requiring the protection of Indigenous knowledge, protecting Indigenous languages and protecting the confidentiality of traditional knowledge. Additionally, innovative laws in other jurisdictions recognize Indigenous legal systems in legislation, consider Indigenous customary law in the exercise of legal functions and powers, recognise Indigenous people's right to self-governments, and provide funding to help Indigenous peoples develop

their own mining regulatory programs. The right to a healthy environment is also recognized in a number of jurisdictions. Perhaps most importantly, Indigenous peoples' right to own and manage their traditional territories is recognized in Constitutions and laws around the world. BC needs similar laws.

Intertwined with the issues surrounding traditional territories is the Crown's duty to consult. Canada's courts have recognized that provincial and federal governments (the Crown) must act honourably in all dealings with Aboriginal peoples. Part of the honour of the Crown is the duty to consult with Aboriginal peoples and to address their concerns in decision-making processes. However, BC mining law does not explicitly provide a clear process for consultation.

Other jurisdictions have addressed uncertainties around consultation through innovative legislation that creates a clear process for consultation for decisions relating to mining activities, requires consultation as a perquisite for a mine permit, establishes a participatory decision making process and bases dispute resolution mechanisms on traditional legal systems and governance. BC could bring clarity to consultation requirements through similar laws.

The duty to accommodate flows directly from the duty to consult. Compensation, in the form of land or natural resource transfers, is one of the main approaches to accommodation. Unfortunately, the only persons who are currently entitled to compensation under BC's mining laws are landowners. BC's definition of "landowners" does not currently include First Nations with aboriginal title and there are no provisions explicitly providing compensation rights to First Nations.

Stronger legal provisions have been enacted in other jurisdictions to ensure that compensation is provided to Aboriginal peoples for disturbances caused by mining activities. These provisions include recognizing compensation as a form of accommodation, requiring compensation as a precondition for a mining permit, and requiring revenue sharing for resource development on traditional territories.

Finally, although the duty to consult and accommodate First Nations is required under Canada's laws and Constitution, their free, prior and informed consent is currently not required in advance of mining activities on traditional territories. Unlike Canada, numerous other jurisdictions require free, prior and informed consent. One way of showing that consent has been given is by negotiated agreements, a requirement in some jurisdictions. BC should adopt similar legal provisions.

In conclusion, Aboriginal rights in BC lag behind both legal precedent and international law. Canada has signed international treaties and declarations that recognise Indigenous peoples' rights to use traditional territories and to participate meaningfully in decisions affecting them. Canada's courts have found that the Crown owes Indigenous people a duty to consult and a duty to accommodate their interests regarding resource development on their traditional territories. However, these changes and commitments are not yet reflected in BC law. As discussed in Chapter 3, many other jurisdictions require consultation and free, prior and informed consent in advance of mining activities taking place on Indigenous territory, and have codified and protected Indigenous rights in their laws. By following this example, BC can clarify the process for consultation, accommodation, and free, prior and informed consent in the province.

Table of Contents

Chapter Summary **54**

Introduction **58**

Aboriginal Rights in International Law **58**

Aboriginal Rights in Canadian Law **60**

Issue 62
Recommended Solutions 62
Recognize and affirm First Nations' rights in mining legislation 62
Traditional Land Uses & Culture *63*
Support the preservation and development of First Nations' cultures 63
Recognize and protect First Nations rights to traditional use of land 63
Traditional Knowledge 63
Grant equal legal weight to scientific and Indigenous knowledge 64
Require protection of Indigenous knowledge 64
Protect Indigenous languages 65
Protect the confidentiality of Indigenous knowledge 66
Traditional Legal & Governance Systems 66
Recognize First Nations' legal traditions in legislation 66
Consider First Nations customary law in exercise of legal functions and powers 67
Recognize the right to self-government 67
Provide funding to help First Nations develop their own mining regulatory programs 68
Traditional Territories 68
Recognise First Nation's right to own and manage their traditional territories 68
Recognize the right to healthy environment 69

The Duty to Consult **69**

Establishing the Duty to Consult *70*
Scope and Content of Duty to Consult *71*
Role of First Nations in Consultation Process *71*
Issue 71
Recommended Solutions 71
Establish a clear process for consultation for decisions relating to mining activities 71
Require consultation as a precondition for mining permit 72
Establish participatory decision-making process 73
Base dispute resolution mechanisms on traditional legal systems and governance 74

The Duty to Accommodate **74**

Overview of BC Law *75*
Issue 75
Recommended Solutions 75
Recognize compensation as a form of accommodation 75

Require compensation as a precondition for mining permit 76
Require revenue-sharing for resource developments on traditional territories 76

Free, Prior Informed Consent 76

Overview 77

Issue 78
Recommended Solutions 78
Require free, prior and informed consent for mining activities on traditional territories 78
Require evidence of consent by way of negotiated agreement 80

Introduction

Across the world, Indigenous communities are often the most adversely affected by mining activities. In Canada alone, approximately 1,200 Indigenous communities are located within 200 km of mining activities.[1] Mining activities are often carried out with little regard for, and in violation of, the rights of Indigenous peoples on whose traditional territories the mines are located.

Indigenous rights flow from Indigenous peoples' historic and sacred relationship with their territories.[2] They are derived from Indigenous laws, governance, practices, customs and traditions. The following sections briefly describe the current protection of Indigenous rights under international and national laws, and showcase jurisdictions that have strong legal provisions to recognize and protect Indigenous peoples' rights, and that recognize Indigenous control over mining activities on traditional territories.

Aboriginal Rights in International Law

Canada is a signatory of the following three key international agreements respecting human rights:

- the International Covenant on Civil and Political Rights (ICCPR);[3]
- the International Covenant on Economic, Social and Cultural Rights (ICESCR);[4] and
- the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).[5]

As a signatory to the ICCPR and the ICESCR, Canada is bound to respect the special relationship that Indigenous peoples have with the land they inhabit and to protect Indigenous peoples' rights to use their traditional land.[6] These international agreements recognize that Indigenous groups have vested rights owing to their historical possession and occupation of the land.

The Lubicon Cree filed a complaint under the ICCPR that the provincial and federal governments were failing to uphold the articles of the treaty in relation to impacts of oil and gas development on the Lubicon and their way of life[7]. The international Human Rights Committee declared that Canada had violated article 27 of the ICCPR by interfering with the Lubicon's right to "enjoy their culture" and

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[1] Canada, Natural Resources Canada, *Mining Information Kit for Aboriginal Communities* (Ottawa: Her Majesty the Queen in Right of Canada, 2006) at 1.

[2] British Columbia, Ministry of Aboriginal Relations and Reconciliation, *The New Relationship*, (Victoria, Ministry of Aboriginal Relations and Reconciliation), online: <http://www.newrelationship.gov.bc.ca/shared/downloads/new_relationship.pdf>.

[3] *International Covenant on Civil and Political Rights*, 16 December 1966, 999 UNTS 171, arts 9-14, Can TS 1976 No 47, 6 ILM 468 (entered into force 23 March 1976) [*ICCPR*].

[4] *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, 993 UNTS 3, (entered into force 3 January 1976).

[5] *International Convention on the Elimination of All Forms of Racial Discrimination*, 21 December 1965, 660 UNTS 195 (entered into force 4 January 1969).

[6] *International Covenant on Civil and Political Rights*, 16 December 1966, 999 UNTS 171, arts 9-14, Can TS 1976 No 47, 6 ILM 468 (entered into force 23 March 1976) at ar. 15(a) [*ICCPR*]. For a detailed discussion of the indigenous rights of First Nations under international law, see International Human Rights Clinic, Harvard Law School, *Bearing the Burden: The Effects of Mining on First Nations in British Columbia,* (Harvard Law School, 2010) at 37-45, online: <http://harvardhumanrights.files.wordpress.com/2011/08/rightburden.pdf>.

[7] *Ominayak v Canada,* Communication No. 167/1984: Canada. 10.05/90. CCPR/C/38/167/1984.

practice their way of life. Since the ruling was not binding in the same sense as domestic court rulings, Canada failed to remedy the situation and the issues with oil and gas development are still ongoing.

The ICESCR requires signatories, including Canada, to implement treaties "to the maximum of [their] available resources" in order to achieve "progressively the full realization of the rights" enshrined in the convention, including the economic development of Indigenous peoples.[8] In addition to the protection and promotion of economic rights, the ICCPR establishes the rights of "ethnic, religious or linguistic minorities … to enjoy their own culture, to profess and practice their own religion, or to use their own language".[9] For Indigenous peoples, whose culture is inextricably linked with the land, protection of culture inherently requires the protection of traditional territories.

Relevantly, the UN Committee on the Elimination of Racial Discrimination (CERD), which is responsible for monitoring the implementation of ICERD, issued General Recommendation 23[10] in relation to Indigenous Peoples. Creating a clear connection with State obligations under the convention, CERD called upon signatories to, among other things, "recognize and respect indigenous distinct culture, history, language and way of life as an enrichment of the State's cultural identity and to promote its preservation" and "ensure that members of indigenous peoples have equal rights in respect of effective participation in public life and that no decisions directly relating to their rights and interests are taken without their informed consent." In particular, CERD called on signatories to "recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources and, where they have been deprived of their lands and territories traditionally owned or otherwise inhabited or used without their free and informed consent, to take steps to return those lands and territories."[11]

As of November 2010, Canada is also a signatory to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).[12] Although the UNDRIP is currently neither binding law (because it is a declaration), nor customary international law *per se* (although UNDRIP "is regularly referred to by the international community as articulating rights that are already affirmed in existing binding conventions and treaties"[13] and may become customary law), its nearly unanimous endorsement by countries world-wide shows widespread support for the principle that Indigenous peoples have the right to participate meaningfully in decisions affecting them. More specifically, UNDRIP states that "Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by

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[8] *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, 993 UNTS 3, (entered into force 3 January 1976), art 2.

[9] *International Covenant on Civil and Political Rights*, 16 December 1966, 999 UNTS 171, arts 9-14, Can TS 1976 No 47, 6 ILM 468 (entered into force 23 March 1976), arts 1(3), 2(1) and 27 [*ICCPR*].

[10] General Recommendation No XXIII (Indigenous Peoples) (1997), online: <http://www.unhchr.ch/tbs/doc.nsf/0/73984290dfea022b802565160056fe1c>.

[11] General Recommendation No XXIII (Indigenous Peoples) (1997) paras 4 and 5, online: <http://www.unhchr.ch/tbs/doc.nsf/0/73984290dfea022b802565160056fe1c>.

[12] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007) [*UNDRIP*]; Canada, Aboriginal Affairs and Northern Development Canada, *Canada's Statement of Support on the United Nations Declaration on the Rights of Indigenous Peoples*, (Ottawa: Aboriginal Affairs and Northern Development Canada, 2012), online: <http://www.aadnc-aandc.gc.ca/eng/1309374239861>. The Supreme Court of Belize relied in part on the UN Declaration in an October 2007 case that affirmed the land and resource rights of the Maya people. The Inter-American Court of Human Rights used the UN Declaration and other legal standards in its November 2007 ruling on the land rights of the Saramaka people in Suriname.

[13] Francis Deng, *Identity, Diversity and Constitutionalism in Africa* (2009, US Institute of Peace Press) p.56.

reason of traditional ownership or other traditional occupation or use".[14] Article 19 states that endorsing governments shall obtain the "free, prior and informed consent" of Indigenous peoples before taking steps that may affect their rights or the use of their land.[15] In relation to mining and resources in particular, Article 32(2) of UNDRIP provides:

> States shall consult and co-operate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

As a result of Canada being a signatory to these international treaties and declarations, Canada's First Nations have collective rights to self-determination, as well as individual rights to participate in decisions that affect their political, economic, and cultural development.

Aboriginal Rights in Canadian Law

The following discussion provides an extremely brief overview of Aboriginal rights and title in Canada. Readers interested in more information are encouraged to refer to the many excellent resources available.[16]

In Canada, Aboriginal rights are legally defined as *sui generis* communal rights that may be exercised by virtue of an individual's ancestrally-based membership in a present community.[17] Aboriginal rights are derived from Aboriginal peoples' laws, governance structures, cultural practices, customs and traditions, and may include:[18]

- rights to land (Aboriginal title);[19]
- rights to hunt and fish;[20]
- rights to practice anything that was integral to the culture prior to European contact which may include governance rights, rights to harvest and manage trees, plants and medicines, etc.;[21]

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[14] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007) [*UNDRIP*].
[15] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007), art 19 [*UNDRIP*].
[16] See e.g., Jack Woodward, *Native Law* loose leaf (Toronto: Carswell, 1994).
[17] *R v Guerin*, 1984 2 SCR 335; *R v Powley*, 2003 SCC 43.
[18] Canada, Report of the Royal Commission on Aboriginal Peoples (Ottawa, Ministry of Supply and Services, 1996).
[19] *Calder v Attorney General of British Columbia*, [1973] SCR 313; *Delgamuukw v British Columbia*, [1997] 3 SCR 1010.
[20] *R v Sparrow,* [1990] 1 SCR 1075; *R v Van Der Peet*, [1996] 2 SCR 507; *R v Sappier; R v Gray*, 2006 SCC 54.
[21] *R v Sappier; R v Gray*, 2006 SCC 54. Governance rights ar a legal 'gray area' in Canada. The federal government has officially recognized the inherent right of self-government as an existing Aboriginal right for negotiation purposes: Aboriginal Affairs and Northern Development Canada, "The Government of Canada's Approach to Implementation of the Inherent Right and the Negotiation of Aboriginal Self-Government", online: <http://www.aadnc-aandc.gc.ca/eng/1100100031843/1100100031844>. However, governance has never been formally recognized as an Aboriginal right by the courts. The Supreme Court of Canada has suggested that the right of self-government forms part of aboriginal title: ""Three aspects of aboriginal title are relevant here. First, aboriginal title encompasses the right to exclusive use and occupation of land; second, aboriginal title encompasses the right to choose to what uses land can be put..." Moreover, while it is likely that the right of a community to choose to what uses title land can be put includes a right of self-government, the Court warned against framing the right in excessively general terms (*Delgamuukw v British Columbia*, [1997] 3 SCR 1010, paras 166, 170).

- special linguistic, cultural and religious rights;
- rights held under customary systems of Aboriginal law; and
- rights of self-government.

In BC, First Nations rights are sometimes enshrined in historic Crown-First Nations treaties and modern land claim agreements. The only historic treaties signed in BC are the early Douglas treaties on Vancouver Island, and Treaty 8, which extends from Alberta and the Yukon into parts of north-eastern BC. More recently, modern treaties ("final agreements") have been signed by the Nisga'a First Nation,[22] the Tsawwassen First Nation,[23] Maa-nulth First Nations,[24] Yale First Nation,[25] and Tla'amin Nation[26]. With the exception of the Tsawwassen First Nation, these modern treaties grant the First Nations ownership of all minerals and precious metals on their settlement lands. As such, these First Nations are able to manage resource-extraction activities on their lands and collect fees, rents, and royalties (although some tenures that pre-exist the Treaties may continue to be managed under provincial law with the royalties going to the First Nation).[27]

To establish the existence of Aboriginal rights in non-treaty areas (land that has not been ceded or surrendered by treaty), Fist Nations must satisfy a complex legal test. This requires proving that the activity in question was integral to a distinctive culture prior to European contact[28] and that the activity is "essentially the same" as those activities that were carried out prior to contact with Europeans, although aboriginal rights are not frozen in time and practices and activities may evolve.[29]

A modified common law test must be met to establish Aboriginal title, which is a specific type of Aboriginal right that grants a communal right to the land itself. As stated by the Supreme Court of Canada, "the common law theory underlying recognition of aboriginal title holds that an aboriginal group which occupied land at the time of European sovereignty and never ceded or otherwise lost its

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[22] The Nisga'a Nation ratified the Nisga'a Final Agreement on 9 November 1998. The British Columbia Government ratified the NFA on 22 April 1999, Nisga'a Final Agreement Act, RSBC 1999, c 2. The federal government ratified by Royal Assent on 13 April, 2000, Nisga'a Final Agreement Act, RSC 2000, c 7. The text of the Nisga'a Final Agreement is available online: http://www.gov.bc.ca/arr/firstnation/nisgaa/default.html. The 1998 Nisga'a Final Agreement recognized the Nisga'a Nation as owners of all mineral resources on or under Nisga'a lands.

[23] *Tsawwassen First Nation Final Agreement,* British Columbia Ministry of Aboriginal Relations and Reconciliation, Victoria, 2007, online: <http://www.gov.bc.ca/arr/firstnation/tsawwassen/down/final/tfn_fa.pdf>. At page 57 the Final Agreement recognizes the First Nation as owners of subsurface resources except for the mines and minerals under English Bluff. The agreement provided $2-million dollars in compensation for those mineral rights, which were to be transferred by the federal government to the province of British Columbia

[24] The Maa-nulth First Nations Final Agreement states that each First Nation in the Maa-Nulth treaty group owns subsurface resources on or under its settlement lands, with the exception of one privately owned parcel of subsurface resources within the Uchucklesaht Tribe lands. The Maa-nulth First Nations have the right to set fees, rents, royalties and other charges, except for taxes, for exploration, development and production of mines and minerals and other subsurface resources *Maa-nulth First Nations Final Agreement,* Aboriginal Affairs and Northern Development Canada, Vancouver, 2009, online: <http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/mna_fa_mnafa_1335899212893_eng.pdf>.

[25] Yale First Nation Final Agreement, Ministry of Aboriginal Relations and Reconciliation, Victoria, 2011, online: <http://www.gov.bc.ca/arr/firstnation/yale/down/yale_final_agreement_english_unsigned_updated_2012_jan.pdf>.

[26] *Tla'amin Final Agreement,* Ministry of Aboriginal Relations and Reconciliation, Sliammon, 2011, online: <http://www.gov.bc.ca/arr/firstnation/sliammon/down/tliammon_final_agreement_2011.pdf>.

[27] British Columbia Assembly of First Nations, *Governance Toolkit: A Guide to Nation Building*, (West Vancouver British Columbia Assembly of First Nations, 2011) at 354, online: <http://fnbc.info/bcafn-governance-toolkit-guide-nation-building-part-1>.

[28] *R v Vanderpeet*, [1996] 2 SCR 507, para 48.

[29] *R v Marshall*, 2005 SCC 43, para 25.

right to that land, continues to enjoy title to it".[30] In BC, this date is presumed to be 1846. The test set out by the Supreme Court of Canada is: [31]

(i) the land must have been occupied prior to sovereignty,
(ii) if present occupation is relied on as proof of occupation pre-sovereignty, there must be a continuity between present and pre-sovereignty occupation, and
(iii) at sovereignty, that occupation must have been exclusive.

To date, no First Nation in Canada has succeeded in establishing Aboriginal title under this common law test. In a lawsuit against the BC government, the Tsilqhot'in Nation achieved recognition of *potential* title to a significant area of their territory, but the court did not issue a declaration of title due to a technical issue. At the time of writing, the Tsilqhot'in Nation's case is under appeal to the Supreme Court of Canada.

Issue

Canada's common law test for recognizing and protecting Aboriginal rights is extremely complex, costly and difficult to meet. To bring a case in Canada seeking recognition of Aboriginal title can cost a First Nation tens of millions of dollars and take decades to conclude. Often, the Crown will raise dozens of technical issues and create further significant delays, which result in further costs to the First Nation claiming the right. In contrast, other jurisdictions have enacted legal provisions that explicitly recognize and protect several types of Indigenous rights.[32]

Recommended Solutions

The following sections showcase other jurisdictions that have explicit legislative or constitutional provisions to recognize and protect various types of Aboriginal rights, including title. (Note that the following discussion focuses exclusively on legislation, not jurisprudence. Individuals interested in case law may wish to visit the Indigenous Rights Case Law Database.[33])

<u>Recognize and affirm First Nations' rights in mining legislation</u>
[Tags: Indigenous Rights; Mining Law]

Mining legislation in BC does not explicitly recognize Indigenous peoples' rights. In contrast, Ontario's *Mining Act* explicitly states that its purpose is to "encourage prospecting, staking and exploration for the development of mineral resources, in a manner consistent with the recognition and affirmation of existing Indigenous and treaty rights in section 35 of the Constitution Act, 1982".[34] The recognition of Indigenous peoples' rights is even more clearly articulated in the Philippines, where Indigenous peoples are granted priority rights over harvesting, extraction, development or exploitation of any natural resources within their ancestral domains.[35]

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[30] *R v Marshall,* 2005 SCC 43; *R v Bernard*, 2005 SCC 43, [2005] 2 SCR 220, para 39.
[31] *Delgamuukw v British Columbia* [1997] 153 DLR (4th).
[32] *Constitution Act, 1982, being Schedule B to the Canada Act 1982* (UK), 1982, c 11, s 35(1).
[33] Indigenous Rights Case Law Database, online: <http://legalresearchplus.com/2011/02/07/indigenous-rights-case-law-database-from-cepmlp/>.
[34] *Mining Act*, RSO 1990, c M 14, s 2.
[35] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 57.

Traditional Land Uses & Culture

Support the preservation and development of First Nations' cultures
[Tags: Cultural Protection; Indigenous Rights]

Several jurisdictions have adopted legal provisions that support the preservation and development of Indigenous peoples' cultures. For example, under the Norwegian Constitution, it is the responsibility of State authorities to "create conditions enabling the Sami people to preserve and develop its language, culture and way of life".[36] In the Philippines, the *Indigenous Peoples Rights Act* requires the state to protect, develop and provide restitution for expropriated indigenous culture and traditions.[37] The Philippine Constitution also requires the government to consider Indigenous culture and traditions in formulating national plans and policies.[38]

Recognize and protect First Nations rights to traditional use of land
[Tags: Cultural Protection; Indigenous Rights; Traditional Use]

In Sweden, the Indigenous Sami people have the right to use land and water for reindeer grazing, hunting and fishing. This right is in perpetuity and is based on custom immemorial.[39] In New Zealand, the natural resource legislation mandates that all persons exercising functions and powers in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the protection of recognised customary activities.[40] These provisions thereby recognize and protect Indigenous peoples' right to traditional uses of land.

Traditional Knowledge

> *If we don't say it, who will? As keepers of the knowledge, it is our responsibility to share what has been passed on to us. Lessons learned are gifts and we have the responsibility to share these in order to teach about living in harmony, balance and respect with each other and with nature and its biodiversity.*
>
> - Pauline Waterfall (2009)[41]

The use of Indigenous knowledge is an important method of promoting meaningful participation of Indigenous peoples in decision-making.[42] In BC, the provincial government has made a commitment to develop tools and incorporate traditional ecological knowledge into information and decision making by 2015.[43] However, to date the government has only pursued this goal through policy decisions – not

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[36] *The Constitution of the Kingdom of Norway* (1814 as amended), art 110a.
[37] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 32.
[38] *The 1987 Constitution of the Republic of the Philippines*, art XIV, s 17.
[39] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 59, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[40] *Resource Management Act 1991* (NZ), 1991/69, s 6(g).
[41] Frank Brown and YK Brown (compilers), *Staying the Course, Staying Alive – Coastal First Nations Fundamental Truths: Biodiversity, Stewardship and Sustainability,* (Victoria: Biodiversity BC, 2009) at xiii.
[42] The Whitehorse Mining Initiative, *Leadership Council Accord Final Report*, (1994) at 17, online: <http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca.minerals-metals/files/pdf/mms-smm/poli-poli/pdf/accord-eng.pdf>. One of the goals of the Whitehorse Mining Initiative was to: "promote meaningful participation by Aboriginal peoples and the use of traditional and local knowledge".
[43] British Columbia, Ministry of Environment, *Living Water Smart*: *British Columbia's Water Plan* (Victoria: Library and Archives Canada, 2008), online: <http://www.livingwatersmart.ca/book/>.

through enforceable law. Conversely, as the following sections describe, stronger commitments to protecting and promoting Indigenous knowledge have been carried out in other jurisdictions.

Grant equal legal weight to scientific and Indigenous knowledge
[Tags: Traditional Knowledge; Indigenous Rights]

A common request by Indigenous peoples is that Indigenous knowledge be granted similar weight as western knowledge in resource decision-making processes. The need to legalize this balancing of Indigenous and scientific knowledge is recognized in the Yukon, where legal provisions provide that Indigenous knowledge is to be recognized as being equally important as scientific information.[44]

Require protection of Indigenous knowledge
[Tags: Cultural Protection; Traditional Knowledge; Indigenous Rights]

Under UNDRIP, Indigenous peoples are granted broad rights to "maintain, control, protect and develop" several forms of Indigenous knowledge including:[45]

- cultural heritage;
- traditional knowledge;
- traditional cultural expressions; and
- manifestations of their sciences, technologies and cultures, including: human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts.

Some jurisdictions, such as the Philippines, have incorporated virtually all of UNDRIP's protections into their legislation.[46] The Philippines' legislation also affords Indigenous peoples ownership rights over Indigenous knowledge. Specifically, Indigenous peoples in the Philippines are "entitled to the recognition of the full ownership and control and protection of their cultural and intellectual rights".[47] The legislation also provides that mandatory free, prior and informed consent, in accordance with customary laws, must be sought and obtained from Indigenous peoples prior to accessing Indigenous knowledge related to the conservation, utilization and enhancement of biological and genetic resources.[48]

Other jurisdictions have incorporated these principles into their Constitutions. Under the Bolivian Constitution, Indigenous peoples' rights to traditional knowledge, traditional medicine, language, clothes, symbols and rituals, must be valued, respected and promoted.[49] The Ecuadorian Constitution also explicitly prohibits all forms of appropriation of Indigenous peoples' knowledge, innovations, and practices.[50]

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[44] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, ss 33, 39.
[45] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007), art 31(1) [*UNDRIP*].
[46] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s.34.
[47] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 34.
[48] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 35.
[49] *Republic of Bolivia, Constitution of 2009*, arts 30(II)(9), (11).
[50] *Republic of Ecuador, Constitution of 2008*, art 57(12).

In relation to cultural heritage more broadly, Queensland (Australia) law requires mining and exploration companies (among others) to "take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage" (known as a "cultural heritage duty of care").[51] Aboriginal cultural heritage includes significant Aboriginal objects (such as artefact scatters) or areas (such as sacred ceremonial sites) that are part of Aboriginal tradition and/or "the history, including contemporary history, of any Aboriginal party for an area".[52] The cultural heritage duty of care exists whether or not native title has been extinguished and can be satisfied by a miner in a number of ways, including by entering into an 'approved' cultural heritage management plan (CHMP) or other cultural heritage agreement with the relevant Aboriginal party for the area and then acting in accordance with that agreement.[53] Notably, CHMPs are mandatory where an environmental impact statement is required for a mining lease application.[54] CHMPs generally include requirements for Aboriginal parties to conduct cultural heritage surveys prior to the miner undertaking ground disturbing exploration or mining activities along with provisions for mitigation strategies to be agreed between the parties so that harm to cultural heritage can be avoided or minimised while ground disturbing activities take place.[55]

Protect Indigenous languages
[Tags: Cultural Protection; Traditional Knowledge; Indigenous Rights; Language]

Indigenous languages are an intimate part of Indigenous knowledge, with ancestral Indigenous teachings often contained within the words and expressions.[56] The importance of protecting Indigenous languages is recognized in the Northwest Territories where Chipewyan, Cree, Gwich'in, Inuinnaqtun, Inuktitut, Inuvialuktun, North Slavey, South Slavey and Tåîchô are all recognized as official languages (in addition to English and French).[57] This legislation was enacted in to preserve cultures and to ensure equal employment opportunities to all linguistic groups in the Territory, regardless of their first language learned.[58]

Legal protection of Indigenous languages is also provided in Scandinavian countries. The Finnish Constitution protects the right of the Sami people to maintain and develop their own language and culture.[59] In addition, Finland's *Sami Language Act* affirms that Indigenous (Sami) peoples have rights to use the Sami language before certain State authorities and in relation to certain administrative and legal

[51] *Aboriginal Cultural Heritage Act 2003* (Qld), s. 23(1). Also see the Cultural Heritage Duty of Care Guidelines published by the Queensland government which are available at
< http://www.datsima.qld.gov.au/atsis/aboriginal-torres-strait-islander-peoples/indigenous-cultural-heritage/legislation-and-guidelines/duty-of-care-guidelines>
[52] *Aboriginal Cultural Heritage Act 2003* (Qld), ss8, 9 and 10.
[53] *Aboriginal Cultural Heritage Act 2003* (Qld), s.23(2). CHMPs must be approved by the relevant Queensland government department in accordance with Part 7 of the *Aboriginal Cultural Heritage Act 2003* (Qld).
[54] *Aboriginal Cultural Heritage Act 2003* (Qld), s.87.
[55] See the Cultural Heritage Management Plan Guidelines published by the Queensland government which are available at < http://www.datsima.qld.gov.au/atsis/aboriginal-torres-strait-islander-peoples/indigenous-cultural-heritage/legislation-and-guidelines/cultural-heritage-management-plans>
[56] Verna J Kirkness, *Aboriginal Languages: A Collection of Talks and Papers* (Vancouver: VJ Kirkness, 1998) at 46.
[57] *Northwest Territories Official Languages Act* (R.S.N.W.T. 1988,c.O-1)
[58] *Northwest Territories Official Languages Act*, RSNWT 1988, c O-1 preamble.
[59] *Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya addendum The situation of the Sami people in the Sápmi region of Norway,* UNHRC, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 18; *Sámi Language Act,* Finland (1086/2003).

procedures.[60] In Norway, the right of Sami people to preserve and develop their languages in various contexts is also recognized in the Constitution and in numerous laws, including the *Sami Act*.[61]

US legislation explicitly recognizes that "the status of the cultures and languages of Native Americans is unique and the United States has the responsibility to act together with Native Americans to ensure the survival of these unique cultures and languages."[62] The US government policy is to "preserve, protect, and promote the rights and freedom of Native Americans to use, practice, and develop Native American languages." As part of this policy, exceptions to teacher certification requirements to encourage instruction in Native American languages are granted.[63] In addition, the law mandates that the right of Indigenous peoples to express themselves through the use of Indigenous languages shall not be restricted in any public proceeding.[64]

Protect the confidentiality of Indigenous knowledge
[Tags: Cultural Protection; Traditional Knowledge; Indigenous Rights]

Under New Zealand legislation, the regulatory authority is empowered to refuse a disclosure request where it deems "that such refusal is necessary to avoid serious offence to tikanga Maori or to avoid the disclosure of the location of waahi tapu".[65] The protection of Indigenous knowledge is granted greater weight than the public interest in making such information available.[66]

Traditional Legal & Governance Systems

Tlingit law is our identity

– Teslin Tlingit Nation (2005)[67]

Western cultures have largely failed to recognize Indigenous peoples' legal systems. However, some jurisdictions are beginning to adopt laws that correct this historic wrong. The following sections review different legal approaches to granting greater legal weight to Indigenous legal systems, through the recognition of customary laws, participation and shared decision-making rights, and rights to self-government. Incorporating Indigenous legal systems into mining laws may also help to encourage more productive, non-confrontational relationships and dialogue.

Recognize First Nations' legal traditions in legislation
[Tags: Cultural Protection; Indigenous Rights]

Many jurisdictions have enacted legislation that explicitly recognizes Indigenous peoples' legal traditions. In South Africa and several Pacific island states (Fiji, Vanuatu, Samoa, the Marshall Islands and the Solomon Islands), the recognition is enshrined in national Constitutions, and in some of these

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[60] *Sámi Language Act* (Finland), 1086/2003.
[61] *Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya addendum The situation of the Sami people in the Sápmi region of Norway,* UNHRC, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 17; *Act of 12 June 1987 No. 56 concerning the Sameting (the Sami parliament) and other Sami legal matters (the Sami Act),* (Norway) LOV 1987-06-12 nr 56.
[62] 25 USC §2901(1) (2012).
[63] 25 USC §2903(1), (2) (2012).
[64] 25 USC §2904 (2012).
[65] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 17(7). "Sacred Area" is an approximate translation of "Waahi Tapu".
[66] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 17(7).
[67] Teslin Tlingit Nation, *Ha Kus Teyea ~ The Tlingit Way: Declaration & Charter Of Teslin Tlingit Nation* (Sixth Discussion Draft 2005) at 3.

jurisdictions this recognition is expanded upon in specific legislation.[68] Other countries, including the Cook Islands, the Republic of Kiribati, Tuvalu, and Papua New Guinea, have enacted legislation recognizing customary laws and practices.[69] More locally, in Canada's Northwest Territories, judicial notice of Indigenous laws has been codified in self-government agreements.[70] Even in BC, the Nisga'a Final Agreement recognizes the Ayuuk, the ancient legal code of the Nisga'a, as a source of Nisga'a law.[71] However, without more formal legislation, the adoption of this approach in future agreements with First Nations in the province is uncertain.

Consider First Nations customary law in exercise of legal functions and powers
[Tags: Cultural Protection; Indigenous Rights]

Under New Zealand mining law, all persons managing the use, development, and protection of natural and physical resources, shall have particular regard to kaitiakitanga. Kaitiakitanga is defined as the exercise of guardianship by the tangata whenua ('Maori') of an area in accordance with tikanga Maori ('Maori traditional rules and culture') in relation to natural and physical resources.[72] A similar approach is available under the Bolivian Constitution, which mandates that consultation with Indigenous peoples regarding the exploitation of natural resources must be carried out with respect to Indigenous peoples' own rules and procedures.[73]

Recognize the right to self-government
[Tags: Self-Government; Indigenous Rights]

> "*Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions*"
> – UN Declaration on the Rights of Indigenous Peoples (2007)[74]

In BC, some First Nations have secured self-government rights under modern-day treaties. However, only a few such treaties have been signed to date, leaving most First Nations across the province without legal self-government rights.[75]

In contrast, under Philippine legislation, Indigenous peoples throughout the country are broadly granted the right to "maintain and develop their own indigenous political structures".[76] Philippine legislation also recognizes the inherent right of Indigenous communities to self-governance.[77] Under the Colombian Constitution, Indigenous peoples' authorities may exercise their jurisdictional functions within their territorial jurisdiction in accordance with their own laws and procedures (provided they are not contrary

[68] Law Commission of Canada, *Justice Within: Indigenous Legal Traditions* (Ottawa: Law Commission of Canada, 2006) at 25.
[69] Law Commission of Canada, *Justice Within: Indigenous Legal Traditions* (Ottawa: Law Commission of Canada, 2006) at 25.
[70] *Tåîchô Land Claims and Self-Government Agreement Act*, SNWT 2003, c 28, s 10(1).
[71] Law Commission of Canada, *Justice Within: Indigenous Legal Traditions* (Ottawa: Law Commission of Canada, 2006) at 7.
[72] *New Zealand Resource Management Act 1991* (NZ), 1991/69, ss 2(1), 7(a).
[73] *Republic of Bolivia, Constitution of 2009,* art 352.
[74] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007) art 4, [*UNDRIP*].
[75] To date, only three modern-day treaties or "final agreements" have been ratified in British Columbia: the Nisga'a Final Agreement, the Maa-nulth First Nations Final Agreement (which represents five First Nations communities); and the Tsawwassen First Nation Final Agreement.
[76] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 16.
[77] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 13.

to Colombian Constitution and legislation).[78] These authorities are to be formed and regulated according to the Indigenous peoples' own customs.[79] Similarly, Constitutional protection of Indigenous peoples' self-governments is provided under Ghana law, which recognizes "the institution of chieftaincy, together with its traditional councils as established by customary law and usage".[80] Finally, the United Nations recently recognized Indigenous (Sami) Parliaments in the Scandinavian countries of Norway, Sweden, and Finland as "important model[s] for indigenous self-governance and participation in decision-making that could inspire the development of similar institutions elsewhere in the world."[81]

Provide funding to help First Nations develop their own mining regulatory programs
[Tags: Indigenous Rights; Self-Government; Shared Decision-Making; Funding]

Under US federal legislation, grants are to be made to Indigenous peoples (the Navajo, Hopi, Northern Cheyenne, and Crow tribes) to assist them in developing regulations and programs for regulating surface coal mining and reclamation operations on their lands.[82]

Traditional Territories

Indigenous peoples' right to enjoy their own cultures is inextricably linked to their rights to use their traditional lands and to participate in decisions relating to natural resources on these lands.[83]

Recognise First Nation's right to own and manage their traditional territories
[Tags: Indigenous Rights; Self-Government; Traditional Territories]

Indigenous peoples' right to own and manage their traditional territories has been provided for in Constitutions and laws around the world. For example, under Ghana's Constitution, Indigenous peoples' rights of ownership over ancestral domains include the right to develop land and natural resources.[84] There, the lands belonging to traditional chiefs and kings are vested on behalf of and in trust for, the subjects of the chief or king in accordance with customary law and usage.[85]

Under the Bolivian Constitution, Indigenous peoples are granted the right to autonomous management of Indigenous lands without prejudice to rights legitimately acquired by others.[86] The Constitution also explicitly protects Indigenous peoples' sacred sites.[87]

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[78] *Republic of Colombia Constitution of 1991*, arts 287, 330.
[79] *Republic of Colombia Constitution of 1991*, art 330.
[80] *The Constitution of the Republic of Ghana*, art 270(1).
[81] James Anaya, *Report of the Special Rapporteur on the rights of indigenous peoples on the situation of the Sami people in the Sápmi region of Norway, Sweden and Finland* (Addendum), United Nations Human Rights Council, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 11, online: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G11/138/87/PDF/G1113887.pdf?OpenElement>.
[82] 30 USC § 1300(i) (2012).
[83] See for examples, UN Human Rights Commission (HRC), *HRC General Comment No 23 (1994)*, *The Rights of Minorities,* 8 April 1994, UN Doc No CCPR/C/21/Rev.1/Add.5, para 7; UN Committee on Economic, Social and Cultural Rights (CECSR), *CESCR General Comment No 21 (2009)*, *Right of Everyone to Take Part in Cultural Life,* 21 December 2009, UN Doc No E/C.12/GC/21, para 36.
[84] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 7.
[85] *The Constitution of the Republic of Ghana*, art 267(1).
[86] *Republic of Bolivia, Constitution of 2009*, art 30(II)(17).
[87] *Republic of Bolivia, Constitution of 2009*, art 30(II)(7).

Under the Ecuadorian Constitution, Indigenous peoples are granted the right to keep ownership of ancestral lands and territories.[88] In Peru, the Amazonian Indians' inalienable collective ownership over their lands is recognized under its *Native Communities Act*.[89]

Under the Colombian Constitution, Indigenous communities are granted the right to form councils, whose functions may include the supervision of the application of legal regulations concerning the uses of land and conservation of natural resources within their territories.[90]

Under the Brazilian Constitution, Indigenous peoples are granted their original rights to the lands they traditionally occupied. This right is accompanied by a duty on the State to demarcate, protect and ensure respect for all of the Indigenous peoples' property.[91] Lands that Indigenous peoples have traditionally occupied are defined as:

- those on which they live on a permanent basis;
- those used for their productive activities; and
- those indispensable to the preservation of the environmental resources necessary for their well-being and for their physical and cultural reproduction, according to their uses, customs and traditions.[92]

In the Philippines, the right of Indigenous peoples to regulate in accordance with their customary laws explicitly recognizes the spiritual and cultural bonds to the areas that they possess, occupy, and use, and to which they have claims of ownership.[93] Furthermore, the Philippine state must protect Indigenous peoples' right to "their ancestral domains to ensure their economic, social and cultural well-being and shall recognize the applicability of customary laws governing property rights or relations in determining the ownership and extent of ancestral domain".[94]

<u>Recognize the right to healthy environment</u>
[Tags: Indigenous Rights; Traditional Territories; Environment]

Under the Bolivian Constitution, Indigenous peoples are granted the right to live in a healthy environment, with proper management and use of ecosystems.[95] The South African Constitution, Kenyan Constitution, and Congolese law also recognize Indigenous peoples' right to a healthy environment.[96]

The Duty to Consult

The duty on States to consult with indigenous peoples in decisions affecting them is aimed at reversing the historical pattern of exclusion from decision-making, in order to avoid the

[88] *Republic of Ecuador, Constitution of 2008*, art 57(5).
[89] *Native Communities Act 1974,* (Decree-Law 20,653).
[90] *Republic of Colombia Constitution of 1991*, art 330.
[91] *Constitution of the Federative Republic of Brazil*, art 231.
[92] *Constitution of the Federative Republic of Brazil*, art 231, para 1.
[93] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 4.
[94] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 2(b).
[95] *Republic of Bolivia, Constitution of 2009*, art 30(II)(10).
[96] *Constitution of the Republic of South Africa Act*, No 108 of 1996, s 24(a); *The Constitution of Kenya, 2010,* s 42; *Law No 5-2011 of 25 February 2011* (Republic of Congo), art 43.

future imposition of important decisions on indigenous peoples, and to allow them to flourish as distinct communities on lands to which their cultures remain attached.

- James Anaya, UN Special Rapporteur on Indigenous Peoples (2009)[97]

In Canada, "the government's duty to consult with Aboriginal peoples and accommodate their interests is grounded in the honour of the Crown."[98] This means that provincial and federal governments (the Crown) must act honourably in all their dealings with Aboriginal peoples. Part of the honour of the Crown is the duty to consult Aboriginal peoples and to address their concerns in decision-making processes.[99]

Establishing the Duty to Consult

In Canada, the Crown may be required to consult Aboriginal peoples before making decisions relating to mining activities. This legal and constitutional duty to consult arises where:

1. the Crown knows of the potential existence of the Aboriginal title or right;
2. the Crown contemplates conduct or proposes a decision; and
3. that conduct or decision under consideration may have an adverse impact on the claimed Aboriginal title or right.[100]

Where these three factors are met, the Crown is legally and constitutionally obligated to consult the affected Aboriginal peoples.[101] Although the Crown may delegate certain procedural aspects of this duty to third parties (such as mining proponents), the Crown alone has "the ultimate legal responsibility for consultation and accommodation".[102]

The duty to consult is often evoked in government decisions relating to mining activities. This is because mining activities often threaten the ability of Aboriginal peoples to exercise their Aboriginal rights.[103] In the words of the Federal Court, "when test drilling on unoccupied Crown land may affect an aboriginal right to hunt, trap or fish on the land, there is a constitutional obligation to consult with the affected party".[104] Such a duty was recently found by the British Columbia Court of Appeal in *West Moberly First Nation v British Columbia*.[105] In that case, the provincial government decided to amend an existing permit to allow the proponent to expand exploration activities. The court held that the government had a duty to consult the West Moberly First Nation before amending the permit on the grounds that the expansion may adversely affect their Aboriginal right to hunt caribou.[106]

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[97] UN Human Rights Council, *Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people* (15 July 2009) UN Doc A/HRC/12/34, para 41.
[98] *Haida v British Columbia (Minister of Forests)*, 2004 SCC 73, para 16.
[99] *Delgamuukw v British Columbia,* [1997] 3 SCR 1010, para 168.
[100] *Haida v British Columbia (Minister of Forests)*, 2004 SCC 73, para 35; *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)*, 2004 SCC 74, [2004] 3 SCR 550; *Louis v British Columbia (Energy, Mines and Petroleum Resources)*, 2011 BCSC 1070, para 154.
[101] *R v Kapp,* 2008 SCC 41; *Louis v British Columbia (Energy, Mines and Petroleum Resources)*, 2011 BCSC 1070.
[102] *Haida v British Columbia (Minister of Forests)*, 2004 SCC 73, para 32 per McLachlin CJ.
[103] *R v Douglas*, 2007 BCCA 265, 278 DLR (4th) 653, para 44; *Rio Tinto Alcan Inc v Carrier Sekani Tribal Council*, 2010 SCC 43, [2010] 2 SCR 650, para 46.
[104] *Liidlii Kue First Nation v Canada (Attorney General),* [2004] 4 CNLR 123 (Fed TD).
[105] *West Moberly First Nations v British Columbia (Chief Inspector of Mines),* 2011 BCCA 247.
[106] *West Moberly First Nations v British Columbia (Chief Inspector of Mines),* 2011 BCCA 247.

The BC Court of Appeal held recently that consultation is also required at the stage of staking mineral claims. The case arose from the Yukon (which shares the Court of Appeal with BC). Like BC, the Yukon mining laws are based on the free entry system, although the staking system is somewhat different from BC's on-line staking. The Court of Appeal stated that "statutory regimes that do not allow for consultation and failed to provide any other equally effective means to acknowledge and accommodate Aboriginal claims are defective and cannot be allowed to subsist".[107]

Scope and Content of Duty to Consult

If a duty to consult is found, the scope and content of the Crown's duty to consult must then be determined. Generally, "the scope of the duty is proportionate to a preliminary assessment of the strength of the case supporting the existence of the right or title, and to the seriousness of the potentially adverse effect upon the right or title claimed."[108] The content of the duty to consult varies with the circumstances.[109] Where the breach is relatively minor, the government may only be required to discuss the decision with the affected First Nation. Where there decision raises very serious issues, the government may be required to obtain the full consent of the affected First Nation.[110] After correctly determining the extent or scope of its duty to consult, "the Crown must engage in consultation that is adequate in the circumstances."[111] Where a court finds that there has not been appropriate consultation, the court may quash the government's decision.[112]

Role of First Nations in Consultation Process

Coupled with the Crown's duty to consult is the duty of First Nations to participate in the consultation process. Part of the duty of First Nations to engage in the consultation process is not to frustrate the consultation by insisting upon unreasonable conditions or taking unreasonable positions.[113] However, First Nation participation is often difficult due to inadequate capacity and resources. Capacity funding to assist meaningful First Nation participation may thus be required.

Issue

Although the duty to consult First Nations is required under Canada's laws and Constitution,[114] BC's mining laws do not explicitly provide a clear process for consultation.

Recommended Solutions

<u>Establish a clear process for consultation for decisions relating to mining activities</u>
[Tags: Consultation; Process]

> *Where substantive consultation and accommodation are going to be required, and there is no mutually agreed process in place to get to common ground, the chances of project acceptability by the First Nation are non-existent*.
> – First Nations Energy & Mining Council (2009)[115]

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[107] *Ross River Dena Council v Government of the Yukon*, 2012 YKCA 14.
[108] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73, [2004] 3 SCR 511, para 39.
[109] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73, [2004] 3 SCR 511, para 24.
[110] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73, [2004] 3 SCR 511, para 24.
[111] *Halalt First Nation v British Columbia (Environment)*, 2011 BCSC 945, [2011] BCJ No 1343 (QL) at paras 89, 630.
[112] See generally, *Klahoose First Nation v Sunshine Coast Forest District (District Manager),* 2008 BCSC 1642; *Kwikwetlem First Nation v British Columba (Utilities Commission)*, 2009 BCCA 68; *West Moberly First Nations v British Columbia (Chief Inspector of Mines)*, 2010 BCSC 359, para 78.
[113] *Halfway River First Nation v British Columbia (Ministry of Forests),* 1999 BCCA 470.
[114] Jack Woodward, *Native Law* loose leaf (Toronto: Carswell, 1994) at 5§1250.

Aboriginal peoples in BC have recommended that the provincial government jointly develop with them a provincial-level consultation protocol that sets out the objectives, principles, standards to be employed, and procedures of consultation for all Crown land-use decision-making.[116] To ensure adequate and consistent implementation, this protocol should be incorporated into legislation. This approach is already employed in some jurisdictions. For example, Yukon law outlines a clear procedure for consultation with Aboriginal peoples. This procedure requires that the duty to consult be exercised by providing the party to be consulted with:

- notice of the matter in sufficient form and detail to allow the party to prepare its views on the matter;
- a reasonable period for the party to prepare its views; and
- an opportunity to present its views to the party having the duty to consult, coupled with full and fair consideration of any views so presented. [117]

Similar provisions are provided under the *Mackenzie Valley Resource Management Act*.[118] In Norway, the government has signed a consultation agreement with the Norwegian Sami Parliament, which establishes how and under what circumstances consultations should be carried out.[119] In Ecuador, the Constitution mandates that "the law shall regulate prior consultation, public participation, time-limits, the subject consulted and the appraisal and objection criteria used with regard to the activity that is being submitted to consultation".[120]

<u>Require consultation as a precondition for mining permit</u>
[Tags: Duty to Consult; Consultation; Condition]

In Ontario, mining activities cannot commence unless consultation with Aboriginal peoples has been completed.[121] In addition, when deciding on an application to rehabilitate a mine hazard, the Director of Mine Rehabilitation must consider whether adequate consultation with Aboriginal communities has been carried out.[122] Under the Bolivian Constitution, Indigenous peoples are granted the right to compulsory prior consultation by the state whenever legislative or administrative measures may affect them, including when non-renewable resources (such as mineral deposits) are to be exploited in the territories that they inhabit.[123]

In Australia, under the *Native Titles Act 1993,* Indigenous native title parties (claimants or holders of native title) have a right to negotiate with the government and miners in relation to the grant of mining licences.[124] Under this "Right to Negotiate Procedure", the government must give notice of the proposed "grant of a right to mine" to any registered Indigenous parties. The Government, proponent

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[115] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 22-23, [emphasis added].
[116] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 5.
[117] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 3.
[118] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 3.
[119] *Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya addendum The situation of the Sami people in the Sápmi region of Norway,* UNHRC, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 11.
[120] *Republic of Ecuador, Constitution of 2008*, art 398.
[121] *Mining Act*, RSO 1990, c M.14, s 141(1)(c).
[122] *Mining Act*, RSO 1990, c M.14, s 139.2(4.1).
[123] *Republic of Bolivia, Constitution of 2009*, art 30(II)(15).
[124] Section 31 of the Native Title Act.

and the native title party must then "negotiate in good faith with a view to obtaining the agreement of each of the native title parties to the [grant of the tenement] or the [grant of the tenement] subject to conditions to be complied with by any of the parties."[125] Similarly, under Finnish law, government authorities have an obligation to negotiate with the representatives of the Indigenous peoples (Sami) concerning activities that may affect their position.[126] There, state authorities are also legally required to consult with representatives of the reindeer herding cooperatives when planning measures on State land that will have a substantial effect on reindeer herding.[127]

Establish participatory decision-making process
[Tags: Duty to Consult; Consultation; Shared Decision Making]

> *While native people speak with many voices, when expressing their views on non-renewable resource development, their common concern may be summarized in one word: 'control'.*
> *Aboriginal people want control over non-renewable resource management*.
> – Claudia Notzke (1994)[128]

Internationally, the 1989 Convention 169 of the International Labour Organization (ILO Convention 169) recognizes the participatory rights of Indigenous peoples in development issues.[129] For example, Article 6 of the ILO Convention, which provides that in applying the Convention, Governments shall "consult the peoples concerned... whenever consideration is being given to legislative or administrative measures which may affect them directly...", with Article 15(2) providing:

> In cases in which the State retains the ownership of mineral or subsurface resources or rights to other resources pertaining to lands, governments shall consult these peoples, with a view to ascertaining whether and to what degree their interests would be prejudiced, before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands...

Many jurisdictions have incorporated the underlying principles from ILO Convention 169 into domestic legislation. In the Philippines, for example, the government is required to ensure that Indigenous peoples are given mandatory representation in policy-making bodies and other local legislative

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[125] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 215-216, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.Sections 29 and 31(1)(b) of the Native Title Act. See also the National Native Title Tribunal's website and brochure on the right to negotiate process at <http://www.nntt.gov.au/Future-Acts/Procedures-and-Guidelines/Pages/default.aspx>

[126] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 214, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

[127] *Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya addendum The situation of the Sami people in the Sápmi region of Norway,* UNHRC, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 9; *Finland Reindeer Husbandry Act of 1990*.

[128] Claudia Notzke, *Aboriginal Peoples and Natural Resources in Canada* (North York, Ontario: Captus University Publications, 1994) at 213, [emphasis added].

[129] G Pring and Susan Noé "International Law of Public Participation" in *Zillman et al, eds,* Human Rights in Natural Resource Development (New York, Oxford University Press, 2002) 15 at 61-62.

councils.[130] In the state of New Mexico, tribal governments have decision-making authority even over non-tribal activities if those activities affect the tribal water resources.[131]

In Finland, the permitting authority must work co-operatively with the Sami Parliament and the local reindeer herder's association to determine the effects of proposed mining activities before granting the permit. Such consideration requires examination of cumulative effects from other mining and non-mining activity, both within and proximate to Sami territory.[132] Permits will not be issued in the Sami Homeland if "alone or in combination with corresponding permits and other forms of land use would, in the Sami Homeland, undermine the fundamental preconditions for engaging in traditional Sami means of livelihood or otherwise for maintaining and developing the Sami culture", unless such effect can be mitigated by conditions on the permit.[133]

In light of growing pressure to involve First Nations in decision-making regarding mineral tenures, BC could enact similar legislation to provide First Nations with participatory rights for mining-related decisions.[134] Indeed, BC has already begun to explore participatory decision making for the extraction and management of natural resources, as is set out in the *Haida Reconciliation Act.*[135]

Base dispute resolution mechanisms on traditional legal systems and governance
[Tags: Consultation, Dispute Resolution; Traditional Laws; Governance]

Ontario is the first Canadian jurisdiction to introduce a dispute resolution process for disputes on matters arising under the mining legislation that relate to consultation with Indigenous peoples and the assertion of their rights.[136] This is an important first step. In the Philippines however, legal provisions go further by providing that in any disputes involving Indigenous peoples, "customary laws and practices shall be used to resolve the dispute".[137]

The Duty to Accommodate

Consultation and accommodation are not distinct concepts—the first is a process of engagement to discuss the issues; the second is the concrete outcome or resolution of the discussions.

– First Nations Energy & Mining Council (2009)[138]

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[130] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 16. The Philippine state has a duty to "ensure that the ICCs/IPs shall be given mandatory representation in policy-making bodies and other local legislative councils."
[131] Paul Muldoon and Theresa McClenaghan, "A tangled web: reworking Canada's water laws" in Karen Brakker, ed, *Eau Canada: The Future of Canada's Water* (Vancouver: UBC Press, 2007) 256.
[132] *Finland Mining Act of 2011*, (19.6.2011/621), s 38.
[133] *Finland Mining Act of 2011*, (19.6.2011/621), s 49.
[134] First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia 2008* (Prince George: First Nations Mining Summit, 2008) at 2.
[135] *Haida Reconciliation Act*, SBC 2010, c 17.
[136] *Mining Act*, RSO 1990, c M 14, s 170.1(1).
[137] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 65.
[138] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver, First Nations Energy & Mining Council, 2009) at 49, online: <http://fnbc.info/environmental-assessment-and-first-nations-bc-proposals-reform>.

Overview of BC Law

The duty to accommodate flows directly from the duty to consult, as accommodation is the outcome of the consultation process.[139] In Canada, accommodation must fall within the range of reasonable outcomes in the circumstances.[140] According to the Supreme Court of Canada, "where consultation is meaningful, there is no ultimate duty to reach agreement. Rather, accommodation requires that Aboriginal concerns be balanced reasonably with the potential impact of the particular decision on those concerns and with competing societal concerns."[141]

Unlike the other jurisdictions described in the following section, the Crown's duty to consult and accommodate in BC and Canada does not currently require First Nations' consent, nor does it grant First Nations the power to veto government decisions. Nevertheless, consultation may oblige the Crown to make changes to its proposed actions to incorporate First Nations' views and concerns [142] Accommodation may also include the Crown requiring third parties to implement measures for minimizing or avoiding the impact (such as evaluating alternative means of development) and potential compensation where issues cannot be adequately resolved.[143]

Issue

In Canada, the courts have recognized that the Crown must do more than simply have a process in place when Aboriginal people raise concerns: the Crown must also consider *how to accommodate* those concerns.[144] One of the main approaches to accommodation is by way of compensation, which may occur by way of land or natural resource transfers, cash or resource revenue sharing.[145] The only persons who are currently entitled to compensation under BC's mining laws, however, are landowners.[146] "Landowners" does not currently include First Nations with aboriginal title and there are no provisions explicitly providing compensation rights to First Nations.

Recommended Solutions

Recognize compensation as a form of accommodation
[Tags: Compensation; Accommodation; Duty to Accommodate]

Other jurisdictions have enacted stronger legal provisions to ensure that compensation is provided to Indigenous peoples for disturbances caused by mining activities. In Sweden, compensation must be paid to reindeer-herding rights-holders (Indigenous Sami people) if their interests are damaged or encroached upon as a result of exploration activities. Payment may be required to compensate for

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[139] *Haida Nation v British Columbia (Minister of Forests),* 2004 SCC 73.
[140] *Halalt First Nation v British Columbia (Environment)*, 2011 BCSC 945, [2011] BCJ No 1343 (QL), paras 89, 630.
[141] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director),* [2004] 3 SCR 550, 2004 SCC 74, paras 2, 29; *Haida Nation v British Columbia (Minister of Forests),* 2004 SCC 73; *Kwikwetlem First Nation v British Columbia (Utilities Commission),* 2009 BCCA 68 at 46-47; although consultation does not require reaching an agreement, consultation cannot from the outset exclude accommodation, see: *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage),* 2005 SCC 69.
[142] *Delgamuukw v British Columbia,* [1997] 3 SCR 1010, para 168.
[143] *Haida Nation v British Columbia (Minister of Forests),* 2004 SCC 73.
[144] British Columbia, Office of the Auditor General, *Public Participation: Principles and Best Practices for British Columbia* (Victoria: Government of British Columbia, 2008) at 5.
[145] Carrier-Sekani Tribal Council, *Critique of the BC Environmental Assessment Process from a First Nations Perspective* (Carrier-Sekani Tribal Council, 2007) at 4, online: <http://www.cstc.bc.ca/downloads/EAO%20Critique.pdf>.
[146] *Mineral Tenure Act*, RSBC 1996, c 292, ss 19(2), (3); BC Ministry of Energy, Mines and Petroleum Resources, *A Guide to Surface and Subsurface Rights and Responsibilities in British Columbia* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2010) at 7-8.

reduced grazing acreage and for relocating reindeer herds past the area designated for mining.[147] Similarly, under Norwegian law, Indigenous reindeer herders are entitled to compensation for expropriation of the right to use lands for reindeer husbandry.[148] In Australia's Northern Territory the regulatory authority may, before granting, renewing or varying a mining interest, require the miner to post security for compensation due to the effect of mining activities.[149] Under the Ecuadorian Constitution, Indigenous peoples are granted the Constitutional right to compensation for any social, cultural and environmental damages caused by mining activities.[150]

Require compensation as a precondition for mining permit
[Tags: Compensation; Accommodation; Duty to Accommodate; Condition]

The requirement to pay compensation is afforded greater legal weight if it is incorporated as a condition or obligation of the mining permit In Canada's Northwest Territories, neither the Gwich'in Land and Water Board nor the Sahtu Land and Water Board may issue, amend or renew a licence unless the miner and the Indigenous community have first entered into an agreement to compensate the Indigenous community for "any loss or damage resulting from any substantial alteration to the quality, quantity or rate of flow of waters when on or flowing through its first nation lands, or waters adjacent to its first nation lands".[151] Specific considerations are also specified for determining the amount of compensation payable.[152]

Require revenue-sharing for resource developments on traditional territories
[Tags: Indigenous Rights; Compensation; Revenue-Sharing]

Under the Bolivian Constitution, Indigenous peoples are guaranteed rights to profit-sharing from the exploitation of natural resources (including mineral deposits) within their territories.[153] Similarly, under the Ecuadorian Constitution, Indigenous peoples are granted the right to participate in the profits earned from mining activities.[154]

Free, Prior Informed Consent

States shall consult & cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources

[147] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 60, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[148] *Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya addendum The situation of the Sami people in the Sápmi region of Norway,* UNHRC, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 16.
[149] *Mineral Titles Act 2010*, (NT) 2010/27, s 106.
[150] *Republic of Ecuador, Constitution of 2008*, art 57(7).
[151] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 77(a).
[152] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 79(2).
[153] *Republic of Bolivia, Constitution of 2009*, art 30(II)(16).
[154] *Republic of Ecuador, Constitution of 2008*, art 57(7).

– UN Declaration on the Rights of Indigenous Peoples[155]

For our continued survival, dignity and well-being, any and all development of our lands, territories and resources requires our free, prior and informed consent.
– BC First Nations Energy & Mining Council [156]

Overview

National laws, best practices guidelines and international declarations, such as the UNDRIP, are increasingly recognizing Indigenous peoples' rights to exercise free, prior and informed consent (FPIC) with respect to activities affecting their traditional territories.[157]

The elements of FPIC were articulated by the UN Permanent Forum on Indigenous Issues (in summary) as follows:[158]

(a) **Free** – implies "no coercion, intimidation or manipulation";[159]
(b) **Prior** – implies that "consent has been sought sufficiently in advance of authorization or commencement of activities and that respect is shown for time requirements of indigenous consultation/consensus processes";
(c) **Informed** – implies that information provided in relation to the activity covers a range of important issues, including the "nature, size, pace, reversibility and scope of any proposed project or activity"; the reasons for the project; areas to be affected; and a "preliminary assessment of the likely economic, social, cultural and environmental impact[s]"; and
(d) **Consent** – has as its central feature good faith consultation and "full and equitable participation".

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[155] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007), art 32(2).
[156] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 11.
[157] World Resources Institute, United Nations Development Programme, United Nations Environment Programme, and World Bank, *The Wealth of the Poor—Managing Ecosystems to Fight Poverty* (Washington, DC: World Resources 2005) at 72; *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007), art 30; European Union, Council of Ministers Resolution of 30 November 1998, *Indigenous Peoples within the framework of the development cooperation of the Community and Member States*, online: <http://eeas.europa.eu/human_rights/ip/docs/council_resolution1998_en.pdf>. Indigenous peoples have the right to choose their own development paths, which includes the right to object to projects, in particular in their traditional areas; *Presentation by Grand Chief Edward John,* UNPFII 10th Sess, Annex 3 Agenda Item 3, UN Doc PFII/2011/EGM (2011) at 12: "at a minimum, Indigenous Peoples must be able to make their own decisions, by exercising their free, prior and informed consent, about matters that affect their traditional territories." International Council on Mining & Metals, *Good Practice Guide: Indigenous Peoples and Mining* (Guidance 2010-3, 2010,) at 24: "ICMM members commit to seeking "broad community support for new projects or activities", and recognize that "following consultation with local people and relevant authorities, a decision may sometimes be made not to proceed with developments or exploration even if this is legally permitted" (Commitment 9 of ICMM's Position Statement of Mining).
[158] *Report of the International Workshop on Methodologies regarding Free, Prior and Informed Consent and Indigenous Peoples*, UN Doc. E/C.19/2005/3 (17 February 2005), paras 46-48.
[159] Indigenous communities around the world often experience severe pressure from resource companies seeking to extract community assent to projects. Consent is not "free" if is obtained through bribery, violence or intimidation.

FPIC is also recognized as requiring ongoing consent rather than a one-time seal of approval.[160] FPIC has been described as a "continuous, iterative process of communication and negotiation spanning the entire planning and project cycles".[161]

Since the concept of FPIC was first acknowledged in the 1970s by the International Court of Justice, numerous jurisdictions have adopted legal provisions to support local communities' rights to FPIC.[162] FPIC is also becoming accepted as good business practice in the resource development sector. For example, the Chief Operating Officer of a significant gold mining company recently commented that community support can alter the valuation of a gold mine by an order of magnitude.[163] A 2011 study by the Wharton School at the University of Pennsylvania found a "direct positive and economically substantive relationship between financial market valuation and stakeholder relations".[164] In August 2011, the International Finance Corporation (IFC), a member of the World Bank Group and major lender for international resource development ventures, began requiring its borrowers to adhere to the requirements of free, prior and informed consent.[165] The IFC's Performance Standard 7 (Indigenous Peoples) provides that "the client will obtain the FPIC of the Affected Communities of Indigenous Peoples..." in a number of circumstances including in relation to the exploitation of resources on land under traditional ownership or customary use. [166]

Issue

Although the duty to consult and accommodate First Nations is required under Canada's laws and Constitution, the free, prior, informed consent of the First Nation is currently not required.[167]

Recommended Solutions

<u>Require free, prior and informed consent for mining activities on traditional territories</u>
[Tags: Consultation; Free, Prior and Informed Consent]

In BC, First Nations are usually entitled to be consulted about mining activities carried out on their traditional territories. However, the right to consultation rarely includes the right to consent or to withhold such consent. One exception is the requirement under BC's *Environmental Assessment Act* to obtain the consent of First Nations who have entered into the fifth stage of BC's six-stage stage Treaty

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[160] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director),* 2004 SCC 74, para 46.
[161] World Commission on Dams, *Dams and Development: A New Framework for Decision-making* (London: Earthscan Publications, 2000) at 281, online: <http://www.internationalrivers.org/files/attached-files/world_commission_on_dams_final_report.pdf>.
[162] *Western Sahara: Advisory Opinion of 16 October 1975,* Advisory Opinion, [1975] ICJ Rep 12. The Court stated that entry into the territory of an Indigenous people required the freely informed consent of that people as evidenced by an agreement.
[163] Witold Henisz, Sinziana Dorobantu & Lite Nartey, *Spinning Gold, The Financial Returns to External Stakeholder Engagement,* (2011) [unpublished] archived at Wharton School University of Philadelphia at 3 online: <http://www-management.wharton.upenn.edu/henisz/hdn.pdf>.
[164] Witold Henisz, Sinziana Dorobantu & Lite Nartey, *Spinning Gold, The Financial Returns to External Stakeholder Engagement,* (2011) [unpublished] archived at Wharton School University of Philadelphia at 25 online: <http://www-management.wharton.upenn.edu/henisz/hdn.pdf>.
[165] Irene Sosa, *License to Operate: Indigenous Relations and Free Prior and Informed Consent in the Mining Industry,* (Sustainalytics, October 2011) at 2, online: <http://www.sustainalytics.com/sites/default/files/indigenouspeople_fpic_final.pdf>.
[166] International Finance Corporation's Policy on Environmental and Social Sustainability (1 January 2012). Performance Standard 7 – Indigenous Peoples at 3-4.
[167] Jack Woodward, *Native Law* loose leaf (Toronto: Carswell, 1994), s 5§1250.

Commission process.[168] As such, to date, consent must only be obtained from the First Nations governed by the Tsawwassen First Nation Treaty and the First Nations of the Maa-nulth Treaty.[169]

By contrast, other jurisdictions have much broader consent requirements. For example:

- Under the Ecuadorian Constitution, Indigenous peoples are granted the right to free prior informed consent, within a reasonable period of time, on the plans and programs for mining activities carried out on their lands that could have environmental or cultural impacts.[170]
- In the Philippines, the free prior informed consent of Indigenous peoples is required for all activities affecting their lands and territories, including the exploration, development and use of natural resources.[171] The country's mining laws clearly provide that "no ancestral land shall be opened for mining operations without the prior consent of the indigenous cultural community concerned".[172]
- Guyanese legislation requires consent to be obtained prior to authorization of mining on Indigenous lands, as does Peruvian legislation pertaining to protected areas.[173]
- In Alberta, the consent of the Métis settlement council must be obtained before any exploration can be carried out on land within the boundaries of a Metis settlement.[174]
- Legislation in a number of Australian states and territories has long mandated that consent be obtained in connection with mining on Aboriginal land through statutory, Indigenous-controlled Land Councils.[175]
- In New Zealand, Maori consent must be given for all access (including access for only minimum impact activities) to Maori land regarded as *waahi tapu* (sacred areas).[176] Indigenous owners of Maori land also have an absolute veto right on all mining activities on their land (other than those with minimum impacts).[177]

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[168] *Environmental Assessment Act*, SBC 2002, c 43, s 8.1. Despite any other enactment and whether or not an EA certificate is required, a reviewable project may not proceed on treaty lands without the consent of the treaty first nation if the final agreement requires this consent. This requirement is only mandated for proscribed final agreements.
[169] British Columbia, Ministry of Aboriginal Relations and Reconciliation, *Final Agreements*, online: <http://www.gov.bc.ca/arr/treaty/final.html>.
[170] *Republic of Ecuador, Constitution of 2008*, art 57(7).
[171] *Philippine Mining Act of 1995*, (Rep Act No 7942), s 16; *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), ss 7(c), 32, 46(a), 58.
[172] *Philippine Mining Act of 1995*, (Rep Act No 7942) s 16.
[173] Guyana, *Government's Policy for Exploration and Development of Minerals and Petroleum of Guyana.* (Georgetown: Government of Guyana, 1997); *Supreme Decree 038-2001-AG (2001 amendment to 1997 Law No. 26834*), Peru.
[174] *Exploration Regulation*, A Reg 284/2006, s 8(1)(i); *Metallic and Industrial Minerals Exploration Regulation*, A Reg 213/1998, s 21.
[175] *Aboriginal Lands Rights* (NT) *Act 1976* (Cth), Pt. IV; *Aboriginal Lands Rights Act 1983* (NSW), sec 45(5); *Aboriginal Land Act 1991* (Qld), sec 42; *Torres Strait Islander Land Act 1991* (Qld), sec 80; *Mineral Resources Act 1989* (Qld), sec 54; *Mineral Resources Development Act 1995* (Tas), Pt 7, and; *Aboriginal Land (Jervis Bay Territory) Act 1986* (Cth), sec 43, 52A(1), (2).
[176] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, ss 49, 51-54; *Te Ture Whenua Maori (translation: Maori Land) Act 1993* (NZ), 1993/4*;*
Legal Commentary on the Concept of Free Prior and Informed Consent, UNCHR, Working Group on Indigenous Populations, 23d Sess, UN Doc E/CN.4/Sub.2/AC.4/2005/WP.1 (2005).
[177] *Crown Minerals Act 1991* (NZ) 1991/70, ss 51, 54(2)(a) and 80.

Require evidence of consent by way of negotiated agreement
[Tags: Free, Prior and Informed Consent; Agreement]

First Nations' consent to a proposed mining activity can be evidenced by way of a negotiated agreement with the Crown or the proponent. The signing of such agreements is mandated under New Zealand legislation when mining activities are proposed on Indigenous peoples' (Maori) lands.[178] An access agreement is also required under Australia's Native Title Act where the right to negotiate applies.[179]

[178] *Crown Minerals Act 1991* (NZ) 1991/70, s 80.
[179] *Native Title Act 1993* (Australia), s 31.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 4:

Mineral Tenure and Land Use Planning: The Surface Versus Subsurface Divide

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
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Chapter Summary

In British Columbia, the provincial government grants sub-surface mineral rights through its 'free-entry' mineral tenure system, which places an unreasonably high value on mining activities. An outdated concept, free entry is governed by the *Mineral Tenure Act,* which has remained largely unchanged since 1859. The system fails to require notification to or consultation with First Nations, does not mandate consideration of regional and municipal land use plans, contains no provision to control the concentration of mining activities and cumulative impacts in a particular region, and does not adequately protect watersheds, cultural heritage, agricultural lands or parks. Under it, the government has no discretion to deny the issuance of a mineral lease to proponents.

A competitive bidding system to govern the issuance of mineral leases would encourage proponents competing for a mineral lease to present progressive plans for mineral development. Such a system would allow the government to retain some control over mineral resources so it can protect the public interest. A similar system for petroleum and natural gas production is in place under BC's *Petroleum and Natural Gas Act*.

Other jurisdictions go further, with innovative laws that allow for the conservation of minerals for future generations. Indigenous rights are accommodated in some jurisdictions through laws that recognize and affirm Indigenous rights in mining legislation, make mineral claims and leases conditional on obtaining Indigenous peoples' free, prior and informed consent, require notification to Indigenous people when conditional mineral claims are staked on their traditional territories and require shared decision-making with Indigenous people about mineral tenure.

Moreover, BC laws do not require landowner consent for proponents to enter land to conduct mining activities. BC lags behind Alberta, Newfoundland and Labrador, and New Brunswick in this regard.

Another major issue is the prioritization of mining over land use plans: BC's mineral tenure laws prevent the implementation of land use plans that appropriately recognize, protect and promote other valuable land use activities important to local communities. Many other jurisdictions employ land use plans to limit areas in which mining activities may occur. Such laws are found in Ontario, the Northwest Territories, the Yukon, the US, West Virginia, and Sweden. Some of these jurisdictions also require that land use plans be in place *before* new mining activities commence. BC should likewise restrict mining activities according to land use plan designations.

Land use plans currently exist for almost all regions in BC. However, many of these plans lack the necessary legal authority to control where mining activities take place. Land use plans with legal authority to prevent mining activities should be required before new mining activities are approved.

Moreover, while land use plans developed by First Nations must be *acknowledged* by the government when making decisions regarding First Nations traditional territories, they currently carry little legal weight. Thus, BC First Nations have limited opportunities to participate in land use and resource management plans to control mining activities on their traditional territories. BC should enact laws recognizing First Nations' right to designate no-go zones for mining activities. It should also involve First Nations in protected area designation, cite Aboriginal people's participation as an objective in land use planning legislation, empower First Nations boards and committees to carry out land use planning, and incorporate traditional knowledge into land use plans. These kinds of laws would strengthen BC's land use plans and make them an important and appropriate tool in deciding where mining should and should not be carried out.

Finally, BC's laws fail to adequately protect areas of cultural and historic significance, parks, protected areas, watersheds, important habitats, sensitive ecological areas, and alternative land uses, such as agriculture. BC should designate "no-go" zones around cultural sites to better balance the economic benefits of mining with cultural and environmental concerns, as well as other economically valuable uses.

Additionally, in BC, mining activities are allowed in many types of protected areas. Accordingly, BC's parks, protected areas, watersheds, important habitats and sensitive ecological areas are not adequately protected from mining activities. Many other jurisdictions prohibit mining activities in parks, drinking water source areas, important watercourses and wetlands, migratory bird sanctuaries, and ecologically sensitive areas. Finally, recognizing the importance of protected area networks, innovative laws in other jurisdictions have created continuous networks of protected areas in which mining activities are prohibited. By adopting laws like these, BC's "protected" areas would be truly protected from mining interests.

Further, agriculture is not explicitly recognized as an alternative land use that warrants the creation of a mineral reserve. Restricting mining activities on agricultural lands would enable BC to better balance the short term economic gains realised from mining with the long-term sustainable economic benefits of agriculture.

In conclusion, modernizing BC mining law could achieve a more equitable division of land use, with municipalities, First Nations and landowners all having greater input about where and how mining activities are undertaken.

Table of Contents

Chapter Summary **84**

Introduction **88**

Overview of BC's Mineral Tenure System **88**

Issue 90
Recommended Solutions 91
Replace Free-Entry System with Competitive Bidding System 91
Conserve minerals for future generations 92
Issue 92
Recommended Solutions 93
Recognize and affirm First Nations' rights in mining legislation 93
Make mineral claims & leases conditional on obtaining First Nations' free, prior and informed consent 94
Notify First Nations when conditional mineral claims are staked on their traditional territories 94
Consult and share decision-making with First Nations' about mineral tenure 95
Issue 96
Recommended Solution 96
Require landowner's consent to mining activities 96

Land Use Planning versus Mineral Tenure **96**

Overview of BC Law 96
Issue 97
Recommended Solutions 97
Restrict mining activities according to land-use plan designations 97
Require land use plans to be in place *before* new mining activities are approved 98

First Nations Involvement in Land Use Planning **99**

Overview of BC Law 99
Issue 100
Recommended Solutions 100
Recognise right of First Nations to designate no-go zones for mining activities 100
Involve First Nations in protected area designation 100
Cite involvement of First Nations' and local communities as an objective of land use planning legislation 101
Empower First Nations' land-use boards, committees or processes to carry out land-use planning 102
Incorporate traditional knowledge in land use plans 102

No-Go Zones **103**

Overview of BC Law 103
Cultural No-Go Zones *104*
Overview of BC Law 104
Issue 105
Recommended Solutions 105
Create "no-go" buffers around cultural sites 105

Protect lands required for the settlement of First Nations' land claims 106
Ecological No-Go Zones *107*
Overview of BC Law 107
Parks *107*
Conservancies *108*
Ecological Reserves *109*
Issue 109
Recommended Solutions 109
Prohibit mining activities in parks, conservancies and other protected areas 109
Prohibit mining activities in drinking water source areas 109
Prohibit mining activities in important watercourses and wetlands 110
Prohibit mining activities in migratory bird sanctuaries 111
Prohibit mining activities in ecologically sensitive areas 111
Create continuous network of protected areas in which mining activities are prohibited 111
Alternative Use No-Go Zones *112*
Overview of BC Law 112
Issue 113
Recommended Solution 114
Restrict mining activities on agricultural lands 114

Introduction

In British Columbia, the law distinguishes between surface rights and sub-surface rights. In almost all cases, landowners only hold *surface* rights. The *sub*-surface rights, which include the right to the minerals in the ground, are held by the provincial government.[1] The provincial government grants mineral rights to third parties ('proponents') through its mineral tenure system.[2] Sub-surface tenure is available as mineral title,[3] which includes both mineral claims and mineral leases, and which allows proponents to explore for and produce minerals.

BC's mineral tenure system is described as a 'two-zone' system – meaning that mining is either prohibited or prioritized.[4] The lands on which mining activities are prioritized are called mineral lands, and these account for 87% of all the land in the province.[5] The following sections describe the process for obtaining mineral title through BC's 'free-entry' mineral tenure system, identify the lands on which mining is prohibited and describe how the current mineral tenure system fails to seek input from First Nations and undermines land use planning efforts in the province.

Overview of BC's Mineral Tenure System

The process for obtaining mineral tenure in BC is as follows. First, a proponent must obtain a Free Miner Certificate by paying a nominal fee[6] and filling out an application form to show they fall into one of the following definitions:[7]

- an individual who is over the age of 18 and is either ordinarily a resident of Canada for at least 183 days in each calendar year or authorized to work in Canada;
- a Canadian corporation; or
- a partnership consisting of individuals or corporations (as per above).

After obtaining a Free Miner Certificate, the proponent has the right to stake a claim. This is done on BC's Mineral Title Online (MTO) website, which is a publicly accessible on-line database that shows

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[1] The province of BC has not included subsurface rights in most land grants issued after 1891. As a result, the surface owner of property rarely owns underlying mineral rights, except in areas of early settlement such as Vancouver Island and the Fraser Valley.

[2] *Mineral Tenure Act,* RSBC 1996, c. 292. This Act has remained largely unchanged since it was enacted in the late 1800s during the gold rush era.

[3] The other forms of subsurface tenure in BC are freehold mineral tenure and Crown granted mineral claims. The first, a freehold mineral tenure, is a right that was historically granted as part of another land tenure, such as a surface or railway grant. Over time, many of these tenures were cancelled in one way or another – today only a few freehold mineral tenures remain in force in BC. The second, Crown granted mineral claim, was administered under the previous provincial *Land Act*. The last Crown granted mineral claims were issued in 1957. Holders of Crown granted mineral claims were granted mineral rights as specified in the actual grant or as defined in the mining legislation in force at the time the tenure was issued. The Crown granted mineral claims are excluded from application of the provincial *Mineral Tenure Act* leaving affected lands vulnerable to a lack of regulatory control over surface/subsurface matters dealt with under that legislation. From BC Ministry of Energy, Mines and Petroleum Resources, *A Guide to Surface and Subsurface Rights and Responsibilities in British Columbia* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2010) at 2-3.

[4] Judah Harrison, *Too Much At Stake: The Need for Mineral Tenure in BC* (Vancouver: Ecojustice, June 2010) at 5.

[5] Judah Harrison, *Too Much At Stake: The Need for Mineral Tenure in BC* (Vancouver: Ecojustice, June 2010) at 5.

[6] *Mineral Tenure Regulations,* BC Reg 529/2004, Schedule B: $25 for individuals under the age of 65 or individual partnerships; $500 for corporations or corporate partnerships.

[7] *Mineral Tenure Act*, RSBC 1996, c 292, ss 7, 8(2), 11(1).

mineral claims across the province.[8] The MTO allows proponents to stake their claim through the use of an online map, rather than having to physically drive claim stakes into the ground. BC's MTO system was the first on-line claim registration system and remains one of the few such systems in the world today.[9] Since the MTO's inception in 2005, there has been an exponential increase in the number and area of claims staked across the province.[10]

By staking a claim and paying the required registration fee,[11] the proponent (or "recorded holder"[12]) acquires the right to the minerals in the ground.[13] This includes the exclusive right to:[14]

- use, enter and occupy the surface of the claim area;
- explore and develop the mineral resource situated vertically downward from and inside the boundaries of the claim;
- produce up to 1,000 tonnes of ore per year from each cell in a cell claim (or, in the case of placer claims, produce up to 2,000 cubic metres of pay dirt per year); and
- extract a bulk sample of up to 10,000 tonnes of ore once every five years.

In BC, proponents have a right to enter private lands to explore for minerals and are only required to provide eight days advance notice to landowners before doing so.[15] Although landowners cannot prevent a proponent from entering the land, they may be able to:

- request the Surface Rights Board to specify conditions of entry that will minimize the obstruction or interference with the land; or
- obtain compensation for obstruction to or interference with enjoyment of the land caused by the entry.[16]

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[8] *Mineral Tenure Act*, RSBC 1996, c 292, s 6.2(1); see Mineral Tenure Online (MTO), online at: https://www.mtonline.gov.bc.ca/mtov/home.do. The MTO allows the recorded holders to register mining activities completed to maintain those claims, and facilitates the transfer of interests in mineral titles between miners. Note: there are benefits to an online system and these may include the benefits of avoiding the potential for misidentification of areas and overlap with areas that are already taken up or otherwise unavailable.

[9] Newfoundland and Labrador province currently has an operational online mineral claim registration system (Newfoundland and Labrador Ministry of Natural Resources, *Ministerial Statement on Online mineral claim staking program,* (Minister's Statement) (Newfoundland and Labrador Ministry of Natural Resources April 11, 2005), online: <http://www.releases.gov.nl.ca/releases/2005/nr/0411n02.htm>). Ontario plans to introduce online mineral claim registration in the future in accordance with the Mining Act amendment bill (Bill 173) passed in October 2009. The Newfoundland and Labrador online claiming system has similar functionality to BC's MTO system.

[10] The latest available figures show that the total area of mineral claims staked in BC increased from 8.9 million hectares in December 2005 to almost 13 million hectares in December 2009. Christopher Pollon, "B.C. to crack down on online staking of mineral claims", *Globe and Mail*, (June 1, 2010), online:<http://v1.theglobeandmail.com/servlet/story/RTGAM.20100601.escenic_1588870/BNStory/National/>.

[11] *Mineral Tenure Regulations,* BC Reg 529/2004, Schedule B. It costs $1.75 per hectare to register a mineral cell claim.

[12] *Mineral Tenure Act*, RSBC 1996, c 292, s 1.

[13] In legal terms, a mineral claim is considered to be a chattel interest (personal property) as opposed to an interest in real property (land).

[14] *Mineral Tenure Act*, RSBC 1996, c 292, ss 14(1), 28.

[15] *Mineral Tenure Act*, RSBC 1996, c 292, s 19(1) (this notice requirement applies to surface landowners; Crown land lease holders; and Crown land disposition holders); *Mineral Tenure Act Regulation*, BC Reg 529/2004, s 2.1(1). The Chief Gold Commissioner may exempt persons from this requirement where reasonable efforts to serve notice have been unsuccessful (s 2(1.1)).

[16] *Mineral Tenure Act*, RSBC 1996, c 292, ss 19(2), 19(7), 19(8).

These same notice and compensation requirements, however, are not afforded to First Nations. The *Mineral Tenure Act* does not require the government or the proponent to notify or consult First Nations prior to the staking of a claim or the entering onto First Nations' traditional territories to conduct exploration activities. Although the legislation is silent on consultation at this early stage, Canadian courts have held that the Crown has a duty to consult First Nations in resource decision-making affecting their traditional territories[17] and that this duty may be invoked at the exploration stage.[18]

If a proponent wishes to produce higher volumes of ore than is permitted as part of exploration, the proponent must obtain a mineral lease.[19] A mineral lease is an interest in land and has a term of up to 30 years, which can be renewed.[20] To convert a claim into a lease, the claim holder must complete the following:[21]

- register an application for the lease;
- pay a prescribed fee;[22]
- survey the land covered by the lease (as required by the Chief Gold Commissioner);
- post a notice of the intention to apply for a lease at the Chief Gold Commissioner's office; and
- publish the same notice in one issue of the Gazette and once each week for four consecutive weeks in a local newspaper.

On meeting these requirements, the Chief Gold Commissioner cannot refuse to convert the proponent's mineral claim to a lease.[23] Because of this obligation to issue a mining lease where all requirements are met, the government cannot balance other competing land uses in deciding whether or not to grant mineral leases. As such, mining takes priority over all other activities on mineral lands, irrespective of who owns, occupies, or uses the land, or what other activities are currently taking place on the land.

After acquiring a mineral lease, proponents are eligible to apply for a major mine permit (or exploration activities that exceed the production and extraction thresholds listed above).[24]

Issue

Under BC's 'free entry' mineral tenure system, the government has no discretion to deny the issuance of a mineral lease to a proponent. This means that proponents are awarded mineral leases irrespective of

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[17] *Hupacasath First Nation v British Columbia (Minister of Forests) et al,* 2005 BCSC 1712 at 191, 199.

[18] *Ross River Dena Council v Government of the Yukon*, 2012 YKCA 14; *West Moberly First Nations v. British Columbia (Chief Inspector of Mines),* 2011 BCCA 247; leave to SCC refused *Her Majesty the Queen in Right of British Columbia as represented by Al Hoffman, Chief Inspector of Mines et al. v. Chief Roland Willson on his Own Behalf and on Behalf of all the Members of West Moberly First Nations et al.*, 2012 CanLII 8361 (SCC).

[19] In legal terms, a mineral *lease* is considered to be an interest in real property (land) as opposed to a chattel interest (personal property).

[20] *Mineral Tenure Act*, RSBC 1996, c 292, ss 42(4), (5), 48(2).

[21] *Mineral Tenure Act*, RSBC 1996, c 292, s 42(1).

[22] *Mineral Tenure Regulations,* BC Reg 529/2004, Schedule B. The application fee for a mining lease is $100 (s 13), and the annual rental fee for a mining lease is $20 per hectare (s 14).

[23] *Mineral Tenure Act*, RSBC 1996, c 292, s 42(4): "If the chief gold commissioner is satisfied that the recorded holder has met all of the requirements…the chief gold commissioner must issue a mining lease".

[24] Ministry of Energy, Mines and Petroleum Resources, *Minerals and Private Land in British Columbia*, (Fact Sheet) (Ministry of Energy, Mines and Petroleum Resources, May 7, 2008), online: <www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Documents/LON/Factsheet_LON_Landowners.pdf>.

their relationship with First Nations, their commitment to local employment, their financial or technical capacity, or their track record for environmental compliance. This 'free-entry' regime also prevents the government from balancing other valuable land uses or preserving mineral deposits for future use.

Recommended Solutions

Replace Free-Entry System with Competitive Bidding System
[Tags: Free Entry; Mineral Tenure; Mineral Lease; Bid; Competition]

Instead of automatically granting mineral leases to mineral rights holders, BC could adopt a competitive bidding system to govern the issuance of mineral leases. This would encourage proponents competing for a mineral lease to present progressive plans for mineral development.

Competitive bidding is already used in BC for issuing leases for petroleum and natural gas production.[25] Each month, leases are disposed of by way of public tender. The bids are reviewed by an adjudication panel to ensure: a) the highest bid received is sufficient for the rights being offered; and b) it is in the public interest to dispose of the interest in the land.[26] The Minister of Energy and Mines reserves the right to reject any or all bids received. The law governing petroleum and natural gas production in BC specifically allows regulations to be made that would allow the Minister to apply the following criteria when deciding whether to dispose of Crown reserves of petroleum and natural gas:[27]

- environmental values;
- technological innovation;
- community interests;
- First Nations considerations;
- long-term economic planning;
- the purpose for which the area is to be used; and
- other matters that the Lieutenant Governor in Council considers are in the public interest.

The government of Queensland (Australia), which also has a bidding process to award petroleum and gas rights to proponents, recently announced that it will be applying this same procedure to coal resources. The government intends to periodically release areas for coal mining through a competitive tender process.[28] The government will assess each proposal against established criteria to optimise the value of the state's resources. The government's rationale for this "controlled release approach" is to "provide for improved stewardship of Queensland's coal resources and strike a better balance between resource development and other land uses".[29] To facilitate the implementation of this "much-needed reform", the government has prohibited the submission of new applications for coal while the tender

[25] *Petroleum and Natural Gas Act*, RSBC 1996, c 361, s 71(2).
[26] DISCUSSION PAPER on the TENURE Provisions of the PETROLEUM AND NATURAL GAS ACT and Regulations, at 12.
[27] *Petroleum and Natural Gas Act*, RSBC 1996, c 361, s 72(3).
[28] Queensland Department of Natural Resources and Mines, *Restricted Area 394: Improving the management of coal resources in Queensland* (June 2012), online: <http://mines.industry.qld.gov.au/assets/mines-pdf/Restricted-Area-394-factsheet_Jun-12.pdf>.
[29] Queensland Department of Natural Resources and Mines, *Restricted Area 394: Improving the management of coal resources in Queensland* (June 2012), online: <http://mines.industry.qld.gov.au/assets/mines-pdf/Restricted-Area-394-factsheet_Jun-12.pdf>.

process is put in place.[30] Notably, it is proposed that "any potential land use conflicts will be considered prior to land being released" for coal.[31]

Afghanistan is another jurisdiction where mineral tenures are awarded through a bidding process. There, tenure is awarded to the bidder "which provides the best value for Afghanistan".[32] In evaluating the bids, an inter-ministerial committee is required to consider the proposed work plan, the implementation method, the amount of investment and the bidder's previous experience and financial and technical capacity.[33]

BC could adopt a similar bidding regime to award mineral leases and list additional criteria to evaluate proposals, such as support of First Nations, sufficiency or reclamation security, and plans to minimize ecological disturbance and long-term environmental impacts.

Conserve minerals for future generations
[Tags: Free Entry; Mineral Tenure; Future]

Mineral resources are non-renewable. However, the need to conserve mineral resources for future generations is not reflected in BC's current free-entry system, which has no mechanism in place to control the pace of resource extraction apart from controlling which areas are designated as mineral lands. Conversely, in India, the regulatory authority is empowered to reserve certain areas not already held under a mining licence for the sole purpose of conserving minerals.[34] This type of legal provision helps empower governments to conserve non-renewable mineral reserves for the needs of future generations.

Issue

BC's online free entry staking system allows mineral claims to be staked and exploration activities to commence on First Nations' traditional territories without consultation or obtaining First Nations' free, prior and informed consent.

Currently, First Nations often do not become aware that mineral claims have been staked until *after* a proponent has entered the land and commenced exploration activities.[35] Similarly, proponents are often surprised to learn, after they have commenced exploration, that the area of their claim is significant or contentious from a First Nations perspective. This lack of notification or consultation is often the source

[30] Queensland Department of Natural Resources and Mines, *Restricted Area 394: Improving the management of coal resources in Queensland* (June 2012), online: http://mines.industry.qld.gov.au/assets/mines-pdf/Restricted-Area-394-factsheet_Jun-12.pdf; Eugene Fung & Paul Gregory, *Energy & Resources Alert: Competitive bidding tender process for Queensland coal tenures* (Australia: Thomson Lawyers, 2012).
[31] Queensland Department of Natural Resources and Mines, Restricted Area 394: Improving the management of coal resources in Queensland (June 2012), online: <http://mines.industry.qld.gov.au/assets/mines-pdf/Restricted-Area-394-factsheet_Jun-12.pdf>.
[32] Afghanistan, *The Minerals Law*, 14 February 2010, art 15(3).
[33] Afghanistan, *The Minerals Law*, 14 February 2010, art 15(3).
[34] Alyson Warhurst & Maria Ligia Noronha, eds., *Environmental Policy in Mining: Corporate Strategy and Planning for Closure*, (Washington: Lewis Publishers, 2000) at 298; India, *Mines and Minerals (Development and Regulation) Act, 1957*, s 17A.
[35] For example, members of the Takla Lake First Nation have reported an increase in the number of outsiders sighted in their traditional territories since the advent of MTO. It is often unclear to members of Takla who these outside prospectors are given that the community receives no notification from the MTO system.

of conflict and distrust between the different parties.[36] Requiring prior consultation with First Nations before mineral claims are staked on their traditional territories could minimize such conflict.

BC First Nations have expressed concern that the online claim-staking process fails to accommodate their rights and interests.[37] Even the Association for Mineral Exploration British Columbia has suggested increased engagement with First Nations at all stages of mining, beginning with initial mineral claim staking.[38]

The Yukon Court of Appeal recently ruled that a similar free entry regime in the Yukon fails to meet Canada's consultation and accommodation requirements:

> For reasons that follow, I agree with the chambers judge's finding that the statutory and regulatory regime currently in place for the recording of mineral claims within the traditional territory of the Ross River Dena does not measure up to the consultation requirements in *Haida.* …The current regime may allow mineral claims to be granted without regard to asserted Aboriginal title. They also allow exploratory work that may adversely affect claimed Aboriginal rights to be carried out without consultation.[39]

It is likely that this ruling and reasoning applies to the on-line staking and free entry regime in British Columbia.

Recommended Solutions

Recognize and affirm First Nations' rights in mining legislation
[Tags: Indigenous Rights; Mineral Tenure]

BC's mining legislation makes no reference to First Nations' rights. In contrast, Ontario's mining legislation explicitly states that its purpose is to "encourage prospecting, staking and exploration for the development of mineral resources, in a manner consistent with the recognition and affirmation of existing Indigenous and treaty rights in section 35 of the Constitution Act, 1982".[40] The recognition of Indigenous peoples' rights is even more clearly articulated in the Philippines, where Indigenous peoples

[36] International Human Rights Clinic, *Bearing the Burden: The Effects of Mining on First Nations in British Columbia,* (Harvard Law School: 2010) at 104; First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia* 2008*,* (Prince George: First Nations Mining Summit, 2008) at 3; Monisha Martins, "Mining Plan Gets Mixed Reaction", *Caledonia Courier* (February 03, 2005): "Chief Leonard Thomas, from the Nak'azdli First Nation, publicly opposed the internet staking program when it was launched, saying that the provincial government has "burdened our traditional territory with numerous third party claims without carrying through on its duty to consult and possibly accommodate us.""

[37] British Columbia Assembly of First Nations, "Governance Toolkit: A Guide to Nation Building" at 352, (2011), online: <http://fnbc.info/bcafn-governance-toolkit-guide-nation-building-part-1>: "This free-entry staking system is a cause of much conflict with our Nations and leads to money and effort being wasted on potential projects that may not be acceptable to First Nations"; Dogwood Initiative, "Online mineral staking in conflict with Supreme Court ruling" (20 January 2005), online: <http://dogwoodinitiative.org/media-centre/news-stories/online_mineral_staking_in_conflict_with_supreme court>.

[38] Dan Jepsen, *et al., Mineral Exploration, Mining and Aboriginal Community Engagement* (Vancouver: Association for mineral Exploration in British Columbia, 2005), online: http://commdev.org/content/document/detail/843/.

[39] *Ross River Dena Council v. Government of Yukon,* 2012 YKCA 14, para 6.

[40] *Mining Act*, RSO 1990, c M 14, s 2.

are granted priority rights over harvesting, extraction, development or exploitation of any natural resources within their ancestral domains.[41]

Make mineral claims & leases conditional on obtaining First Nations' free, prior and informed consent
[Tags: Free, Prior and Informed Consent; Mineral Claim]

Under the Ecuadorian Constitution, Indigenous peoples are granted the right to free, prior and informed consent, within a reasonable period of time, on the plans and programs for mining activities carried out on their lands that could have an environmental or cultural impact on them.[42] In the Philippines, mineral exploration is prohibited on the "ancestral land" of Indigenous peoples unless Indigenous representatives provide prior consent.[43] Similarly in New Zealand, Maori consent must be obtained before the government may issue permits for activities that will or are likely to have adverse effects on recognized customary activities.[44]

In BC, free, prior and informed consent could be incorporated into the existing on-line staking system by affording mineral claims a conditional-status. This recommended conditional-status mineral claim would carry limited ownership rights (precluding other miners from registering competing claims) and no land access rights. To qualify for full-status mineral claim, the First Nations on whose traditional territory the mineral claim is staked would have to give their free, prior and informed consent.

Notify First Nations when conditional mineral claims are staked on their traditional territories
[Tags: Free, Prior and Informed Consent; Mineral Tenure Online]

BC's Mineral Titles Online does not require miners to notify First Nations when claims are staked on their traditional territories. Conversely, the need for adequate prior notice to Indigenous peoples is recognized in other jurisdictions. For example, under proposed regulations in Ontario, notice to First Nations communities must be given as soon as mineral claims are recorded on their traditional use areas.[45] In New Zealand, proponents seeking to enter Maori land to carry out minimum impact activities must first notify the local iwi authority (the recognized local Maori tribal authority).[46]

At a minimum, notice to First Nations should include information about the proponent's: other registered claims; experience in exploring and developing those claims; and, where available, assessments of their cultural sensitivity in carrying out other mining activities. Where such information contains confidential or proprietary data, the proponent could enter into a confidentiality agreement with the First Nation to whom the information is provided. Such an approach is provided for under Saskatchewan legislation, where the regulatory authority is empowered to enter into agreements with First Nations "with respect to the release of confidential information that may be required to advise

[41] *Philippines Indigenous Peoples Rights Act of 1997*, (Rep Act No 8371), s 57.
[42] *Republic of Ecuador, Constitution of 2008*, art 57(7).
[43] *Philippine Mining Act of 1995*, (Rep Act 7942) ss 4, 16; *National Commission on Indigenous Peoples Administrative Order No 3, Series of 2002,* Philippines.
[44] New Zealand *Resource Management Act* (NZ), ss 85A.
[45] Ontario Ministry of Northern Affairs, Mining and Development, *Proposed Regulation under the Mining Act* (October 19, 2011).
[46] New Zealand *Crown Minerals Act 1991* (NZ) 1991/70, s 51(1). Section 1 of the *Resource Management Act 1991* (NZ) defines 'iwi authority' as – " the authority which represents an iwi and which is recognised by that iwi as having authority to do so". An iwi is a Māori tribe descended from a common named ancestor or ancestors, and is usually comprised of a number of hapū, or sub-tribes. An iwi authority is the authority recognized by an iwi as representing it: Te Puni Kōkiri (Ministry of Māori Development) (New Zealand), online: http://www.tkm.govt.nz/glossary/.

those bands of the existence of the interests of third parties in certain Crown minerals and Crown mineral lands".[47]

Consult and share decision-making with First Nations' about mineral tenure
[Tags: Consultation; Shared Decision-Making]

> *Where substantive consultation and accommodation are going to be required, and there is no mutually agreed process in place to get to common ground, the chances of project acceptability by the First Nation are non-existent*.
> – First Nations Energy & Mining Council (2009)[48]

First Nations in BC have recommended that the provincial government develop a joint provincial-level consultation protocol with First Nations to set out the objectives, principles, standards to be employed, and procedures of consultation for all Crown land-use decision-making.[49] Although a joint-protocol has yet to be developed, the provincial government has developed its own consultation procedure.[50] This procedure, however, is mere policy and therefore not enforceable.

In contrast, other jurisdictions have taken steps to legislate consultation requirements. For example, Yukon legislation outlines a clear procedure for consultation with First Nations. This procedure requires that the duty to consult be exercised by providing, to the party to be consulted:

- notice of the matter in sufficient form and detail to allow the party to prepare its views on the matter;
- a reasonable period for the party to prepare its views; and
- an opportunity to present its views to the party having the duty to consult, coupled with full and fair consideration of any views so presented.[51]

Similar provisions are provided under the *Mackenzie Valley Resource Management Act*.[52]

In Norway, the federal government has signed a consultation agreement with the Norwegian Sami Parliament, which establishes how, and under what circumstances, consultations should be carried out.[53] Under the Bolivian Constitution, Indigenous peoples are granted the right to compulsory prior consultation by the state whenever legislative or administrative measures may affect them, including when non-renewable resources (such as mineral deposits) are to be exploited in the territories that they inhabit.[54]

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[47] *Crown Minerals Act*, RSS 1984-85-86, c C-50.2, s 18.2(1).
[48] BC First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 22-23 [emphasis added].
[49] BC First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 5.
[50] Province of British Columbia, "Updated Procedures For Meeting Legal Obligations When Consulting First Nations: Interim" (May 2010) at 6, online: <http://www.gov.bc.ca/arr/reports/down/updated_procedures.pdf>.
[51] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 3.
[52] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 3.
[53] James Anaya, *Report of the Special Rapporteur on the rights of indigenous peoples on the situation of the Sami people in the Sápmi region of Norway, Sweden and Finland* (Addendum), United Nations Human Rights Council, 18th Sess, Agenda Item 3, UN Doc A/HRC/18/35/Add2 at 11.
[54] Republic of Bolivia, *Constitution of 2009*, art 30(II)(15).

Issue

In BC, landowner consent is not required for proponents to enter the land to conduct mining activities.

Recommended Solution

Require landowner's consent to mining activities
[Tags: Free Entry; Mineral Tenure; Landowner; Consent]

Several jurisdictions require surface landowner consent to mining activities before proponents may proceed. For example, in Alberta, the law explicitly provides that "no person shall conduct exploration …on private land, except with the consent of the owner of the land or a person authorized by the owner to give that consent".[55] A similar requirement is in place in Newfoundland and Labrador.[56] In New Brunswick, a miner must submit a written agreement to the regulatory body that indicates that the owner of the land consents to work being done on the land. This agreement must be submitted before an application for a mining licence is made.[57] In Victoria (Australia), a holder of a mining licence must also obtain the written consent of owners or occupiers of private land before commencing mining activities.[58] Germany's mining law also requires the consent of the owner to undertake any prospecting or exploration activities on the land.[59] In the Philippines, areas covered by small-scale miners must give prior consent before mining operations can be carried out on these lands.[60] In Mali, legislation provides that exploration and mining rights are not valid without prior consent of the landowner.[61]

Land Use Planning versus Mineral Tenure

When I say planning, I mean it in the broadest sense: the process of a community coming together; identifying problems; setting goals – a vision – for a time period such as twenty or forty years; adopting a program to fulfill those goals; and modifying the programs as conditions change ... All across the West, stresses have built to the point where it is hard to imagine a sustainable future without some form of planning.[62]

– Charles Wilkinson (1992)

Overview of BC Law

The BC government has recognized the importance of provincial land use plans for providing the "framework and context for setting environmental, land use and resource management goals over

[55] *Exploration Regulation*, Alta. Reg. 284/2006, s 8(1)(a).
[56] *Mineral Act*, RSNL 1990, c M-12, s 12(2). Note that section 13, however, allows for the minister to grant an order to dispense with the consent requirement.
[57] *Mining Act*, SNB 1985, c M-14.1, s 68(1)(c)(iv)(B)(II).
[58] Victoria (Australia), *Mineral Resources (Sustainable Development) Act* 1990, s 42(2)(c)(i). Note that consent may not be required if: the owners or occupiers are instead compensated; the licensee purchased the land; or the regulatory authority believed that all reasonable efforts were taken to determine the contact information for such owners and operators, and these efforts were unsuccessful.
[59] Germany, *Federal Mining Act* (Bundesberggesetz) 13 August 1980 (BGBI. I S. 1310), §§ 39, 40.
[60] Government of the Philippines, *Philippine Mining Act of 1995*, s 19(e).
[61] Koh Naito, Felix Remy and John P Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining* (London: Mining Journal Books Ltd, 2001) at 130.
[62] Charles Wilkinson, *Crossing the Next Meridian: Land, Water and the Future of the West* (Washington DC, Island Press, 1992) at 300.

provincial Crown land".[63] In the 1990s, the government of British Columbia invested significant time, energy and resources to develop regional land use plans. As a result, land use plans currently exist for almost all regions in BC.[64]

However, in BC many land use plans lack legal authority and thus do not control where mining activities take place. Only land use plans implemented by order of the Lieutenant Governor under the *Environment and Land Use Act* have legal authority to prevent mining activities.[65] And, under BC's free-entry system, mining activities continue to take priority over all other land use activities on "mineral lands", irrespective of whether land use plans have designated these areas for other uses.[66]

Issue

The prioritization of mining under BC's mineral tenure laws prevents the implementation of land use plans that appropriately recognize, protect and promote other valuable land use activities important to local communities.

Recommended Solutions

Restrict mining activities according to land-use plan designations
[Tags: Land Use Plan; No-Go Zone]

In contrast to BC, many other jurisdictions employ land use plans to limit areas in which mining activities may occur. In Northern Ontario, for example, no mining claims can be staked on lands designated under community based land-use plans for uses that are inconsistent with mineral exploration and development.[67] In addition, boundaries of protected areas designated under community land-use plans may be enshrined under regulation,[68] and no prospecting, staking, exploration, or new mines may be carried out in these protected areas.[69]

In the Northwest Territories, no prospecting or mineral claims can be staked in areas prohibiting such activities under land use plans that have been approved under federal legislation or a land claim agreement.[70] Furthermore, planning is carried out under its Protected Areas Strategy by Aboriginal Land

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[63] BC Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2010) at 4, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.

[64] *Report on the Status of Strategic Land Use Plans in British Columbia*, Appendix 2 (British Columbia, Strategic Land Policy Branch (SLPB) and the Integrated Land Management Bureau, 2006) online: <http://www.al.gov.bc.ca/clad/strategic_land/lup_status.pdf>. For an overview of British Columbia's recent efforts to conduct Land Use Planning, see: Judah Harrison, *Too Much At Stake: The Need for Mineral Tenure in BC* (Vancouver: Ecojustice, June 2010) Appendix A.

[65] *Mineral Tenure Act*, RSBC 1996, c 292, s 14(5).

[66] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 9. Under BC's "Free Entry" Mineral Tenure regime, proponents enjoy automatic rights to the minerals (through claims) and lands (through leases). The provincial government does not have the discretion to balance other competing land uses in deciding whether or not to grant mineral title on mineral lands.

[67] *Mining Act*, RSO 1990, c M.14, s 30.

[68] *Far North Act*, 2010, SO 2010, c 18, s 11(1).

[69] *Far North Act*, 2010, SO 2010, c 18, s 14(2). No mining can be carried out "if a community based land use plan has designated the lands for a use inconsistent with mineral exploration and development." *Ontario Mining Act*, RSO 1990, CHAPTER M.14, (last amended 2010, c 18, s 23), s 30(g).

[70] *Northwest Territories and Nunavut Mining Regulations*, CRC, c 1516, s 11(1).

Use Boards, pursuant to the *Mackenzie Valley Resource Management Act*.[71] In the Yukon, all proposed mining activities must be evaluated in accordance with existing land use plans.[72]

Under the 2009 Bill for reforms of Quebec's mining legislation, legal provisions have been proposed that make it possible for the regulatory authority to take other land uses into account (as described in, for example, regional land use plans) and prohibit mining on specific lands.[73]

In the US, federal law requires individual states to establish planning processes "based upon competent and scientifically sound data and information" to determine which lands are unsuitable for all or certain types of surface coal mining operations. Operations deemed to be unsuitable include those that could result in significant damage to important historic, cultural, scientific, and aesthetic values and natural systems, or substantial loss or reduction of long-range productivity of water supply or of food or fibre products.[74] In West Virginia, determinations of unsuitability of land for surface mining must be integrated as closely as possible with both present and future land-use planning processes at all levels of government (local, state and federal).[75]

In Sweden, exploration permits may not be granted within a planning area if the mining activities will have the effect of counteracting the purpose of the plan. In addition, the regulatory authority must seek and obtain a statement from the municipality before granting such an exploration permit.[76]

<u>Require land use plans to be in place *before* new mining activities are approved</u>
[Tags: Land Use Plan; Permit; Condition]

In BC, the regulatory authority is empowered to "restrict the right to or interest in minerals or placer minerals, comprised in all or part of a mineral title" if he or she considers that the surface area "should be used for purposes other than a mining activity".[77] The government could exercise this power to withdraw lands until the completion of land-use planning activities and before new mining claims can be staked.[78]

This approach has been adopted in Ontario's legislation, which specifies that a community based land-use plan must be completed before any new mine can open in the "Far North" of the province.[79]

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[71] Maureen Carter-Whitney & Justin Duncan, *Balancing Needs, Minimizing Conflict: A Proposal for a Mining Modernizing Act, 2008* (Toronto: Canadian Institute for Environmental Law and Policy and Ecojustice, 2008) at 8; NWT Protected Areas Strategy Advisory Committee, *Northwest Territories Protected Areas Strategy: A Balanced Approach to Establishing Protected Areas in the Northwest Territories*, (NWT Protected Areas Strategy Advisory Committee: February 15, 1999); *Mackenzie Valley Resource Management Act*, SC 1998, c 25, M.0.2.
[72] *Yukon Environmental and Socio-economic Assessment Act,* SC 2003, c 7, s 44.
[73] Government du Québec, *An Act to Amend the Mining Act*, [Bill 79], online: <http://www.mrnf.gouv.qc.ca/english/mines/quebec-mines/2010-02/project.asp>.
[74] Government of the United States, *Surface Mining Control and Reclamation Act*, USC §1272(a) (1977).
[75] US, 2010 West Virginia Code, Chapter 22. Environmental Resources, Art 3; Surface Coal Mining and Reclamation Act, 2010, W Va, §22-3-22(a)(4), online: <http://www.dep.wv.gov/dmr/codes/Documents/2009%20Mining%20Code.pdf>.
[76] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (Doctoral Thesis in Real Estate Planning, Royal Institute of Technology (KTH)) (Stockholm: Department of Real Estate and Construction Management, School of Architecture and the Built Environment, SE-100 44, 2010) at 74, online: < http://kth.diva-portal.org/smash/record.jsf?pid=diva2:300248>; *Minerals Ordinance*, Sweden SFS 1992:285, s 16.
[77] *Mineral Tenure Act*, RSBC 1996, c 292, s 17(1).
[78] Maureen Carter-Whitney & Justin Duncan, *Balancing Needs, Minimizing Conflict: A Proposal for a Mining Modernizing Act, 2008* (Toronto: Canadian Institute for Environmental Law and Policy and Ecojustice, 2008) at 7.
[79] *Mining Act*, RSO 1990, c M.14, ss 204(2); the sole exception to this requirement is where the project is deemed to be in the social and economic interests of Ontario (*Mining Act*, RSO 1990, c M.14, s 204(3)).

Similarly, under the Ta'an Kwach'an Council *Lands and Resources Act*, decisions on land-use authorization applications may be deferred until a land and resource management plan or land-use plan has been finalized.[80]

First Nations Involvement in Land Use Planning

Overview of BC Law

BC's regional land use plans cover the traditional territories of numerous First Nations. Although considerable efforts were made towards consensus-based land use planning in the last decade, many have been criticized for inadequate consultation with First Nations. For some regional land use plans, First Nations played an active role in the planning process. Others were developed with little or no meaningful First Nations input.[81] According to a provincial government status report of the regional land use plans, many First Nations did not to participate in land use planning process because they lacked the capacity or resources, or because they believed it may harm their treaty negotiations.[82] As a result, many of BC's regional land-use plans do not reflect areas that are important or sensitive from a First Nation perspective.

For a time, the BC government also invested in joint management boards with First Nations, such as the Clayoquot Central Region Board. Although the provincial government has since moved away from joint management boards with First Nations, some specific arrangements for parks and wildlife areas do exist. One example is the *Muskwa-Kechika Management Area Act,*[83] which promotes local strategic planning to maintain the rich wilderness while allowing resource development (including mining activities) in designated areas.[84] Other examples include the Kunst'aa guu – Kunst'aayah Reconciliation Protocol[85] and the *Haida Gwaii Reconciliation Act*,[86] which recognize Haida land use planning on Haida Gwaii and provide for extensive co-management of lands and resources. In addition, there are a number of park and conservancy agreements in the Great Bear Rainforest along the central and north coast of British Columbia.

Apart from BC's regional land use plans and joint management boards, several First Nations have developed their own land use plans. However, although the BC Supreme Court has stated that First Nation land use plans must be acknowledged[87], First Nations land use plans currently carry little legal weight with the provincial government in BC.

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[80] Ta'an Kwach'an Council, *Lands and Resources Act* (First Reading), s 24(3).
[81] British Columbia Strategic Land Policy Branch (SLPB) and the Integrated Land Management Bureau*, Report on the Status of Strategic Land Use Plans in British Columbia*, Appendix 2 (October 2006), online: <http://www.al.gov.bc.ca/clad/strategic_land/lup_status.pdf>.
[82] British Columbia Strategic Land Policy Branch (SLPB) and the Integrated Land Management Bureau, *Report on the Status of Strategic Land Use Plans in British Columbia,* Appendix 2 (October 2006), online: <http://www.al.gov.bc.ca/clad/strategic_land/lup_status.pdf>.
[83] *Muskwa-Kechika Management Area Act*, SBC 1998, c 38, online: <http://www.muskwa-kechika.com>.
[84] *Muskwa-Kechika Management Area Act*, SBC 1998, c 38, preamble: the Muskwa-Kechika Management Area covers an area of approximately 4.45 million hectares in north-eastern BC.
[85] Kunst'aa guu – Kunst'aayah Reconciliation Protocol (11 December 2009), online: <http://www.haidanation.ca/Pages/Agreements/PDF/Finalhaida_reconciliation_protocol.pdf>.
[86] *Haida Gwaii Reconciliation Act*, SBC 2010, c 17.
[87] *The Squamish Nation et al v British Columbia (Minister of Sustainable Resource Management) et al*, 2004 BCSC 1320.

Issue

BC First Nations have limited opportunities to participate in land use and resource management plans to control mining activities on their traditional territories.

Recommended Solutions

Recognise right of First Nations to designate no-go zones for mining activities
[Tags: Land Use Plan; No-Go Zones; Consultation]

There is a limited opportunity for First Nations in BC to negotiate agreements with the Province to designate culturally important areas as no-go zones from mining activities. (See the discussion of cultural no-go zones below.[88]) Greater legal protection is provided in other jurisdictions.

In the Yukon, mineral claim staking is prohibited on lands that are subject to land settlement agreements that transfer ownership rights to Indigenous peoples.[89] In Ontario, Indigenous peoples in the northern part of the province may request that a regulatory authority enact a regulation specifying the boundaries of a protected area in an approved community based land-use planning area.[90] In New Zealand, on the request of an iwi, a minerals program may provide that defined areas of land of particular importance to the iwi shall not be included in any mining permit.[91] Under Colombian mining legislation, the Indigenous communities' authority may indicate places in which mining activities are to be excluded based on the existence of special cultural, social and economic reasons according to their beliefs and customs.[92]

Involve First Nations in protected area designation
[Tags: Land Use Plans; Consultation; Involvement; Protected Areas]

Some First Nations, such as the Haida and Taku River Tlingit, have developed joint land use plans with the BC government.[93] For example, lands identified as significant or important by the Taku River Tlingit First Nation have been designated as protected areas in the joint land use plan. These areas have since

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[88] *Mineral Tenure Act,* RSBC 1996, c 292, ss 14, 17.
[89] Michael Lewis and Sara-Jane Brocklehurst, "Aboriginal Mining Guide: How to negotiate lasting benefits for your community" (Port Alberni: Canadian Centre for Community Renewal, 2009) at Module 2-8, referring to Category A Settlement Lands.
[90] *Far North Act, 2010*, SO 2010, c 18, s 11(1).
[91] *New Zealand Crown Minerals Act* 1991 No 70, s 15(3). An *iwi* is a maori community, similar to a First Nation.
[92] República de Colombia, *Mining Code*, Law 685 of 2001, art 127 (Restricted Indigenous Mining Areas), online (Español): <http://www.simco.gov.co/english/Home/DocumentsofInterest/MiningCode/tabid/415/language/en-US/Default.aspx>. This *Mining Code* was modified by Law 1382 of 2010 which intended to add requirements for concession contracts proposals, mining zones and extensions and renewals of contracts, among others. It is important to note that even when the Constitutional Court, in its judgement C366 of 2011 declared Law 1382/10 unconstitutional, the effects of the decision have been deferred for two more years in order to protect the ethnic groups' rights, until the Congress issues another law that regulates the subject. Nevertheless, art 127 of the *Mining Code* has not been modified by Law 1382, so this article still applies for this subject.
[93] Province of British Columbia & Taku River Tlingit First Nation, *Wóoshtin wudidaa Atlin Taku Land Use Plan* (July 2011), online: < http://www.newrelationship.gov.bc.ca/shared/downloads/atline_taku_land_use_plan.pdf>; *Squamish Nation et al* v. *The Minister of Sustainable Resource Management et al* (2004 BCSC 1320), para 15.

been granted protected status as new conservancies.[94] Coastal First Nations have also been involved in establishing new conservancies in the Great Bear Rain Forest.[95]

Recent changes to BC's parks legislation have also provided for the provincial government to enter into agreements with First Nations regarding their involvement in various matters pertaining to parks, conservancies and recreational areas.[96] This new provision provides greater recognition of First Nations rights and is a good example of progressive laws in this area.

The promotion and involvement of First Nations and Inuit peoples in the selection and management of protected areas was one of the mains goals from the Whitehorse Mining Initiative. This initiative recognized that management of these areas would ensure that First Nations and Inuit peoples "benefit from economic opportunities related to development and operation of protected areas and have access to protected areas consistent with management plans for traditional economies and ceremonial, cultural, subsistence, and social practices".[97]

Under the Bolivian Constitution, when protected areas overlap with traditional territories, Indigenous peoples are granted preferential rights. In those instances, legal provisions mandate that the management of the protected areas be conducted in accordance with the Indigenous peoples' rules and procedures (while respecting the purpose of establishing these areas).[98]

<u>Cite involvement of First Nations' and local communities as an objective of land use planning legislation</u>
[Tags: Land Use Plan; Objective; Consultation]

One of the objectives of Ontario's new mining legislation provides that First Nations have a "significant role" in land use planning for Ontario's Far North.[99] Where First Nations have already developed their own land use plans, these may be incorporated into regional land use plans. Similarly, under the *Mackenzie Valley Resource Management Act*, planning boards are required to take into account land-use plans proposed by a First Nation, and may incorporate such plans into the more regional land-use plan.[100]

It is also essential that local communities be adequately consulted in the development of land-use plans. In Alberta, legislation was recently passed that requires the provincial government to consult with the public when drafting regional plans.[101] In Ontario, the regulatory authority must ensure that the public is given an opportunity to provide written comments on the draft plan.[102] Under Ghana's Constitution,

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[94] Bill 49, *An Act to amend the Protected Areas of British Columbia Act*, 4th Sess, 38th Leg, British Columbia, 2012 (as assented to 31 May 2012), BC 2012, c 32.
[95] Patrick Armstrong, "Conflict Resolution and British Columbia's Great Bear Rainforest: Lessons Learned" (3 August 2009), online at Coast Forest Conservation Initiative: <http://www.coastforestconservationinitiative.com/pdf7/GBR_PDF.pdf>.
[96] *Park Act*, RSBC 1996, c 344, ss 3(1), 4.2.
[97] The Whitehorse Mining Initiative, *Leadership Council Accord, Final Report*, (Whitehorse: The Whitehorse Mining Initiative, October 1994) at 20.
[98] Republic of Bolivia, *Constitution*, art 385(II), October 2008, online: <http://faculty.smcm.edu/mfbilgin/nueva_cpe.txt>.
[99] *Far North Act, 2010*, SO 2010, c 18, s 5.
[100] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 41(4).
[101] Government of Alberta, Bill 10, *Alberta Land Stewardship Amendment Act,* 4th Sess, 27th Leg, Alberta, 2011, (assented to 13 May 2011), SA 2011, c 9.
[102] *Far North Act, 2010*, SO 2010, c 18, s 9(8)(c).

policy frameworks for the rational and productive development and management of certain lands are to be developed through co-ordination with all relevant public agencies and traditional authorities.[103]

Empower First Nations' land-use boards, committees or processes to carry out land-use planning
[Tags: Land Use Plan; Involvement; Participation; First Nations; Capacity]

In Canada's Northwest Territories, land-use planning has been realized under the Northwest Territories Protected Areas Strategy, and is conducted by Aboriginal land-use boards established under the *Mackenzie Valley Resource Management Act*.[104] In the Yukon, there is the joint Yukon Development Assessment Process[105] and also joint First Nation management boards such as the Yukon Fish and Wildlife Management Board.[106] In BC, Strategic Engagement Agreements and Reconciliation Agreements between First Nations and the provincial government have recently been finalized. These agreements are expected to promote shared decision-making processes even if they are not strictly joint decision-making boards.

Incorporate traditional knowledge in land use plans
[Tags: Land Use Plan; Content; Traditional Knowledge; Indigenous Knowledge]

In Ontario, the legislation explicitly provides for First Nations to contribute Indigenous knowledge and perspectives on protection and conservation for the land-use planning process.[107] The Lil'wat Land Use Plan, developed over the past few years by the Lil'wat Nation in south-western British Columbia, provides a good example of incorporating traditional knowledge into a land-use plan. The Lil'wat Nation first completed a draft Cultural Heritage Land and Resource Protection Plan that incorporated various information provided by Elders and other community members, including archaeology, bio-geoclimatic zones, place names, and oral history. This plan was then used by the Lil'wat Lands and Resources Department to respond to proposed activities on its traditional territories.[108] Next, the Lil'wat Nation developed a Land Use Plan[109] that retains the Lil'wat Nation people's right to carry out traditional uses across the entire territory, and specifies the different types of activities that are acceptable in different parts of the territory.[110] Laws mandating incorporation of Indigenous knowledge in land use planning would ensure similar approaches are followed in other areas of the province.

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[103] The Constitution of the Republic of Ghana, art 267(8).
[104] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, M-0.2; NWT Protected Areas Strategy Advisory Committee, *Northwest Territories Protected Areas Strategy*, 15 February 1999, online: <www.nwtpas.ca>.
[105] Government of Yukon, Executive Council Office, online: <http://www.eco.gov.yk.ca/dab_process.html>.
[106] Yukon Fish and Wildlife Management Board, online: <http://www.yfwmb.ca/>.
[107] *Far North Act, 2010*, SO 2010, c 18, s 6.
[108] Jennifer Griffith, "Implementing First Nation Land Use Plans: Challenges and Results" (Paper 4.2 delivered at the Continuing Legal Education Society of BC Aboriginal Law Conference, Vancouver 2008) at 2-3.
[109] Lil'wat First Nation, *Lil'wat Land Use Plan: Phase 1, The Vision and Plan for the Land and Resources of Lil'wat Nation Traditional Territory,* online: < http://www.lilwat.ca/lilwat7ul/our-land/lilwat-land-use-plan.cfm>.
[110] For example, areas are identified as Nt'ákmen (Our Way) areas, Collaborative Management areas, Cultural Education areas, Stewardship areas, Conditional Economic Development areas, and Managed Resource Use areas;
Jennifer Griffith, "Implementing First Nation Land Use Plans: Challenges and Results" (Paper 4.2 delivered at the Continuing Legal Education Society of BC Aboriginal Law Conference, Vancouver 2008) at 2-3.

No-Go Zones

Overview of BC Law

In BC, mining activities are only explicitly prohibited in 13% of the province.[111] For example, free miners or their agents do not have a right to enter lands that are:[112]

- occupied by (i.e., under) a building;
- within 75 metres[113] of any buildings that are used as dwellings;
- orchards;
- actively under cultivation;
- already lawfully occupied for mining purposes (exploring for and locating minerals is permitted);
- protected heritage property, unless authorized by the local government or responsible minister; and
- in a park, unless permitted by regulation.

Further "no go zones" or "off limit areas" are:[114]

- Indian reserve lands under the *British Columbia Indian Reserves Mineral Resources Act* (unless permission is expressly given);[115]
- protected heritage properties under the *Heritage Conservation Act*;[116]
- national parks under the federal *Canada National Parks Act*;[117]
- parks and conservancies under BC's *Park Act;*[118]
- regional parks under BC's *Local Government Act*;[119]
- parks, ecological reserves and conservancies under the *Protected Areas of British Columbia Act*;[120]
- ecological reserves under BC's *Ecological Reserve Act*;[121]
- areas in which mining is prohibited under BC's *Environment and Land Use Act*;[122]
- crown lands designated under BC's *Land Act*;[123] and
- No Registration Reserves under the *Mineral Tenure Act*.[124]

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[111] Judah Harrison, *Too Much At Stake: The Need for Mineral Tenure in BC* (Vancouver: Ecojustice, June 2010) at 5.
[112] *Mineral Tenure Act*, RSBC 1996, c 292, s s11(2), 21.
[113] *Cofrin v Bicchieri*, 1977 CanLII 354, para 73.
[114] *Mineral Tenure Act*, RSBC 1996, c 292, ss 14(5), 21, 22; *Mineral Tenure Act Regulation*, BC Reg 529/2004, ss 1 (definition of "alienated lands"), 4(2); *Mineral and Coal Land Reserve (No Mineral or Placer Mineral Registrations) Regulation*, BC Reg 280/2007; and *Mineral and Coal Land Reserve (No Mineral Claim Registrations) Regulation*, BC Reg 171/2011.
[115] *British Columbia Indian Reserves Mineral Resources Act*, SC 1943-44, c 19, s 3: "provided…that no prospecting or right of entry on the said Indian Reserve shall be authorized or permitted until permission so to do has been obtained from the Indian Agent for such Reserve".
[116] RSBC 1996, c 187.
[117] SC 2000, c 32, ss 13, 15(2).
[118] RSBC 1996, c 344, s 16.
[119] RSBC 1996, c 323.
[120] SBC 2000, c 17.
[121] RSBC 1996, c 103.
[122] RSBC 1996, c 117.
[123] RSBC 1996, c 245, s 93.1.

These no-go zone areas can be subdivided into three categories: cultural no-go zones; ecological no-go zones; and alternative use no-go zones.

Cultural No-Go Zones

Overview of BC Law

Under BC's *Mineral Tenure Act,* the Minister of Energy and Mines may restrict the use of surface rights or the right to or interest in minerals if she or he considers that the surface area contains a cultural heritage resource.[125] A cultural heritage resource is defined as: "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people".[126] In cases where the Minister imposes such a restriction, the law prohibits compensation for lost mineral use.[127]

Similarly, "protected heritage properties" are exempt from mineral lands.[128] Three separate legal processes exist by which to have property designated as a "protected heritage property". Land or objects may be protected under: heritage conservation legislation; municipal laws; or official community plans.[129]

Under BC's *Heritage Conservation Act*, the following are automatically protected:[130]

- provincial heritage sites or objects;
- burial places with historical or archaeological value;[131]
- Aboriginal rock paintings or carvings; and
- sites that contain artefacts, features, materials or other physical evidence of human habitation or use before 1846.

It is an offence to alter, knowingly or unknowingly, any of the above-listed protected sites or objects without a permit. Because the offence does not require specific intent, the Act also applies to undiscovered sites that are disturbed by chance. In most cases, protected heritage properties are identified through an archaeological impact assessment, which forms part of the "technical exploration and development process" required by BC's *Mineral Tenure Act Regulations*.[132]

Persons who wish to alter a protected object or site must apply to the Archaeological Branch for a site alteration permit.[133] In deciding whether to issue the permit, the Branch will obtain sufficient information regarding the nature and extent of the protected site and specific alterations proposed to

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[124] *Mineral Tenure Act*, RSBC 1996, c 292, ss 11(2), 14(5), 21, 22; *Mineral Tenure Act Regulation*, BC Reg 529/2004, ss1, 4(2); *Mineral and Coal Land Reserve (No Mineral or Placer Mineral Registrations) Regulation*, BC Reg 280/2007; and *Mineral and Coal Land Reserve (No Mineral Claim Registrations) Regulation*, BC Reg 171/2011.
[125] *Mineral Tenure Act*, RSBC 1996, c 292, ss 17(1),(2).
[126] *Mineral Tenure Act*, RSBC 1996, c 292, s 1.
[127] *Mineral Tenure Act*, RSBC 1996, c 292, ss 17(1),(2).
[128] *Mineral Tenure Act*, RSBC 1996, c 292, s 14(5)(e).
[129] *Mineral Tenure Act*, RSBC 1996, c 292, s 1.
[130] *Heritage Conservation Act*, RSBC 1996, c 187, s 13.
[131] Interview of Ewan Anderson, Heritage Resource Specialist, Archaeology Branch, BC Ministry of Forests, Lands and Natural Resource Operations (20 October 2011): Ancient First Nations' burial sites are generally considered to have archaeological value.
[132] *Mineral Tenure Act Regulation*, BC Reg 529/2004, s 11.
[133] *Heritage Conservation Act*, RSBC 1996, c 187, s 12.

the site. In most cases, this will require the completion of an archaeological impact assessment by a professional archaeologist under a Section 14 Inspection Permit. Once sufficient information is obtained, the Branch will refer the application for a Section 12 Alteration Permit to the First Nation whose traditional territories include the site in question.[134] If the permit is issued, it may be accompanied by conditions regarding the preservation and remediation of the object or site. It is important to note that the Archaeological Branch routinely issues permits to alter or disturb cultural and heritage sites and that applications for these permits are rarely denied.

Protection is *not* automatically afforded to:

- sites that contain artefacts, features, materials or other physical evidence of human habitation or use after 1846;[135] or
- sites or objects that are of particular spiritual, ceremonial or other cultural value to the Indigenous people where there is no physical evidence of historical human use.

For sites and objects that are not granted automatic protection, the Lieutenant Governor in Council may designate various sites and objects as "protected heritage properties".[136] Protected heritage properties can also be identified by agreement between the provincial government and First Nations.[137] In these cases, a description of the site's "spiritual, ceremonial or other cultural" importance to the First Nation community must be attached as a schedule to the agreement.[138]

The protection of heritage properties may also occur at the local level, as municipal and regional governments are empowered to designate property with heritage value or character as "protected heritage properties".[139] Finally, properties designated by municipal governments are granted additional protection when they are incorporated in a schedule to an official community plan that limits their possible uses.[140]

Issue

The protection of cultural sites from mining activities does not extend to lands surrounding cultural sites or to lands required for the settlement of First Nations' land claims.

Recommended Solutions

<u>Create "no-go" buffers around cultural sites</u>
[Tags: Land Use Plan; Cultural Site; Protection; No-Go Zone]

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[134] Although there is no written requirement to consult First Nations under the *Heritage Conservation Act*, the Provincial government's Archeological Branch is required to do so as part of the Crown's duty to consult First Nations and the Crown's administrative law duty to consult interested third parties, which in this case include First Nations.
[135] For example, trees modified by traditional use after 1846 are not afforded automatic protection under the *Heritage Conservation Act*.
[136] *Heritage Conservation Act*, RSBC 1996, c 187, s 9.
[137] *Heritage Conservation Act*, RSBC 1996, c 187, s 4.
[138] *Heritage Conservation Act*, RSBC 1996, c 187, s 4(4)(a); This provision offers similar protection to that provided in New Zealand which states that: "On the request of an iwi, a minerals programme may provide that defined areas of land of particular importance to its mana are excluded from the operation of the minerals programme or shall not be included in any permit." (New Zealand, *Crown Minerals Act 1991* No 70, s 15(3)).
[139] *Local Government Act* RSBC 1996, c 323, s 967; *Vancouver Charter* SBC 1953, c 55, s 593.
[140] *Local Government Act* RSBC 1996, c 323, s 970.1(3)(b)).

In BC, there are no legal limits on the proximity of mining activities to cultural sites. Although the Archaeological Branch recommends that a professional archaeologist assess any proposed activity within 50 metres of a protected heritage property, the Archaeological Branch does not issue development permits. Therefore, in the case of mining activities, it falls to the BC Ministry of Energy and Mines to make their own policies regarding the requisite distance between mining activities and protected heritage properties.[141]

By contrast, in the Yukon, exploration activities must provide a 30-metre buffer around known archaeological or paleontological sites.[142] Similarly, in Ontario, no mining claim can be staked within 45 metres of a church, cemetery, or burial ground.[143] In California, special requirements for re-grading a site to its original contours are mandated when a mining operation is located within one mile of a Native American sacred site and an area of special concern.[144] In Sweden, no work may proceed within 200 metres of a burial ground without prior permission from the county administrative board.[145]

Protect lands required for the settlement of First Nations' land claims
[Tags: Land Use Plan; Aboriginal Rights & Title; Protection; No-Go Zone]

Indigenous cultural or heritage sites, be they protected or not, can serve as important evidence in the settlement of Indigenous land claims.[146] This is recognized in the Yukon where the regulatory authority may withdraw from mining activities those lands that may be required for the settlement of Indigenous land claims.[147] In Malaysia, courts have held that government officials have a fiduciary obligation, under the Federal Constitution, "to protect the welfare of the aborigines including their land rights".[148] In Afghanistan, the Minister may declare certain areas to be "off-limits" to mineral activities for the "protection of indigenous peoples or the welfare of affected local communities".[149]

These legislative provisions conform to the Supreme Court of Canada's decision in *Haida Nation,* which acknowledged Indigenous peoples' rights to fair treatment in claimed traditional territories even before a claim is proven.[150]

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[141] Interview of Ewan Anderson, Heritage Resource Specialist, Archaeology Branch, BC Ministry of Forests, Lands and Natural Resource Operations (20 October 2011).
[142] Yukon Government, *Quartz Mining Land Use Regulation*, OIC 2003/64, Schedule 1, s 8.
[143] *Mining Act*, RSO 1990, c M.14, s 30.
[144] *California Surface Mining and Reclamation Act of 1975*, Public Resources Code, Division 2, Chapter 9, Section 2710 et seq., January 2007, § 2773.3.
[145] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (Doctoral Thesis in Real Estate Planning, Royal Institute of Technology (KTH)) (Stockholm: Department of Real Estate and Construction Management, School of Architecture and the Built Environment, SE-100 44, 2010) at 73, online: < http://kth.diva-portal.org/smash/record.jsf?pid=diva2:300248>; *Minerals Act*, Sweden SFS 1991:45, c 3, s 6.
[146] British Columbia Assembly of First Nations, Governance Toolkit: A Guide to Nation Building, 2011, online: <http://fnbc.info/bcafn-governance-toolkit-guide-nation-building-part-1> at 352: For the most part, the system does not recognize un-extinguished Aboriginal title and rights, although some "no staking reserves" have been established to prevent new mineral rights being granted on lands that are potentially subject to Aboriginal title.
[147] *Quartz Mining Act*, SY 2003, c 14, s 15(2).
[148] *Kerajaan Negeri Selangor & Ors v Sagong Tasi & Ors* [2005] 4 CLJ 169.
[149] Afghanistan, *The Minerals Law*, 14 February 2010, art 11(1).
[150] *Haida Nation v British Columbia (Minister of Forests)* [2005] 3 SCR 511.

Ecological No-Go Zones

Overview of BC Law

Under Canada's *National Parks Act,*[151] mining is prohibited in national parks. In BC, this means no mining activities can be carried out in:

- Glacier National Park of Canada;
- Gulf Islands National Park Reserve of Canada;
- Gwaii Haanas National Park Reserve and Haida Heritage Site;
- Kootenay National Park of Canada;
- Mount Revelstoke National Park of Canada;
- Pacific Rim National Park Reserve of Canada; or
- Yoho National Park of Canada.

In addition to the national parks, BC's legislated two-zone system expressly restricts mining activities in the following ecological areas:[152]

- areas in which mining is prohibited under the *Environment and Land Use Act*;
- Crown lands designated under section 93.1 of the *Land Act*;
- parks & conservancies under the *Park Act;*
- regional parks under the *Local Government Act*;
- park or ecological reserves under the *Protected Areas of British Columbia Act*; and
- ecological reserves under the *Ecological Reserve Act*.

Parks

Although BC has among the highest percentage of protected areas in Canada, its park legislation has been criticized for failing to clearly prioritize the preservation of ecological integrity and to acknowledge the importance of parks for future generations.[153]

Not all provincial park land in BC is protected from mining. For example, the Strathcona-Westmin Park on Vancouver Island houses the Myra Falls mine, which produces ore containing zinc, copper, lead, gold and silver, and has an annual production capacity of 1.4 million tons.[154]

Under BC's provincial park legislation, the level of protection from mining activities depends on how a park is classified. Mining activities are only absolutely prohibited in:[155]

- small parks (less than 2,023 hectares);

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[151] *Canada National Parks Act*, SC 2000, c 32, ss 13, 15(2); "Mining is no longer permitted in national parks in Canada;" online: <http://www.pc.gc.ca/pn-np/ab/jasper/visit/visit20.aspx>.

[152] *Mineral Tenure Act*, RSBC 1996, c 292 ss 11(2), 14(5), 21; *Mineral Tenure Act Regulation*, BC Reg 529/2004, ss 1 (definition of "alienated land"), 4(2).

[153] David R. Boyd, *Wild by Law: A Report Card on Laws Regulatory Canada's Parks and Protected Areas, and a Blueprint for Making these Laws More Effective* (Victoria: The POLIS Project on Ecological Governance, 2002) at 12-13.

[154] BC Parks, Strathcona-Westmin Provincial Park (information sheet), online: <http://www.env.gov.bc.ca/bcparks/explore/parkpgs/strath_wm/>.

[155] *Park Act*, RSBC 1996, c 344, s 5(1).

- parks listed in Schedule D of the Protected Areas of British Columbia Act;
- conservancies;
- ecological reserves; and
- designated wildland areas.

Mining activities *may* still be permitted in Class A parks (except for those listed in Schedule D *of the Protected Areas of British Columbia Act*), Class B parks, Class C parks, and recreation areas *if* the Minister:

- considers the mining activity is necessary for the preservation or maintenance of the recreational values of the park involved; and
- issues a "park use permit" or "resource use permit.[156]

Park use permits that were issued before 1995, when amendments to the park legislation were introduced, remain valid today. The Minister may renew these permits even where they conflict with the current legislation.[157]

It is also possible to allow or prevent mining activities to take place by modifying park boundaries. The regulatory authority has broad powers to modify park boundaries, to reduce park size, or even cancel a park.[158] For example, large areas were removed from Tweedsmuir Park to make way for the Kemano hydro development project. There is, therefore, no guarantee that lands protected under BC's park legislation will remain protected over the long-term.

These broad powers can also be used to expand park boundaries. However, recent amendments to the law provide that the government may be required to compensate the proponent in the event that lands with existing claims are added to a new park.[159] In this manner, public funds may be used to "buy-back" the minerals that the Crown holds in trust for the public and which are transferred to a proponent at virtually no cost.

Conservancies

Although provincial legislation explicitly prohibits mining in conservancies, these areas are not necessarily protected from mining-related activities. The Minster retains the authority to approve road building and use in over a dozen existing conservancies to access natural resources lying beyond the conservancy boundaries.[160]

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[156] *Mineral Tenure Act*, RSBC 1996, c 292, s 21: provides that mineral exploration can still be conducted if "*authorized by the Lieutenant Governor in Council on the recommendation of the person, corporation or government that is responsible for the park or the area of land*"; *Park Act*, RSBC 1996, c 344, ss 9(2),16(c): General need for a park use permit or resource use permit to "exercise in a park, conservancy or recreation area any right under the *Mineral Tenure Act*, the *Coal Act* or the *Petroleum and Natural Gas Act*".
[157] *Park Act*, RSBC 1996, c 344, s 31.
[158] *Park Act*, RSBC 1996, c 344, s 7(1).
[159] *Mineral Tenure Act*, RSBC 1996, c 292 s 17.1(1); *Park Act*, RSBC 1996, c 344, s 11(2.2); *Park Act*, RSBC 1996, c 344, s 11(2), power to expropriate mineral rights to establish or enlarge a park; *R. v Tener*, [1985] 1 SCR 533.
[160] *Park Act*, RSBC 1996, c 344, s 20.1: applies to 18 conservancies currently listed in Schedule F of the *Protected Areas of British Columbia Act*.

Ecological Reserves

The most significant protection of environmentally sensitive areas in BC is granted to ecological reserves, in which mineral prospecting and road building is explicitly prohibited.[161] Unfortunately, 50% of such reserves are in poor to very poor condition, or in fair condition and in need of restoration.[162]

Issue

BC's parks, protected areas, watersheds, important habitats and sensitive ecological areas are not adequately protected from mining activities.

Recommended Solutions

Prohibit mining activities in parks, conservancies and other protected areas
[Tags: Parks; Protected Areas; No-Go Zones]

As explained above, BC's laws still allow mining activities in many types of "protected" areas. In contrast, absolute prohibition of mining activities in parks is provided in other jurisdictions. For example, in Ontario, staking of mining claims, development of mineral interests and working of mines are explicitly prohibited from provincial parks and conservation areas.[163] Mining in national parks is also explicitly prohibited under Canada's national parks legislation.

In Sweden, no mineral exploration may be undertaken in national parks.[164] In the Philippines, mining applications are prohibited in parks, old growth or virgin forests, proclaimed watershed forest reserves, wilderness areas, mangrove forests, mossy forests, national parks, provincial and municipal forest parks, greenbelts, game refuges and bird sanctuaries as defined by law.[165] Under the Ecuadorian Constitution, mining activities are forbidden in protected areas. Mining will only be permitted in exceptional cases at the substantiated request of the President and after a declaration of national interest issued by the National Assembly, which can, if it deems it advisable, convene a referendum on the issue.[166]

Prohibit mining activities in drinking water source areas
[Tags: Water; No-Go Zones]

Nova Scotia explicitly prohibits exploration in municipal water supply watershed lands unless the proponent has first obtained the necessary approvals from the provincial environment ministry.[167]

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[161] *Ecological Reserve Regulations*, BC Reg 335/75, s 1.
[162] Friends of Ecological Reserves, *State of British Columbia's Ecological Reserves* (Victoria: Friends of Ecological Reserves, 2005) at 3.
[163] *Mining Act*, RSO 1990, c M.14, s 31; *Provincial Parks and Conservation Reserves Act, 2006*, SO 2006, c 12, s 16(1).
[164] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (Doctoral Thesis in Real Estate Planning, Royal Institute of Technology (KTH)) (Stockholm: Department of Real Estate and Construction Management, School of Architecture and the Built Environment, SE-100 44, 2010) at 65, online: < http://kth.diva-portal.org/smash/record.jsf?pid=diva2:300248>; *Minerals Act*, Sweden SFS 1991:45, c 3, s 6. In Sweden, Natura 2000 areas are protected from mining.
[165] Government of the Philippines, *Philippine Mining Act of 1995*, s 19(f); *Department Administrative Order No. 25, series of 1992, National Integrated Protected Areas System (NIPAS) under RA 7586*, Chapter II, s 2.
[166] *Republic of Ecuador Constitution of 2008* (Rev ed. 31 January 2011), art 407, online: <http://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>.
[167] *Mineral Resources Regulations*, NS Reg 222/2004, s 73(3).

Under proposed amendments to the Quebec mining legislation, eskers with drinking water potential will also be declared off-limits for mining.[168] No similar legislation is present in BC.

Prohibit mining activities in important watercourses and wetlands
[Tags: Water; Wetlands; No-Go Zones]

BC's *Water Protection Act,* which applies to all watersheds in the province,[169] seeks to "foster [the] sustainable use of BC's water resources in continuation of the objectives of conserving and protecting the environment".[170] However, unless they happen to fall within one of the protected areas described above, mining activities are not explicitly prohibited in watershed areas. This is particularly important since the Canadian federal government has amended legislation and policy to enable mines to destroy water bodies. The proposed use of lakes for mining tailing ponds have created major controversies and have been opposed by First Nations such as the Tse Keh Nay, who successfully opposed the proposed use of Amazay Lake for tailings from Kemess North,[171] and the Tsilhqot'in who have been battling against the proposed destruction of Fish Lake for the proposed Prosperity and New Prosperity Mines.[172]

In contrast, mining is explicitly prohibited in some important watercourses in other jurisdictions. For example, in Nova Scotia, no mining is permitted in protected water areas.[173] In the US, specific protection is provided to wild rivers: minerals located in the bed or bank or situated within one-quarter mile of the bank of any river designated a wild river are withdrawn from mining activities.[174] This US federal law protects not only the watercourse and also ensures that an adequate buffer is maintained to support the natural migration of the watercourse.

In Colombia, the Mining Code prohibits mining in certain protected moors and wetlands.[175] This legislative provision was recently relied upon by the Colombian Minister of Mines to prevent the development of an open-pit gold mine in a sensitive high-altitude wetland that supplied freshwater to more than a million people in nearby communities.[176]

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[168] Government du Québec, *An Act to Amend the Mining Act*, [Bill 79], online: <http://www.mrnf.gouv.qc.ca/english/mines/quebec-mines/2010-02/project.asp>.
[169] *Water Protection Act*, RSBC 1996, c 484, s 1(1): Major watersheds are defined as the Fraser, Mackenzie, Columbia, Skeena, Nass, Stikine, Taku, and Yukon Watersheds, and the Coastal Watershed which comprises the rest of British Columbia.
[170] *Water Protection Act*, RSBC 1996, c 484, s 2.
[171] Takla Lake First Nation, *Kemess North: Insights and Lessons* (Mining Coordinator's Report, 2009), online: <http://www.carriersekani.ca/images/docs/lup/KemessNorthTaklaReportAug2009.pdf>.
[172] R.A.V.E.N., "Fish Lake" (webpage), online: <http://www.raventrust.com/fishlaketeztanbiny.html>.
[173] *North Tyndal – Designation and Regulations*, NS Reg. 200/92, s 12, under *Nova Scotia Environment Act* SNS 1994-95, c 1, ss 106(5),(6).
[174] *Wild and Scenic Rivers,* USC tit 16 Chapter 28 (Conservation), §1280(a)(iii).
[175] República de Colombia, *Mining Code*, Law 685 of 2001, art 34 (excluded mining areas), online (Español): <http://www.simco.gov.co/english/Home/DocumentsofInterest/MiningCode/tabid/415/language/en-US/Default.aspx>. This law was recently amended to expand the areas in which mining is prohibited. Under the old provision, no mining activity could take place in national natural parks, natural parks with regional character or forest reserves. Under the amended legislation, this prohibition is extended to the *paramo* ecosystem and wetlands designated under the Ramsar Convention. Note that the amendments of Law 1382/2010, to add requirements for concession contracts proposals, mining zones and extensions and renewals of contracts, etc., were declared unconstitutional by the Colombian Constitutional Court C366/2011. However, the effects of the decision have been deferred for two years in order to protect the ethnic groups' rights, until the Congress enacts a constitutional version of the law to regulate this matter.
[176] República de Colombia, Ministry of Environment, Housing and Territorial Development, Resolution No. 1015: denying an environmental license to Canadian company Greystar; online (Español):

Prohibit mining activities in migratory bird sanctuaries
[Tags: Birds; Wildlife; No-Go Zones]

Canada's *Migratory Birds Convention Act* prohibits persons or vessels from depositing harmful substances into waters frequented by migratory birds.[177] In Quebec, mineral claim staking cannot be carried out on land designated as a migratory bird sanctuary under the *Migratory Birds Convention Act* without prior authorization of the Minister.[178] Similarly, under Philippine mining legislation, mining applications cannot be made for "game refuge and bird sanctuaries as defined by law".[179] No similar protection of these important habitats is explicitly provided under BC's mining legislation.

Prohibit mining activities in ecologically sensitive areas
[Tags: Environment; Ecology; No-Go Zones]

Some lands, due to unique environmental sensitivities or lack of current technical capacity, are impossible to reclaim after intrusive mining activities. In BC, many environmentally sensitive areas are protected as ecological reserves in which mineral prospecting and road building are explicitly prohibited.[180] Many other jurisdictions also recognize the importance of protecting ecologically sensitive areas from mining activities through stronger legal provisions.

For example, in Alaska citizens can petition to have certain lands designated as unsuitable for surface coal mining: lands will be designated as such if the regulatory authority determines that reclamation is not feasible.[181] In Minnesota, the regulatory authority must develop procedures to identify areas, or types of areas, that cannot be reclaimed from mining activities with existing techniques. In such cases, permits will not be issued in these areas until such time that the authority determines technology is available to satisfy reclamation laws.[182] In Montana, the regulatory authority can rely on past mining experiences in determining whether substantial deposition of sediment in streambeds, subsidence, landslides, or water pollution cannot feasibly be prevented. If this determination is made, the regulatory authority must withdraw such areas from mining activities.[183]

Create continuous network of protected areas in which mining activities are prohibited
[Tags: Protected Areas; Network; Connected; No-Go Zones]

The Whitehorse Mining Initiative recognized that "protected area networks are essential contributors to environmental health, biological diversity, and ecological processes, as well as being a fundamental part of the sustainable balance of society, economy, and environment".[184] This principle highlights the importance of maintaining linkages between protected areas to provide adequate habitat and migration corridors.

<http://www.minambiente.gov.co/documentos/normativa/gaceta_ambiental/2011/res_1015_310511.pdf>,(English): <http://www.efeamerica.com/309_hispanic-world/1060768_canadian-miner-gives-up-on-gold-project-in-colombia.html>.

[177] *Migratory Birds Convention Act*, *1994,* SC 1994, c 22 s 5.1(1).

[178] *Mining Act*, RSQ, c M-13.1, s 33(2).

[179] Government of the Philippines, *Philippine Mining Act of 1995*, s 19(f).

[180] *Ecological Reserve Regulations*, BC Reg 335/75, s 1.

[181] Government of the United States, *Surface Mining Control and Reclamation Act*, USC §102(c) (1977).

[182] 2010 Minnesota Statutes, 93.47, Subdivision 3.

[183] Montana Code Annotated 2009, 82-4-227(6).

[184] The Whitehorse Mining Initiative, *Leadership Council Accord, Final Report*, (Whitehorse: The Whitehorse Mining Initiative, October 1994) at 19.

The importance of protected area networks for contributing to cultural integrity, environmental health, landscape and biological diversity, and ecological processes has been recognized by the Innu Nation.[185] The importance of networks of protected areas was also recognized in an assessment of Canadian national parks where it was found that "to successfully fulfill their mandate, national parks must be nested within a larger, sustainably-managed landscape, including a network of protected areas".[186] In Ontario, the objectives of land-use planning include the protection of ecological systems in the Far North in an interconnected network of protected areas designated in community based land-use plans.[187]

The European Union is in the process of establishing Natura 2000, a biological network for the preservation of biodiversity throughout the European Union. Under this framework, member states are required to avoid damaging activities that could significantly disturb protected species or their habitats.[188] A number of countries, including Sweden, have already prohibited mining in the Natura 2000 areas.[189]

Alternative Use No-Go Zones

Overview of BC Law

In addition to withdrawing mineral lands for cultural and ecological reasons, the *Mineral Tenure Act* allows BC's chief gold commissioner to establish, by regulation, a mineral reserve in which mining activities are absolutely (No Registration Reserves) or conditionally (Conditional Registration Reserve) prohibited.[190]

No Registration Reserves (NRRs) prevent proponents from acquiring mineral claims on parcels of land that have been deemed incompatible with mining activity.[191] Conditional Registration Reserves (CRRs) impose specific conditions on proponents who acquire mineral claims on those mineral lands "to ensure that the acquisition of mineral tenure does not interfere with another use of the land".[192]

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[185] Innu Nation, Guidelines for the Mining Industry: A Matter of Respect, *Building a Successful Relationship* at 9.

[186] *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks*, vol. 1 (Ottawa: Parks Canada Agency, 2000) at 16, online <http://dsp-psd.pwgsc.gc.ca/Collection/R62-323-2000-1E.pdf>.

[187] *Far North Act, 2010*, SO 2010, c 18, s 5.

[188] European Commission, *Habitats Directive for Natura 2000*, Art 6, para 2, online: <http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm>; Within Natura 2000 areas, Member States must "take appropriate conservation measures to maintain and restore the habitats and species for which the site has been designated to a favourable conservation status; and avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types."

[189] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (Doctoral Thesis in Real Estate Planning, Royal Institute of Technology (KTH)) (Stockholm: Department of Real Estate and Construction Management, School of Architecture and the Built Environment, SE-100 44, 2010) at 65, 66, online: < http://kth.diva-portal.org/smash/record.jsf?pid=diva2:300248>.

[190] *Mineral Tenure Act*, RSBC 1996, c 292, ss 11(2), 14(5), 21, 22; *Mineral Tenure Act Regulation*, BC Reg 529/2004, ss1, 4(2); *Mineral and Coal Land Reserve (No Mineral or Placer Mineral Registrations) Regulation*, BC Reg 280/2007; and *Mineral and Coal Land Reserve (No Mineral Claim Registrations) Regulation*, BC Reg 171/2011. (This is similar to Ontario's *Mining Act*, RSO 1990, c M.14, s 35(2)).

[191] Ministry of Energy and Mines, *Mineral Reserves,* online: <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Documents/general/Reserves.pdf>.

[192] Ministry of Energy and Mines, *Mineral Reserves* online: <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Documents/general/Reserves.pdf>; this power is similar to that of other jurisdictions. In New Brunswick, the Lieutenant-Governor in Council is empowered to withdraw "any land in the Province from prospecting and registration of mineral claims for all or certain minerals" (*Mining Act*, S.N.B. 1985, c. M-14.1, s 25(1). Similarly, in Manitoba, the Lieutenant Governor in Council is empowered to enact regulations that "designate areas for which mineral

The alternative land uses that the Chief Gold Commissioner may consider in determining whether mining activities are incompatible include:[193]

- "First Nations (Indian reserve additions, cultural sites, Treaty Lands, federal transfer of administration and control);
- archaeological (fossils);
- energy (hydropower, pipelines, energy transmission lines, wind power);
- transportation (roads and highways);
- parks (additions, proposed or new protected areas);
- recreation (camps and ski development areas); and
- watershed (water reservoir, drinking water, community watershed, fish)."

For example, a CRR may be established to prevent a person from interfering with, obstructing or endangering the construction, operation or maintenance of a proposed hydro transmission line".[194]

Anyone with the appropriate documentation can apply to the government to create an NNR or CCR for one of the above purposes.[195] Although the application form suggests that these reserves can only be in place for up to five years, this limit is not prescribed in the legislation. If these reserves are created on lands on which mineral claims have already been staked, the proponents may be entitled to compensation for the loss of the use of this land.

Issue

Agriculture is not explicitly recognized as an alternative land use that warrants the creation of a mineral reserve.

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exploration licences may not be given" (*Mines and Minerals Act*, C.C.S.M. c. M162, s 52(1)). In the Unites States, the Secretary of the Interior has the authority to withdraw federal land in any US state from mineral entry (*Federal Land Policy and Management Act* (FLPMA), 43 U.S.C. § 1714. This "administrative withdrawal" process allows for anyone to file an application for a requested withdrawal action (*Federal Land Policy and Management Act* (FLPMA), 43 U.S.C. § 2310.1). Upon receiving an application, the Secretary of the Interior will "segregate" the lands for a period of up to two years while it considers whether to impose a withdrawal (The process that the Bureau of Land Management (BLM) follows for evaluating proposals for mining on withdrawn lands can be found at 43 C.F.R. § 3809.100). Once land is withdrawn, no new mineral claims can be filed on the land. However, it does not preclude development of existing, valid claims. This process has been used to request the withdrawal federal riparian lands in southern Oregon (Oregon Congressman Peter DeFazio, "Defazio, Wyden and Merkley Push to Protect Natural Treasures in Southwest Oregon from Mining" (2010) and federal lands near the Grand Canyon in Arizona (U.S. Department of the Interior Bureau of Land Management, "Proposed Mineral Withdrawal Near Grand Canyon" (June 20, 2011).

[193] *Mineral Tenure Act,* RSBC 1996, c 292, *s* 22*;* British Columbia Ministry of Energy and Mines, *Request for Reserve: Mineral Tenure Act,* s. 22*/Coal Act, s. 21* (Application Form), online: <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Forms/Documents/MineralTitlesBC-ReserveRequestForm.pdf >.

[194] Ministry of Energy and Mines, *Mineral Reserves,* online: <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Documents/general/Reserves.pdf>.

[195] West Virginia has a similar process whereby "any person having an interest which is or may be adversely affected" is granted the legal right to petition the regulatory authority to have an area designated as unsuitable for mining. A clear process – which includes a mandatory public hearing and written reasons for the final decision – is specified in the legislation to guide the regulatory authority's response to such a petition (West Virginia, *Surface Coal Mining and Reclamation Act*, s.22-3-22(b). The public may also apply for the withdrawal of Federal lands from mineral entry under the Unites States' *Federal Land Policy and Management Act* (*Federal Land Policy and Management Act* (FLPMA), 43 U.S.C. § 1714).

Recommended Solution

Restrict mining activities on agricultural lands
[Tags: Agriculture; No-Go Zones]

In BC, mineral claims may be staked and, with the proper authorization, proponents may conduct mining activities on agricultural land that is not either an orchard or currently under cultivation.[196] Where such agricultural lands are located on settlements lands over which a First Nation has legislative authority, the application must be filed with the applicable treaty government.[197] The application must then be authorized by a law of that First Nation before being approved.[198]

If the agricultural land is not situated within the jurisdiction of a First Nation or a local government, adequate notice of the intention to use the land for mining must be filed with the Provincial Agricultural Land Commission. Permission will likely be granted with associated conditions.[199] In BC, there is no explicit requirement that preliminary surveys of agricultural lands be completed before mining rights are granted in a specific area.

In contrast, under US federal law, a permit application to use agricultural lands for coal mining must include a reconnaissance inspection to identify prime farmlands, and a soil survey of such lands.[200] Use of prime farm land for mining will only be permitted if, after consultation with the government authority responsible for agriculture, the regulatory authority finds that "the operator has the technological capability to restore such mined area, within a reasonable time, to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area under equivalent levels of management and can meet the soil reconstruction standards".[201] In addition, permission to mine on prime farmlands will contain specific conditions for soil removal, storage, replacement, and reconstruction.[202]

In New South Wales (Australia), a landholder entitled to use land for agricultural purposes who is served a notice regarding the granting of a mineral claim on those lands may object to this occurring.[203] Clear procedures for conflict resolution in such a case are outlined in the applicable legislation.[204]

In Victoria (Australia), a miner applying to carry out mining activities on agricultural land must submit a statement of the economic significance of the work that compares the benefits of the proposed work (including employment and revenue considerations) to those benefits that would accrue if the mining activity was not carried out on the agricultural land.[205] This statement must be shared with the owners and occupiers of the agricultural land within a set time period.[206] Where the regulatory authority decides "*that there would be greater economic benefit to Victoria in continuing the use of the land as*

[196] *Mineral Tenure Act,* RSBC 1996 c 292, s 11(2)(d); *Agricultural Land Commission Act*, SBC 2002, c 36, s 20(3).
[197] *Agricultural Land Reserve Use, Subdivision and Procedure Regulation*, BC Reg 171/2002, ss 19(b), 29(2)(b), 30.
[198] *Agricultural Land Commission Act*, SBC 2002, c 36, s 30(4.1).
[199] *Agricultural Land Commission Act*, SBC 2002, c 36, ss 20(4),(5).
[200] Government of the United States, *Surface Mining Control and Reclamation Act*, USC tit 30 §1257(b)(16) (1977).
[201] Government of the United States, *Surface Mining Control and Reclamation Act*, USC tit 30 §1260(d)(1) (1977).
[202] Government of the United States, *Surface Mining Control and Reclamation Act*, USC tit 30 §1265(b)(7) (1977).
[203] New South Wales (Australia) *Mining Act* 1992, No.29, s 179(1).
[204] New South Wales (Australia) *Mining Act* 1992, No.29, Schedule 2.
[205] Victoria (Australia), *Mineral Resources (Sustainable Development) Act* 1990, s 26A(2).
[206] Victoria (Australia), *Mineral Resources (Sustainable Development) Act* 1990, s 26A(4).

agricultural land than in carrying out the work proposed to be carried out on that land under the licence", a process is provided for excising the agricultural land from the mining lease.[207]

The above examples ensure that due regard is granted to important agricultural lands, so that mining activities are not granted an unreasonable preferential land-use status.

[207] Victoria (Australia), *Mineral Resources (Sustainable Development) Act,* 1990, s 26B-26D.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 5:

Mineral Prospecting and Exploration

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
March, 2013

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Chapter Summary

British Columbia's recent boom in mineral prospecting and exploration has cast light on some of the deficiencies in BC mining law. **Chapter 5: Mineral Prospecting and Exploration** compares BC's current prospecting and exploration laws with laws from other jurisdictions in Canada and abroad, to highlight where BC should modernize and strengthen its legislation.

BC does not have any laws regulating the manner in which prospecting activities are conducted. Accordingly, prospecting occurs without any government guidance, direction or oversight. There is also no statutory requirement for the government or a proponent to notify or consult First Nations before prospecting occurs on their traditional territories or for miners to enter into access agreements with First Nations before prospecting activities may commence. Other jurisdictions have legislation that better protects Indigenous people's interests and the environment. These laws include requiring prospectors to obtain consent from Indigenous people before entering the land, requiring prospectors to take a cultural awareness program on issues related to Indigenous interests and requiring a signed agreement to respect Indigenous people's heritage. Other jurisdictions also mitigate environmental consequences of prospecting by attaching conditions to prospecting activities or requiring permits for prospecting activities. Introducing similar regulations for prospecting in BC would better protect First Nations' interests and the environment.

If a mineral deposit is discovered during prospecting, the next step is to explore that deposit further. In BC, exploration permits are required for many exploration activities and in most cases are obtained by submitting a Notice of Work application to the Ministry of Energy and Mines. The information currently required in a Notice of Work application is often insufficient for the government to make an informed decision about the potential social, cultural, economic and environmental consequences of the proposed exploration activities and the proponent's capacity to manage these potential consequences. In addition, First Nations often have very little time or resources to provide comments and recommendations in response to Notice of Work referrals.

BC should follow the example of jurisdictions with more stringent permitting processes and require proponents applying for exploration permits to include cultural heritage assessments, socio-economic benefits plans, environmental protection plans, closure and reclamation plans, and estimates of revenue and expenditures, as well as details of the miner's experience, and technical and financial resources.

Additionally, the Chief Inspector of Mines is empowered to exempt a proponent from having to obtain a permit for exploration activities. When this happens, there is no residual legal requirement to complete an environmental protection plan, which creates a gap in environmental protection planning. Unlike BC, other jurisdictions require an environmental protection plan for all exploration activities.

Once the province receives a Notice of Work application, it refers it to other affected government agencies and stakeholders, including First Nations. The legal basis for referring the Notice of Work to First Nations stems from the Crown's common law duty to consult and is not explicitly required by the relevant legislation. Furthermore, there are no provisions to ensure consultation occurs when a

proponent is exempt from having to submit a Notice of Work application or requiring notifying the public about proposed exploration activities.

In most cases, First Nations and other stakeholders only have 30 days to comment on a Notice of Work application, which is often insufficient to evaluate the impact of the proposed exploration activities and to prepare a sufficient response.

After First Nations and other stakeholders have a cursory opportunity to comment on the Notice of Work Application, the government decides whether to grant an exploration permit. BC has no legislation specifying what factors the government must consider prior to issuing the permit. Thus, permits may be awarded irrespective of whether First Nations' consent has been obtained or whether the proponent has proven it has the ability and resources to meet its social and environmental obligations. Other jurisdictions require Indigenous people's consent prior to issuing an exploration permit. Decision makers in other jurisdictions must also consider input from other government agencies, and must consider specific factors, such as the proponent's financial resources, technical competence, track record, and plan for local employment. Requiring the BC government to consider these factors prior to issuing an exploration permit would strengthen and clarify the decision making process and help BC meet its duty to consult with First Nations.

The only way the public can challenge the issuance of a Free Miner Certificate or approval of a Notice of Work application is through a judicial review. BC should provide a legal process for challenging the issuance of prospecting and exploration permits.

Exploration permits are usually issued with certain attached conditions. However, the Chief Inspector has discretion to waive most of these. In BC, exploration permits do not require mandatory posting of security bonds, do not adequately protect cultural heritage resources, and do not adequately regulate environmental issues in exploration camps. Laws in other jurisdictions attach conditions to exploration permits that address these issues. Examples include mandatory posting of security for all exploration activities, and extending compensation to third parties, including Indigenous people. Also, laws in other jurisdictions require the proponent to immediately cease work and notify the local Indigenous community, as well as the government if a cultural site or object is discovered. Additionally, stronger measures to protect the environment are attached to permits in other jurisdictions, where laws require wider riparian setbacks, mandatory reporting of the discovery of uranium or thorium, suspension or relocation of vehicles in cases of road degradation, and installation of permanent erosion control structures on abandoned roads. Additional measures to protect the environment include requiring ongoing refuse management and site maintenance at exploration camps, and shorter time periods for the removal of the exploration camp.

Although drilling activities are regulated in BC, additional conditions attached to the exploration permit could substantially reduce the environmental impacts of drilling. Laws from other jurisdictions include bans on the use of harmful contaminants in drill fluids, more stringent requirements regarding the storage of fuel and lubricants, regulation of the management of drill fluids, requirements for the

management of ground subsidence areas and regulations for drill hole abandonment. Some jurisdictions also require that drill cores be preserved, which could help avoid unnecessary repeat exploration, preservation of borehole logs, which can contain important information for regional groundwater aquifer mapping, and identification on exploration equipment, which allows inspectors to more easily identify proponents and enforce the terms of a permit or licence. Incorporating these provisions into BC law would substantially improve the effectiveness and enforcement of reclamation in areas disturbed by exploration activities

In conclusion, modernization of BC mining laws pertaining to mineral prospecting and exploration would help clarify the relationship between First Nations and prospectors and ensure better protection against the environmental impact of exploration activities.

Table of Contents

Chapter Summary **120**

Prospecting versus Exploration **126**

Regulating Prospecting Activities **126**

Overview of BC Law 126
Issue 127
Recommended Solutions 127
Require proponents to obtain consent from First Nations before entering the land 127
Require miners to take cultural awareness program as pre-requisite to obtaining a Free Miner Certificate 128
Require miners to pledge to respect First Nations' cultural heritage as pre-requisite to obtaining a Free Miner Certificate 128
Issue 129
Recommended Solutions 129
Attach conditions to prospecting activities to minimize environmental damage 129

Regulating Exploration Activities **130**

Overview of BC Law 130
Content of Notice of Work Application *131*
Overview of BC Law 131
Issue 131
Recommended Solutions 131
Include cultural heritage assessment in permit application for exploration activities 131
Include socio-economic benefits plan in permit application for exploration activities 132
Require environmental protection planning for exploration activities 132
Include closure and reclamation plans in permit application for exploration activities 133
Include estimate of revenue and expenditures in permit application for exploration activities 133
Include details of miner's experience, and technical and financial resources in permit application for exploration activities 134
Consultation at Notice of Work Application Stage *134*
Overview of BC Law 134
Issue 134
Recommended Solution 135
Require meaningful consultation with First Nations at permit application stage for *all* exploration activities 135
Issue 135
Recommended Solution 135
Notify public of Notice of Work application for proposed exploration activities 135
Criteria for Evaluating Notice of Work Application for Exploration Activities *135*
Overview of BC Law 135
Issue 135

Recommended Solutions....136
Require First Nations' consent before Notice of Work application is approved and exploration activities commence....136
Consider proponent's plan for local employment in activities related to mineral exploration....137
Consider proponent's financial resources and technical competence in Notice of Work application review....137
Consider miner's track record in review of Notice of Work application....138
Consider input from other government departments in review of Notice of Work application....139
Government Accountability in Issuance of Exploration Permits....139
Issue....139
Recommended Solutions....140
Create legal process for challenging the issuance of prospecting or exploration permits....140
Conditions to attach to Exploration Permits....140
Financial Security....140
Overview of BC Law....140
Issue....140
Recommended Solutions....141
Require reclamation security for all exploration activities....141
Extend compensation to First Nations for damage caused by exploration activities to First Nations....141
Protection of Cultural Heritage....141
Overview of BC Law....141
Issue....143
Recommended Solutions....143
Immediately cease work and report if a cultural site or object is discovered during exploration activities....143
Report and record discovery of cultural sites and objects during exploration activities....144
Environment Safeguards....145
Overview of BC Law....146
Issue....146
Recommended Solutions....147
Increase riparian setbacks for exploration activities....147
Require proponents to report discoveries of uranium or thorium....148
Exploration Access Roads & Water Crossings....149
Overview of BC Law....149
Issue....150
Recommended Solutions....150
Create legal and policy requirements to work with First Nations, other ministries and environmental experts to manage access....150
Require proponents to suspend or relocate vehicle use in the event of road degradation....150
Require installation of permanent structures or retaining banks on abandoned access roads to control erosion and siltation....150
Exploration camps....151
Overview of BC Law....151
Issue....151

Recommended Solutions....151
Require ongoing refuse management and site maintenance at exploration camps....151
Decrease allowable time for exploration camp removal....152
Drilling....152
Overview of BC Law....152
Issue....153
Recommended Solutions....153
Determine drill site location through access and/or exploration agreements....153
Prohibit use of non-biodegradable and toxic drilling fluids....153
Require proper storage of fuel and lubricants, including secondary containment storage....153
Regulate management of drill fluids, re-circulate drill muds and contain sumps....154
Require preservation of drill core samples....154
Require submission of borehole logs to regulatory authority....155
Require management of ground subsidence caused by drilling activities and prohibit use of contaminated or noxious materials to fill subsidence areas....155
Regulate drill hole abandonment: contaminants; fluid movement; and sealants....155
Require identification on exploration equipment....156
Reclamation....156
Overview of BC Law....156
Issue....157
Recommended Solutions....157
Backfill trenches by using overburden and bedrock and replacing vegetative mat....157
Require use of certain species for re-vegetation....157

Prospecting versus Exploration

Prospecting usually refers to the search for minerals deposits. If a potential mineral deposit is discovered during prospecting, the deposit may be subject to further exploration to find out more about its size, location, and composition.

Prospecting and exploration usually involve different activities. Although BC's laws do not define prospecting, it is generally understood to mean non-mechanical, low-impact activities, such as desktop searches, geological field mapping and rock-chip sampling.[1] Exploration activities, by contrast, tend to be more intrusive than prospecting activities and generally require the use of heavy machinery for road construction, drilling, blasting, and trenching.[2]

Prospecting and exploration activities can also be distinguished according to how they are regulated.[3] In BC, prospecting activities can be performed by any holder of a Free Miner Certificate.[4] Exploration activities, by contrast, require government approval in the form of a mine permit obtained by filing a Notice of Work Application.[5]

Regulating Prospecting Activities

Overview of BC Law

Upon obtaining a Free Miner Certificate and staking a claim (see **Chapter 4: Mineral Tenure & Land Use Planning**), a person has the right to enter land to conduct the following prospecting activities:[6]

- use of hand tools;

[1] Prospecting may, however, be included in the definition of "mining activity" in BC's *Mine Act,* which includes any "activities related to the search for minerals".

[2] British Columbia, Ministry of Energy, Mines and Petroleum Resources and the Ministry of Environment, *Handbook for Mineral and Coal Exploration in British Columbia: A Working Field Guide* (Victoria: Queen's Printers, 2008) at 3, online: <http://www.empr.gov.bc.ca/Mining/Exploration/Documents/MXHandbook2008-09.pdf>;The United States Bureau of Land Management defines exploration as: "Exploration means creating surface disturbance greater than casual use that includes sampling, drilling, or developing surface or underground workings to evaluate the type, extent, quantity, or quality of mineral values present. Exploration does not include activities where material is extracted for commercial use or sale." 43 CFR 3809.5 (2011). Queensland, Australia distinguishes high-impact activity, i.e. full-scale exploration, as anything greater than "aerial surveys, geological and surveying field work that does not involve clearing, sampling by hand methods, ground-based geophysical surveys that do not involve clearing, certain drilling and activities associated with drilling, and environmental field work that does not involve clearing." *Mineral Resources Act 1989* (Qld) ss 482-83.

[3] Exploration activities are regulated under the Mines Act, the Mineral Tenure Act, the Health Safety and Reclamation Code (the HSR Code), and numerous other regulations.

[4] These activities are exempt from the definition of "exploration activities" in BC's HSR Code, Part 9. For the purposes of this publication, we will be referring to these excluded activities as prospecting activities.

[5] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.2.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.

[6] These activities are exempt from the definition of "exploration activities" in BC's HSR Code, Part 9. For the purposes of this publication, we will be referring to these excluded activities as prospecting activities.

- geological/geochemical surveying;
- airborne geophysical surveying;
- ground geophysical surveying without use of exposed, energized electrodes;
- hand trenching without use of explosives; and
- establishment of exploration grid lines that do not require felling of trees (except trees and shrubs that create a hazard to safe passage and danger trees as defined in the Workers' Compensation Board Regulation).

This right of entry does not, however, apply to Indian Reserves[7] or to the following lands:[8]

- land occupied by a building;
- the curtilage of a dwelling house;
- orchard land;
- land under cultivation;
- land lawfully occupied for mining purposes, except for the purposes of exploring and locating for minerals or placer minerals as permitted by the *Mineral Tenure Act*;
- protected heritage property, except as authorized by the local government or minister responsible for the protection of the protected heritage property; and
- land in a park unless authorized by the Lieutenant Governor in Council.

The remaining 87% of the land in BC is designated as 'mineral lands' on which holders of a Free Miner Certificate may enter to search for minerals.[9] BC does not have any laws regarding the manner in which prospecting activities should be conducted. Therefore, prospecting activities are conducted on mineral lands without any government guidance, direction or oversight.

Issue

There is no statutory requirement for the government or a proponent to notify or consult First Nations before prospecting occurs on their traditional territories.

Recommended Solutions

<u>Require proponents to obtain consent from First Nations before entering the land</u>
[Tags: Access Agreement; Consent; Prospecting; Pre-condition]

First Nations' consent to prospecting activities on their traditional territories can be realized by way of entering into an access agreement with the proponent. There are several reasons why such access agreements should be finalized prior to allowing proponents to enter the land. First, it provides First Nations prior notice of the intended prospecting activities. Second, it provides an opportunity for First Nations to exercise some control over the timing, location and type of prospecting activities. Third, the

[7] Under section 11 of BC's Mineral Tenure Act, the right of entry only applies to **"mineral lands"** which are defined in section 1 as "lands in which minerals or placer minerals or the right to explore for, develop and produce minerals or placer minerals is vested in or reserved to the government, and includes Crown granted 2 post claims". The minerals or right to the minerals in Indian Reserves do not vest with the provincial government and are therefore not subject to the BC Mineral Tenure Act.
[8] *Mineral Tenure Act*, BC Reg 529/2004, s 11(2).
[9] Judah Harrison, *Too Much At Stake: The Need for Mineral Tenure in BC* (Vancouver: Ecojustice, June 2010) at 5.

reaching of an agreement could help foster more positive relations between proponents and First Nations. Finally, it could assist in ensuring common law consultation and accommodation requirements are met (See **Chapter 3: Indigenous Rights, Consultation & Consent** for a discussion on recent developments in the law regarding the duty to consult and accommodate First Nations before entering their territories to engage in exploration and prospecting activities).

BC law does not require miners to notify First Nations, obtain their consent, or enter into an access agreement before obtaining a Free Miner Certificate. In contrast, other jurisdictions require that access agreements be in place with Indigenous peoples *before* prospecting activities may commence. For example, in New Zealand, an "access arrangement" is a necessary precondition to explore on land owned or occupied by the Maori people.[10] Where there is no single Maori land-owner, a Maori Trustee serves as the counter-party in negotiations over the access arrangement with miners.[11] In Queensland (Australia), Indigenous peoples have the right to be consulted and enter into access agreements before prospecting activities occur in their territories (ie, where they are the recognised holders of native title for a particular area or are the registered native title claimants for that area).[12] In Alberta, although a formal 'access agreement' is not required, the consent of the Métis settlement council must be obtained before any exploration can be carried out on land within the boundaries of a Metis settlement.[13]

<u>Require miners to take cultural awareness program as pre-requisite to obtaining a Free Miner Certificate</u>
[Tags: Prospecting; Exploration; Cultural Awareness; Pre-Requisite]

In BC, miners are not required to have any prior knowledge or understanding of First Nations' territories, rights and concerns. By contrast, other jurisdictions have taken affirmative steps to encourage cultural sensitivity among miners operating on indigenous peoples' traditional territories. For example, in Ontario, potential prospectors must successfully complete, within 60 days *before* the submission date of a prospecting licence application, a prospector awareness program on issues related to Indigenous interests.[14] In the United States, similar training is required for employees of the Department of the Interior.[15]

<u>Require miners to pledge to respect First Nations' cultural heritage as pre-requisite to obtaining a Free Miner Certificate</u>
[Tags: Prospecting; Exploration; Cultural Protection; Pre-Requisite]

The Association for Mineral Exploration British Columbia has recommended that miners recognize and respect the traditional heritage of First Nations when pursuing mining activities in BC. Such a pledge could raise awareness about the rights of First Nations, and could foster on-going relationships between

[10] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 54(2).
[11] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 80(1).
[12] *Mineral Resources Act, 1989* (Qld), ss 25AA, 433-435.
[13] *Exploration Regulation*, Alta. Reg. 284/2006, s 8(1)(i); *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/1998, s 21.
[14] *Mining Act*, RSO 2009, c 21, s 7(1).
[15] Department of Interior, *Tribal Consultation Policy*, 2011, at s V, online: <http://www.doi.gov/cobell/upload/FINAL-Departmental-tribal-consultation-policy.pdf>.

proponents and First Nations across the Province.[16] In Western Australia, government policy requires applicants for a "prospecting licence" to either sign the relevant 'regional standard heritage agreement' (which sets out procedures for protecting Indigenous heritage) for the area or "prove" they have an existing heritage agreement in place before the application can progress through a 'fast track' native title process to allow for the prospecting licence to be granted.[17]

Issue

Prospecting activities have the potential to create adverse environmental consequences, such as waste generation, off-road use of motorized vehicles, and impacts to water from chemical spills. However, BC's Free Miner Certificate does not mandate how certificate holders should conduct prospecting activities.

Recommended Solutions

Attach conditions to prospecting activities to minimize environmental damage
[Tags: Prospecting; Permit]

In BC, there are no legal requirements for how Free Miner Certificates should conduct prospecting activities. In contrast, Queensland (Australia) has a Code of Environmental Compliance for prospecting activities.[18] Attaching conditions to prospecting activities has also been recognized under international law. The UN Convention on the Law of the Sea, 1982 states: "prospecting shall be conducted only after the Authority has received a satisfactory written undertaking that the proposed prospector will comply with this Convention and the relevant rules, regulations and procedures of the Authority concerning cooperation in the training programmes…and *the protection of the marine environment*, and will accept verification by the Authority of compliance therewith".[19]

In BC, such conditions could be incorporated into the Free Miner Certificate application process or by requiring a permit for prospecting activities. Many other jurisdictions already require permits for prospecting activities. In Canada, these jurisdictions include: Manitoba,[20] Ontario,[21] Quebec,[22] Northwest Territories[23] and Nunavut.[24] Outside Canada, jurisdictions that require prospecting permits

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[16] Annie Booth and Norm Skelton, *Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process* (Environmental Impact Assessment Review 31 (2011) 216–225) at 224.
[17] Government of Western Australia, Department of Mines and Petroleum, *Regional Standard Heritage Agreement Policy,* online: http://www.dmp.wa.gov.au/4327.aspx. The 'fast-track' process referred to is the expedited procedures regime under the Native Title Act 1993 (Cth) that allows for certain low impact tenements that are likely to have minimal impact on native title rights to be fast-tracked through a native title process without a 'right to negotiate' to apply. See the National Native Title Tribunal's publication, 'Fast Tracking the Grant of Some Mining Tenements' (March 2009), available online at: http://www.nntt.gov.au/Future-Acts/Documents/Fast-tracking%20the%20grant%20of%20some%20mining%20tenements.pdf
[18] Government of Queensland, Department of Environment and Heritage Protection, *Code of Environmental Compliance for Mining Claims and Prospecting Permits* (pursuant to *Environmental Protection Act 1994,* s 49(2) and *Environmental Protection Regulation, 2008,* schedule 3), online: http://www.ehp.qld.gov.au/licences-permits/compliance-codes/pdf/code-mining-claims-prospecting-permits-em587.pdf.
[19] *United Nations Convention on the Law of the Sea*, 10 December 1982, 1833 U.N.T.S. 3, 397; 21 I.L.M. 1261, Annex III: Basic Conditions of Prospecting, Exploration and Exploitation, art 2, s 1(b).
[20] *Mines and Minerals Act*, CCSM c M162, s 45(1).
[21] *Mining Act*, RSO 1990, c M 14, s.18(1)
[22] *Mining Act*, RSQ, c M-13.1, ss 19-20.
[23] *Northwest Territories and Nunavut Mining Regulations*, CRC, c 1516, ss 7-8.

include: Sweden,[25] Finland,[26] Mozambique,[27] and the Australian states of Western Australia,[28] Queensland,[29] New South Wales[30] and Victoria.[31]

Regulating Exploration Activities

Overview of BC Law

If a potential mineral deposit is discovered during prospecting, then it will likely be explored further to find out more about its distribution, size, quality, composition, etc. This information will be used by the proponent to assess whether the deposit is worth mining.

Various exploration techniques may be used to collect this necessary information. In BC, a mine permit is almost always required before a free miner may commence the following exploration activities:[32]

- mechanical drilling, trenching, excavating;
- blasting;
- construction, modification, deactivation, reclamation of access areas and camps;
- induced polarization surveys using exposed electrodes; and
- site reclamation.

This mine permit is obtained by submitting a Notice of Work application to the Minister of Energy and Mines (although in some cases, the Chief Inspector may grant an exemption from this requirement).[33]

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[24] *Northwest Territories and Nunavut Mining Regulations*, CRC, c 1516, ss 7-8.
[25] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 209, online: http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01; *Minerals Act SFS 1991:45,* (Sweden Minerals Act), c 4, ss 5,6,7.
[26] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 209, online: http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01; *Finland Mining Act of 2011*, (19.6.2011/621), ss 8-10.
[27] *Mining Law* (Law n.º 14/2002 of 26 June, Mozambique), art 7, para 5; *Mining Regulations* (Decree n.º 62/2006 of 26 December, Mozambique), art 24, para 2 and art 25, para 1.
[28] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 215, online: http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01; Western Australia, *Mining Act 1978* (WA), ss 40-42.
[29] *Mineral Resources Act, 1989* (Qld), s 25A.
[30] *Mining Act 1992* (NSW), s 32B.
[31] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 4(1).
[32] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) at p 9, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[33] *Mineral Tenure Act*, RSBS 1996 c 292 s 14(2); *Mines Act*, RSBC 1996 c 293 ss 10(1),(2). Note that such an exemption, if granted, also exempts the miner from having to comply with the *Environmental Management Act,* SBC 2003 c 53 s 6(5) as it relates to the discharge of waste; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), p 9.2.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>; *see* British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: 2010), online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.

The following sections review the legal requirements for obtaining a permit for exploration activities in BC as compared to other jurisdictions with respect to the:

- content of Notice of Work Applications;
- consultation on Notice of Work Applications;
- criteria for evaluating Notice of Work Applications; and
- conditions to attach to exploration permits, if Notice of Work Applications are approved.

Content of Notice of Work Application

Overview of BC Law

In BC, proponents must submit the following information in their Notice of Work applications:[34]

- contact information about the applicant, permittee and operator;
- tenure information, land-use designation and resource inventory;
- site location (including maps) and timeline (including schedules) of the exploration activity;
- description of the project and types of proposed exploration activities (such as blasting, trenching, etc.);
- identification of any cultural heritage resources;
- confirmation of consultation with First Nations and the public;
- details of actions designed to minimize any adverse impacts of the proposed activity; and
- any other information required by the Chief Inspector.

Issue

The information currently required in a Notice of Work application is often insufficient for the government to make an informed decision about the potential social, cultural, economic and environmental consequences of the proposed exploration activities and the proponent's capacity to manage these potential consequences. In addition, First Nations often have very little time or resources to provide comments and recommendations in response to Notice of Work referrals.

Recommended Solutions

<u>Include cultural heritage assessment in permit application for exploration activities</u>
[Tags: Exploration; Notice of Work Application; Cultural Protection]

BC's Notice of Work application requires miners to attach information and supporting evidence that describes the type of inquiries made to determine the presence of cultural heritage resources.[35] Only if

[34] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.2.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.
[35] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.

such resources are found are applicants required to attach a plan detailing how they propose to protect the cultural heritage resources. At first glance, this requirement appears to protect cultural heritage resources. However, if the proponent does not make adequate inquiries, the contingent assessment can be avoided.

Legislation in New South Wales (Australia) sets out a number of offences for harming 'Aboriginal objects', along with certain defences, including the exercise of appropriate standards of due diligence if a proponent unknowingly harms Aboriginal objects.[36] In the case of ground disturbing activities, a cultural heritage assessment is required to determine whether activities could harm Aboriginal objects and any further steps that may be required (eg, whether the proponent needs to apply for an Aboriginal heritage impact permit where Aboriginal objects are or likely to present any the proposed activity will cause harm). This assessment includes a search of a government database of notified Aboriginal objects to help determine whether the proposed exploration activity would affect any Aboriginal objects on the land.[37] A similar mandatory cultural heritage assessment in the Notice of Work application would help ensure that the proposed exploration program will not adversely affect any land or objects of cultural significance to First Nations.

Include socio-economic benefits plan in permit application for exploration activities
[Tags: Exploration; Notice of Work Application; Socio-Economic Benefits]

In Zambia, a licence application must contain a proposal for employment and training of citizens of Zambia and for promoting local business development.[38] No similar requirement is mandated under BC law.

Require environmental protection planning for exploration activities
[Tags: Exploration; Notice of Work Application; Environment Protection; Plan]

Under BC law, if the Chief Inspector exempts a miner from having to obtain a permit for exploration activities, there is no residual legal requirement to complete an environmental protection plan. This creates a gap in environmental protection planning for exploration activities.[39]

In contrast, in other jurisdictions, environmental protection plans are mandatory for all exploration activities. For example, in Mongolia, no exploration activities can commence until an environmental

[36] *National Parks and Wildlife Act 1974* (NSW), Part 6.
[37] See New South Wales Department of Environment, *Climate Change and Water, Due Diligence Code of Practice for the Protection of Aboriginal Object sin New South Wales* (13 September 2010), online: http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf. See also, New South Wales Mineral Council Ltd, *NSW Mineral Industry Due Diligence, Code of Practice for the Protection of Aboriginal Objects*, (Sydney: New South Wales Minerals Council Ltd, 2010) at s 3, online: <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/ddcop-minco.pdf>.
[38] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, ss 14(1)(e),(f).
[39] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.2.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. Notice of Work must include details of actions designed to minimize any adverse impacts of the proposed activity.

protection plan has been submitted and approved by the relevant environmental protection authorities.[40] In Zambia, applicants must submit an environmental management plan that sets out "the applicant's proposals for the prevention of pollution, the treatment of waste, the protection and reclamation of land and water resources, and for eliminating or minimizing the adverse effects on the environment of prospecting operations".[41]

Include closure and reclamation plans in permit application for exploration activities
[Tags: Exploration; Notice of Work Application; Closure; Reclamation; Plan]

In BC, to obtain Notice of Work approval, the miner must provide a program for the protection and reclamation of the affected land, watercourses and cultural heritage resources.[42] This information is submitted as part of the Notice of Work application, and requires applicants to "describe the proposed reclamation and timing of reclamation work for all of the areas of disturbance associated with the proposed work".[43] The applicant must also provide an accurate estimate of reclamation costs, and details on reclamation methods, equipment, objectives, and expected results.[44] However, if the Chief Inspector exempts a miner from having to obtain a permit for exploration activities, there is no residual legal requirement to prepare a closure or reclamation plan.

Other jurisdictions explicitly require that closure and/or reclamation plans be submitted for all exploration activities. In the United States, the Department of the Interior requires that an exploration plan, containing preventative and reclamation efforts to mitigate environmental damage, be filed before conducting any exploration activities on Indigenous peoples' territory.[45] In both Oregon and New Mexico, reclamation plans are mandatory for exploration activities.[46] In Manitoba, closure plans are also required for advanced exploration projects.[47]

Include estimate of revenue and expenditures in permit application for exploration activities
[Tags: Exploration; Notice of Work Application; Financial Disclosure]

Estimates of financial expenditures are not explicitly required under BC law for exploration licence applications. In contrast, in Western Australia, a statement must be lodged with the application that

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[40] Koh Naito, Felix Remy and John P Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining* (London: Mining Journal Books Ltd, 2001) at 135; *The Minerals Law of Mongolia* (Amended Version, 2006), arts 38, 39 and 40.
[41] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 14(1)(c).
[42] *Mines Act,* RSBC 1996 c 293 s 10(1). Note that this requirement is subject to the Chief Inspector's discretion to exempt proponents to obtain a permit.
[43] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.
[44] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW%28Jun21_2011%29.pdf>.
[45] 43 CFR § 3809.
[46] OR Rev Stat, § 517.750(13) (2009); NM Stat, § 69-36-13(C)(2) (2010).
[47] *Mines and Minerals Act*, CCSM c M162, ss 74, 111. An advanced exploration project ("AEP") is defined as including excavation, construction, watercourse manipulation for bulk sampling purposes, bulk sample removal of 500 tonnes of material for testing, or any project that is prescribed as an AEP.

provides an estimate of the amount of money proposed to be expended while carrying out exploration activities.[48] Similar requirements are also in place in Vietnam.[49]

Include details of miner's experience, and technical and financial resources in permit application for exploration activities
[Tags: Exploration; Notice of Work Application; Financial Disclosure; Expertise]

In Mozambique, proponents must provide documentation demonstrating the technical and financial resources they have available and their experience in the management and undertaking of the type of operations requested in the permit application.[50] In Angola, prospecting/exploration permits will only be granted to applicants "who are capable of guaranteeing their own technical competence and the financial resources required to execute the operations correctly to meet the intended purposes".[51] Similar requirements are also in place in Malawi.[52]

Consultation at Notice of Work Application Stage

Overview of BC Law

The Ministry of Energy, Mines and Petroleum Resources, on receipt of the Notice of Work, refers it to other affected government agencies and stakeholders, including First Nations. The legal basis for referring the Notice of Work to First Nations stems from the Crown's duty to consult, and it is not explicitly required by the relevant legislation.[53] Although different levels of consultation are required for different types of exploration activities, most cases provide First Nations and other stakeholders with a short 30-day comment period.[54]

Issue

The 30-day comment period provided to First Nations to review Notice of Work applications is often insufficient for First Nations' to evaluate the impact of the proposed exploration activities and to prepare a sufficient response. Furthermore, there are no provisions to ensure that consultation takes place where the proponent is exempt from having to submit a Notice of Work application.

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[48] *Mining Act 1978* (Western Australia), s 58.
[49] *Mineral Law*, (Vietnam, September 1, 1996), art 28.
[50] *Mozambique Mining Regulation* (Decree nº 62/2006 of 26 December), art 21, para 3.
[51] *Mining Law No 1/92*, (Angola, 1992) s 5(3).
[52] *Mines and Minerals* (Malawi, LRO 1/1985) c 61.01, s 27(4).
[53] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *The Mining Process in British Columbia, Canada* (Victoria: Ministry of Mines, Energy and Petroleum Resources), online: <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Documents/general/Mining_Process_BC.pdf>.
[54] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 10.2.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

Recommended Solution

Require meaningful consultation with First Nations at permit application stage for *all* exploration activities
[Tags: Consultation; Exploration; Permit; Notice of Work Application]

Exploration activities may cause significant impacts, particularly when activities are carried out on, or in the vicinity of, First Nations' traditional territories. In recognition of this, Ontario has enacted legislation that mandates that no exploration activities can be carried out until an exploration plan, which complies with any prescribed Aboriginal consultation requirements, has been submitted.[55] Similar consultation requirements are mandated under New South Wales (Australia) legislation for exploration permits.[56]

Issue

In BC, there is currently no requirement to notify the public about proposed exploration activities. This means that the public has no opportunity to comment on whether exploration activities should be permitted.

Recommended Solution

Notify public of Notice of Work application for proposed exploration activities
[Tags: Public; Notice; Exploration; Permit; Notice of Work Application]

In contrast to BC, in New South Wales, within 14 days of submitting an exploration licence application a miner must publish a notice of the application in a "newspaper circulating generally in the State and in at least one newspaper circulating in the locality of the proposed exploration area".[57] Similar notice requirements are a requirement in Western Australia.[58] This ensures that those most likely to be affected by exploration activities, including members of the general public, are notified of proposed mining activities in their local area.

Criteria for Evaluating Notice of Work Application for Exploration Activities

Overview of BC Law

BC legislation does not specify what factors the Minister must consider in deciding whether to approve a Notice of Work application and issue a permit for exploration activities.

Issue

The lack of criteria to guide decision-making means that permits may be awarded irrespective of whether or not: a) First Nations' consent has been obtained; or b) the proponent has proven it has the ability and resources to meet its social and environmental obligations.

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[55] *Mining Act*, RSO 1990, c M 14, s 78.2(1).
[56] *Mining Act 1992*, (NSW), s 32F(2).
[57] *Mining Act 1992*, (NSW), s 13A(1).
[58] *Mining Act 1978 (WA),* s74. Also see Environmental Defender's Office of Western Australia (Inc) Mining Law Fact Sheet (updated January 2011) and available at: http://www.edowa.org.au/files/factsheets/me_mining.pdf

Recommended Solutions

Require First Nations' consent before Notice of Work application is approved and exploration activities commence
[Tags: Notice of Work Application; Exploration; Consultation; Consent; Exploration Agreement; Permit]

In BC, the Notice of Work application simply requires proponents to check a box to indicate whether they have "consulted with First Nations in the area of the proposed activity". This provides scant details about who the proponent consulted with, what means of consultation were engaged, and the result of the consultation. Moreover, the law does not require the government to consider the proponent's consultation efforts in deciding whether or not to issue the permit.

Other jurisdictions require decision-makers to consider this factor in deciding whether to issue an exploration permit. In Ontario, when reviewing the exploration licence applications, the regulatory authority must consider "whether Aboriginal consultation has occurred in accordance with any prescribed requirements, which may include consideration of any arrangements that have been made with Aboriginal communities that may be affected by the exploration".[59] In the Philippines, mineral exploration is prohibited on the "ancestral land" of Indigenous peoples unless Indigenous representatives provide prior consent.[60]

Many jurisdictions have incorporated the pre-exploration consultation requirements into a legal requirement that proponents and Indigenous peoples finalize an exploration agreement *before* mineral exploration activities may commence. For example, Queensland (Australia) requires that miners reach an agreement with all registered native titleholders in the area marked for exploration.[61] Similarly, in New Zealand, an 'access arrangement' is a necessary precondition to explore on land owned or occupied by the Maori people.[62] Where there is no single Maori land-owner, a Maori Trustee serves as the counter-party in negotiations over the access arrangement with miners.[63] In Norway, miners seeking to explore in traditional Sami territory need a special permit that, if granted, conditions any explorations in light of Sami interests.[64]

There are several benefits for requiring such an agreement to be in place at the exploration stage. First, it provides First Nations with an opportunity to raise concerns (including the protection of cultural heritage) and discuss exploration plans with miners before exploration activities begin. Second, these agreements can serve as evidence to the provincial government that consultation has occurred and that free, prior and informed consent has been given for the exploration activity. Third, through the sharing of information, negotiations can promote more productive consultations between First Nations and the

[59] *Mining Act*, RSO 1990, c M 14, s 78.3(2).
[60] *Philippine Mining Act of 1995*, (Rep Act 7942) ss 4, 16; *National Commission on Indigenous Peoples Administrative Order No 3, Series of 2002,* Philippines.
[61] *Mineral Resources Act* (Qld), s 488(3).
[62] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 54(2).
[63] *New Zealand Crown Minerals Act 1991* (NZ) 1991/70, s 80(1).
[64] Act of 19 June 2009 No 101 (Norway Minerals Act), c 14, s 19.

provincial government. Finally, such agreements may contribute to meeting the common law duty to consult and, if necessary, accommodate First Nations for potential infringements of aboriginal rights.

Although not required under BC legislation, some agreements between proponents and First Nations have been entered into voluntarily. For example, the Taku River Tlingit First Nation has signed a number of exploration agreements with mining companies operating in its traditional territory.[65] Laws, however, are required to ensure that other First Nations in the province benefit from such agreements.

Consider proponent's plan for local employment in activities related to mineral exploration
[Tags: Exploration; Employment; Economic Benefits; Permit; Pre-condition]

Mineral exploration activities offer employment for various contractors, consultants and services. Exploration involves hiring prospectors, line cutters, caterers, equipment suppliers, and construction workers for camps.[66] Consultants may also be required to conduct environmental monitoring, sampling and field trials to predict environmental impacts, such as the effect of acid rock drainage (ARD).[67] These tasks generally require site visits and the use of local knowledge. First Nations may be ideally suited for providing such information. Exploration activities may also require services that can be provided by local businesses, such as caterers and equipment suppliers.[68]

Such a preferential hiring policy is consistent with the United Nations Declaration on the Rights of Indigenous Peoples, which provides that "Indigenous peoples have the right to special measures for the immediate, effective and continuing improvement of their economic and social conditions, including in the areas of employment, vocational training and retraining, housing, sanitation, health and social security".[69]

Consider proponent's financial resources and technical competence in Notice of Work application review
[Tags: Notice of Work Application; Financial Disclosure; Expertise; Exploration]

In BC, applicants are required to provide very few details about their financial resources or technical competence to obtain a Free Miner Certificate or in a Notice of Work application. This means that the individuals and companies carrying out exploration often may not have the resources to work with First Nations or deal with problems that may arise. Often, an individual or junior mining company will carry

[65] See for example, *Duncastle Signs Exploration Access Agreement with First Nations at Porphyry Creek (*May 3, 2010), online: MarketWire, <http://www.www.istockanalyst.com/article/viewiStockNews/articleid/4080679>; *Taku River Tlingit First Nation, Eagle Plains and Prize Mining Sign Impact & Benefit Agreement for Yellowjacket Gold Project* (9 November, 2009), online: BusinessWire, <http://www.businesswire.com/news/home/20091109005319/en/Taku-River-Tlingit-Nation-Eagle-Plains-Prize/>.
[66] Canada, Department of *Mining Information Kit for Aboriginal Communities* (Ottawa: Her Majesty the Queen in Right of Canada, 2006) at 12.
[67] William A. Price, "Prediction Manual for Drainage Chemistry from Sulphide Geologic Materials" Smithers, BC, December 2009, MEND Report 1.20.1, version 0, Natural Resources Canada at 6-2.
[68] Government of Canada, *Mining Information Kit for Aboriginal Communities* (Ottawa: Her Majesty the Queen in Right of Canada, 2006) at 12.
[69] *Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UNGAOR, 61st Sess, Supp No 53, UN Doc A/RES/61/295, (2007) [*UNDRIP*], art 22.

out the initial exploration work with little involvement of First Nations and then sell the project to a larger mining company with more resources.

In contrast to the lack of requirements to disclose financial information in BC, other jurisdictions mandate that the applicant include details about its financial resources and technical competence, which must be considered by the decision-maker when reviewing an application for an exploration permit. For example, in the Australia state of New South Wales, the application for an exploration permit must include "particulars of the financial resources and relevant technical advice available to the applicant".[70] In Zambia, when the regulatory authority reviews a permit application, it must take into account whether "the applicant has, or has secured access to, adequate financial resources, technical competence, and experience to carry on effective prospecting operations".[71] In Papua New Guinea, an application for an exploration permit must include "a statement giving particulars of the technical and financial resources available to the applicant".[72] In Western Australia, the exploration permit application must include a statement of the applicant's technical and financial resources.[73]

Some jurisdictions have gone even further to ensure that proponents have adequate resources to perform the exploration activities. For example, Quebec's amended *Mining Act* will require proponents engaged in exploration activities to provide a financial guarantee to cover the anticipated cost of completing the work required under the rehabilitation and restoration plan.[74] Alberta's legislation provides the regulator with discretion to refuse to issue an exploration permit where the proponent is indebted to the Crown.[75] In Afghanistan, persons who have been declared bankrupt or convicted of financial, economic and management offences are not eligible to obtain mineral rights.[76]

<u>Consider miner's track record in review of Notice of Work application</u>
[Tags: Exploration; Notice of Work Application; Track Record]

In BC, the Chief Gold Commissioner may cancel a Free Miner Certificate, with 30 days prior notice and an opportunity for a hearing, if satisfied that a free miner has, with respect to activities related to the operation or use of a mineral title, contravened the *Mineral Tenure Act*, the *Criminal Code*, the *Heritage Conservation Act*, the *Mines Act*, the *Mining Right of Way Act* or the Health, Safety and Reclamation Code for Mines in British Columbia (HSR Code).[77] However, there are no legal requirements to consider an applicant's past conduct with respect to these laws *prior* to granting the Free Miner Certificate or issuing a permit for exploration activities.

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[70] *Mining Act 1992* (NSW) s 13(5)(b).
[71] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 15(1)(a).
[72] *Mining Act 1992* (Consolidated to No 49 of 2000, Papua New Guinea), s 24(b)(ii).
[73] *Mining Act 1978* (WA), s58.
[74] Bill 79 - An Act to amend the Mining Act, 1st Sess, 39th Leg, Quebec, 2010 cl 232.4 (adopted in principle by the legislative assembly on October 21, 2010).
[75] *Mines and Minerals Act*, RSA 2000, c M-17, s 109(1)(a).
[76] *The Minerals Law* (Afghanistan), 2010, art 14(2).
[77] *Mineral Tenure Act*, RSBC 1996, c 292 s 10.

In contrast, other jurisdictions clearly mandate that the applicant's past practices be considered at the permit application review stage. For example, in New Mexico, an exploration permit application will be denied "if that person's failure to comply with the provisions of the New Mexico Mining Act, the regulations adopted pursuant to that act or a permit issued under that act has resulted in the forfeiture of financial assurance".[78] In Zambia, a prospecting licence will not be granted if the applicant is the holder of another mining right and is in breach of any condition of that right or any provision of the mining legislation.[79] Similar legal requirements are also in place in New South Wales.[80] In Sweden, an exploration permit may not be granted to a party who has proven to be unsuitable to carry out exploration. Examples of situations where permits may be refused on this basis include previous failure to consider the landowner's interests, or engaging in conduct harmful to the natural or cultural environment.[81] In Mozambique, an application to extend the geographical limits of the exploration licence will be denied when the applicant has not met its obligations with respect to other mining licenses it might hold.[82]

Consider input from other government departments in review of Notice of Work application
[Tags: Notice of Work Application; Exploration; Intergovernmental; Discretion]

In BC, the Chief Inspector has discretion as to whether to refer the Notice of Work application to other government agencies.[83] As a result, Notice of Work applications are not always referred to other interested agencies, such as the Ministry of the Environment or local/regional governments. The importance of notifying other affected agencies is recognized in Alberta where the application for an exploration permit must also be submitted to "(a) the forest superintendent of each forest, (b) the senior forest officer for each ranger district, and (c) the district supervisor of the Rural Development Division of the Department of Agriculture and Rural Development for each district, in which the program of exploration or any part of it was conducted".[84]

Government Accountability in Issuance of Exploration Permits

Issue

Apart from seeking judicial review, the public has no way of challenging the BC government's issuance of a Free Miner Certificate or approval of a Notice of Work application for exploration activities.

[78] NMex Stat § 69-36-13(B) (2010).
[79] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 15(3)(b).
[80] *Mining Act 1992* (NSW), s 22(2)(a).
[81] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 71, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[82] *Mozambique Mining Regulation* (Decree nº 62/2006 of 26 December), art 41.
[83] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ps 10.3.1, 10.3.3, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[84] *Metallic and Industrial Minerals Exploration Regulation*, Alta Reg 213/1998, s 37(2).

Recommended Solutions

Create legal process for challenging the issuance of prospecting or exploration permits
[Tags: Exploration; Public Participation; Deny]

In Sweden, a reindeer-herding right holder has the right to appeal the grant of a mining licence.[85] In Western Australia, this provision is even broader, as any person may lodge an objection to the granting of a prospecting licence within 35 days of the licence application. These objections must then be heard by the warden in open court.[86]

Conditions to attach to Exploration Permits

Financial Security

Overview of BC Law

In BC, the information regarding reclamation submitted in the Notice of Work application is used to determine the appropriate amount of security that the applicant may be required to post before commencing exploration.[87] However, the posting of security is not required in all cases: the Chief Inspector may exempt a miner from having to comply with the permitting and security requirements under section 10 of the *Mines Act*. The BC First Nations Energy and Mining Council has recommended that BC's permissive laws in this matter be replaced with mandatory reclamation security requirements for all exploration activities.[88]

More information regarding mine security and compensation can be found in **Chapter 10: Securing the Cost of Mine Clean-up.**

Issue

Exploration activities can have serious environmental impacts. Without the mandatory posting of security bonds, the consequence of pollution and the costs of remediation may be borne by the public and First Nations instead of by the proponent who caused that pollution.

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[85] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 214, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

[86] Regulation 146 of the *Mining Regulations 1981* (WA). See also Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 215, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

[87] *Mines Act,* RSBC 1996 c 293, s 10(4). Note that if security is deposited for mineral exploration activities, the miner is exempt from the requirement to remediate the site under the *Environmental Management Act*, SBC 2003, c 53, s 66(1)(b). In addition, the regulatory authority: may not issue remediation orders to current or previous owner or operator of an exploration site (s 66(2)); may not issue a pollution prevention order or a pollution abatement order to a previous owner or operator of an exploration site (ss 66(2), (3)); and may not require or accept security remediation of an exploration or advanced exploration site (ss 66(4), 67).

[88] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 19.

Recommended Solutions

Require reclamation security for all exploration activities
[Tags: Bonding; Security; Remediation; Exploration]

In contrast to BC's permissive system, reclamation bonds are mandatory for exploration activities in other jurisdictions. In both Montana and New Mexico, a bond must be filed as a prerequisite to obtaining an exploration permit.[89] Similarly, in Colorado, "upon filing the notice of intent to conduct prospecting, the person shall provide financial warranty in the amount of two thousand dollars per acre of the land to be disturbed or such other amount as determined by the board".[90] Within 30 days of completed reclamation of lands prospected upon, the regulatory authority must inspect the lands. Financial warranties will only be released if this inspection shows that reclamation has been adequately completed.[91] In Mongolia, an exploration licence holder must deposit an amount equal to 50% of the environmental protection budget, which is only refunded on full implementation of the environmental protection plan.[92]

Extend compensation to First Nations for damage caused by exploration activities to First Nations
[Tags: Compensation; Exploration]

In BC, private landowners may be entitled to compensation for damages arising from exploration activities on their land. In other jurisdictions, compensation is afforded not only to landowners but also to 'third parties', which could include Indigenous Peoples. In Colombia, for example, proponents are legally required to compensate third parties for damage caused by exploration activities, and further exploration activities are prohibited until such compensation is paid.[93] Such laws provide a useful incentive to ensure that miners conduct exploration activities in a responsible manner.

Protection of Cultural Heritage

Overview of BC Law

Under BC legislation, the free miner's right of entry does not extend to "protected heritage properties".[94] Three separate legal processes exist by which to have property designated as a "protected heritage property". Land or objects may be protected under: heritage conservation legislation; municipal laws; or official community plans.[95]

Under BC's *Heritage Conservation Act*, the following are automatically protected:[96]

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[89] Mont Code Ann201, § 82-4-332; N Mex Stat 2011, § 69-36-13(E).
[90] Colo Rev Stat, § 34-32-113(4)(a).
[91] Colo Rev Stat, § 34-32-113(6).
[92] Koh Naito, Felix Remy and John P Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining* (London: Mining Journal Books Ltd, 2001) at 137; *The Minerals Law of Mongolia* (Amended Version, 2006), art 29.7.
[93] *Código de Minas*, (Law 685 of 2001, Colombia).
[94] *Mineral Tenure Act*, RSBC 1996, c 292, s 14(5)(e).
[95] *Mineral Tenure Act*, RSBC 1996, c 292, s 1.
[96] *Heritage Conservation Act*, RSBC 1996, c 187, s 13.

- provincial heritage sites or objects;
- burial places with historical archaeological value;[97]
- Indigenous rock paintings or carvings;
- sites that contain artefacts, features, materials or other physical evidence of human habitation or use before 1846; and
- sites or objects that are of particular spiritual, ceremonial or other cultural value to the Indigenous people.[98]

It is an offence to alter, knowingly or unknowingly, any of the above-listed protected sites or objects without a permit. Because the offence does not require specific intent, the Act applies to undiscovered sites that are disturbed by chance. In most cases, protected heritage properties are identified through an archaeological impact assessment, which forms part of the "technical exploration and development process" required under the *Mineral Tenure Act Regulations*.[99]

Persons who wish to alter a protected object or site must apply to the Archaeological Branch for a site alteration permit.[100] Issuing permits to alter or disturb cultural and heritage sites is a routine matter and applications for site alteration permits are rarely denied.[101] In deciding whether to issue the permit, the Archaeological Branch will ensure the site has been assessed by a professional archaeologist and seek comments from any First Nations whose traditional territories include the site in question.[102] If the permit is issued, it may be accompanied by conditions regarding the preservation and remediation of the object or site.

Automatic protection is *not* afforded to:

- sites that contain artefacts, features, materials or other physical evidence of human habitation or use after 1846;[103] or
- sites or objects that are of particular spiritual, ceremonial or other cultural value to the Indigenous people where there is no physical evidence of historical human use.

For those sites and objects that are not granted automatic protection, the Lieutenant Governor in Council may designate various sites and objects as "protected heritage properties".[104] Although this

[97] The Archeological Branch has adopted this provision to include all First Nations' ancestral burial sites. Ewan Anderson, Heritage Resource Specialist, Archaeology Branch, Ministry of Forests, Lands and Natural Resource Operations, personal communication, October 20, 2011.
[98] These sites/objects are only afforded protection under the Act where there is physical evidence of historical human use. Ewan Anderson, Heritage Resource Specialist, Archaeology Branch, Ministry of Forests, Lands and Natural Resource Operations, personal communication, October 20, 2011.
[99] *Mineral Tenure Act Regulation*, BC Reg 529/2004, s 11.
[100] *Heritage Conservation Act*, RSBC 1996, c 187, s 12.
[101] BC Ministry of Forests, Lands and Natural Resources, "Archaeology Frequently Asked Questions", Q 12, online: <http://www.for.gov.bc.ca/archaeology/faq.htm>.
[102] Although there is no written requirement to consult First Nations under the Heritage Conservation Act, the Provincial government's Archeological Branch is required to do so as part of the Crown's duty to consult First Nations and the Crown's administrative law duty to consult interested third parties, which in this case includes First Nations.
[103] For example, trees that were culturally modified after 1846 are not afforded automatic protection under the Heritage Conservation Act.

process has been used to designate historical buildings as protected heritage properties, it has apparently never been successfully used to designate a First Nations' spiritual site or object as a provincial heritage site or object. Given the lack of such designations, First Nations have had to rely on consultations with government and industry to identify these sites and negotiate their protection. First Nations are working with the BC government to implement legislative and policy amendments to enable First Nations to manage and protect their cultural and heritage sites.[105]

The Act also provides for agreements for the conservation and protection of heritage sites and objects to be made between Indigenous peoples and the provincial government.[106] Heritage sites and objects of particular "spiritual, ceremonial or other cultural" importance to an Indigenous community, which are attached as a schedule to such an agreement, will be granted legal protection as "protected heritage properties".[107]

The protection of heritage properties may also occur at the local level, as municipal and regional governments are empowered to designate property with heritage value or character as "protected heritage properties".[108] Finally, properties designated by municipal governments are granted additional protection when they are incorporated in a schedule to an official community plan that limits their possible uses.[109]

Issue

BC's current laws offer inadequate protection to many important cultural heritage resources.

Recommended Solutions

<u>Immediately cease work and report if a cultural site or object is discovered during exploration activities</u>
[Tags: Exploration; Cultural Heritage]

If a miner discovers a First Nation cultural object or site at any time in the mining process, the miner should stop work, notify both the local First Nation community and the provincial government, and protect the site or object from damage. This is recognized in the Australia state of New South Wales, where legal provisions mandate that miners must stop work immediately and notify the government of the location of any discovery of culturally significant object or site. If the Indigenous object is human

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[104] *Heritage Conservation Act*, RSBC 1996, c 187, s 9.
[105] See the Draft First Nation Heritage Action Plan, online: <http://fnbc.info/draft-first-nations-heritage-action-plan-and-appendices>.
[106] *Heritage Conservation Act*, RSBC 1996, c 187, s 4.
[107] *Heritage Conservation Act*, RSBC 1996, c 187, s 4(4)(a). This provision offers similar protection to that provided in New Zealand which states that: "On the request of an iwi, a minerals programme may provide that defined areas of land of particular importance to its mana are excluded from the operation of the minerals programme or shall not be included in any permit." (*Crown Minerals Act 1991* (NZ) 1991/70, s 15(3)).
[108] *Local Government Act,* RSBC 1996 c 323 s 967; *Vancouver Charter,* SBC 1953 c 55, s 593.
[109] *Local Government Act,* RSBC 1996 c 323 s 970.1(3)(b).

skeletal remains, the miner must stop work, secure the area to prevent unauthorized access, and report it to the police and the government.[110]

Report and record discovery of cultural sites and objects during exploration activities
[Tags: Exploration; Cultural Heritage; Archaeology; Database]

If a proponent accidentally discovers an archaeological site, the BC government requests the proponent to notify by telephone the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.[111] There is no legal requirement for proponents to notify local First Nations of the discovery.

By contrast, if an archaeologist discovered a culturally important site in BC, he or she has a professional responsibility to:

- identify those First Nations that have an interest in an area, prior to conducting any archaeological field investigation;
- inform those First Nations who have an interest in an area, prior to conducting any archaeological field investigation, that field work in planned;
- recognize, and make an effort to follow, archaeological protocols, policies, and permit systems established by First Nations;
- respect First Nations protocols governing the investigation, removal, curation and reburial of human remains and associated objects; and
- communicate the results of archaeological investigations to cultural groups in a timely and accessible manner.[112]

In the Yukon, discoveries of archaeological objects, paleontological objects, human remains, or burial sites must be reported, as soon as practicable, to the Chief of Mining Land Use.[113] Such discoveries must be immediately marked and protected from further disturbance.[114] No further activities may be carried out within 30 metres of the site until the Chief of Mining Land Use indicates, in writing, that the activities may be resumed.[115]

The notification of discoveries is also legally required in Australia, where Indigenous peoples must be kept informed of such discoveries. There it is a strict liability offence for miners to disturb "Aboriginal

[110] New South Wales Minerals Council Ltd, *NSW Mineral Industry Due Diligence, Code of Practice for the Protection of Aboriginal Objects*, (Sydney: New South Wales Minerals Council Ltd, 2010) s 2, online: <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/ddcop-minco.pdf>.
[111] Government of British Columbia, Ministry of Forests, Lands and Natural Resource Operations, "Archeology: Procedures for Reporting Finds" available online at <http://www.for.gov.bc.ca/archaeology/reporting_archaeological_artifact_finds/procedures_for_reporting_finds.htm>
[112] British Columbia Association of Professional Archaeologists, *Code of Ethics, Code of Conduct, and Grievance Procedure*, Port Moody: British Columbia Association of Professional Archaeologists, s 18.
[113] *Quartz Mining Land Use Regulation*, OIC 2003/64 (Yukon), Schedule 1, s 9.
[114] *Quartz Mining Land Use Regulation*, OIC 2003/64 (Yukon), Schedule 1, s 9.
[115] *Quartz Mining Land Use Regulation*, OIC 2003/64 (Yukon), Schedule 1, s 8.

objects".[116] Only if miners can prove they engaged in prior meaningful consultation with Indigenous peoples will they be able to rely on the due diligence defence.[117]

In addition to reporting the discovery of cultural sites, it is useful to ensure that these discoveries are recorded in a central database or register. New South Wales (Australia) maintains a database (ie, the Aboriginal Heritage Information Management System) of Aboriginal objects and places, which can be accessed to inform cultural heritage assessments for activities that disturb the ground surface or affect culturally modified trees.[118] A similar database and register is maintained by the Queensland (Australia) government and is accessible by proponents to determine whether there is any registered cultural heritage present that may be affected by exploration/mining activities.[119] BC also maintains a Provincial Archaeological Report Library and an online inventory of provincial archaeological sites, which is available to federal and provincial agencies with land or resource management responsibilities, local governments, First Nation governments, and professional consulting archaeologists.[120] In BC's forestry industry, this data is compared to forestry plans: where areas of high potential for historical sites exist, the forestry company is required to conduct an assessment on the ground.[121] No similar requirement is mandated for BC's mining industry.

Environment Safeguards

Exploration activities can cause various impacts to ecological health, including impacts on:[122]

- land use from camp, airstrip and road construction, line cutting, drilling and fuel storage;
- water quality from erosion, drilling fluids and abandoned boreholes; and
- wildlife from habitat destruction, noise pollution, waste generation and impacts to migratory patterns.

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[116] New South Wales Minerals Council Ltd, NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects 5-6 (2010), online: <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/ddcop-minco.pdf>.

[117] New South Wales Mineral Council Ltd, *NSW Mineral Industry Due Diligence, Code of Practice for the Protection of Aboriginal Objects*, (Sydney: New South Wales Minerals Council Ltd, 2010) at 5-6, online: <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/ddcop-minco.pdf>.

[118] New South Wales Mineral Council Ltd, *NSW Mineral Industry Due Diligence, Code of Practice for the Protection of Aboriginal Objects*, (Sydney: New South Wales Minerals Council Ltd, 2010) s 3, online: <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/ddcop-minco.pdf>. See also the New South Wales Government's Department of Environment and Heritage: http://www.environment.nsw.gov.au/licences/AboriginalHeritageInformationManagementSystem.htm

[119] See Queensland Department of Aboriginal and Torres Strait Islander and Multicultural Affairs website at: http://www.datsima.qld.gov.au/atsis/aboriginal-torres-strait-islander-peoples/indigenous-cultural-heritage/cultural-heritage-database-and-register-search-request.

[120] British Columbia, Ministry of Forests, Lands and Natural Resource Operations, *Accessing Archaeological Data* (Victoria: Ministry of Forests, Lands and Natural Resource Operations, 2009) online: <http://www.for.gov.bc.ca/archaeology/accessing_archaeological_data/index.htm>.

[121] Ewan Anderson, Heritage Resource Specialist, Archaeology Branch, Ministry of Forests, Lands and Natural Resource Operations, personal communication, October 20, 2011.

[122] Canada, Aboriginal Affairs and Northern Development Canada, *Mining Information Kit for Aboriginal Communities* (Ottawa: Her Majesty the Queen in Right of Canada, 2006) at 16.

Overview of BC Law

BC's *Health, Safety and Reclamation Code for Mines in British Columbia* (HSR Code) requires environmental protection from mineral exploration activities, as follows:[123]

- **Community watersheds**: in community watersheds, the miner must first notify the water licence holder and prepare a contingency plan to restore potable water in the event that exploration activities adversely impact potable water quality and quantity. If water impacts occur during exploration, the miner must immediately cease exploration activities and take remedial action. The HSR Code also requires maintenance of drainage patterns, protection of stream stability, no degradation of potable water supply intakes and contingency plans, notification requirements, remedial actions where potable water quality and quantity impacted. However, this only applies to designated community watersheds and not to watersheds used by First Nations.
- **Riparian management**: limits on activities within riparian setbacks.
- **Soil conservation**: minimize soil losses.
- **Terrain stability**: maintenance of terrain stability, preparation of remediation plans where terrain stability impacted.
- **Water management**: exploration activities must be carried out in a manner that maintains surface and subsurface drainage patterns within the range of natural variability; protects stream channel stability; and does not degrade water quality at a potable water supply intake. Where there is a risk of impact to natural surface and subsurface drainage, structurally sound, functional and stable drainage systems must be constructed that minimize erosion, unstable slopes, and water flows across the site or onto reclaimed areas.
- **Fuel and lubricants**: containment storage with buffer from streams, lakes and wetlands, refuelling outside riparian setbacks, removal of hydrocarbon containers.
- **Exploration access**: minimize surface disturbance, reclamation to stable and safe use, minimum clearing of standing timber, acid rock drainage materials not to be used, no interference with groundwater domestic supplies, ongoing monitoring and maintenance program, deactivation and reclamation, bridge certified by qualified person, regular inspections, designs for peak flows.
- **Drilling**: limits on locations of drill sites, use of containment devices, emergency spill kits, equipment and waste disposal.
- **Camps**: clean and safe condition, secured from wildlife, reclamation, removal of waste, equipment and explosives, backfilling of refuse pits.
- **Reclamation**: reclamation within one year of cessation of exploration, backfilling of pits and trenches, measures for minimizing noxious weeds and erosion, re-vegetation, and reclamation reporting.

Issue

Although BC law prescribes certain environmental protection measures, it lacks other provisions that would further protect long-term ecological health from exploration activities. The following recommended solutions exceed the environmental protection provisions currently mandated by BC law.

[123] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 9.4 – 9.13, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

Recommended Solutions

Increase riparian setbacks for exploration activities
[Tags: Exploration; Water; Environmental]

Riparian setbacks, when appropriately sized, can reduce stream-bank erosion, filter out pollutants, and protect aquatic and terrestrial habitat. Under BC legislation, riparian setback distances for drilling and exploration access are specified as follows:[124]

- Streams (range depends on stream width):
  - drilling: 5 to 50 metres
  - exploration access: 17 to 70 metres
- Wetlands (range depends on wetland size):
  - drilling: 10 metres
  - exploration access: 10 to 30 metres
- Lakes (distance not dependent on lake size):
  - drilling: 10 metres
  - exploration access: 30 metres

Scientific studies indicate that these distances are inadequate to properly protect the riverine environments. Studies suggest that buffers must be 30 metres wide to maintain a healthy biota and, that a width of 9 meters is the absolute minimum.[125] As noted above, BC law permits a minimum buffer of 5 meters on some streams and only 10 metres around some wetlands and lakes.[126]

Other jurisdictions have higher minimum setback distances. For example, Saskatchewan legislation prohibits any exploratory drilling, trenching, hydraulic stripping of overburden or disposal of waste products, within a strict 30-metre setback from lake and stream beds.[127] Ontario's legislation establishes a 70-meter setback from bodies of water for 'disruptive mineral exploration' activities that involve cutting trees, or carrying out mechanical stripping, trenching, diamond drilling or bulk sampling.[128] Manitoba's legislation offers another approach to protecting water resources from exploration activities. There, the regulatory authority has broad discretion to impose conditions on drilling when

[124] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) Table 9.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[125] Seth Wenger, *A Review of the Scientific Literature on Riparian Buffer Width, Extent and Vegetation*, (Athens: University of Georgia's Institute of Ecology, 1999), online: <http://www.chathamnc.org/WatershedReviewBoard/supporting_documents/stream_buffers/LitReviewRiparianBuffers.pdf>.
[126] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.5.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. Not only may BC's setbacks distances be inadequate, they do not apply to other explorations activities, such as reclamation of stream crossings; access from water landings for the purpose of servicing exploration camps and equipment; access to set up and service water supply pumps and lines; and access to service drill sites.
[127] *Mineral Industry Environmental Protection Regulations*, 1996, RRS c E-10.2 Reg 7, s 24(4).
[128] O Reg 349/98, ss 3(1)(a) and (b). However, these setbacks may be overridden by a work permit or an instrument granted under the Public Lands Act.

drilling is likely to create a hazard to water-bearing formations (such as groundwater aquifers) or unreasonable injury or damage to the environment.[129]

Require proponents to report discoveries of uranium or thorium
[Tags: Exploration; Uranium; Thorium; Radioactive]

Uranium mining, which is federally regulated by the Canadian Nuclear Safety Commission, is banned in BC.[130] Nevertheless, there is a possibility that uranium may be inadvertently discovered during exploration. BC law recognizes this possibility and mandates that where standard assay results show uranium mineralization (in a grade of 0.05% by weight or greater) or thorium mineralization (in a grade of 0. 5% by weight or greater), the miner must:[131]

- completely seal all drill holes with concrete on completion of exploration;
- take all practicable precautions to ensure no drilling fluid, water or drill cuttings contaminate any drinking water supply, irrigation water supply, or surface water;
- provide all persons working at the exploration site with an approved gamma radiation dosimeter; and
- ensure that no person is exposed to a whole body dose of more than 5 millisieverts in a 12-month period.

However, no mandatory legal requirements are specified for reporting unexpected uranium discoveries. In contrast, in Australia, any person that discovers uranium must report the discovery to the Commonwealth government.[132] In Ghana, where licences are granted for specific minerals, miners must report the discovery of minerals that are not included in their mineral licences. This ensures that any unexpected discoveries of uranium would be reported where these are not specifically included in the mining licence.[133] These approaches ensure that the regulatory authority is aware of the risk, and can notify local communities accordingly.

[129] *Mines and Minerals Act*, CCSM c M162, s 96(1).
[130] British Columbia, Legislative Assembly, *Debates,* 32nd Leg. 2nd sess., (14 August 1980); No. OIC 2009/208 2009 BC Gaz (*Environment and Land Use Act*): "The chief inspector under the Mines Act must not a) issue a permit under section 10 of the Mines Act in relation to exploration for uranium or thorium b) exempt any person under section 10 (2) of the Mines Act from the requirement to obtain a permit under section 10 of that Act in relation to exploration for uranium or thorium".
[131] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pts 2.3.11 and 11.4.6 online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[132] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 157 note 779, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>. "A person discovering uranium anywhere in Australia must report that discovery in writing to the Commonwealth Minister according to the Commonwealth Atomic Energy Act 1953".
[133] *Minerals and Mining Act, 2006*, (Act 703, Ghana), s 15(1).

Exploration Access Roads & Water Crossings

Overview of BC Law

Exploration access roads and water crossings are regulated under BC law. Legal provisions mandate that exploration access roads and water crossings be constructed, maintained, deactivated and reclaimed in a manner that ensures they are safe and stable. These activities must also be carried out in a manner that:[134]

- minimizes erosion or the degradation of a stream, lake or wetland by the introduction of sediment, debris or deleterious matter;
- minimizes adverse impacts on stream channels;
- provides for drainage systems that maintain stability of the road prism;
- does not cause harmful alteration, damage or destruction of fish habitat; and
- minimizes the surface disturbance necessary to complete the proposed work.

Specific legal requirements for exploration access roads are as follows:[135]

- minimum clearing of timber;
- prohibition from using acid-generating materials for exploration access surfacing or ballasting (unless approved by an inspector);
- prohibition from interfering with groundwater flows that contribute to licenced domestic water supplies (unless there are no other practicable options and the impacts can be mitigated); and
- routine monitoring and maintenance program.

Specific legal requirements for stream crossings are as follows:[136]

- construction, maintenance, deactivation and reclamation in a manner that allows safe fish passage and protects fish habitat at, above and below the stream crossing;
- certification (or approval by qualified person) of bridge design and fabrication;
- regular inspections of bridges and correction of deficiencies as soon as practicable; and
- design, construction and maintenance of bridges, stream culverts and their approaches for peak flows.

At the end of exploration, access roads must be deactivated in a manner that stabilizes roads, restores or maintains drainage patterns, and minimizes soil erosion to the extent practicable.[137] Final reclamation

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[134] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 9.10.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[135] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 9.10.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ps 9.10.1 online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

must result in: restored drainage patterns; removal of bridge superstructures, substructures (if failure would affect downstream values) and stream culverts; a stable surface that minimizes future erosion; and the establishment of self-sustaining vegetation appropriate for the site.[138]

Issue

Although road construction and water crossings are heavily regulated in BC, the following recommended solutions suggest additional legal provisions that could further protect long-term ecological health from mineral exploration activities.

Recommended Solutions

Create legal and policy requirements to work with First Nations, other ministries and environmental experts to manage access
[Tags: Exploration; Environment; Roads; Vehicles]

Forestry, mining, hydro, recreation and other uses may all create different road accesses, trails and liner disturbances. Increased road access causes multiple issues, including environmental degradation, increased hunting and predation and linear disturbances to wildlife. There are currently no requirements for miners or the Ministry of Energy, Mines and Natural Gas to manage road access with other ministries, First Nations and environmental experts to minimize impacts.

Require proponents to suspend or relocate vehicle use in the event of road degradation
[Tags: Exploration; Environment; Roads; Vehicles]

Yukon law mandates that if any rutting, gouging, or ponding occurs on the road, vehicle use must be suspended or relocated to ground that is capable of bearing the weight of the vehicle without causing such damage.[139]

Require installation of permanent structures or retaining banks on abandoned access roads to control erosion and siltation
[Tags: Exploration; Environment; Roads; Erosion]

In Newfoundland and Labrador, miners must install permanent structures or retaining banks on abandoned exploration access roads to control potential erosion and siltation. This promotes long-term certainty that erosion and siltation will not impact watercourses.[140]

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[137] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.10.1(6), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[138] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.10.1(7), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[139] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 35.
[140] *Mineral Regulations*, NL R 1143/96, s 45.

Exploration camps

Overview of BC Law

BC law regulates the how miners must leave exploration camps:

- if the exploration camp will be used for future exploration activities, it must be left in a clean and safe condition and where practicable secured from wildlife access.[141]
- if the exploration camp will *not* be used for future exploration activities, it must be dismantled, removed and the site reclaimed (unless exempt from so doing by an inspector).[142]

Before leaving a camp (either for the season or permanently), the miner must:[143]

- remove, burn or bury all refuse so that it does not attract wildlife;
- backfill all refuse pits; and
- remove all food and explosives.

Issue

BC's current regulation of exploration camps offers inadequate environmental protection.

Recommended Solutions

<u>Require ongoing refuse management and site maintenance at exploration camps</u>
[Tags: Exploration; Environment; Camp; Waste; Food]

As indicated above, BC law mandates that exploration camps be left in a clean state at *the end of* exploration activities. However, there are no requirements regarding *on-going* site maintenance during exploration. Poor maintenance practices (such as the improper storage of food) often attract wildlife and habituate them to humans. This is problematic and often leads to the animals having to be destroyed. To help prevent this, on-going maintenance of exploration camps should be required while exploration activities are being carried out. This need is recognized in the Yukon where all solid waste, including debris, equipment, barrels, drums, and scrap metal, must be safely stored on the site of the exploration program while the program is carried out and must be disposed of in accordance with the *Solid Waste Regulation* when the program ceases.[144] In addition, the law requires that camps be kept clean and tidy.[145]

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[141] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.12.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[142] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.12.1(2), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[143] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.12.1(3), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[144] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 10.
[145] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 11.

Decrease allowable time for exploration camp removal
[Tags: Exploration; Environment; Camps]

BC law mandates that exploration camps be dismantled and removed within one year when they are not to be used for future exploration activities.[146] In contrast, Zambian legislation mandates that any camp, temporary building or machinery must be removed within 60 days of the expiry or termination of a prospecting licence.[147] This ensures prompt removal and clean-up of exploration camps.

Drilling

Overview of BC Law

Drilling is an important aspect of mineral exploration activities. However, drill cuttings and additives can significantly impact water quality, aquatic and wildlife habitat, and humans that come into contact with them. Adequate regulation must therefore be in place to protect local ecosystems and communities from these potential impacts.

Under BC legislation, drill sites may not be located within:[148]

- streams;
- lakes (unless a management plan has been approved by an inspector);
- known wetlands (unless exploration is conducted when: the ground is frozen; there is no standing water at the drill site; or a management plan has been submitted and approved by the regulatory authority); or
- riparian setbacks (unless the regulatory authority has granted authorization and management plans include provision for the management of drilling discharge).

Drilling activities are also subject to the following legal requirements:

- absorbent mats and containment devices must be used for pumps and pump fuel supplies to prevent spilled liquid hydrocarbons from escaping;[149]
- practicable measures must be taken to manage the flow of drilling discharge, and minimize the impact on watercourses throughout drilling operations;
- appropriate emergency spill kits must be readily available at all active drill and water supply pump sites;

[146] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 9.13.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[147] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 19(1)(h).
[148] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 9.11.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[149] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pts 9.11.1(2)-(6), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

- groundwater must not be permitted to flow from completed drill holes without the written authorization of an inspector; and
- all equipment, waste and other refuse must be disposed of properly upon abandonment of an exploration drill site.

Issue

Although drilling activities are regulated in BC, additional provisions could substantially reduce the impacts of drilling on the environment at exploration sites in the province.

Recommended Solutions

Determine drill site location through access and/or exploration agreements
[Tags: Exploration; Drilling; Access Agreements; Exploration Agreements]

First Nations should be involved in drill siting to ensure there is no overlap with established no-go zones (such as cultural heritage sites) on their traditional territories. This can be done by including drill site locations in the access and/or exploration agreement between the proponent and the Indigenous community. As described above, many jurisdictions already require that access and/or exploration agreements be in place before exploration activities (such as drilling) may commence.

Prohibit use of non-biodegradable and toxic drilling fluids
[Tags: Exploration; Environment; Drilling; Fluids]

BC's Handbook for Mineral and Coal Exploration recommends against using non-biodegradable and non-toxic drill additives and fluids.[150] However, this recommendation is not mandatory. Conversely, in Alberta, the regulations mandate that no test hole be drilled or abandoned using fluids or materials that contain harmful contaminants.[151]

Require proper storage of fuel and lubricants, including secondary containment storage
[Tags: Exploration; Hazardous Materials; Environmental]

The *Health, Safety and Reclamation Code for Mines in British Columbia* specifies the following legal requirements for fuel and lubricants:[152]

- liquid hydrocarbon products must be stored within a containment that minimizes the possibility of accidental discharge to the environment;
- bulk liquid hydrocarbon products must not be stored within 30 meters of a watercourse (unless authorized by an inspector);

[150] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Handbook for Mineral and Coal Exploration,* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) at 84-85 online: <http://www.empr.gov.bc.ca/Mining/Exploration/Documents/MXHandbook2008-09.pdf>.
[151] *Exploration Regulation*, Alta Reg 284/2006, s 45(1)(a).
[152] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 9.9.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

- ground-based machinery must not be fuelled or serviced within riparian setback distances specified for drilling; and
- all hydrocarbon containers (empty or full) must be removed from every exploration site by the end of each field season (unless otherwise authorized by an inspector).

BC laws do not specify any requirements for secondary containment structures. In contrast, under Yukon legislation, a secondary containment structure must be constructed for any petroleum fuel storage capacity that exceeds 4,000 liters.[153] This ensures greater environmental protection from higher risk fuel storage.

Regulate management of drill fluids, re-circulate drill muds and contain sumps
[Tags: Exploration; Environment; Drilling; Fluids]

In the Yukon, specific legal provisions have been adopted to promote responsible management of drill fluids (also referred to as "drill muds"). These legal provisions mandate that:

- drill muds be re-circulated when possible;[154]
- all drill fluids must be contained in a sump;[155] and
- drilling wastes (fluids, cuttings and mud) must not be left within 30 m of a water body.[156]

Similarly, in Manitoba, legal provisions mandate that no drill wastes may be discharged in water ways or onto adjacent lands.[157]

Require preservation of drill core samples
[Tags: Exploration; Drilling; Drill Core]

Drill core samples are expensive to obtain. If labelled and stored properly, however, they can provide valuable information to future prospectors. Although the preservation of drill cores could help avoid duplication of work and minimize unnecessary exploration, BC does not require their preservation. In contrast, India and Papua New Guinea's laws require the preservation of drill cores.[158] Other jurisdictions mandate that core may only be disposed of with the express consent of the regulatory authority. In Ghana, for example, this consent may only be granted after consultation with the Geological Survey Department.[159] Similarly, in Manitoba it is illegal to abandon or destroy drill cores

[153] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 12.
[154] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 28.
[155] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 29.
[156] *Quartz Mining Land Use Regulation*, Y O/C 2003/64, Schedule 1, s 32.
[157] *Drilling Regulation*, Man Reg 63/1992, s 2; See also *Metallic and Industrial Minerals Exploration Regulation*, Alta Reg 213/1998, ss 30 and 33.
[158] *Mineral Conservation and Development Rules*, *1988* (as amended to 18 January 2000, India), s 59; *Mining Act 1992* (Consolidated to No 49 of 2000, Papau New Guinea), s 162.
[159] *Minerals and Mining Act, 2006*, Republic of Ghana Act 703, s 13(13).

without prior permission from the regulatory authority.[160] In Finland, miners must provide the regulator with a representative sample of drill cores within six months of the expiry of an exploration permit.[161]

Require submission of borehole logs to regulatory authority
[Tags: Exploration; Drilling; Borehole Logs; Database]

Drill borehole logs may also contain important information for regional groundwater aquifer mapping. This data should therefore be submitted to regulatory authorities for use in a regional ecological database. Submission of borehole logs is a legal requirement in several jurisdictions, including Manitoba[162] and Botswana.[163]

Require management of ground subsidence caused by drilling activities and prohibit use of contaminated or noxious materials to fill subsidence areas
[Tags: Exploration; Environment; Drilling; Reclamation]

Ground subsidence is the downward shift of the earth that can occur from mining activities such as drilling. In BC, there are no requirements that subsidence areas be filled, nor does BC regulate the materials that may be used as fill. In Alberta, specific provisions have been enacted to address ground subsidence that occurs as a result of drilling. These provisions mandate that in the occurrence of such subsidence, the miner must take the necessary action to fill in the area of subsidence so that the ground level is the same as it was before the test hole was drilled and to minimize any further subsidence. In addition, any material used to fill areas of subsidence must be free of noxious weeds and harmful contaminants.[164]

Regulate drill hole abandonment: contaminants; fluid movement; and sealants
[Tags: Exploration; Drilling; Reclamation]

BC law does not specify any requirements for reclaiming abandoned drill holes. Provincial policy does however recommend that drill holes be sealed along their entire length.[165] Stronger legal requirements for drill hole abandonment are provided in other jurisdictions. For example:

- In Alberta, proponents are prohibited from abandoning drill holes with fluids or materials that contain harmful contaminants, or in a manner that would permit the movement of water from

[160] *Drilling Regulation*, Man Reg 63/1992, s 10.
[161] *Mining Act of 2011* (Finland), c 2, s 15.
[162] *Drilling Regulation*, Man Reg 63/1992, s 8.
[163] *Mines and Minerals* (Cap 66:01, Botswana 1977), s 21(3)(a).
[164] *Exploration Regulation*, Alta Reg 284/2006, s 48; *Metallic and Industrial Minerals Exploration Regulation*, Alta Reg 213/1998, s 31.
[165] British Columbia, Ministry of Energy, Mines and Petroleum resources, *Mining Exploration Handbook,* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) at 86, online: <http://www.empr.gov.bc.ca/Mining/Exploration/Documents/MXHandbook2008-09.pdf>.

one aquifer or groundwater formation to another, or from the surface of land to an aquifer or other groundwater formation.[166]

- In Manitoba, proponents must abandon drill holes in a manner that prevents the vertical movement of fluids between permeable water bearing zones penetrated by the borehole.[167] In addition, the entire borehole must be grouted, or alternatively a mechanical plug must be employed in combination with grouting for hole abandonment.[168]
- In Colorado, drill hole abandonment must be carried out immediately following the drilling of the hole and the probing for minerals in the prospecting process. Drill holes that need to be maintained as temporarily abandoned must be securely covered in a manner that will prevent injury to both persons and animals.[169]
- In Oregon, the mining regulatory authority must consult with the government department responsible for water management regarding the development of rules for drill hole abandonment.[170]

Require identification on exploration equipment
[Tags: Exploration, Enforcement]

No specific regulation of exploration equipment is provided under BC law. This may make it difficult for government officials to identify proponents and enforce the terms of a permit or licence. In contrast, Alberta's laws require that miners display a unique identification number on exploration equipment and operate exploration equipment in accordance with the exploration permit.[171]

Reclamation

Overview of BC Law

In BC, reclamation requirements are specified for general exploration activities, including:

- reclaim mechanically disturbed sites, campsites and exploration access within 1 year of cessation of exploration (unless authorized in writing by an inspector);[172]
- backfill and reclaim pits and trenches prior to abandonment;[173]
- stabilize exploration site, access road prism and clearing widths;[174]

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[166] *Exploration Regulation*, Alta Reg 284/2006, s 45(1); *Exploration Regulation*, Alta Reg 284/2006, ss 50-51; *Metallic and Industrial Minerals Exploration Regulation*, Alta Reg 213/1998, s 32.
[167] *Drilling Regulation*, Man Reg 63/1992, s 6(1).
[168] *Drilling Regulation*, Man Reg. 63/1992, s 7.
[169] Colo Rev Stat, § 34-32-113(5.5)(c) (2011).
[170] Or Rev Stat, § 517.730(1) (2012).
[171] *Mines and Minerals Act*, RSA 2000, c M-17, s 107(2); *Exploration Regulation*, Alta Reg 284/2006, s 41.
[172] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.13.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[173] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.13.1(2), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. Unless (a) the sides of the pit or trench are sloped to a stable and safe angle as determined by a qualified person, or the pit or trench is fenced to prevent inadvertent access, and (b) there is a means of egress.

- restore drainage patterns;[175]
- minimize soil erosion and the establishment of noxious weeds;[176] and
- re-vegetate exploration sites to a self-sustaining state with species appropriate for the site.[177]

Issue

Although BC laws require certain reclamation efforts, additional provisions could substantially improve the effectiveness of reclamation of areas disturbed by exploration activities.

Recommended Solutions

Backfill trenches by using overburden and bedrock and replacing vegetative mat
[Tags: Exploration; Reclamation; Trench]

In the Yukon, legal provisions clearly describe the backfill process required for excavation trenches. This process requires that trenches constructed with mechanized equipment be backfilled by first depositing any removed overburden and bedrock, and then replacing the vegetative mat that was removed to construct the trench.[178]

Require use of certain species for re-vegetation
[Tags: Exploration; Reclamation]

Although BC law recommends that species used to re-vegetate an area be suitable for the site, Saskatchewan law goes further in requiring that "all native seeds require a certificate of seed analysis to be submitted to the Saskatchewan Ministry of Environment for approval". Saskatchewan also has publications on native species recommended for site restoration for the province's different eco-regions.[179]

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[174] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.10.1(6), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[175] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.10.1(6), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[176] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.13.1(3), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[177] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.13.1(4), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) pt 9.6.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. Exploration activities must be carried out in a manner that minimizes soil loss so that the site can be reasonably reclaimed to support appropriate self-sustaining vegetation.
[178] *Quartz Mining Land Use Regulation,* Y O/C 2003/64, Schedule 1, s.7.
[179] Saskatchewan, Mineral Exploration and Government Advisory Committee, *Mineral Exploration Guidelines For Saskatchewan* (Regina: Queen's Printer Saskatchewan, 2005), at 55.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 6:

Environmental Assessment for Mining Activities

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.

March, 2013

The opinions expressed in this document are solely those of the authors. They should not be taken as reflecting the views of the Fair Mining Collaborative, the University of Victoria Environmental Law Centre, the Real Estate Foundation, the Wilburforce Foundation, the West Coast Environmental Law Environmental Dispute Resolution Fund, The Nature Conservancy, or Advocates for International Development. This publication is presented with the understanding that neither the publisher nor the authors are engaged in rendering legal, engineering, or other professional services or advice. In no event, including negligence on the part of the authors, the reviewers, the funders or the publisher, will the authors, reviewers, funders or the publisher be liable for any direct, indirect or consequential damages resulting from the use of this material. The authors offer no opinion as to the accuracy of the information summarized in this report and disclaim any responsibility for the accuracy or inaccuracy of such information. Readers interested in the specific details of the law or regulations of a country or jurisdiction cited in this report should consult original and up-to-date sources for that information.

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Chapter Summary

Described as the most widely used environmental management tool in the mineral sector, environmental assessments (EAs) are the process of identifying, evaluating and mitigating the biophysical, social, and other relevant effects of a proposed activity prior to deciding whether to authorize, require modifications, or reject it.

Mine projects in BC may be subject to EAs under both provincial and federal laws. **Chapter 6: Environmental Assessment for Mining Activities** provides a brief description of the federal EA regime and then focuses on BC's EA laws by comparing BC's current EA laws with legislation from other jurisdictions in Canada and abroad.

In BC, EAs of mining activities are generally conducted after the mineral exploration stage and before the mine development stage. In the first step of the process the proponent submits a project description to the Environmental Assessment Office (EAO). Next, the EAO Executive Director determines whether a project is a reviewable project. A project is reviewable if it falls within the threshold criteria set out in the *Reviewable Projects Regulation* or if the Executive Director designates a project as reviewable. Proponents may also ask to have a project reviewed.

Mines with an initial production capacity of under 75 000 tons per year are not required to undergo an EA before being permitted. They are also not required to undergo an EA if they increase in size by less than 750 hectares or 50% of the mine area. Thus, mines may incrementally expand into mines that exceed the 75,000 tonnes of ore per year without undergoing an EA. Moreover, certain classes of activity, such as mineral exploration, are excluded from the EA process.

Other jurisdictions require EAs for all mining activities and advanced mineral exploration, or have thresholds that reflect environmental, wildlife, and social values by considering factors beyond mere project size and capacity. Some also allow local governments, including Indigenous governments, to determine that projects should be subject to an EA or provide for public participation in the determination of whether a project is exempted from review. To ensure that BC's thresholds correlate to the potential environmental and social impacts of proposed mining activities, BC should similarly require EAs for all mining and advanced mineral exploration activities. At a minimum, BC should add thresholds to reflect environmental, wildlife and social values and provide for First Nations and public involvement in project designation.

The next step in the EA process is for the EAO Executive Director or Minister of Environment to determine the scope of the review, including its geographical scale, the information and analysis to be included, the issues and effects that will be considered and who will be consulted during the EA. Apart from a requirement to undergo public consultation, there are no legal requirements for the scope of an EA. Without prescribed minimum standards, important factors may not be consistently assessed across the province. Accordingly, BC should follow the example of other jurisdictions, which have specific EA

content requirements. Specifically, BC laws should require that all activities likely to be undertaken in relation to a proposed mining project are considered.

Also, BC laws should prescribe what information must be included in an EA. In particular, BC laws should require the following:

- **Consideration of adequate baseline data.** BC laws do not require baseline studies as part of the EA process or ensure the adequacy of baseline studies that are provided. Other jurisdictions prescribe minimum time periods over which baseline data must be collected, require that baseline data collected for individual EAs be included in a larger database, require baseline data to include socio-economic information and require that local communities and First Nations be engaged in the collection of baseline data.
- **That information and analysis provided by proponents be unbiased.** EAs in BC are largely founded on information and analysis provided by the proponent. BC law should require that qualified professionals prepare baseline studies and assessments to be used in EAs and that any gaps or uncertainties in data be disclosed.
- **An alternatives analysis.** The identification, analysis and consideration of potential alternatives to a proposed project are an important part of an EA. An alternatives analysis of proposed mining projects that considers alternative mining processes, facilities and locations, and land uses should be legally required in BC. The types of alternatives to be considered should be specified, including the alternative of not proceeding with the proposed mine. Other jurisdictions require specific information that must be provided for each alternative; establish standards for carrying out the alternatives analysis; consider impacts on Aboriginal people and wildlife resources; prohibit the justification of activities that harm the environment solely on economic bases; prohibit the use of public resources to pursue a particular alternative before a project is approved and require the provision of clear reasons for eliminating alternatives in the EA.

While public consultation is required in EAs in BC, public participation in the EA process is limited by lack of formal involvement mechanisms, lack of funds and lack of expertise. Laws in other jurisdictions encourage public participation by providing for public involvement in advisory committees, requiring the proponent to provide financial assistance to parties participating in EAs, requiring special or alternative notice provisions where individual accommodation is required, requiring EA reports to be written in clear language with a concise and non-technical summary, requiring that proponents' experts attend public meetings and hearings and requiring the recording and consideration of verbal comments.

The government's role in consulting First Nations in the EA process is informed by whether or not the First Nation has entered into a treaty. For treaty First Nations, if the treaty requires First Nations' consent, BC law prescribes that no reviewable project may proceed without that consent. For non-treaty First Nations (the vast majority in BC), the EA Act does not prescribe consultation requirements. Consultation is still required, however, pursuant to the government's constitutional and common law duty to consult First Nations on matters that may affect their Aboriginal rights (see: ***Chapter 3: Indigenous Rights, Consultation and Consent***). Many First Nations and proponents have criticized BC's failure to legally formalize the process and scope of the consultation process. Due to lack of certainty in

process, decision-making authority and resources, BC fails to ensure meaningful consultation. BC should develop a separate First Nations consultation protocol and agreements for EA review. It should also consult potentially affected First Nations at the beginning of the EA process, provide time extensions for EAs based on project complexity and First Nations' consultation needs and provide adequate financial assistance to First Nations for their meaningful participation. Funding should also be made available for traditional land use studies, translation services where needed, and capacity building.

Another important weakness in BC's EA process is its lack of an explicit purpose provision and guiding principles in the *Environmental Assessment Act* ("*EA Act*"). Many other jurisdictions have clearly defined and enforceable purpose provisions, as well as clearly defined and substantive decision-making criteria and guiding principles. Additional guidance may be provided to decision makers through laws that set clear legal standards for determining the significance of adverse effects and that define clear levels of EA review.

In addition to lacking legal guidance on which to base decisions, the Minister is not required to take into account the working group's recommendations, First Nations' positions, or public opinion. BC's former *EA Act*, and laws in other jurisdictions, require public comments to be taken into consideration when reviewing and issuing decisions on EA applications. Additionally, the Final Agreements signed with some First Nations require an agreement between First Nations and proponent as a pre-requisite for EA approval. Other jurisdictions require the involvement of concerned communities in significance determinations in EAs and consideration of traditional knowledge in decision-making. Making these considerations mandatory would make the BC's EA process more transparent, democratic and fair.

BC's EA law should also include requirements regarding the evaluation of a proposed project's effects. Currently, the EAO Director has broad discretion to order what potential effects will be considered in an EA. Provincial policy recommends that potential effects be assessed for their valued components, including social, heritage, health and economic components. This policy lists the types of project benefits that should be considered and the factors that should be analyzed in evaluating the significance of residual adverse effects after mitigation.

At minimum, BC law should require the assessment of direct and indirect effects, whether short-term use outweighs long-term effects, the impact of catastrophic events even where the probability of an occurrence is low, cultural effects, the effects of a proposed project on First Nations' traditional land uses, and the effects on species-at risk, biodiversity and species important to First Nations.

The assessment of cumulative effects is not required for provincial EAs. Rather, the EAO Executive Director has discretion to determine whether and how cumulative effects are assessed. While provincial policy states that the EAO will consider cumulative impacts when evaluating projects and the impacts for valued components, where relevant, in practice, there has only been one project in BC where the EAO considered cumulative impacts that did not also undergo a federal EA. Further, the only guidance or methodology that the policy provides for determining whether the impacts are significant is that the

relevance of the cumulative impacts is to be based on the extent to which past or proposed actions may combine with the project to make adverse impacts 'significant'.

Without an assessment of cumulative effects, the impacts of a project may be viewed in isolation from other activities and without consideration of whether project impacts can be adequately mitigated in the local region. Many other jurisdictions require that cumulative impacts be assessed, including assessment of the cumulative effects of different types of activities in the project area, assessment of cumulative socio-economic effects, and consideration of cumulative effects when determining the significance of effects.

BC's laws also lack sufficient guidance on environmental mitigation requirements. Defining what constitutes acceptable mitigation of adverse effects in the *EA Act* would help provide clarity. BC should also involve First Nations and local communities in developing appropriate mitigation measures.

The final stage of the EA process is when the Minister of Environment and Minister of Energy and Mines decide whether to approve the project by issuing it an Environmental Assessment Certificate (an "EA Certificate"). At the time of writing, only two mining projects have ever been denied an EA Certificate in BC (although projects are regularly withdrawn or terminated by the proponents).

Neither the EAO Executive Director nor the ministers are required to give reasons for their decisions or respond to the public's comments. This lack of transparency reduces public confidence. BC should enact laws similar to those in other jurisdictions which require the regulatory authority to provide reasons for its EA decision and written responses to comments submitted by the public and Aboriginal groups.

Once the EA Certificate is issued, the only way the public can appeal the decision is through a judicial review. Many jurisdictions have incorporated appeal mechanisms in their Environmental Assessment laws to permit members of the public to challenge the Environmental Assessment decisions. BC's *EA Act* should include a similar appeal mechanism.

A proponent can apply to the EAO for an amendment to an EA Certificate. However, public consultation requirements under BC law do not apply to applications to amend EA Certificates. Also, the legislation does not explicitly contemplate the right to amend an EA Certificate for environmental protection or adaptive management purposes or require amendment of an EA Certificate if research or monitoring determines that impacts are greater than anticipated, or that additional mitigation or other measures are required. Other jurisdictions provide for participation by the public and Aboriginal groups in applications for major amendments. BC law should also require that the EA Certificate be reviewed regularly and encourage adaptive management in decision-making and through research and development.

An EA Certificate is issued with attached conditions and commitments, which set out a proponent's legal obligations under an EA. Conditions address procedural issues common to every project whereas

commitments are intended to address project-specific issues raised in the EA. There are no legal requirements guiding proponents in developing these commitments.

Enforcement of conditions and commitments occurs through monitoring, evaluation, management and communications. Although BC law provides some recourse for non-compliance, it fails to require the necessary follow-up plans and actions to identify those incidents. Accordingly, BC's EA laws should require monitoring plans for all potential adverse effects, monitoring of actual effects and comparison of actual and predicted effects, follow-up programs and periodic investigations to assess compliance. Further, BC should promote the participation by First Nations in such follow-up activities.

Finally, BC's current EA model does not adequately evaluate long-term risks and benefits associated with projects and ignores broader issues, such as society's need for the project and whether minerals might be better left for use by future generations. One potential solution is the "sustainability assessment" model, which attempts to balance current needs with the needs of future generations. The sustainability assessment model moves away from merely determining the likelihood of significant adverse effects to the use of an evaluation matrix that compares predicted beneficial results of a project with likely negative effects.

Table of Contents

Chapter Summary **162**

Introduction and Background **171**

Environmental Assessment Laws & Jurisdictions *171*

Overview of BC's Environmental Assessment Process *172*

Issue 177

Recommended Solution 177

Recover costs incurred in reviewing EA application 177

Thresholds for Reviewable Projects **178**

Overview of BC Law 178

Issue 179

Recommended Solutions 179

Require EAs for all mining activities irrespective of size or production capacity 179

Require EA for advanced mineral exploration activities 180

Add thresholds to reflect environmental, wildlife and social values 180

Permit First Nations and local governments to request EAs for a non-reviewable project 181

Provide for public involvement in designating and exempting reviewable projects 181

Scope of Environmental Assessment **182**

Overview of BC Law 182

Issue 182

Recommended Solution 183

Develop minimum content requirements for EAs 183

Scale of Environmental Assessment *184*

Issue 184

Recommended Solution 184

Include in EA all activities likely to be undertaken in relation to a proposed mining project 184

Information Required for Environmental Assessments *184*

Baseline Data 185

Issue 185

Recommended Solutions 186

Mandatory collection of adequate baseline data for EAs 186

Involve local communities and First Nations in baseline data collection 187

Credible, Unbiased Data 187

Issue 187

Recommended Solutions 187

Require independent qualified professionals to prepare baseline assessments 187

Acknowledge and describe data uncertainties to ensure full disclosure 188

Alternatives Analysis *189*

Overview of BC Law 189

Issue 189

Recommended Solutions 190
Legally require alternatives analyses in all EAs 190
Specify types of alternatives to be evaluated in the EA process – including the alternative of not proceeding with the proposed mine 190
Require detailed information on each alternative to ensure each is adequately considered 191
Establish standard for carrying out alternatives analysis 191
Consider impacts on First Nations in alternatives analysis 191
Prohibit the justification of activities that harm the environment solely on economic basis 192
Prohibit use of public resources to pursue a particular alternative before EA approval 192
Provide clear reasons for eliminating alternatives in EAs 192
Public Consultation Process for Environmental Assessment 193
Public Consultation 193
Issue 194
Recommended Solution 194
Involve the public by way of EA Advisory Committees 194
Provide assistance to public participation in EA review 195
Public Notice 195
Issue 195
Recommended Solution 196
Provide special or alternative notice provisions where individual accommodation is required 196
Public Access to Information 196
Issue 197
Recommended Solutions 197
Require that EAs are written in clear language 197
Provide concise and non-technical summary of all EAs 197
Require that proponent's experts attend public meetings and hearings 198
Public Comment Period 198
Issue 199
Recommended Solution 199
Record and consider verbal comments made by the public 199
First Nations Consultation in Environmental Assessments 199
Overview of BC Law 199
Issue 202
Recommended Solutions 203
Develop separate First Nations consultation protocol and agreements for EA review 203
Consult potentially affected First Nations at beginning of EA review process 204
Provide time extensions for EA reviews based on project complexity and First Nations' consultation needs 204
Provide adequate financial assistance to First Nations for meaningful participation in EA review 205
Performance of Environmental Assessment 207
EA Purpose, Guiding Principles and Review 207
Overview of BC Law 207
Issue 207

Recommended Solutions 207
Enact enforceable purpose provisions in EA legislation 207
Enact clearly defined and substantive decision-making criteria and guiding principles 208
Set clear legal standards for significance determination of adverse effects 210
Define clear levels of EA review and their application 211
Stakeholder Input *212*
Issue 212
Recommended Solutions 213
Require public comments to be carefully taken into account when reviewing and issuing decisions on EA applications 213
Require agreement between First Nations and proponent as a pre-requisite for EA approval 213
Involve First Nations in significance determinations in EAs 214
Require consideration of traditional knowledge in decision-making 215
Evaluation of Effects *216*
Overview of BC Law 216
General evaluation of effects 219
Assess direct and indirect effects in EA 219
Require assessment of whether short-term use outweighs long-term effects 219
Consider impact of catastrophic events even if probability of occurrence is low 220
Cultural, Social & Economic Effects 220
Assess cultural effects of project in the EA 220
Assess effects of project on First Nations' traditional land use 221
Assess effects of project on species-at-risk, biodiversity, and species important to First Nations 221
Cumulative Effects 222
Overview of BC Law 222
Issues 222
Recommended Solutions 223
Assess cumulative effects as part of all EAs 223
Assess cumulative effects of different types of activities in project area 224
Assess cumulative socio-economic effects 224
Determine significance of effects based on cumulative impacts 225
Mitigation of Adverse Effects 225
Issue 225
Recommended Solutions 226
Define what constitutes adequate "mitigation" 226
Involve First Nations and local communities in developing appropriate mitigation measures 226
EA Certificate 227
Government Accountability *228*
Reasons for Decision 228
Issue 228
Recommended Solutions 228
Provide reasons for all EA decisions 228
Require written responses to public comments 229

Require written responses to First Nations' comments....230
Right to Appeal EA Decision....230
Issue....230
Recommended Solution....231
Provide appeal mechanism in EA legislation....231
Adaptive Management and Amendments to EA Certificates....232
Issue....232
Recommended Solutions....233
Require public and First Nations engagement for major amendments to EA Certificate....233
Regular EA reviews to encourage dynamic and responsive process....233
Encourage adaptive management in decision-making....233
Encourage adaptive management through research and development....234
Monitoring and Enforcement of Certificate Conditions and Commitments....234
Overview of BC Law....234
Issue....236
Recommended Solutions....236
Require monitoring plans for all potential adverse effects....236
Require mandatory follow-up programs....237
Monitor and compare predicted versus actual effects....238
Mandate periodic investigations to assess compliance....238
Promote on-going First Nations' participation in EA follow-up activities....239
Sustainability Assessment Model....239
Issue....240
Recommended Solution....240
Replace current EA model with a Sustainability Assessment model....240

Introduction and Background

An environmental assessment (EA) is the process of identifying, evaluating and mitigating the biophysical, social, and other relevant effects of a proposed activity prior to deciding whether to authorize, require modifications, or reject it.[1] For mining activities in BC, EAs are generally conducted after the mineral exploration stage and before the mine development stage. EAs have been described as the most widely used environmental management tool in the mineral sector.[2]

TERMINOLOGY: Different jurisdictions have adopted different terminology to describe the EA process and stages thereof. This terminology includes "*environmental impact statements*",[3] "*environmental impact assessments*", "*environmental impact reviews*", "*environmental evaluation*", "*environmental review*" and other similar terms.[4] For ease of comparison, the term environmental assessment, or EA, is used here to describe the process of identifying and evaluating the potential effects of a proposed activity, and the measures taken to mitigate those effects.

Environmental Assessment Laws & Jurisdictions

In Canada, environmental assessments are governed by both provincial and federal laws. In BC, EA legislation was first enacted in 1994 (1994 Act) after extensive consultation with First Nations and the public. Without a similar consultation process, the 1994 Act was replaced in 2002 with the current *Environmental Assessment Act* (EA Act).[5] At the federal level, EAs are governed by the *Canadian Environmental Assessment Act* (CEAA). Until recently, the CEAA was viewed as requiring a relatively rigorous EA process. However, the federal government recently repealed the 1992 enactment of CEAA and replaced it with the controversial new CEAA 2012.[6]

The provincial and federal EA requirements have often meant that a proposed mine may have to undergo two separate EAs, one under the provincial legislation and another under the federal legislation. A federal EA was required if the project was planned by a federal authority, on federal crown land, funded by the federal government, or required federal approval by, for example, a federal license or permit. In the past, approximately two-thirds of projects subject to review under the provincial EA

[1] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 11.
[2] Eva Liedholm Johnson, Mineral Rights: Legal Systems Regulatory Exploration and Exploitation (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 36 note 183, online: http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01; International Institute for Environment and Development, *Breaking New Ground* (London: Earthscan, 2002) at xxi. Environmental Impact Assessments (EIA), according to this report, is perhaps the most widely used tool of environmental management in the minerals sector.
[3] Note that in the United States, an EA is used to assess the need to complete an Environmental Impact Statement (EIS). For the purposes of this document, the US legal provisions regarding EISs are incorporated as legal provisions for EAs.
[4] Note: In BC, the legislation applies the terminology "EA Application" to refer to the information submitted for the EA by the proponent – however, for ease of comparison the "EA Application" is simply referred to as the EA in this Code.
[5] *Environmental Assessment Act*, SBC 2002, c 43.
[6] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19.

process were also required to undergo a federal EA.[7] Taseko's proposed Prosperity Mine at Fish Lake is one such example that highlighted the differences between the two regimes. In that case, the proposed mine was granted approval under the provincial EA process, but was denied approval through the federal EA process.

Although provincial and federal EAs evaluated different aspects of a proposed project, the dual approach was heavily criticized as inefficient. As a result, streamlining efforts have been underway to minimize duplication, avoid process uncertainty and increase efficiency and effectiveness.[8] Although federal-provincial cooperation was already encouraged under the old CEAA,[9] CEAA 2012 introduced new provisions regarding coordination of provincial-federal EAs, whereby a single regulator may be responsible for the conduct of an EA. Under CEAA 2012, where a federal authority is satisfied that a provincial EA would satisfy federal EA requirements, the federal authority must, in certain circumstances, substitute the provincial EA for the federal one if requested to do so by the province.[10] What remains to be determined is whether this delegation of authority is constitutional and adequately addresses all relevant aspects of a proposed project.

EAs in BC may also be subject to agreements between the government and those First Nations who have signed treaties and final agreements.[11] These agreements may provide for the harmonization of procedures for evaluating proposed developments on treaty lands.[12]

Overview of BC's Environmental Assessment Process

The provincial EA process occurs in two stages: pre-application and application review.[13]

A. Pre-Application Stage

[7] Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 12, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

[8] Patricia Fitzpatrick and A. John Sinclair, "Multi-jurisdictional environmental impact assessment: Canadian experiences" (2009) 29:4 *Environmental Impact Assessment Review* at 252; Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 58, online: http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf; "The Fish Lake assessment demonstrates well the challenges of harmonizing EA when two or more jurisdictions are involved. It raises significant questions about the Province's commitment to harmonization and unified EA process to avoid duplication and bureaucracy. The differing outcomes make it clear that provincial EA process is procedurally and substantively very different from the federal, and undermines any argument that the federal government should rely on the provincial EA process as functionally equivalent"; Canada, Canadian Environmental Assessment Agency, *Report of the Federal Review Panel: Prosperity Gold-Copper Mine Project*, *Taseko Mines Ltd., British Columbia* (Ottawa: Canadian Environmental Assessment Agency, 2010) at 30, online: <http://www.ceaa.gc.ca/050/documents/46911/46911E.pdf>.

[9] *Canadian Environmental Assessment Act,* SC 1992, c 37, s 12(4).

[10] *Canadian Environmental Assessment Act, 2012,* SC 2012, c19, s52, s 34.

[11] *Environmental Assessment Act*, SBC 2002, c 43, s 29, 29.1.

[12] *Environmental Assessment Act*, SBC 2002, c 43, s 29.1(1).

[13] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria: Environmental Assessment Office, 2010) at 2, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>; British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 5, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.

[1] The proponent submits a project description to the Environmental Assessment Office (EAO), containing the following information:[14]

- proponent information;
- general background information;
- project overview;
- land-use setting;
- consultation activities;
- proposed development schedule; and
- list of required permits.

[2] The EAO Executive Director determines whether the mine is a "reviewable project" in accordance with the threshold criteria set out in the *Reviewable Projects Regulation* (see: ***Thresholds for Reviewable Projects*** and ***Scope of Environmental Assessment***, below). If a project is not reviewable under that regulation, the Minister of Environment may nevertheless exercise his/her discretion to designate a project as reviewable. Proponents may also choose to voluntarily "opt-in" to the EA process.

[3] For "reviewable projects", the EAO Executive Director then decides whether the project "may have a significant adverse environmental, economic, social, heritage or health effect".[15] The EAO makes this decision after circulating the project description to other government agencies and First Nations and making it publicly available on the EAO's Electronic Project Information Centre (e-PIC).[16]

- If the EAO Executive Director determines the project *will not* have significant adverse impacts, he or she will issue a section 10(1)(b) order that the project is not subject to an EA.
- If the EAO Executive Director determines the project *may* have significant adverse impacts, he or she will issue a section 10(1)(c) order requiring the project to undergo an EA.

[4] For projects that require an EA, the EAO Executive Director will also issue a draft section 11 order,[17] specifying the project-specific scope, procedures and methods for conducting the EA review, which is circulated to the proponent and First Nations for comment.[18] Once the EAO Executive Director considers the comments, he or she will prepare a final section 11 order consisting of:[19]

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[14] British Columbia, Environmental Assessment Office, *Guidelines for Preparing a Project Description for an Environmental Assessment in British Columbia* (Victoria: Environmental Assessment Office, 2008) at 2-3, online: <http://www.eao.gov.bc.ca/pdf/Project_Description_Guidelines.pdf>.

[15] *Environmental Assessment Act*, SBC 2002, c 43, s 6(1)(a).

[16] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 22, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

[17] *Environmental Assessment Act*, SBC 2002, c 43, s 11*; Environmental Assessment Act*, SBC 2002, c 43, s 13. The EAO has the discretion to modify the s.11 order so as to: (a) take into account modifications proposed for the reviewable project by the proponent, including modifications proposed in relation to an application submitted under section 16; or (b) if necessary in his or her opinion to complete an effective and timely assessment of the reviewable project.

[18] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 23, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

[19] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 23, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

- An order listing the nature of the project; why it requires an EA; the role, if any, of the Canadian Environmental Assessment Agency; direction on public consultation; development of the Application Information Requirement (AIR) and Application; and the First Nations that the EAO directs the proponent to consult and report on. Recent case law indicates that the section 11 order must also describe any First Nations consultation included in the EA process. [20]
- A schedule specifying the scope, procedures, and methods by which a review must be conducted.

[5] The EAO will also form a working group that includes federal and provincial government agencies, First Nations, local governments, and, where appropriate, officials from neighbouring jurisdictions, including representatives of the Canadian Environmental Assessment Agency (see: ***Public Consultation Process for Environmental Assessment*** discussion below).[21]

[6] The proponent must complete and submit a draft AIR to the EAO.[22] The AIR serves as a roadmap for the information that must be included in the EA.

- The EAO provides First Nations, the public and the working group with an opportunity to review and comment on the draft AIR;[23]
- After the public review, the proponent finalizes the AIR.
- After the EAO approves the AIR, the proponent has 3 years to submit its EA (application).[24]

[7] The proponent carries out studies and completes information gathering as specified under the AIR.[25]

[8] The proponent finalizes the EA (application) and submits it to the EAO Executive Director for evaluation to determine whether it covers all matters required under the final AIR.[26] If the information provided by the proponent is lacking, the responsible ministers retain the authority to request additional information.

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[20] *Nlaka'pamux Nation Tribal Council v British Columbia (Environmental Assessment Office)*, 2011 BCCA 78 at para 98.

[21] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 22, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

[22] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 1, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>. The AIR was previously referred to as EA Terms of Reference.

[23] British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 5, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>; British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 25-26, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>. This is the first formal stage in the EA process where the public provides input - the section 11 order requires a formal 30 to 45 day public comment period on the draft application information requirements. Regulation allows for a comment period up to 75 days.

[24] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 31, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.

[25] Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 6, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.

[26] Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 6, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.

[9] Where the EAO Executive Director determines that the EA contains all the required information, it is accepted for review.[27]

B. Application Review Stage

The EAO serves as the lead review agency when provincial EAs are required.[28] The EAO Executive Director has broad discretion to determine the procedures and methods for reviewing an EA for proposed mining activities[29] and often designates a Project Lead to conduct the review.

The EAO may also refer the application to a Minister to determine the scope, procedures and methods of the EA.[30] In such cases, the Minister has broad discretion to establish the procedures and methods for the EA review. This discretion includes the power to require that the review be conducted by:[31]

- a commission that the minister may constitute for the purpose of the assessment, consisting of one or more persons that the minister may appoint to the commission;
- a hearing panel, with a public hearing to be held by one or more persons that the minister may appoint to the hearing panel; or
- any other method or procedure that the minister considers appropriate and specifies in the order, and by the executive director or other person that the minister may appoint.

After the proponent's EA application has been accepted for review, it undergoes the following review process:[32]

[1] Provincial policy requires distribution of the application to the working group, First Nations and public for review and comment. It is also posted on the e-PIC website and placed in local libraries near the proposed mine.[33] The public comment period typically ranges from 45 to 60 days. All written comments submitted to the EAO are included in a 'tracking table' for the proponent to respond to.

[2] The EAO leads 'open houses' during the public comment period for members of the public to review the application, make comments (that are not recorded), and ask questions of the EAO and the proponent.[34]

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[27] *Environmental Assessment Act*, SBC 2002, c 43, s 16(3).
[28] *Environmental Assessment Act*, SBC 2002, c 43, s 2(2).
[29] *Environmental Assessment Act*, SBC 2002, c 43, s 11(1).
[30] *Environmental Assessment Act*, SBC 2002, c 43, s 10(1). Note that the practice of refering EA projects to the Minister, though rarely used, has been criticized by First Nations for allowing political interference and jeopardizing the neutral administration of an independent and transparent process: First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 26, online: <http://fnbc.info/sites/default/files/documents/New%20Approaches%20to%20EA%20in%20BC%2020aug09.pdf>.
[31] *Environmental Assessment Act*, SBC 2002, c 43, s 14(3).
[32] *Environmental Assessment Act*, SBC 2002 c 43, s 16(3), (5), (6).
[33] British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 6, 32, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.
[34] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 31.

[3] The EAO Executive Director begins to draft the assessment report. Provincial policy requires distribution of the draft assessment report to the proponent, working group and First Nations for input. Generally three weeks is provided for such comment.[35]

- Where First Nations do not agree with that report's conclusions, they have an opportunity to provide their own submission directly to the responsible ministers (i.e., the Minister of Environment and the Minister of Energy and Mines).[36]

[4] The EAO then provides a final assessment report (which should include the views of all interested parties)[37] and recommendations with reasons, *if any*, to the Minister of Environment and to the Minister of Energy and Mines.[38] At this stage, provincial policy requires ministers to consider whether the province has fulfilled its legal obligations to First Nations.[39]

[5] After considering the final assessment report, any accompanying recommendations and any other matters considered relevant to the public interest, the Minister of Environment and Minister of Energy and Mines[40] must do one of the following:[41]

- certify the project by issuing an EA Certificate with any conditions that the ministers consider necessary;
- refuse to certify the project; or
- order that further assessment be carried out.

The following time limits for various stages of the EA are prescribed under BC law:[42]

- 30 days for the evaluation of, and decision on accepting, an EA application for review;[43]
- 180 days for review of an EA application by EAO Executive Director and preparation of EA report based on review;[44] and
- 45 days for the relevant ministries make a decision on the EA application.[45]

These time limits are much shorter than the average time for review of two years that was provided under BC's previous EA law (the 1994 Act).[46] The EAO Executive Director (or Minister if referred to)

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[35] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 34.
[36] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 34.
[37] British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 14, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.
[38] *Environmental Assessment Act*, SBC 2002, c 43, s 17(2).
[39] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 34; First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (Prince George: First Nations Energy & Mining Council, 2009) at 30.
[40] *Environmental Assessment Act,* SBC 2002, c 43 s 17.
[41] *Environmental Assessment Act*, SBC 2002, c 43, s 17(3).
[42] *Environmental Assessment Act*, SBC 2002, c 43, s 24(1).
[43] *Prescribed Time Limits Regulation*, BC Reg 372/2002, s 2.
[44] *Prescribed Time Limits Regulation*, BC Reg 372/2002, s 3.
[45] *Prescribed Time Limits Regulation*, BC Reg 372/2002, s 4.

retains the discretion to extend these time limits, even where they have expired.[47] Although this deadline may be extended for up to a period of three years, it can only be extended upon request by the proponent or if the EAO requires additional information to complete the assessment.[48] It cannot be extended solely at the request of the public or First Nations.[49]

Issue

Costs for reviewing an EA can place a heavy burden on the public purse where they are not recovered from the proponent. Under BC law, the payment of fees for reviewing EAs is contemplated, but is not established as a mandatory legal requirement.[50]

Recommended Solution

Recover costs incurred in reviewing EA application
[Tags: EA; Costs; Review]

Other jurisdictions explicitly require recovery of public funds expended in the EA review process from the proponent. For example, under Canada's new EA legislation, proponents must cover the costs incurred by the government for prescribed services during the EA process.[51] Similarly, in Newfoundland and Labrador, the proponent must pay EA costs incurred by the Crown.[52] Where these costs have not been paid, the regulatory authority may cease the review until they have been paid.[53] Specific items that may be covered include: the cost and expense of consultants, lodging, meals, salaries, remuneration and travel incurred by the provincial government and by boards or committees.[54] In New South Wales (Australia), public money expended in the EA process may also be recovered from the applicant for a mining lease.[55] In Mozambique, the proponent is responsible for the travel costs and out of office expenses of the regulatory authority's technical staff and costs related to correspondence, consultancy fees for the environmental consultants, costs arising from public consultations and other fees related to the production of the documents required for the licensing process.[56]

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[46] Carrier-Sekani Tribal Council, *Critique of the BC Environmental Assessment Process from a First Nations Perspective* (Prince George: Carrier-Sekani Tribal Council, 2007) at 9, online: < http://www.carriersekani.ca/images/docs/lup/EAO%20Critique%20-%20CSTC.pdf>.
[47] *Environmental Assessment Act*, SBC 2002, c 43, ss 24(2), (4).
[48] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 33.
[49] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at xi.
[50] *Environmental Assessment Act*, SBC 2002 c 43, s 32. There are also regulation-making power for the imposition of fees associated with the EA process *Environmental Assessment Act* SBC 2002, c 43, s 50(2)(b). However no such regulations have yet been enacted.
[51] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, ss 59-61.
[52] *Environmental Protection Act*, SNL 2002, c E-14.2, s 74(1),(2).
[53] *Environmental Protection Act*, SNL 2002, c E-14.2, s 74(3).
[54] *Environmental Protection Act*, SNL 2002, c E-14.2, s 74(4).
[55] *Mining Act 1992* (NSW), s 67(1).
[56] SAL & Caldeira, Advogados e Consultores, Limitada, *Introduction to the Legal Framework for Mining in Mozambique* (Maputo, Mozambique: Sal & Caldeira, 2010) at 33, online: <http://www.baeticamoz.com/7.html>.

Thresholds for Reviewable Projects

Overview of BC Law

Under BC's current *EA Act*, EAs are not required for all mining activities; EAs are only mandatory for projects that exceed the legislated EA threshold or those that are specifically designated by the Minister as "reviewable projects".[57] Unless exempt by the EAO Executive Director,[58] all projects that meet the following thresholds must submit an EA application and obtain an EA Certificate before operations can begin:[59]

- new projects where the mine will have a production capacity greater than 75,000 tonnes/year of mineral ore;[60] and
- modifications to existing mines where the:
  - mine will have a production capacity greater than 75,000 tonnes/year of mineral ore; and
  - modification will result in the disturbance of either:
    - 750 hectares of land not previously permitted for disturbance; or
    - an increase of at least 50% of the area permitted for disturbance.[61]

Where a proposed project does not meet the above thresholds, a proponent itself may request that the mine undergo an EA.[62] Also, the Minister of the Environment may designate mines that do not meet the threshold requirements as reviewable projects if satisfied that:[63]

- the mine may have a significant adverse environmental, economic, social, heritage or health effect;
- the designation is in the public interest; and
- the mine is not substantially started at the time of the designation.

Designation of otherwise non-reviewable projects by the Minister of the Environment is extremely rare and as of the date of this publication, the power had only been exercised to designate a project at the proponent's request.[64]

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[57] *Environmental Assessment Act,* SBC 2002, c 43, s 6.
[58] Joseph F Castrilli, *Report on the Legislative, Regulatory, and Policy Framework Respecting Collaboration, Liability, and Funding Measures in relation to Orphaned/Abandoned, Contaminated, and Operating Mines in Canada* (Toronto: National Orphaned/Abandoned Mines Initiative, 2007) at 70; *Environmental Assessment Act*, s 10(1)(b). Fortunately, this legal provision has not yet led to extensive exemptions: Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 12, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[59] In BC, mining activities that qualify as reviewable projects are listed under Part 3 of the *Reviewable Projects Regulation*, BC Reg 370/2002.
[60] *Reviewable Projects Regulation*, BC Reg 370/2002, s 3(1), Table 6.
[61] *Reviewable Projects Regulation*, BC Reg 370/2002, s 3(2), 8(1), Table 6.
[62] *Environmental Assessment Act*, SBC 2002, c 43, s 7.
[63] *Environmental Assessment Act*, SBC 2002, c 43, s 6(1).

The current thresholds to trigger EAs are much higher than those listed under BC's former *EA Act*. For example:

- Under the former legislation, the threshold for new projects was 25,000 tonnes of ore/year. This threshold that has been increased by 300%.[65]
- Under the former legislation, modifications to existing mines had to be assessed if the area of new disturbance was 250 hectares or over 35% of the original mine area. This threshold has been increased to 750 hectares or 50% of the original mine area.[66]

These amendments mean that smaller-scale, but still significant mining activities are no longer required to undergo an EA before being permitted. These thresholds also allow small mines (with an initial production capacity less than 75,000 tonnes/year) to incrementally expand into larger mines (exceeding the 75,000 tonnes/year threshold) without triggering an EA. Such a scenario could occur where a proponent states that its production capacity will be less than the capacity of its on-ground infrastructure, only to later increase the level of production without changing the initial physical footprint.[67] Finally, these thresholds systematically exclude certain mining activities, such as mineral exploration, which can involve high-impact drilling, road construction and waste generation.

Issue

BC's legislated EA thresholds do not always correlate to the potential environmental or social impacts of proposed mining activities.

Recommended Solutions

<u>Require EAs for all mining activities irrespective of size or production capacity</u>
[Tags: EA; Threshold; Reviewable Project]

EA laws in other jurisdictions recognize that, irrespective of the size or production capacity of the operation, all mining projects have the potential for significant adverse social and environmental impacts that must be considered before deciding whether to approve proposed projects. For example,

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[64] In the Matter of the Environmental Assessment Act SBC 2002, c43 and an Environmental Assessment of the Vancouver Airport Fuel Delivery Project (Proposed Project), Order Under Section 7(3) (10 February 2009).

[65] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 18, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>; Cheryl Sharvit and Lisa Sumi, *Beneath the Surface – Aboriginal Rights and Mining Law in British Columbia* (Surrey: Environmental-Aboriginal Guardianship through Law and Education, 2001) at 233, online: <http://www.miningwatch.ca/sites/www.miningwatch.ca/files/Beneath_the_Surface_0.pdf>.
Joseph F Castrilli, "Environmental Regulation of the Mining Industry in Canada: An Update of Legal and Regulatory Requirements" (2000) 34 UBCLR 91 at 124, 126.

[66] Joseph F Castrilli, "Environmental Regulation of the Mining Industry in Canada: An Update of Legal and Regulatory Requirements" (2000) 34 UBCLR 91 at 124, 126.

[67] See e.g. Andrew Gage, "*Gravel Pit court case reveals problems with Environmental Assessment laws" West Coast Environmental Law* (30 May 2011), online: <http://wcel.org/resources/environmental-law-alert/gravel-pit-court-case-reveals-problems-environmental-assessment-la?utm_source=twt>.

in Washington, EAs must be prepared for *all* proposed metals mining and milling operations.[68] Similarly, in Sweden, mining activities are defined as environmentally hazardous activities that require EAs.[69] In Nova Scotia, mining facilities for the extraction or processing of metallic minerals are all subject to EA requirements.[70]

First Nations have also criticized BC's legislated EA thresholds as being inadequate, and have called for mandatory EAs for all mining activities. This is reflected in many First Nations' resource policies, that state that the community will treat mining activities that do not trigger an EA under the provincial law in the same way that they would treat the proposed project if it exceeded the triggering thresholds.[71]

Require EA for advanced mineral exploration activities
[Tags: EA; Exploration]

Mineral exploration activities can have significant environmental and social impacts. BC's laws, however, do not require EAs for advanced exploration activities. Conversely, the importance of conducting EAs of exploration activities is recognized elsewhere, including the Yukon,[72] Colombia[73] and the Philippines.[74]

Notably, within in BC's current legal framework, a review of the environmental and social effects of exploration activities could be achieved if the Minister of Environment exercised his or her discretion to conduct a strategic environmental assessment of exploration activities across a region or the province.[75] This strategic EA could identify thresholds for what types of exploration activities would require a project-based EA.

Add thresholds to reflect environmental, wildlife and social values
[Tags: EA; Thresholds; Reviewable Project]

Although the EAO has the discretion to designate projects as reviewable based on environmental or social considerations, it has never exercised this discretion. To better ensure that appropriate projects undergo an EA, BC's threshold criteria should at minimum be expanded to require EAs based on the location of a project (e.g. environmentally sensitive area, fisheries watersheds, community watershed,

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[68] Rev Code Wash, § 78.56.050(1), § 43.21C.039 (2011).
[69] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 86, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[70] *Environmental Assessment Regulations*, NS Reg 26/95, Schedule A, Part B.
[71] Teslin Tlingit Council, *Mining Policy* (Teslin, YK: Teslin Tlingit Council, 2008) at 13.
[72] *Assessable Activities, Exceptions and Executive Committee Projects Regulations*, SOR 2005-379, Schedule 1, s 1-2.
[73] *Procedures for Citizen Participation* (Law 99 of 1993) Colombia, art 49. See also: http://www.minambiente.gov.co/contenido/contenido.aspx?catID=1200&conID=7050.
[74] Colombia, Mines and Geosciences Program, *Exploration Work Program* form, MGB Form No 5-4, online: <http://www.mgb10.com/forms/exploration.html>. In the Philippines, proponents must submit a two-year "Exploration Work Program" in order to receive an exploration license. The Exploration Work Program requires, for example, details on the current state of the terrain, a description of the exploration surveys to be conducted, and the expected mineral information to be gleaned from each survey.
[75] *Environmental Assessment Act*, SBC 2002, c 43, s 49.

critical wildlife habitat, highly fragmented landscapes, trans-boundary waters, etc.) and the environmental values at stake (e.g. threatened or endangered species, drinking water aquifer, etc.).[76] Notably, BC's *Environmental Assessment Act* specifically empowers the Lieutenant Governor in Council to enact regulations that use these factors to determine whether an EA is necessary.[77]

Other jurisdictions do consider factors beyond mere project size and production capacity. For example, Finland has adopted a broad approach by requiring EAs where projects may have adverse environmental impacts due to the special features of Finland's nature and environment.[78] In Nunavut, more detailed criteria are used to determine whether a proposed project should require an EA. For example, the Nunavut Impact Review Board will consider whether the proposed project:[79]

- may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities;
- may have significant adverse socio-economic effects on northerners;
- will cause significant public concern; or
- involves technological innovations for which the effects are unknown.

<u>Permit First Nations and local governments to request EAs for a non-reviewable project</u>
[Tags: EA; Indigenous Rights]

In BC, only the Minister of Environment is empowered to require an EA for a non-reviewable project.[80] Conversely, in other jurisdictions, aboriginal peoples and other stakeholders are permitted to determine whether a project, which does not meet statutory thresholds, should nevertheless be subject to an EA. For example, in the Northwest Territories, the *Mackenzie Valley Resource Management Act* provides that local governments and the Gwich'in First Nation, the Sahtu First Nation or the Tlicho Government are entitled to conduct a preliminary screening of a proposal to determine whether to refer it for an EA.[81] The Review Board is then required to perform an EA for any proposal that the local government or First Nation consider warrants one.[82]

<u>Provide for public involvement in designating and exempting reviewable projects</u>
[Tags: EA; Public Consultation; Reviewable Project]

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[76] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 21, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[77] *Environmental Assessment Act,* s 5(2)(a).
[78] *Act on Environmental Impact Assessment Procedure*, Ministry of the Environment, Finland, s 4(2).
[79] *Nunavut Land Claims Agreement*, 1993, ratified by *Nunavut Land Claims Agreement Act* SC 1993, c 29 at 12.4.1 and 12.4.2.
[80] *Environmental Assessment Act,* SBC 2002, c 43, s 6(1).
[81] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 124(3).
[82] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 126(2).

In Alberta, the regulatory authority must consider "any concerns in respect of the proposed activity that have been expressed by the public" when deciding whether an activity that does not automatically trigger an EA should still undergo one.[83]

California law mandates a minimum 20-day public review period of a regulatory authority's decision to exempt a mining activity from the EA requirement.[84] This is accomplished through an on-line posting system which receives all EA reviews of mining proposals in the state.[85] The public can access these documents online and post comments during the notification period. These provisions increase transparency and provide accessible public oversight.

Scope of Environmental Assessment

Overview of BC Law

If a proposed mining activity triggers an EA in BC, the EAO Executive Director (or minister where applicable) must specify the scope of the EA.[86] The scoping stage identifies the following aspects of the EA review:[87]

- the appropriate scale for review on a geographic (site-specific, regional or both) and temporal (historical, present and future) basis;
- the information and analysis necessary for decision-making;
- the issues and effects that will be considered in the EA, including potential cumulative environmental effects; and
- the persons and organizations to be notified of and consulted during the assessment, including the public, First Nations, government agencies and neighbouring jurisdictions.

In the following sections the law governing each of these aspects is considered and recommended solutions are provided for improvements based on examples from other jurisdictions.

Issue

Apart from the public consultation requirement (see: ***Public Consultation Process for Environmental Assessment***, below), there is no mandatory EA content provided under BC law.[88] Although proponents,

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[83] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 44(3)(c).
[84] Cal P R C § 21091(b) (2011); *California Environmental Quality Act,* 14 Cal Code of Regulations, c 3, art 6, §15070-15075.
[85] California Environmental Protection Agency, "Public Notices", online: State Water Resources Control Board < http://www.swrcb.ca.gov/public_notices/>.
[86] *Environmental Assessment Act*, SBC 2002, c 43, s 11(1). EA scoping was the subject of a recent Supreme Court of Canada decision on the proposed Red Chris Mine in north-western BC: *MiningWatch Canada v Canada* (Fisheries and Oceans), 2010 SCC 2.
[87] *Environmental Assessment Act*, SBC 2002, c 43, s 11(2); Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 27 online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>; United Nations University, RMIT University, and the United Nations Environment Programme (UNEP), *Environmental Impact Assessment Course Module* (2007), online: <http://eia.unu.edu/course/?page_id=140>.

technical experts, the public and First Nations may input on the appropriate content, the EAO Executive Director (or Minister if this task is referred to him or her) has significant discretion in determining the EA content. Without prescribed minimum standards, there is a risk that important factors will not be consistently assessed for projects proposed at different times and/or in different regions across the province.

Recommended Solution

Develop minimum content requirements for EAs
[Tags: EA; Content; Minimum Standards]

Unlike BC, numerous jurisdictions clearly specify minimum EA content requirements - for example:

- US federal law specifies a standard format for EAs that must be followed unless the regulatory authority deems that there is a compelling reason to deviate from these requirements. Even if there is a compelling reason to deviate from the legal requirements, some of the minimum requirements must still be met in all cases.[89]
- Alberta law specifies minimum EA content requirements including: an analysis of the need for the activity; an analysis of the site selection procedure for the proposed activity; areas of major concern that should be considered; and an identification of issues related to human health that should be considered.[90]
- Both European Union[91] and United Kingdom[92] laws list minimum EA content requirements.
- Chinese law specifies the following minimum EA content requirements: description of the proposed project; baseline environmental conditions; prediction and evaluation of environmental impacts; economic and technical analysis of mitigation measures; cost–benefit analysis of environmental impacts; proposal for monitoring; and conclusions of the EA.[93]
- South African law specifies minimum content requirements for basic assessment and EA reports.[94]

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[88] The Application Information Requirements Template, a "Guidance Document" which is discussed below, asks for certain information, however, this is policy, not law. See: British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010).
[89] 40 CFR § 1502.10.
[90] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49.
[91] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 5, annex IV. Note: this provision only applies to mining "where Member States consider that their characteristics so require" (Article 4(2)).
[92] *Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999*, SI 1999/293, Schedule 4.
[93] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132 Environmental Monitoring Assessment 53 at 60.
[94] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, ss 22(2), 31(2).

Scale of Environmental Assessment

Under BC's EA law, the EAO Executive Director (or Minister of Environment, where applicable) has discretion on whether to include the following in the scope of the EA review facilities at the main site, off-site facilities and any activities related to the reviewable project.[95] Related activities that do not, on their own, trigger an EA may be approved without assessing their environmental, social and cumulative impacts.

Issue

BC law does not require all the activities related to a mining project to be included in the EA. Therefore, projects can be narrowly assessed without factoring in the associated and/or cumulative impacts.

Recommended Solution

Include in EA all activities likely to be undertaken in relation to a proposed mining project
[Tags: EA; Scope; Discretion]

BC has no legal provisions to guide the exercise of the EAO's discretion in determining the scale of the EA or to require that related activities be included in the assessment process. In contrast, other jurisdictions provide some guidance for decision-makers to ensure that the EA covers the appropriate scope of the proposed activity. For example, US federal law explicitly states that "significance cannot be avoided by terming an action temporary or by breaking it down into small component parts".[96] Under Yukon law, the regulatory authority must include in the scope "in addition to any activity identified in the proposal, any other activity that it considers likely to be undertaken in relation to an activity so identified and sufficiently related to it to be included in the project".[97] The Yukon regulatory authority is also required to "assess as a single project two or more projects for which it has received proposals where it considers that the projects are so closely related as to be part of the same activity or where all the decision bodies for each of the projects have advised it that they consider the projects to be so related".[98] Similarly, under both CEAA and CEAA 2012, the regulatory authority is empowered to consider two closely related projects as a single project.[99] Not only is the assessment of related projects in the same EA more efficient, it also allows for the evaluation of cumulative effects (see: ***Cumulative Effects***, below).

Information Required for Environmental Assessments

A robust understanding of the environmental effects of a project is possible only if there is adequate baseline and other scientific and technical data, analyses, studies and related

[95] *Environmental Assessment Act*, SBC 2002, c 43, s 11(2).
[96] 40 CFR §.1508.27.
[97] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 51.
[98] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 52.
[99] *Canadian Environmental Assessment Act*, SC 1992, c 37, s 15(2); *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 16.

information about the environment that stands to be impacted by the project, and about the project itself.[100]

-Beverly J. Hobby – Department of Justice, Canada

The EAO's Application Information Requirements (AIR) template identifies the information that the proponent should provide in the EA.[101] However, the AIR template is a "Guidance Document" rather than law, and as such, carries little legal weight. Currently, the AIR template is undergoing revision, and an updated version is expected in early 2013. In the 2010 version of the AIR template, the required information includes a summary and a detailed description of the proposed plans.[102] There is no requirement, however, that proponents provide baseline data, which is essential to:

- ensure accurate assessments of environmental impacts;
- design appropriate infrastructure and plan for long-term treatment; and
- provide the information necessary to identify signs of environmental problems.

Proponents are only *encouraged* under provincial policy, not law, to include a general description of existing biophysical environment at the proposed site and surrounding areas within the zone of potential influences of the proposed mine.[103] When describing the existing biophysical environment, proponents must use valued environmental components (see: ***Evaluation of Effects***, below).

Despite this attempt to standardize the information required from proponents, the information obtained for similar projects undergoing an EA in BC is not always the same. Rather, what information is required often depends on which individuals represent the EAO, other government agencies and proponents for a particular project.[104] BC's lack of mandatory legal provisions on content and methodology has been criticized for leading to inconsistencies in the standards and protocols used by proponents in gathering information, such as baseline studies.[105]

Baseline Data

Issue

Adequate baseline data is essential to accurately assess the potential impacts of a project. BC laws, however, do not require adequate baseline studies as part of the EA process.

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[100] Beverly Hobby, *Risky Business: Environmental Assessment Mistakes* (Vancouver: Continuing Legal Education Society of British Columbia, 2011) at 4.
[101] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at Preface.
[102] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 30-31.
[103] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 19, 23. The policy recommends that these studies and assessment analyses follow relevant provincial and federal standards.
[104] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 28, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[105] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 28, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

Recommended Solutions

Mandatory collection of adequate baseline data for EAs
[Tags: EA; Baseline studies]

Baseline data must be collected over a sufficient period of time to accurately characterize local environmental conditions. BC's EA law does not, however, prescribe any timelines for the collection of baseline data. Conversely, other jurisdictions prescribe minimum time periods over which baseline data must be collected. In Colorado, for example, the law requires that baseline studies contain five successive calendar quarters of monitoring data.[106]

Another way to improve the accuracy of baseline information would be to create a province-wide baseline database. Such a database could include information from BC's pre-existing monitoring networks. Unfortunately, a recent study found that the province's meteorological and hydrometric network "fell short of international standard for station density and warned of a growing risk that the networks may not optimally support" resource management decision making.[107]

California law recognizes the importance of a thorough environmental database by requiring that information compiled in individual EAs be incorporated into a larger database.[108] Oregon also requires the regulatory body to provide any groundwater quality data acquired while carrying out its statutory duties to the state-wide repository of information on the state's groundwater resource.[109] The information contained in these types of databases can help in the preparation of future EAs and in assessing cumulative effects of other proposed projects (see: ***Cumulative Effects***, below).[110]

Finally, environmental data alone is insufficient to assess the impacts of a proposed project: socio-economic information is also important. In BC, baseline studies for social and economic values are not mandated by law, but this information is required as part of the AIR template that the proponent must submit.[111] Such studies are also required under the *James Bay and Northern Quebec Agreement*, which mandates that the EA include a description of the state of the environmental and social setting before

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[106] *Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal and Designated Mining Operations,* s 6.4.23, online: <http://mining.state.co.us/rulesregs/HardRockRulesAdoptedAug%20122010actcites12032010correction.pdf>.
[107] John Lilley, "The CWRA Comments on Canada's Hydrologic and Meteorologic Networks" (2004) 23(4) Water News 15 at 17.
[108] Cal PRC,§ 21003(d).
[109] Or Rev Stat § 516.135(2) (2011).
[110] David Brereton et al, *Assessing the Cumulative Impacts of Mining on Regional Communities: An Exploratory Study of Coal Mining in the Muswellbrook Area of NSW* (St Lucia, Australia: University of Queensland, 2008), online: <http://www.csrm.uq.edu.au/docs/C14047.pdf>.
[111] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria: Environmental Assessment Office, 2010) at 27, online at: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

the proposed development begins "in order to have a reference point for the evaluation of the impacts of the development".[112]

Involve local communities and First Nations in baseline data collection
[Tags: EA; Baseline Studies; Local Communities; First Nations]

One way to increase capacity in and involvement of local communities is to engage them in the collection of baseline data. Concurrently, the involvement of local communities can bring many benefits to the process, including: harnessing unique local environmental knowledge; promoting project legitimately; and enhancing the effectiveness of monitoring and impact management measures.[113]

A notable approach is provided in South Dakota, where soil, vegetation, and wildlife surveys included in the mine reclamation plan must be completed by the local conservation authority and paid for by the mine permit applicant.[114] Although BC does not have conservation authorities, similar provisions could empower local First Nation or local community organizations to conduct environmental baseline surveys.

First Nations could also be involved in providing baseline information based on traditional knowledge. The expansion of baseline data to include traditional knowledge, in addition to scientific data, could also improve the accuracy of the baseline data.

Credible, Unbiased Data

Issue

The EA process in BC is entirely founded on information and analysis provided by the proponent. This can result in an apprehension of bias about the contents and accuracy of the EA.

Recommended Solutions

Require independent qualified professionals to prepare baseline assessments
[Tags: EA, Expertise]

Qualified professionals are bound by professional standards, codes of ethics and disciplinary repercussions, and this provides a degree of assurance to the quality and independence of their work.[115] Although BC's policy and standard practice is to have qualified professionals prepare the baseline

[112] *The James Bay and Northern Quebec Agreement, Between the Grand Council of the Crees (of Quebec), the Northern Quebec Inuit Association, the Government of Quebec, the James Bay Energy Corporation, the James Bay Development Corporation, the Quebec Hydro-Electric Commission-Hydro-Quebec, and the Government of Canada, 11 November 1975,* s 22, Schedule 3.
[113] Bram Noble and Jasmine Birk, "Comfort monitoring? Environmental assessment follow-up under community–industry negotiated environmental agreements" (2011) 31 Env Impact Ass Rev 17 at 18.
[114] S Dak Codified Laws § 45-6B-7 (2)(3)(4).
[115] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 42, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

studies and assessments to be used in the EA, this is not required by law.[116] In contrast to BC, other jurisdictions legally require qualified professionals to prepare the information in EAs. For example:

- In Colorado, the regulatory authority can require the proponent to retain and pay for a third-party professional expert to oversee the collection of baseline information, monitor the field operations in which baseline data are collected, and review any baseline data or site information collected by the mining company.[117]
- In South Africa, the law requires EAs to be managed by an independent EA practitioner with expertise in conducting EAs, which includes knowledge of the legislation and any guidelines relevant to the proposed activity. The practitioner must perform the work "in an objective manner, even if this results in views and findings that are not favourable to the applicant".[118]
- In Mozambique, the law mandates that the EA be completed by an environmental specialist licensed by the government institution responsible for ensuring the preservation and responsible use of natural resources, the coordination of environmental activities and environmental licensing.[119]

To prevent any appearance of undue influence by the proponent on the qualified professional, the latter could be paid by and report directly to the EAO. The proponent would then be responsible for paying fees to the EAO to cover the costs of the qualified professional.

<u>Acknowledge and describe data uncertainties to ensure full disclosure</u>
[Tags: EA; Limitations; Information]

To ensure full disclosure, any uncertainties in the EA should be clearly identified and communicated to the regulatory authority. This is recognized in the United Kingdom, where the law requires that EAs contain "an indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information".[120] Similarly, under South African law, the EA must include a "description of any assumptions, uncertainties and gaps in knowledge".[121] Under Dutch law, the EA must contain a list of data gaps in the descriptions of the current state of the environment and

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[116] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 12, 19, 50, Note that this differs from the requirement for qualified persons in the assessment of contaminated sites and riparian areas: Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 42, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.; *Contaminated Sites Regulation*, BC Reg 375/96, Schedule 1.1; *Riparian Areas Regulation*, BC Reg 376/2004, s. 1 definitions of qualified environmental professional" and "assessment report".
[117] *Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal and Designated Mining Operations,* s 1.4.3(2), online: <http://mining.state.co.us/rulesregs/HardRockRulesAdoptedAug%20122010actcites12032010correction.pdf>.
[118] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 16(1), 17(a)(b)(c).
[119] *Environmental Regulation for Mining Activities* (Decree n° 26/2004 of 20 August) Mozambique, article 8, para 2.
[120] *Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999*, SI 1999/293, Schedule 4, Part I, s 7.
[121] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s. 31(2)(m).

the effects of the proposed activities.[122] BC law should mandate that similar uncertainties be brought to the attention of the EAO, First Nations and the general public to promote greater transparency in the process.

Alternatives Analysis

Overview of BC Law

The identification, analysis and consideration of potential alternatives to a proposed project are an important part of the environmental assessment. BC law, however, contains no explicit requirement to carry out alternative analyses. Instead, the decision to include an alternatives analysis is subject to the discretion of the EAO Executive Director and Minister.[123] Although alternative analyses are not explicitly required under BC law, they are discussed in provincial policy.[124] According to this policy, proponents are to:[125]

- briefly describe proposed project alternatives;
- identify the key issues in considering the alternative means of the proposed project;
- provide an analysis of the alternative means of carrying out the proposed project that are technically and economically feasible; and
- identify the rationale for selecting the preferred alternative.

Issue

A recent review of EAs completed in BC revealed an absence of needs assessments and analyses of alternatives to the project (unless an EA under the federal EA process had been carried out).[126] Due to the fixed location of mineral ore bodies, there may not be readily identifiable alternative locations for mineral extraction. An alternative analysis of proposed mining projects should nevertheless consider:[127]

- alternative mining processes (i.e., underground versus open-pit versus heap leaching);
- alternative facilities and locations; and
- alternative land uses (i.e., other than mining).

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[122] *Environmental Management Act* (No 239 of 2002) Netherlands, § 7.10.
[123] *Environmental Assessment Act*, SBC 2002 c 43, ss 11, 14.
[124] British Columbia, Environmental Assessment Office, *Frequently Asked Questions* (Victoria: Environmental Assessment Office, undated). The provincial EAO's approach to alternatives is also discussed on the EAO website, "The B.C. Environmental Assessment Act only requires the review of the project that is submitted. The EA process may examine alternative ways of implementing the proposed project during the application review stage. For example, the EAO may assess alternative locations for facilities, for housing the workforce, alternative processing methods for producing the end product, or alternative approaches to constructing or operating the project."
[125] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 13, online:<http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[126] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 31, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[127] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 36, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

Recommended Solutions

Legally require alternatives analyses in all EAs
[Tags: EA; Alternatives]

Although alternatives analyses are not mandatory for EAs in BC, they are legally required in several other jurisdictions. Under US federal law, for example, alternatives analyses are described as being at the heart of the EA process.[128] In Nova Scotia, the terms of reference for an EA must include a description of the alternatives to the undertaking.[129] In the Yukon, "every comprehensive study of a project and every mediation or assessment by a review panel *shall include* a consideration of alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means" [emphasis added].[130] In Ontario, EAs must consist of "the alternative methods of carrying out the undertaking and the alternatives to the undertaking".[131] In Alberta, EAs must include a consideration of the alternatives to the proposed activity.[132] Alternatives assessments are also required under CEAA 2012.[133]

Specify types of alternatives to be evaluated in the EA process – including the alternative of not proceeding with the proposed mine
[Tags: EA; Alternatives]

In many jurisdictions, the law clearly specifies the types of alternatives that must be considered in an EA. For example, in South Africa the law lists specific examples of alternatives that should be evaluated in the EA process, including alternatives to the proposed activity's:[134]

- location;
- design or layout;
- technology to be used; and
- operation.

South African law also provides that alternatives to the proposed activity, for example activities other than mining, should be considered.

In several other jurisdictions the alternatives analysis must consider the alternative of not proceeding with the proposed activity. This component of the assessment has been recognized as a critical

[128] 40 CFR § 1502.14.
[129] *Environmental Assessment Regulations*, NS Reg 26/95, s 19(1)(d).
[130] *Environmental Assessment Act*, SY 2003, c 2, s 12(2)(b).
[131] *Environmental Assessment Act*, RSO 1990, c E 18, s 6.1(2)(d).
[132] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49(h).
[133] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19 s 19(1)(g).
[134] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 1(1).

determinant of an effective EA[135] and is required by law in Alberta,[136] Ontario,[137] Sweden,[138] the United States[139] and under the *James Bay and Northern Quebec Agreement*.[140] Under the *Mackenzie Valley Resource Management Act* the need for the development must also be considered.[141]

Require detailed information on each alternative to ensure each is adequately considered
[Tags: EA; Alternatives; Environmental Impact]

Ontario law contains a list of information that proponents must describe in the EA for each alternative – this includes descriptions of the likely, or reasonably likely:[142]

- direct and indirect impacts on the environment;
- effects caused to the environment; and
- actions to prevent, change, mitigate or remedy effects on the environment.

Establish standard for carrying out alternatives analysis
[Tags: EA; Alternatives]

BC law does not outline on which basis alternatives will be evaluated. In contrast, Oregon law provides explicit guidance on carrying out the alternatives analysis in EAs for chemical process mine: the alternatives analysis must be carried out in a manner that "rigorously explores and objectively evaluates all reasonable alternatives".[143]

Consider impacts on First Nations in alternatives analysis
[Tags: EA; Alternatives; Indigenous People]

In BC, there is no legal requirement that the EAO consider how each alternative might impact First Nations. In contrast, under the *James Bay and Northern Quebec Agreement*, "alternatives to the proposed action, including alternatives to individual elements of large scale projects, will be evaluated with a view to minimizing […] impacts on Native people and wildlife resources and maintaining the

[135] Hussein Abaza et al, *Environmental Impact Assessment,* Course Module, (United Nations Environment Programme, 2007) at s 5, online: <http://eia.unu.edu/course/?page_id=173>.
[136] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49(h).
[137] *Environmental Assessment Act*, RSO 1990, c E-18, s 6.1(2)(b), (d).
[138] Eva Liedholm Johnson, Mineral Rights: Legal Systems Regulatory Exploration and Exploitation (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 79, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[139] 40 CFR § 1502.14.
[140] The James Bay and Northern Quebec Agreement, Between the Grand Council of the Crees (of Quebec), the Northern Quebec Inuit Association, the Government of Quebec, the James Bay Energy Corporation, the James Bay Development Corporation, the Quebec Hydro-Electric Commission-Hydro-Quebec, and the Government of Canada, 11 November 1975, s 22, Schedule 3.
[141] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 117(2).
[142] *Environmental Assessment Act*, RSO 1990, c E-18, s 6.1(2)(c).
[143] O Rev Stat § 517.979(3)(c).

quality of the environment".[144] Similarly, under South African law, the advantages and disadvantages that different alternatives may have on the local community must be described in the EA.[145]

Prohibit the justification of activities that harm the environment solely on economic basis
[Tags: EA; Alternatives; Economic]

A common critique of alternatives analyses in EAs is the heavy reliance on economic considerations when evaluating alternatives. This problem was recently demonstrated in the EA process for the proposed Prosperity Mine in BC. In that case, the proponent alleged that the alternative to depositing tailings in Fish Lake was not economically feasible due to the high costs associated with the alternative construction of a tailings pond. After being denied the federal EA approval, however, the proponent changed its plans in favour of the previously rejected alternative. This suggests that the proponent's alternatives analysis was primarily based on economic considerations.[146] In Minnesota, the law addresses this concern by explicitly prohibiting the granting of a natural resource permit where the sole justification for a particular alternative is based on economic considerations.[147]

Prohibit use of public resources to pursue a particular alternative before EA approval
[Tags: EA; Alternatives; Public Resources]

When a decision has already been made, alternatives analyses in EAs may be perceived as mere procedural posturing. This perception is validated where public resources are expended in favour of one particular alternative before EA approval is granted. In recognition of this concern, US federal law states that EAs "shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made"[148] and prohibits agencies from committing "resources prejudicing selection of alternatives before making a final decision".[149]

Provide clear reasons for eliminating alternatives in EAs
[Tags: EA; Reasons; Alternatives]

Oregon law requires that EAs for proposed chemical process mines include an analysis of alternatives that "briefly discusses alternatives that were eliminated and the reasons the alternatives were

[144] The James Bay and Northern Quebec Agreement, Between the Grand Council of the Crees (of Quebec), the Northern Quebec Inuit Association, the Government of Quebec, the James Bay Energy Corporation, the James Bay Development Corporation, the Quebec Hydro-Electric Commission-Hydro-Quebec, and the Government of Canada, 11 November 1975, s 22, Schedule 3.
[145] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 31(2)(g).
[146] See also, "Taseko adding capacity at Gibraltar, Submits New Project Plan" *Engineering and Mining Journal* 212 (March 2011) 8, online: < http://www.e-mj.com/>. According to Taseko President and CEO Russell Hallbauer current high gold and copper prices is the reason that the new, more costly, design proposal is feasible.
[147] Minn Stat Ann § 116D.04, Subd 6 (2011).
[148] 40 CFR § 1502.2(g).
[149] 40 CFR § 1502.2(f).

eliminated".[150] Reasons explaining why a particular decision was made are also required under Ontario and Dutch law.[151]

Public Consultation Process for Environmental Assessment

Given the policy discretion that agency officials exercise in respect of environmental decision-making, public consultation and participation through EIA processes provide democratic legitimacy to the decision-making process, by ensuring that unelected officials account for public views and public (environmental) values in their decisions[152]

– Neil Craik (2008)

In BC, proponents must conduct a public consultation program and include the following in an EA application:[153]

- summary and evaluation of any public consultation activities already completed; and
- proposal for a public consultation program that the proponent will carry out for the review of the EA.

The EAO Executive Director must ensure that the policies on public participation prescribed by regulation are reflected in the EA.[154] These policies include requirements for:

- public consultation;
- public notice;
- access to information; and
- formal public comment periods.

These requirements are discussed separately in the following sections.

Public Consultation

In BC, proponents must conduct a public consultation program as part of the EA process.[155] Within the prescribed time for deciding whether an EA is required (30 days), the EAO Executive Director must prepare a written assessment of the adequacy of any public consultation activities that the proponent has conducted or proposes to conduct for the EA.[156] This written assessment must specify any additional public consultation activities *that the EAO Executive Director considers necessary* to ensure adequate public consultation is carried out. Such activities could include the provision of public notice, access to

[150] O Revi Stat § 517.979(3)(c) (2011).
[151] *Environmental Assessment Act*, RSO 1990, c E-18, s 6.1(2)(b); *Environmental Management Act* (No 239 of 2002) Netherlands, § 7.7(1)(b).
[152] Neil Craik, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge: Cambridge University Press, 2008) at 36.
[153] *Public Consultation Policy Regulation*, BC Reg. 373/2002, s 4(1).
[154] *Public Consultation Policy Regulation*, B.C. Reg. 373/2002, s 3.
[155] *Public Consultation Policy Regulation*, B.C. Reg. 373/2002, s 4(1)(a).
[156] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 4(2).

information, general public consultation or consultation with specified persons or organizations.[157] In addition, *where warranted*, the written assessment must establish a time limit for carrying out these activities, and assign responsibility for carrying out these activities to *either* the proponent or the EAO.[158]

Issue

Public participation in the EA process is limited by lack of formal involvement mechanisms, lack of funds and lack of expertise.

Recommended Solution

Involve the public by way of EA Advisory Committees
[Tags: EA; Public Consultation; Advisory Committee]

Although the EAO has the power to do so, BC's current EA law does not explicitly provide for public involvement in advisory committees.[159] Instead, membership in working groups is limited to representatives of the Canadian Environmental Assessment Agency, federal and provincial government agencies, First Nations, and local governments.[160] Conversely, under BC's previous EA laws, the EAO Executive Director was empowered to establish public advisory committees.[161] These committees were authorised "to advise and make recommendations to the project committee on matters of public concern".[162] Membership on these committees included interested individuals, or individuals representing interested organizations.[163] Clear legal provisions also empowered these committees to determine their own procedures, and invite others to provide advice and make recommendations.[164] Other jurisdictions permit public involvement by way of advisory committees. Quebec law, for example, provides that proposed mines in the northern portion of the province are subject to public involvement in advisory committees.[165]

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[157] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 4(3)(a).
[158] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 4(3)(b),(c).
[159] The provincial government established a Community Advisory Group to participate in the EA of the Ajax mine near Kamloops. Members include Aberdeen Community Association, Aberdeen Highlands Development Corporation, B.C. Cattlemen's Association, Coalition to Protect East Kamloops, Ducks Unlimited, Grasslands Conservation Council of British Columbia, Kamloops Area Preservation Association, Kamloops Astronomical Society, Kamloops & District Fish & Game Association, Kamloops Fly Fishers' Association, Kamloops Naturalist Club, Kamloops Stockmen's Association, Lac le Jeune Conservation Association, Pineview Community Group, Thompson Institute of Environmental Studies, and Thompson Watershed Coalition: Anne Neave, "Apathy on Ajax proposal? Hardly" Kamloops Daily News (1 August 2012), online at: <http://www.kamloopsnews.ca/article/20120801/KAMLOOPS0303/120739963/-1/kamloops/apathy-on-ajax-proposal-hardly>.
[160] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 22, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.
[161] *Environmental Assessment Act*, RSBC 1996 c 119, s 11.
[162] *Environmental Assessment Act*, RSBC 1996 c 119, s 11(1).
[163] *Environmental Assessment Act*, RSBC 1996 c 119, s 11(2).
[164] *Environmental Assessment Act*, RSBC 1996 c 119, s 11(3).
[165] RSQ, c Q-2, ss 161, 199. See also, *Regulation Respecting the Environmental Impact Assessment and Review Applicable to a Part of the Northeastern Quebec Region*, RQ, c Q-2, r 10, ss 4, 5; *Environmental Assessment Act*, RSBC1996, c 119, ss 9,10.

Provide assistance to public participation in EA review
[Tags: EA; Public Consultation; Duty to Consult; Funds]

Participation in an EA review by members of the public may be limited by their available time. In addition, the general public may not have the necessary expertise to adequately review lengthy technical EA documents, and they may therefore need funds to retain independent experts to clarify key issues and evaluate proposed impact mitigation methods. Unfortunately, no explicit provision of financial assistance for public participation is provided under BC EA law.

In Manitoba, the regulatory authority may require the proponent to provide financial or other assistance to any person or group participating in the EA process.[166] Clear guidance is provided regarding which expenditures may be paid for, including: professional fees for advice or assistance; salaries of persons employed for the purpose of coordination, research and the preparation of materials, including secretarial services; purchase of relevant information material such as maps, documents and reports for the purpose of information, presentation and analysis; and information collection and dissemination.[167] Financial assistance is also provided to the public in other jurisdictions, including under CEAA 2012[168] and under Saskatchewan law.[169]

Public Notice

BC policy requires the EAO Executive Director to order the proponent (or the EAO itself) to provide public notice of the following public consultation activities:[170]

- where and when the public may review the EA (and other documents, including pre-EA documents, AIR, etc.);
- purpose and time limit for any formal public comment period; and
- where and when any open house or public meeting will be held.

The form of public notice must be by newspaper advertisement, open letters or any other manner satisfactory to the EAO Executive Director.[171] The public notice must be given at least seven days before the start of a formal public comment period, or before the date on which an open house or public meeting is scheduled.[172]

Issue

Members of the public may not receive adequate notice.

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[166] *Environment Act*, CCSM c E125, ss 13.2, 41(1)(bb).
[167] *Participant Assistance Regulation*, Man Reg 125/91, s 7(1).
[168] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 57; see also, Canada, Canadian Environmental Assessment Agency, *Guide to the Participant Funding Program under the Canadian Environmental Assessment Act,* (Ottawa: Canadian Environmental Assessment Agency, 2008), online: <http://www.ceaa-acee.gc.ca/9772442E-9A6B-4302-968E-3946E19700D0/Guide_to_the_Participant_Funding_Program.pdf>.
[169] *Government Organization Act*, SS 1986-87-88, c G-5.1, ss 18, 19; *Environmental Assessment Act*, SS 1979-80, c E-10.1, s 9(2).
[170] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 5(1).
[171] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 5(2).
[172] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 5(3).

Recommended Solution

Provide special or alternative notice provisions where individual accommodation is required
[Tags: EA; Public Consultation; Language; Duty to Consult; Cultural Awareness]

Under South African law, a proponent must give written notice of a proposed activity to the owner or person in control of the land on which the activity is to be undertaken, and inform such a person of the public participation process. Special provisions are provided for persons unable to understand the content of a notice for the reasons of illiteracy, disability or other disadvantages. These special provisions mandate that where the person is unable to understand the content of the notice, alternative means of notifying the owner or person in control of the land must be agreed on with the regulatory authority.[173]

Public Access to Information

Open houses (or public meetings) are a common forum for providing information about the project to the public. At these meetings, EAO representatives outline the EA process and proponents present on the proposed project.[174] The public may ask the EAO representative and the proponent questions about the proposed project.

In addition to these public information sessions, BC law requires the EAO to grant public access to the following records:[175]

- information contained in the EA application;
- public notices;
- orders issued by the regulatory authority;
- assessments of adequacy of the proponent's public consultation program;
- comments submitted as part of the formal public comment period, and the proponent's response to these comments;
- EAO Executive Director's EA assessment report, recommendations, final decision, and EA Certificate; and
- where required, reports on the proponent's compliance with the EA Certificate.

Public access to these documents, except the EAO Executive Director's EA report and recommendations, must be made publicly available within seven days of receipt by the EAO.[176] The EA report and recommendations must be made publicly available within 45 days of the EAO Executive Director

[173] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, ss 15(1), (2).
[174] Note that the project leads have discretion to design a process to meet public consultation needs, as was done for the proposed Ajax Mine at Kamloops.
[175] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 6(1).
[176] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 6(2)(b).

submitting these to the minister.[177] All publicly available documents, including written public comments, can be accessed through the online e-PIC database.[178]

Issue

The extensive technical language used in EA reports can challenge meaningful public engagement in the process.

Recommended Solutions

Require that EAs are written in clear language
[Tags: EA; Public Consultation; Notice; Information]

Several jurisdictions have adopted different approaches to facilitate more meaningful public engagement in the EA process. For example, US federal law has several provisions requiring information to be presented in a clear and concise manner, including:

- EAs must be written in "plain language" and the use of graphics (where appropriate) are encouraged.[179]
- "Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses".[180]
- "Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations. Length should vary first with potential environmental problems and then with project size".[181]
- "Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement".[182]
- EAs shall not exceed 150 pages, and proposals of unusual scope or complexity shall normally be less than 300 pages.[183]

Provide concise and non-technical summary of all EAs
[Tags: EA, Information; First Nations]

Technical language is often required to adequately describe a design or feature of a proposed project. Non-technical summaries can help members of the public better understand the project, its risks and

[177] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 6(2)(a).
[178] British Columbia, Environmental Assessment Office, *Public Comment Policy* (Victoria: Environmental Assessment Office, undated) at 1, online: <http://www.eao.gov.bc.ca/pdf/Public_Comment_Policy.pdf>.
[179] 40 CFR § 1502.8.
[180] 40 CFR § 1502.1.
[181] 40 CFR § 1502.2(c).
[182] 40 CFR § 1502.15.
[183] 40 CFR § 1502.7.

benefits. The need for non-technical language has also been identified by aboriginal peoples as being necessary for meaningful consultation in the EA process.[184]

The European Union has recognized the importance of making EAs more publicly accessible by requiring a "non-technical summary of the information" with the EA.[185] United Kingdom EA law also requires non-technical summaries.[186] Similarly, under US federal law, the EA must contain a summary, not exceeding 15 pages, that states the "major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives)".[187]

Require that proponent's experts attend public meetings and hearings
[Tags: EA; Public Consultation]

Mining industry consultants have recognized the value in discussing issues face-to-face rather than producing masses of written text.[188] This is particularly important at open houses or public meetings, where experts can help answer questions and concerns of the public. Saskatchewan law explicitly recognizes this by empowering the regulatory authority to direct the proponent to make experts available at public meetings.[189]

Public Comment Period

Under BC law, at least one formal public comment period, ranging from 30 to 75 days, must be established by the EAO Executive Director.[190] The EAO Executive Director must also order one or more formal public comment periods, *unless* he or she is satisfied that it is either impracticable due to insufficient time, or it is unnecessary because the public has not demonstrated sufficient interest in the assessment of the reviewable project.[191] Provincial policy explains that one public comment period will generally be held at each of the provincial EA process stages (i.e. the pre-application stage and the application review stage). In addition, according to provincial policy, public comments will only be solicited during these formal comment periods.[192]

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[184] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency 2000) at s 4.1.2, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[185] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 5, annex III(6). Note: This provision only applies to mining "where Member States consider that their characteristics so require" (Article 4(2).
[186] *Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999*, SI 1999/293, Schedule 4, Part I, s 6.
[187] 40 CFR § 1502.12.
[188] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 220.
[189] *Environmental Assessment Act*, SS 1979-80, c E-10 1, s 13.
[190] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 7(1).
[191] *Public Consultation Policy Regulation*, BC Reg 373/2002, s 7(2).
[192] Environmental Assessment Office, *Public Comment Policy* (Victoria: Environmental Assessment Office, undated) at 1, online: <http://www.eao.gov.bc.ca/pdf/Public_Comment_Policy.pdf>.

Issue

Public comments may also be made at an open houses or public meetings. Although these comments may be considered by the EAO representative,[193] they are not officially 'recorded'. According to the provincial policy, public comments are limited to "any written, legible communication (i.e. letter, online form, or fax)".[194] Only written comments will be posted to the tracking table on the e-PIC.

Recommended Solution

Record and consider verbal comments made by the public
[Tags: EA; Public Consultation]

As mentioned above, neither BC law nor policy requires that verbal comments made by the public at open houses and public meetings be recorded. In contrast, under European Union law, the views presented in public meetings must be officially recorded and taken into account during subsequent EA stages.[195]

First Nations Consultation in Environmental Assessments

> *Denying [First Nations] a role within the assessment process is denying it access to an important part of the high-level planning process. Case law makes it clear that involving First Nations at the early stages of high-level planning can be essential to proper consultation.*
>
> – Justice Groberman (BC Court of Appeal, 2011)[196]

Overview of BC Law

In BC, the government's role in consulting First Nations in the EA process is informed by whether or not the First Nation has entered into a treaty. The only historic treaties signed in BC are the early Douglas treaties on Vancouver Island and Treaty 8, which extends from Alberta and the Yukon into parts of north-eastern BC. More recently, modern treaties ("final agreements") have been signed by the Nisga'a First Nation,[197] the Tsawwassen First Nation,[198] the Maa-nulth First Nations,[199] the Yale First Nation,[200] and the Tla'amin Nation.[201]

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[193] *Environmental Assessment Act*, SBC 2002, c 43, s 26.
[194] British Columbia, Environmental Assessment Office, *Public Comment Policy* (Victoria: Environmental Assessment Office, undated), online: <http://www.eao.gov.bc.ca/pdf/Public_Comment_Policy.pdf>. As a result, some members of the public may unable to contribute in the public consultation process.
[195] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132Environ Monit Assess 53at 63.
[196] *Nlaka'pamux Nation Tribal Council v British Columbia (Environmental Assessment Office)*, 2011 BCCA 78 at para 97.
[197] The Nisga'a Nation ratified the Nisga'a Final Agreement on 9 November 1998. The British Columbia Government ratified the NFA on 22 April 1999, Nisga'a Final Agreement Act, RSBC 1999, c 2. The federal government ratified by Royal Assent on 13 April, 2000, Nisga'a Final Agreement Act, RSC 2000, c 7. The text of the Nisga'a Final Agreement is available online: http://www.gov.bc.ca/arr/firstnation/nisgaa/default.html. The 1998 Nisga'a Final Agreement recognized the Nisga'a Nation as owners of all mineral resources on or under Nisga'a lands.

For treaty First Nations, if the treaty requires First Nations' consent, BC law prescribes that no reviewable project may proceed without that consent.[202] This consent requirement is usually only for projects on First Nation Treaty Settlement Land, not for those outside of Treaty Settlement Land within a First Nation's Territory. If the treaty requires negotiation between the government and the treaty First Nation, the government may enter into an agreement where:

- a reviewable project is proposed for land specified in a final agreement as land to which notice of a reviewable project is required; and
- the reviewable project may reasonably be expected to adversely affect the treaty lands, residents of those treaty lands or the rights of the treaty First Nations people under the final agreement.

Where these conditions are met, the regulatory authority must: give notice and all relevant information regarding a proposed project to the treaty First Nation; consult with the treaty First Nation; and ensure that the treaty First Nation has an opportunity to participate in the EA.[203]

For non-treaty First Nations (the vast majority in BC), the EA Act does not prescribe consultation requirements. Provincial legislation formerly required the EAO to ensure First Nations were invited to be partners in "project committees" established to manage the EA process. This requirement was removed from the EA Act after the Taku Tlingit First Nation won a series of court cases relating to EAs for mining. Consultation is still required, however, pursuant to the government's constitutional and common law 'duty to consult' First Nations on matters that may affect their Aboriginal rights (see: ***Chapter 3: Indigenous Rights, Consultation and Consent***).

The degree of consultation required to fulfill this duty is a contentious issue, and First Nations have criticized BC's lack of legally formalized consultation requirements and its failure to specify the process

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[198] *Tsawwassen First Nation Final Agreement,* British Columbia Ministry of Aboriginal Relations and Reconciliation, Victoria, 2007, online: <http://www.gov.bc.ca/arr/firstnation/tsawwassen/down/final/tfn_fa.pdf>. At page 57 the Final Agreement recognizes the First Nation as owners of subsurface resources except for the mines and minerals under English Bluff. The agreement provided $2-million dollars in compensation for those mineral rights, which were to be transferred by the federal government to the province of British Columbia

[199] The Maa-nulth First Nations Final Agreement states that each First Nation in the Maa-Nulth treaty group owns subsurface resources on or under its settlement lands, with the exception of one privately owned parcel of subsurface resources within the Uchucklesaht Tribe lands. The Maa-nulth First Nations have the right to set fees, rents, royalties and other charges, except for taxes, for exploration, development and production of mines and minerals and other subsurface resources *Maa-nulth First Nations Final Agreement,* Aboriginal Affairs and Northern Development Canada, Vancouver, 2009, online: <http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/mna_fa_mnafa_1335899212893_eng.pdf>.

[200] Yale First Nation Final Agreement, Ministry of Aboriginal Relations and Reconciliation, Victoria, 2011, online: <http://www.gov.bc.ca/arr/firstnation/yale/down/yale_final_agreement_english_unsigned_updated_2012_jan.pdf>.

[201] *Tla'amin Final Agreement,* Ministry of Aboriginal Relations and Reconciliation, Sliammon, 2011, online: <http://www.gov.bc.ca/arr/firstnation/sliammon/down/tliammon_final_agreement_2011.pdf>.

[202] *Environmental Assessment Act*, SBC 2002, c 43, s 8.1.

[203] *Environmental Assessment Act*, SBC 2002, c 43, s 29.1(2).

and scope of the consultation process.[204] Generally, First Nations with a "strong" strength of claim are entitled to a greater depth of consultation, whereas those with "weak" claims are afforded less. Strength of claim assessments of First Nations' rights are prepared by the EAO and submitted to the ministers along with a "consultation report". First Nations, and others, have criticized this process on the grounds that the EAO lacks the required expertise to prepare the strength of claim assessment report and the reports often contain information that is inadequate, incorrect, or otherwise harmful to First Nations interests.[205] As a result, many First Nations have brought court actions to challenge the adequacy of the government's consultation in the EA process.[206]

Proponents have also expressed frustration with this ill-defined consultation process.[207] In the words of one proponent, "the government and the First Nations often held different ideas about which Nations were impacted by, and therefore should be included in, an EA. This created difficulty for proponents who followed government direction, only to find a Tribal Association or individual Nations demanding to be included very late into an already well-underway process".[208]

As mentioned above, under BC's former *EA Act,* First Nations formed part of the inter-ministerial project committees, which were established for each project.[209] The purpose of these committees was to: provide the regulatory authorities with expertise, advice, analysis and recommendations; and analyze and advise the regulatory authorities about public comments received, the potential effects, and the prevention or mitigation of adverse effects.[210] The importance of these project committees to the overall EA process was recognized by Chief Justice McLachlin as "the primary engine driving the assessment process".[211]

Under BC's *current EA Act*, these project committees have been abolished and replaced with working groups. Although in practice affected First Nations may often be invited to participate in working groups, First Nation participation is no longer required by law. Instead, the EAO Executive Director has the

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[204] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 54.
[205] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 60.
[206] i.e., *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director*), 2004 SCC 74; *Nlaka'pamux Nation Tribal Council v British Columbia (Environmental Assessment Office)*, 2011 BCCA 78; *Upper Nicola Indian Band v. British Columbia (Environment)*, 2011 BCSC 388; *Halalt First Nation v. British Columbia (Environment)*, 2012 BCCA 191.
[207] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 221.
[208] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 222.
[209] Joseph Castrilli, *Report on the Legislative, Regulatory, and Policy Framework Respecting Collaboration, Liability, and Funding Measures in relation to Orphaned/Abandoned, Contaminated, and Operating Mines in Canada* (Toronto: National Orphaned/Abandoned Mines Initiative, 2007) at 70; West Coast Environmental Law Association, *Backgrounder: Bill 38- The Environmental Assessment Act* (Vancouver: West Coast Environmental Law, 2004); *Environmental Assessment Act*, RSBC 1996 c 119,, c 35, ss 9(2)(d).
[210] *Environmental Assessment Act*, RSBC 1996 c 119, s 10.
[211] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)*, 2004 SCC 74, para 8.

discretion to include First Nations representatives.[212] Further, even if First Nations form part of the working group their ability to influence decision-making is limited because the working group's recommendation about whether or not an EA Certificate should be issued is not binding on the Minister.

Policy plays an important role in establishing the scope of consultation in BC's EA legislation.[213] For example, provincial policy recommends that the proponent should "seek to engage with First Nations as early as possible regarding how information should be gathered and what information would be included in the Application on First Nations' interests, rights and title".[214] Provincial policy also states that the draft AIR will be circulated to First Nations for their review and comment.[215] In addition, provincial policy states that the proponent should include information on the following in the AIR:

- First Nations' interests;
- identification of accommodation measures (i.e., design considerations, mitigation measures and specific commitments); and
- past and planned consultation activities with First Nations.[216]

Issue

Lack of certainty in process, decision-making authority, and resources fails to ensure meaningful participation of First Nations in the EA process. The Assembly of First Nations has defined "meaningful participation" of First Nations in the EA process as including:[217]

- a role in choosing the appropriate class of EA;
- involvement in research design and implementation;
- involvement in the design and implementation of monitoring programs; and
- decision-making authority concerning whether and under what conditions a project is approved.

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[212] *Environmental Assessment Act*, SBC 2002, c 43, s 11(2)(f); British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 5, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>; Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 33. "[T]he EAO will also engage in separate consultations with First Nations in cases where a First Nation declines to participate on a working group or where the EAO otherwise determines that such consultation should be undertaken".

[213] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 17. Provincial policy states that consultation principles articulated by the courts "guide the EAO decision-makers and should be adopted where possible by proponents when consulting First Nations". These include: start consultation as early as possible; share all relevant information with First Nations; clearly explain proposals and government decisions; ensure opportunities for First Nations to provide feedback; genuinely consider aboriginal concerns and attempt to find ways to address them; and, be respectful, open, reasonable, and responsive.

[214] British Columbia, Environmental Assessment Office, *Proponent Guide for Providing First Nation Consultation Information (Non-Treaty First Nations)* (Victoria: Environmental Assessment Office, undated) at 2, online: <http://www.eao.gov.bc.ca/pdf/Guide_Proponents_Non_Treaty_FN.pdf>.

[215] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria: Environmental Assessment Office, 2010) at 1, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

[216] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 33, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

[217] Assembly of First Nations, *Position and Recommendations for Amendments to The Canadian Environmental Assessment Act* (Ottawa: Assembly of First Nations, 2000).

Recommended Solutions

Develop separate First Nations consultation protocol and agreements for EA review
[Tags: EA; Indigenous Rights; Duty to Consult]

> *I think there are much, much larger issues at the table that every First Nation grapples with, and there are limited venues for grappling with those issues and so those issues get brought to the table in the EA... Because there is no other outlet for it.*
>
> – Mining industry consultant (2011)[218]

The current EA process has been criticized as the wrong forum for addressing the Crown's duty to consult First Nations.[219] Although the use of EAs may be appropriate as the *first* stage of consultation, they are not adequate alone to address Aboriginal rights.[220] First Nations have therefore requested that consultation be carried out in a way that addresses Aboriginal rights separately from the EA process. [221]

This could be accomplished by the development of a general consultation protocol between the provincial government and First Nations leadership councils. Ideally, such a protocol would set out objectives, principles, standards, best practices and general guidelines for the conduct of talks between the parties and for project-specific consultation processes.[222]

One example of separate, parallel consultation processes was provided by the EA process applied to the Ruby Creek molybdenum mine in northwest BC. There, the Taku River Tlingit First Nation ("TRTFN") persuaded the provincial government to set up a parallel process, separate from the EA process, to consult and deal with accommodation issues. This experience led to a government-to-government consultation process and the development of an accommodation report that contained measures for

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[218] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 221.

[219] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (First Nations Energy & Mining Council, 2009) at 24-25, 55 and 79: "It is inappropriate to ask the staff of the EAO, while undertaking an environmental assessment, to fulfill the Crown's duty of consultation and accommodation"; Tony Pearse, "Mining in Aboriginal Communities"(Speaking Notes delivered at the Pacific Business & Law Institute, Vancouver March 11-12, 2009) at 1 and 4; Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 *Environmental Impact Assessment Review* 216 at 220; Annie Booth & Norm Skelton, "Improving First Nations' participation in environmental assessment processes: recommendations from the field" (2011) 29(1) *Impact Assessment and Project Appraisal,* 49 at 56.

[220] Tony Pearse, "Mining in Aboriginal Communities"(Speaking Notes delivered at the Pacific Business & Law Institute, Vancouver March 11-12, 2009) at 4.

[221] Meetings notes from Timothy Howard of Mandell Pinder from the Minutes of the Canadian Bar Association's Aboriginal Law –Vancouver Section Environmental Law Section Joint Meeting (April 20, 2011) at 2, online: <http://www.cba.org/BC/s_abor_van/pdf/abor_van_04_20_11.pdf>.

[222] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (First Nations Energy & Mining Council, 2009) at 79. The General Consultation Protocol should be enacted though legislation, and set out objectives, principles, standards, best practices and general guidelines for the conduct of talks between the parties and project-specific consultation processes that are consistent with the General Consultation Protocol guidelines and established through a negotiated 'terms of engagement' agreement before the EA process starts.

the provincial government to accommodate the TRTFN interests.[223] Ideally, such an accommodation agreement would be signed prior to a joint project approval decision being issued.[224]

Consult potentially affected First Nations at beginning of EA review process
[Tags: EA; Indigenous Rights; Duty to Consult]

Although BC's consultation policy recommends early consultation with First Nations, this approach is not enshrined in law. In contrast, other jurisdictions have enacted legal provisions requiring proponents to consult affected Aboriginal peoples *before* the EA review process even commences. For example, under Yukon law, proponents must consult directly with the Aboriginal peoples whose traditional lands will be affected by a proposed mine. Proof of this consultation must be submitted by the proponents to the EA board *before* the board will commence the review of the EA. Agreements signed between the proponent and the affected Aboriginal peoples may serve as proof that consultation has taken place.[225]

Provide time extensions for EA reviews based on project complexity and First Nations' consultation needs
[Tags: EA; Indigenous Rights; Duty to Consult]

BC's strict EA review timelines are often inadequate for First Nations to respond to or to become meaningfully engaged in the EA process.[226] This sentiment was concisely expressed by one mining industry consultant as follows: "what we expect from First Nations is outrageous and the EA process just further exacerbates that entire paradigm".[227]

Other jurisdictions have enacted flexible legal provisions governing EA timelines. In the Yukon, for example, legislated timelines will be extended in accordance with the complexity of the project where the decision-maker is required to consult with Aboriginal peoples.[228] The law further provides that wherever there is a duty to consult, it must be exercised by providing:[229]

- notice of the matter in sufficient form and detail to allow the party to prepare its views;
- a reasonable period for the party to prepare its views; and

[223] Tony Pearse, "Mining in Aboriginal Communities" (Speaking Notes delivered at the Pacific Business & Law Institute, Vancouver March 11-12, 2009) at 15.
[224] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (First Nations Energy & Mining Council, 2009) at 3-4.
[225] Michael Lewis and Sara-Jane Brocklehurst, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009) at 2-22 and 3-10, online: <www.miningguide.ca>; *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 50(3).
[226] Canadian Centre for Community Renewal, *Aboriginal Mining Guide: How to negotiate lasting benefits for your community* (Port Alberni: Canadian Centre for Community Renewal, 2009)at Intro-12, online: <www.miningguide.ca>;
Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 221.
[227] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 *Environmental Impact Assessment Review* 216 at 221.
[228] *Decision Body Time Periods and Consultation Regulations*, SOR/2005-380, s 6.
[229] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 3.

- an opportunity to present its views to the party having the duty to consult.

Provide adequate financial assistance to First Nations for meaningful participation in EA review
[Tags: EA; Indigenous Rights; Duty to Consult]

> *The EAO now usually provides some minimal funding for First Nation participation, but usually at levels far from sufficient to enable meaningful participation.*
> *In my experience, almost all First Nations who participate in an environmental assessment come out the other side in debt.*
>
> – Tony Pearse (2009)[230]

BC law does not provide First Nations with any assurance of financial assistance to participate in the EA process. Ideally, provincial law should be amended to require the EAO to provide adequate funding or to give it authority to order proponents to provide adequate funding for First Nations. Currently, provincial policy contemplates providing First Nations with a "limited amount of funding",[231] which is often insufficient to allow meaningful participation of First Nations in the EA process.[232] This lack of a clear requirement that adequate funding be made available to First Nations risks excluding any meaningful participation by First Nations. Under federal EA law, participant funding may be available to First Nations who have a direct, local interest in the project or who have community knowledge or Aboriginal traditional knowledge relevant to the EA.[233] However, this is often limited to covering travel and participation expenses and remains insufficient to ensure meaningful participation.

To ensure meaningful participation, many First Nations resource policies require the provision of technical, legal and financial resources prior to EA participation.[234] At minimum, funding should also be made available for:

- **Traditional use studies, which provide information about traditional land use by Aboriginal peoples**.[235] BC's provincial policy only *encourages* proponents to *consider* funding traditional use studies: there are no mandatory legal requirements to carry out these studies, or that they be conducted by qualified persons.[236]

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[230] Tony Pearse, "Mining in Aboriginal Communities" (Speaking Notes delivered at the Pacific Business & Law Institute, Vancouver March 11-12, 2009) at 11.
[231] British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 12, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.
[232] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 73
[233] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 57; see also Government of Canada, "Participant Funding Program", online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=E33AE9FB-1>.
[234] Taku River Tlingit First Nation, *Teslin Tlingit Council Mining Policy*, (Teslin, Yukon: Teslin Tlingit Council, 2008) at 11.
[235] Alberta, Aboriginal Affairs and Northern Development, *Best Practices for Traditional Use Studies,* (Edmonton: Aboriginal Affairs and Northern Development, 2003) at 1, online: <http://www.assembly.ab.ca/lao/library/egovdocs/alaa/2003/138222.pdf>.
[236] British Columbia, Environmental Assessment Office, *Proponent Guide for Providing First Nation Consultation Information (Non-Treaty First Nations)* (Victoria: Environmental Assessment Office, undated) at 3; Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216 at 221.

- **Translation Services, where community members, elders in particular, have difficulty with English**.[237] Funding for translation services should be legally required, where necessary. This is recognized in Manitoba, where the law provides that participant assistance may be granted for translation services.[238]
- **Capacity Building for the First Nation to meaningfully participate in the EA process, including training and funding for dedicated review staff and outside technical assistance**.[239] Proponents acknowledge that many of the challenges they face when trying to engage with First Nations relate to a lack of capacity.[240] In the words of one mining industry consultant, current capacity funding is intermittent and does not create sustainable capacity.[241] Funding should be made available continually rather than only on a project-specific basis as First Nations require capacity building assistance on an ongoing basis.[242] The importance of funding permanent staff positions has been recognized by the EAO in the past, as shown in its funding of an EA coordinator position for the Treaty 8 Tribal Association. Although, this approach resulted in several recognized benefits, including improvements in response time and reduced staff turnover, the funding was cut in 2009.[243] This experience highlights the importance of legal provisions mandating ongoing participation funding, rather than temporary policy initiatives, to support First Nation capacity building.

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[237] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency 2000) at s 4.1.2, online: < http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.

[238] *Participant Assistance Regulation*, Man Reg 125/91, s 7(1).

[239] BC First Nations Energy & Mining Council, *BC First Nations Mineral Exploration and Mining: Action Plan* (West Vancouver: BC First Nations Energy & Mining Council, 2008) at 22. To adequately engage with proponents, it has been recommended that each community have access to a minimum of three full time equivalent staff persons (or more depending upon the level of exploration and mining activity.). See also, Mary Ellen MacCallum, Carol Murray, Pascale Mera, Susan Carlick, *First Nations Environmental Assessment: Capacity Needs Assessment and Strategic Plan Elements – Final* (Cranbrook: prepared for First Nations Environmental Assessment Technical Working Group, 2005) at 8, 14, 22. A recent study of Indigenous peoples' EA needs in BC revealed that although a number of Indigenous peoples have staff working in environmental management – most of these are trained in a specific resource industry (ex. mining, forestry, oil and gas etc) but have **almost no EA-specific training**. Areas identified as requiring training included screenings, identification of impacts, community consultation, technical reviews, and technical field capacity. In addition, the study revealed that training was needed not only for technical staff, but should also be provided to councillors and office staff; Tony Pearse, "Mining in Aboriginal Communities" (Speaking Notes delivered at the Pacific Business & Law Institute, Vancouver March 11-12, 2009) at 10; Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency 2000) at s 6, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.

[240] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 *Environmental Impact Assessment Review* 31 216 at 222.

[241] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 *Environmental Impact Assessment Review* 216 at 222.

[242] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at xiii.

[243] Annie Booth and Norm Skelton, "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 *Environmental Impact Assessment Review* 216 at 220, 223.

Performance of Environmental Assessment

EA Purpose, Guiding Principles and Review

Overview of BC Law

BC's current EA law lacks a clearly defined purpose provision and decision-making criteria. This was not always the case: BC's former *EA Act* contained an explicit purpose provision that included:[244]

- promotion of sustainability by protecting the environment and fostering a sound economy and social well-being;
- provision of an open, accountable and neutrally administered process; and
- participation of the public, First Nations and various other agencies.

The importance of the purpose provision was highlighted in a judicial review of a provincial government decision approving the reopening of the Tulsequah Chief Mine in 1998. In that decision, the BC Supreme Court held that the EA review did not adequately consider the sustainability of the Tlingit First Nation's land-based way of life, and therefore ran contrary to the promotion of sustainability required by the purpose of the EA law.[245]

Issue

Without an explicit purpose clause or principles to guide the exercise of discretion, BC's *EA Act* provides inadequate guidance to government decision-makers reviewing EAs.[246]

Recommended Solutions

<u>Enact enforceable purpose provisions in EA legislation</u>
[Tags: EA; Purpose; Guiding Principle; Decision-making]

> *Without knowing what is being attempted it becomes difficult to properly judge the result. This is why, especially, the purposes of environmental assessment need to be explicitly identified the legislation.*
>
> – First Nations Energy and Mining Council (2009)[247]

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[244] *Environmental Assessment Act*, RSBC 1996, c 119, s 2.
[245] *Taku River Tlingit et al v Ringstad et al*, 2000 BCSC 1001 at 67; upheld on appeal in *Taku River Tlingit First Nation v. Ringstad*, 2002 BCCA 59; appeal allowed in *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, 2004 SCC 74.
[246] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 53 and 56, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.;
First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (Prince George: First Nations Energy & Mining Council, 2009) at 14 -15.
[247] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver, First Nations Energy & Mining Council, 2009) at 17.

Unlike BC, many jurisdictions recognize the value and importance of clearly defined purpose provisions in EA legislation. Examples of strong guiding purposes adopted by other jurisdictions include the following:

- CEAA, and CEAA 2012's, stated purposes include to:[248]
    - consider projects in a precautionary manner;
    - encourage actions that promote sustainable development;
    - promote communication and cooperation between government bodies and First Nations; and
    - ensure opportunities for meaningful public participation.
- Yukon's *Environmental and Socio-economic Assessment Act's* stated purposes include to:[249]
    - protect and promote the well-being of Yukon Indian persons and their societies;
    - undertake projects without undermining the ecological and social systems on which communities and their residents, and societies in general, depend;
    - recognize and, to the extent practicable, enhance the traditional economy of Yukon Indian persons and their special relationship with the wilderness environment; and
    - guarantee opportunities for the participation of Yukon Indian persons — and to make use of their knowledge and experience — in the assessment process.
- Alberta's *Environmental Protection and Enhancement Act*'s stated purposes include:[250]
    - goals of sustainable development;
    - prediction and mitigation of environmental, social, economic and cultural consequences of a proposed activity; and
    - involvement of the public in the review of proposed activities.
- In Japan, "the purposes of [the Environmental Impact Assessment Law] are to ensure that proper consideration is given to environmental protection issues relating to such a project and, ultimately, to ensure that present and future generations of this nation's people enjoy healthy and culturally rewarding lives".[251]
- The stated purpose of China's EA law is the sustainable and coordinated development of the economy, society and the environment.[252]

<u>Enact clearly defined and substantive decision-making criteria and guiding principles</u>
[Tags: EA; Discretion]

Other jurisdictions have specified principles or decision-making criteria in their EA laws to guide the government's decision-making process. For example, under the *Mackenzie Valley Resource*

[248] *Canadian Environmental Assessment Act*, SC 1992 c 37, s 4(1). Note: These provisions remain in the 2012 CEAA.
[249] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 5(2).
[250] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 40.
[251] *Environmental Impact Assessment Law* (Law No 81 of 1997) Japan, art 1.
[252] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132 Environmental Monitoring and Assessment 53 at 57.

Management Act, decision-making must be carried out in a timely and expeditious manner having regard to: the protection of the environment; the protection of social, cultural and economic well-being of residents and communities in the Mackenzie Valley; and the importance of conserving the well-being and way of life of Indigenous peoples in the Mackenzie Valley.[253] Other jurisdictions that have clearly specified EA review decision-making criteria in the law include the Yukon,[254] and the European Union.[255]

Examples of some specific criterion from other jurisdictions include:

- In the United States, the government must ensure that the nation may "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations".[256]
- Under federal Canadian law, all persons and government must "exercise their powers in a manner that protects the environment and human health and applies the precautionary principle."[257]
- Under Yukon law, projects must conform to existing land use plans.The regulatory authority must consider whether or not a proposed project is in conformity with existing land-use plans, and, if not, must attach any terms and conditions necessary to bring it into conformity with the land-use plan.[258]
- Manitoba law requires that the government must consider: "the amount of greenhouse gases to be generated by the proposed development and the energy efficiency of the proposed development."[259]
- In Sweden, the type of after-treatment planned must have a strong bearing on the assessment of the permissibility of an activity.[260]

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[253] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 115;
Mackenzie Valley Resource Management Act, SC 1998, c 25, s 117(3). Under this Act, the EA review shall include a consideration of: the purpose of the development; alternative means, if any, of carrying out the development that are technically and economically feasible, and the impact on the environment of such alternative means; the need for any follow-up program and the requirements of such a program; and, the capacity of any renewable resources that are likely to be significantly affected by the development to meet existing and future needs.

[254] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 42(1). Considerations that regulatory authorities must take into account include: the purpose of the project or existing project; all stages of the project or existing project; the significance of any environmental or socio-economic effects of the project or existing project that have occurred or might occur in or outside Yukon, including the effects of malfunctions or accidents; the significance of any adverse cumulative environmental or socio-economic effects that have occurred or might occur in connection with the project or existing project alternatives to the project or existing project, or alternative ways of undertaking or operating it, that would avoid or minimize any significant adverse environmental or socio-economic effects; mitigative measures and measures to compensate for any significant adverse environmental or socio-economic effects; the need to protect the rights of Yukon Indian persons under final agreements, the special relationship between Yukon Indian persons and the wilderness environment of Yukon, and the cultures, traditions, health and lifestyles of Yukon Indian persons and other residents of Yukon; the interests of residents of Yukon and of Canadian residents outside Yukon.

[255] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 8.
Note, this provision only applies to mining "where Member States consider that their characteristics so require" (Article 4(2))

[256] 42 USC § 4331.

[257] *Canadian Environmental Assessment Act*, SC 1992 c 37, s 4(2).

[258] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, ss 44(1), (3).

[259] *Environment Act*, CCSM c E125, s 12.0.2.

- In California, if "feasible" alternatives to the project exist, the regulatory authority should not approve the project.[261]

Set clear legal standards for significance determination of adverse effects
[Tags: EA; Adverse Effects; Significance; Cumulative Effects]

> *[S]ignificance determination approaches need to be clearer, more broadly defined, less biased and distorted, more fully substantiated, more open, inclusive and collaborative, and more effectively linked to decision-making and [EA] practice.*
>
> – David Lawrence (2007)[262]

Under BC law, the process for determining whether an adverse effect is significant is not specified. The regulatory authority thus lacks legal guidance for making judgments on what is desirable, acceptable, or important, and for differentiating degrees of importance.[263] This has resulted in a haphazard and subjective application of the concept of "*significance*" in the EA process in BC.[264] In other jurisdictions, legal provisions set clear standards to guide the significance determination. For example:

- In the US, "significance" must be determined by context (i.e., analyzing the significance in several contexts such as society as a whole, the affected region, the affected interests, and the locality) and intensity (i.e., severity of the impact) of short- and long-term effects.[265]
- In China, two criteria must be used to assess whether a proposed project would lead to significant environmental impacts: pollution discharge (i.e. emission volume, types and complexity of pollutants, and possibilities of abatement) and sensitive areas (based on the importance of ecological, archaeological and cultural value, and numbers and sensitivity of the humans affected).[266]
- In California, "significant effect on the environment" is legally defined as a "substantial, or potentially substantial, adverse change in the environment."[267] A project will have a "significant effect on the environment" if one or more of the following conditions exist:[268]

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[260] Eva Liedholm Johnson, Mineral Rights: Legal Systems Regulatory Exploration and Exploitation (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 87, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[261] Cal PRC, § 21061.1. "Feasible" is defined as: "*capable of being accomplished in a successful manner in a reasonable period of time, taking into account economic, environmental, social, and technological factors.*"
[262] David Lawrence, "Impact significance determination—Back to basics" (2007) 27 Environmental Impact Assessment Review 755 at 757.
[263] David Lawrence, *Impact significance determination—Back to basics* (2007) 27 Environmental Impact Assessment Review 755 at 757.
[264] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 50, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[265] 40 CFR § 1508.27
[266] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132 Environmental Monitoring and Assessment, 53 at 58.
[267] Cal PRC§ 21068.
[268] Cal PRC§ 21083(b).

  - a proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals;
  - the possible effects of a project are individually limited but cumulatively considerable meaning that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects; and
  - the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly
- In Hong Kong, the law provides a regulatory framework for assessing environmental impacts of designated projects and specific direction on impact significance and significance determination.[269]
- In Australia, a "significant impact" is defined by the Commonwealth government as one that is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends on the sensitivity, value, and quality of the environment which is impacted, and on the intensity, duration, magnitude and geographic extent of the impacts. [270]

<u>Define clear levels of EA review and their application</u>
[Tags: EA; Level of Review; Discretion]

Under BC law, there are four alternative methods for reviewing the EA of a proposed project:

- review by the EAO;[271]
- review by a commission of one or more people, appointed by the minister;[272]
- review by a hearing panel of one or more persons, appointed by the minister;[273] or
- any other method or procedure mandated by the minister.[274]

No additional guidance is provided for when or how these different levels of EA review are applied under BC law.[275]

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[269] David Lawrence, *The Significance of Social and Economic Impacts in Environmental Assessment* (Ottawa: Canadian Environmental Assessment Agency, 2004) at 8.9, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=2&toc=show>.

[270] Commonwealth Department of the Environment, Water, Heritage and the Arts, '*Matters of National Environmental Significance' - Significant Impact Guidelines 1.1.,* p.3, online at http://www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf.

[271] *Environmental Assessment Act*, SBC 2002, c 43, s 11.
[272] *Environmental Assessment Act*, SBC 2002, c 43, s 14(3)(a)(i).
[273] *Environmental Assessment Act*, SBC 2002, c 43, s 14(3)(a)(ii).
[274] *Environmental Assessment Act*, SBC 2002, c 43, s 14(3)(a)(iii).
[275] This lack of guidance was evident in the Prosperity Mine case, where after negotiations resulted in a decision to have a joint panel EA process, the proponent requested and was granted a different review process: First Nations Energy & Mining Council,

In contrast, many jurisdictions have enacted specific criteria to ensure that projects are subject to the appropriate level of review. For example, Western Australia law specifies two levels of EAs requiring different levels of review:[276]

- assessment on proponent information (must satisfy a range of criteria including that the proposal raises a limited number of key environmental factors that can be readily managed; the proposal is consistent with established environmental policies, guidelines and standards; the proponent can demonstrate that it has conducted appropriate and effective stakeholder consultation; and there is limited or local concern only about the effect of the proposal, if implemented, on the environment);
- public environmental review (where the proposal is of regional and/or State-wide significance; or the proposal has several key environmental factors/issues, some of which are complex or of strategic concern; or substantial and detailed assessment of the proposal is required to determine if or how environmental issues could be managed; or the level of public concern about the likely effect of the proposal, if implemented, on the environment warrants a public review).

Different levels of EA review are also specified in other jurisdictions including the Northwest Territories[277] and China.[278]

Stakeholder Input

Issue

The Minister is not legally required to take into account the working group's recommendations, First Nations' positions, or public opinion in deciding whether to approve an EA and issue an EA Certificate.[279]

Environmental Assessment and First Nations in BC: Proposals for Reform (Prince George: First Nations Energy & Mining Council, 2009) at 41.

[276] *Environmental Impact Assessment Administrative Procedures 2012* (WA), section 10 (Levels of Assessment), online at http://edit.epa.wa.gov.au/EPADocLib/Environmental%20Impact%20Assessment%20Administrative%20Procedures%202012.pdf.

[277] Martin Haefele and Kimberley Cliffe-Phillips, "Environmental Impact Assessment Made in the North" (Paper delivered at International Association for Impact Assessment Annual Conference, Vancouver, April 2004) at 5-6, unpublished, available online: http://reviewboard.ca/upload/ref_library/pa390%20Cliffe-Philips%20and%20Haefele%20EIA%20Made%20in%20the%20North_1183674172.pdf. "Preliminary Screening (PS) is a cursory look at the potential environmental impacts and the potential for public concern of a proposed development. A Preliminary Screening only needs to establish that there might be significant adverse impacts on the environment or public concern. Preliminary Screenings can be conducted by various agencies or departments with regulatory authority; Environmental Assessment (EA) is a more in-depth examination of the potential impacts of a development. It is conducted by the MVEIRB, if a preliminary screener (or the MVEIRB itself) concludes that a development might have significant adverse impacts on the environment or be cause for public concern. It establishes whether or not significant adverse impacts or public concerns are likely; Environmental Impact Review (EIR) follows EA where the EA concludes that significant impacts or public concern are likely and cannot be mitigated with known technology. This step is comparable to a panel review under CEAA."

[278] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) *132 Environmental Monitoring and Assessment* 53 at 58.

Recommended Solutions

Require public comments to be carefully taken into account when reviewing and issuing decisions on EA applications
[Tags: EA; Public Consultation]

Although BC's EA law provides various avenues for public participation, and provincial policy requires the EAO to "consider" public comments,[280] the reviewing authority is not legally required to take the public's comments into account in EA decision-making.[281] Instead, the ministers must only consider "matters that *they* consider relevant to the public interest in making their decision on the application".[282]

In contrast, BC's former *EA Act* clearly required the EAO Executive Director to take into account any public comments received when making a referral to the ministers for a final decision.[283] Similarly, under the CEAA 2012, Ontario law and the *Mackenzie Valley Resource Management Act*, every EA review must include consideration of any comments received by members of the public.[284] In the US, the regulatory authority "shall assess and consider comments both individually and collectively".[285]In South Africa, the law requires the regulatory authority to make written recommendations to the Minister of Mineral Resources only after considering any objections that were submitted.[286]

Require agreement between First Nations and proponent as a pre-requisite for EA approval
[Tags: EA; Indigenous Rights; Impact Benefit Agreement]

Past practices have shown that it is unrealistic to expect that industry, who are understandably concerned primarily with their shareholders and their bottom line, will voluntarily seek to involve First Nations in any meaningful way through employment opportunities, business opportunities and sharing of the financial benefits of the project, unless they are required to do so.

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[279] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 33, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>.
[280] British Columbia, Environmental Assessment Office, *Fairness and Service Code* (Victoria: Environmental Assessment Office, 2009) at 9.
[281] Note that under the *Public Consultation Policy Regulation*, BC Reg 373/2002, s 3, the EAO Executive Director "must take into account the general policies respecting public consultation set out in this regulation and ensure that they are reflected in the assessment". However, this does not clearly indicate that the EAO Executive Director must take the public's comment into account when reviewing an EA.
[282] *Environmental Assessment Act*, SBC 2002 c 43, s 17(3)(b).
[283] *Environmental Assessment Act*, RSBC 1996 c 119, s 29(1). "In making a referral, under this section, of an application for a project approval certificate, the executive director must take into account the application, the project report and any comments received about them." The current Act contains no such requirement.
[284] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, ss 7(1), 9(2); *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 117(2).
[285] 40 CFR § 1503.4(a).
[286] *Environmental Impact Assessment EIA Regulations* (Government Notice R 543 in Government Gazette 33306 of 18 June 2010) South Africa, s 6(7).

– BC First Nations Energy & Mining Council (2010)[287]

First Nations have raised concerns that regulatory authorities recommend project approval before they have finalized benefit agreements with proponents. When this occurs, First Nations lose leverage in agreement negotiations. To overcome this problem, the law should prohibit EA approval until benefits agreements are concluded between the proponent and affected First Nations.[288] This is recognized in some final agreements signed between government and Aboriginal communities in Northern Canada. For example, under the economic measures provisions of the Champagne & Aishihik First Nations Final Agreement the Yukon government must require that proponents enter into project agreements when a development proposal in Aboriginal traditional territories is filed with the regulatory authority responsible for EAs.[289]

Chapter 2, Negotiation of Agreements, explores these topics in greater depth.

Involve First Nations in significance determinations in EAs
[Tags: EA; Traditional Knowledge; Indigenous Rights]

Aboriginal people want, need, and have the right to be involved at the stage of environmental assessment when the determination of the significance of environmental effects occurs. They are the best qualified to assess whether or not project-related environmental effects are significant to them.

– Pat Larcombe (2000)[290]

Significance determinations in EAs should be collaborative processes, in which First Nations perspectives assume a pivotal role.[291] This is in part due to different perspectives that First Nations may have from mining companies and government officials. For example, First Nations may consider "significance" to

[287] BC First Nations Energy & Mining Council, *Sharing the Wealth: First Nation Resource Participation Models* (Prince George, BC First Nations Energy & Mining Council, 2010) at 4, online: <http://fnbc.info/sharing-wealth-first-nation-resource-participation-models>.
[288] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency 2000), s 6, Schedule 7, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[289] Champagne & Aishihik First Nations, *Best Practices Code for Mineral Interests on Non-Settlement Land* (Whitehorse: Champagne & Aishihik First Nations, 2007) at 7, online: <http://www.cafn.ca/pdfs/bestprac.pdf>.
[290] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency, 2000), online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[291] David Lawrence, *The Significance of Social and Economic Impacts in Environmental Assessment* (Ottawa: Canadian Environmental Assessment Agency, 2004) at 8.6, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=2&toc=show>; First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (West Vancouver: First Nations Energy & Mining Council, 2009) at 53. In regards to Redfern Resource's proposed air cushion barge project to operate from the Tulsequah Chief Mine down the Taku River into Alaska to Juneau: "The traditional use study showed that the barge operation would diminish Tlingit fishing opportunity in the river by about 10%. The EAO concluded, without any consultation with the Tlingits or other visible analysis, that this loss was 'insignificant' and, therefore no mitigation or compensation was required—by either the Crown or the proponent. Further, the EAO would not impose any mitigation or monitoring to document whether the barge would interfere with fishing activity or destroy nets, etc. in the river."

mean "any impact to the land and environment that threatens or endangers future generations of people or other species".[292] In addition, a determination of significance may be based on traditional knowledge.[293] To ensure that traditional knowledge is properly considered in significance determinations, First Nations may develop their own criteria against which the adequacy of EAs and the importance and acceptability of predicted project impacts can be measured.[294]

Under the *Mackenzie Valley Resource Management Act*, the determination of significance is made by a co-management board – a majority of the board members must be First Nations representatives.[295] Similarly, the Final Environmental Assessment Guidelines for the Doris North Project in Nunavut requires that: "the concerned communities, as well as other individuals and organizations, shall be fully consulted in defining impact significance".[296]

Under Wyoming law, impacts are identified and assigned importance through a participatory approach with affected parties.[297] In Norway, the Indigenous (Sami) Parliament is granted power to issue guidelines for assessing the effect of changes in the use of uncultivated land on Sami culture, reindeer husbandry, use of non-cultivated areas, commercial activity and social life. These guidelines must then be followed in the assessment of Sami interests.[298]

Require consideration of traditional knowledge in decision-making
[Tags: EA; Indigenous Rights; Traditional Knowledge]

Traditional knowledge is recognized as contributing a "broader scope of environmental values, practices, and knowledge" to decision-making.[299] Although not required by law, BC policy recommends that a

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[292] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency, 2000) at s 4.3.1, online: < http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.

[293] Carrier-Sekani Tribal Council, *Critique of the BC Environmental Assessment Process from a First Nations Perspective* (Prince George: Carrier-Sekani Tribal Council, 2007) at 2-3, online: <http://www.carriersekani.ca/images/docs/lup/EAO%20Critique%20-%20CSTC.pdf >;
Centre for Indigenous Environmental Resources, *Meaningful Involvement of Aboriginal Peoples in Environmental Assessment* (Winnipeg: Centre for Indigenous Environmental Resources, 2008) at 53.

[294] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at vi.

[295] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 99; Martin Haefele and Kimberley Cliffe-Phillips, *Environmental Impact Assessment Made in the North* (delivered at the International Association for Impact Assessment annual conference, Vancouver, April 2004) at 2 [unpublished, available online: < http://reviewboard.ca/upload/ref_library/pa390%20Cliffe-Philips%20and%20Haefele%20EIA%20Made%20in%20the%20North_1183674172.pdf>.

[296] David Lawrence, *The Significance of Social and Economic Impacts in Environmental Assessment* (Ottawa: Canadian Environmental Assessment Agency, 2004) at 8.6, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=2&toc=show>.

[297] David Lawrence, *The Significance of Social and Economic Impacts in Environmental Assessment* (Ottawa: Canadian Environmental Assessment Agency, 2004) at 8.4, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=2&toc=show>.

[298] *Finmark Act,* (Act of 17 June 2005 No. 85) Norway, ss 4, 10.

[299] Stephen Ellis, "Meaningful Consideration? A Review of Traditional Knowledge in Environmental Decision Making" (2005) 58 *Arctic* 66 at 67.

description of "traditional ecological or community knowledge" be included in EAs, where available.[300] Yukon law goes much further, requiring EAs to give full and fair consideration to both scientific and traditional ecological knowledge.[301] Traditional knowledge is defined as the "accumulated body of knowledge, observations and understandings about the environment, and about the relationship of living beings with one another and the environment, that is rooted in the traditional way of life of first nations".[302] Similarly, the Mackenzie Valley Environmental Impact Review Board must, by law, consider both traditional knowledge and scientific information when exercising its powers.[303]

For further discussion on the use of traditional knowledge in decision making, see the ***Traditional Knowledge*** section in ***Chapter 3: Indigenous Rights, Consultation and Consent.***

Note: First Nations may have concerns about the use of their traditional knowledge. To address these concerns First Nations may consider entering into agreements with the proponent or the government to ensure that: traditional knowledge and traditional knowledge holders are respected; the ownership rights remain with the traditional knowledge holders; and the use of the traditional knowledge is limited to the specified context of the agreement.[304] It is recommended that legally binding agreements to this effect be signed between the parties before First Nations provide any traditional knowledge for use in an EA.[305]

Evaluation of Effects

Overview of BC Law

One of the basic underlying purposes of the EA process is to assess possible effects of a proposed activity before it proceeds.[306] Under BC law, the EAO Executive Director is granted broad discretion to order what potential effects should be considered in the EA.[307]

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[300] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 23, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>; Smyth, C.R. *A Review of Environmental Impact Statements and their Utility for Coal Surface Mine Reclamation Planning in Alberta and British Columbia* (Vancouver: Proceedings of the 29th Annual British Columbia Mine Reclamation Symposium, 2005), online: <https://circle.ubc.ca/bitstream/handle/2429/8857/17%20Clynt%20Smyth.pdf?sequence=1>.

[301] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 39.

[302] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 2(1).

[303] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 115.1.

[304] Centre for Indigenous Environmental Resources, *Meaningful Involvement of Aboriginal Peoples in Environmental Assessment* (Winnipeg: Centre for Indigenous Environmental Resources, 2008) at 41.

[305] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at viii.

[306] *Environmental Assessment Act*, SBC 2002, c 43, s 10(1). As demonstrated by the EAO with its section 10 order, which, under the legislation, must be issued where the EAO Executive Director deems that a reviewable project *"may have a significant adverse environmental, economic, social, heritage or health effect, taking into account practical means of preventing or reducing to an acceptable level any potential adverse effects of the project".*

[307] *Environmental Assessment Act*, SBC 2002, c 43, ss 11(2)(b),(3). In deciding what effects to consider, the EAO Executive Director must "take into account and reflect government policy" identified during the EA review by a government agency or organization responsible for that policy area. The requirement to adhere to government policy may allow for undue political interference in the EA process.

The "effects" assessment carried out under an EA has two main steps: (1) the prediction of adverse effects, and (2) the evaluation of the significance of these effects (taking into account mitigation measures). BC law does not prescribe the methodology for either of these steps or how these effects should be categorized, measured, or assessed.[308] Instead, guidance is provided under provincial policy. This policy requires proponents to identify "Valued Components" (VCs) for each effect. Under BC law, "effects" include environmental, economic, social, heritage and health effects.[309]

Provincial policy recommends that potential effects be assessed for their associated 'Valued Components'. For example:

- **Valued Social Components** are described as "activities or sites of social and cultural importance including, but not limited to, land and resource use, First Nation community interests, and other features or indicators of community wellbeing and quality of life".[310]
- **Valued Heritage Components** include personal property and land, including land covered by water, which has heritage value to BC, communities or First Nations.[311]
- **Valued Health Components** include worker health and safety, recreational or aesthetic features, levels of physical activities in the region, and other indicators of community health and healthy living. Key factors that are considered with respect to the proposed project are environmental health, health education, sports and physical activity.[312]
- **Valued Economic Components** "could include contract and business opportunities, employment opportunities, labour income generated, local unemployment rate and trend, and employment and economic diversification".[313]

Valued components (VCs) are components considered important by the proponent, the public, First Nations, scientists and government agencies involved in the EA process.[314] For each VC, the proponent must determine whether the proposed project would have significant adverse effects, taking into account the proposed mitigation measures. The proponent must describe the assessment methodology used in making this determination.[315] This description should include a discussion of relevant

[308] *Environmental Assessment Act*, SBC 2002, c 43, ss 6(1), 10(1), 20(1).
[309] *Environmental Assessment Act*, SBC 2002, c 43, s 10(1).
[310] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 26, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[311] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 28, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[312] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, October 2010) at 29, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[313] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 26, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[314] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 20, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>. For example: fish and fish habitat, listed species, rare ecosystems, air quality, water quality.
[315] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 20-21, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

background information, potential direct impacts, potential cumulative impacts for VCs, proposed mitigation measures, potential for residual effects and the significance of any such residual effects.[316]

Provincial policy also lists the types of project benefits that should be included in the EA, including:

- employment estimates (*direct and indirect employment, wage levels, source of labour (domestic v. international), employment policies and practices, potential to use local human resources currently underutilized*);[317]
- local purchasing strategy, if any;[318] and
- proposed project contributions to healthy living and community development.[319]

Provincial policy further states that the assessment of the significance of any residual adverse effects, after mitigation, should be done by analyzing the following factors (impact characteristics):[320]

- magnitude or severity of the effect;
- geographic extent of change (i.e., local or regional);
- duration and frequency of effects;
- reversibility of effect;
- context and the environment's ability to accept change (e.g., ecologically sensitive areas have little resilience to imposed stresses); and
- probability of adverse effect occurring.

The following sections review laws from other jurisdictions and highlight the weaknesses of BC's current EA law with respect to evaluating a proposed project's effects. In particular, the following approaches are considered:

- general evaluation of effects;
- cultural, social and economic effects;
- cumulative impacts;
- mitigation of adverse effects ; and
- analysis of alternatives.

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[316] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 21, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[317] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 14, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[318] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 15, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[319] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 16, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[320] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 21-22, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

General evaluation of effects

Assess direct and indirect effects in EA
[Tags: EA; Indirect Effects]

BC law only requires proponents to consider direct effects of a proposed project - there are no explicit legal requirements to consider indirect effects.[321] This narrow scope fails to adequately evaluate the full impacts of a project. For example, the effects of a project on neighbouring First Nation community or First Nations with overlapping traditional territories may not adequately be considered.[322]

Other jurisdictions require that direct *and* indirect effects both be assessed in EAs. For example, under European Union law, the EA assessment must identify, describe and assess the direct and indirect effects of a project on various factors, including:

- human beings, fauna and flora;
- soil, water, air, climate and the landscape;
- the interaction between the aforementioned factors; and
- material assets and cultural heritage.[323]

United Kingdom law also requires that the effects of the proposed development on the environment be considered in EA. This includes the direct and any indirect effects of the development resulting from: the existence of the development; the use of natural resources; the emission of pollutants; the creation of nuisances; or the disposal of waste.[324] Under US federal law, both direct and indirect effects, and their significance, must also be considered in EAs.[325]

Require assessment of whether short-term use outweighs long-term effects
[Tags: EA; Impacts]

Under BC law, there are no explicit requirements to consider the long-term impacts of a proposed project. In contrast, under US federal law, the regulatory authority must include a detailed statement for every major federal action that significantly affects the quality of the human environment on "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity".[326]

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[321] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 21, online: http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.
[322] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at iii.
[323] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 3.
[324] *Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999*, SI 1999/293, Schedule 4, Part I, s 4.
[325] 40 CFR § 1502.16
[326] 42 USC 4332.

Consider impact of catastrophic events even if probability of occurrence is low
[Tags: EA; Effects]

Under BC law, there are no explicit requirements to consider the potential impact of catastrophic events on the prediction of adverse effects. For example, despite BC's location on a fault line, there is no requirement to consider the potential impact of a high magnitude earthquake in EAs. Conversely, under Oregon law, EAs of chemical process mines must include an analysis of catastrophic consequences *even if* the probability of occurrence is low. This analysis cannot be based on conjecture, but must be supported by credible scientific evidence.[327] Under Alberta law, EAs must include contingency plans developed to respond to unpredicted negative impacts.[328] These types of legal provisions are particularly important in the mining sector which often relies on the use of large dams for managing tailings; structures, containing toxic wastes, that are vulnerable to earthquakes.

Cultural, Social & Economic Effects

Assess cultural effects of project in the EA
[Tags: EA; Cultural Awareness; Cultural Protection]

Under BC's former *EA Act* "cultural" effects of a proposed project had to be considered *in addition* to the assessment of the environmental, economic, social, heritage and health effects currently required.[329] Even though "cultural effects" are now recognized in policy as a Valued Social Component,[330] the removal of cultural effects from BC's EA law has been criticized by some First Nations.[331]

In contrast, European Union law continues to recognize the need to assess cultural effects. EU law requires that the direct and indirect effects of a project on "the cultural heritage" be identified, described and assessed in an appropriate manner.[332] Similarly, under the *Mackenzie Valley Resource Management Act*, "impact on the environment" is broadly defined to include "any effect on the social and cultural environment".[333] Under Alberta law, the EA must include a "description of potential positive and negative […] social, economic and cultural impacts of the proposed activity".[334] South African law

[327] O Rev Stat § 517.979(3)(a) (2011).
[328] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49(j).
[329] Environmental Assessment Act, RSBC 1996, c 119, s 1; compare to *Environmental Assessment Act*, SBC 2002, c 43, ss 6, 10, 20; see also *Kwikwetlem First Nation v British Columbia (Utilities Commission*), 2009 BCCA 68 (CanLII), para 53.
[330] British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 26, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>: activities or sites of social and cultural importance including, but not limited to, land and resource use, First Nation community interests, and other features or indicators of community wellbeing and quality of life.
[331] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 54, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[332] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 3.
[333] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 111(1).
[334] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49(d).

also requires an analysis of the cultural aspects of the environment that may be affected by a proposed mine.[335]

Assess effects of project on First Nations' traditional land use
[Tags: EA; Cultural Protection]

BC law does not explicitly take into account First Nations' traditional practices in the EA process. In contrast, under the *Mackenzie Valley Resource Management Act* "impact on the environment" is broadly defined to include any effect on wildlife harvesting.[336] Similarly, under the federal CEAA 2012, the definition of "environmental effects" includes any effect on the current use of lands and resources for traditional purposes by First Nations.[337] It has been recommended that the future needs of First Nations should also be considered as part of EAs, rather than limiting the focus to subsistence activities.[338]

Assess effects of project on species-at-risk, biodiversity, and species important to First Nations
[Tags: EA; Environmental Protection; Habitat; Species-at-Risk; Cultural Awareness]

BC law does not require an assessment of a project's effects on species-at-risk or biodiversity. Species-at-risk are referred to in provincial policy descriptions of Valued Components; however, as policy rather than law, there is no guarantee that these will be consistently considered in the effects analysis of EAs in the province. Similarly, there are no legal requirements to assess the effects of a proposed project on species important to First Nations.[339]

In contrast, ensuring the preservation of species is recognized under Pakistani law, where the definition of "adverse environmental effect" includes impairment or damage to biodiversity.[340] Until recently, this provision was also explicitly included in Canada's CEAA, which defined "environmental effects" as including any change that the project may cause on a listed wildlife species, their critical habitat, or the residences of individuals of that species.[341] **CEAA 2012, however, drastically narrowed the definition of environmental effects. Now, only effects on fish habitat or aquatic species-at-risk will be assessed**.[342] CEAA 2012 appears, therefore, to exclude any assessment of land-based species-at-risk, such as Woodland Caribou, which are of significant importance to many of Canada's Aboriginal peoples, including First Nations.

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[335] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 31(2)(d).
[336] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 111(1).
[337] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 5(1)(c)(iii).
[338] Annie Booth & Norm Skelton, "Improving First Nations' participation in environmental assessment processes: recommendations from the field" (2011) 29(1) *Impact Assessment and Project Appraisal*, 49 at 56.
[339] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Winds and Voices Environmental Services Inc. for the Research and Development Monograph Series, 2000) at Appendix 5, online: < http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[340] *Environmental Protection Act, 1997*, (Act No XXXIV OF 1997) Pakistan, s 2(i)(a).
[341] *Canadian Environmental Assessment Act*, SC 1992, c 37, s 2.
[342] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 5(1)(a).

Cumulative Effects

Overview of BC Law

Cumulative effects are the combined, incremental effects of human activity. Under BC law, however, the assessment of cumulative effects is not a requirement of provincial EAs. Instead, the EAO Executive Director has the discretion to decide whether to require the assessment of cumulative effects.[343] The EAO Executive Director also has the discretion to determine how cumulative effects are to be assessed, since the law provides no guidance on what effects should be assessed or the scope of such assessments.

Some guidance is provided under provincial policy, which states that the EAO will consider cumulative impacts when evaluating projects and the impacts for Valued Components, where relevant.[344] According to this policy, the relevance of the cumulative impacts is based on the extent to which past or proposed actions may combine with the project to make adverse impacts 'significant'.[345] The policy provides no further guidance or methodology for determining whether the impacts are significant. In practice, with one exception, the only projects for which the EAO has considered cumulative impacts are those projects that also underwent federal EAs.[346] Therefore, unless a project is subject to a federal EA, there is little chance that cumulative effects will be assessed in the EA. Without an assessment of cumulative effect, an informed decision on the full impacts of a proposed project cannot be made.

Issues

Without an assessment of cumulative effects, the impacts of a project may be viewed in isolation from other activities and without consideration of whether project impacts can be adequately mitigated in the local region. In addition, the failure to evaluate and assess cumulative impacts from past, current and future projects puts First Nations at risk, particularly where they face several simultaneous large-scale resource development proposals on their traditional territories.[347] The lack of legal guidance on the scope of a cumulative effects assessment has also resulted in proponents using inappropriately large

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[343] *Environmental Assessment Act*, SBC 2002 c 43, s 11(2)(b).

[344] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 26.

[345] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 27.

[346] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 33, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

[347] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at i. This includes not only mining, but also logging, energy and hydro projects; Note: Although BC's EA legislation does not mandate that these effects be assessed during an EA review, they may nevertheless trigger the government's duty to consult affected First Nations. The British Columbia Court or Appeal recently found that the duty to consult includes a consideration of the cumulative effects of "past wrongs" and the impact of future developments: *West Moberly First Nations v. British Columbia (Chief Inspector of Mines)*, 2011 BCCA 247 para 119.

study areas to assess cumulative impacts, which do not reflect the true incremental impact of a particular project.[348]

Recommended Solutions

Assess cumulative effects as part of all EAs
[Tags: EA; Cumulative Impacts]

Unlike BC, the assessment of cumulative impacts is mandatory in several jurisdictions. For example:

- Under CEAA 2012, the EA must include a consideration of "any cumulative environmental impacts that are likely to result from the project in combination with other projects or activities that have been or will be carried out".[349]
- In the Yukon, information on the "significance of any adverse cumulative environmental or socio-economic effects of project with other projects or existing activities" must be included in the EA.[350]
- Under the *Mackenzie Valley Resource Management Act*, every EA review must include a consideration of "any cumulative impact that is likely to result from the development in combination with other developments".[351]
- In Alberta, the EA must include "a description of potential positive and negative environmental, social, economic and cultural impacts of the proposed activity, including cumulative, regional, temporal and spatial considerations".[352]
- In Ontario, cumulative impacts are incorporated into the Ministry of Environment's Statement of Environmental Values (under the Environmental Bill of Rights) and must be considered in all decision-making, including EAs.[353]
- In Quebec, the impacts on the environment that must be evaluated in an EA for a mine include "indirect, cumulative, latent and irreversible effects".[354]
- In the US, cumulative impacts must be considered as part of the scope of a project. To assist federal agencies analyze cumulative effects, the government has produced a handbook that outlines general principles, cumulative effects assessment methodologies, and resources for

[348] Carrier-Sekani Tribal Council, *Critique of the BC Environmental Assessment Process from a First Nations Perspective* (Prince George: Carrier-Sekani Tribal Council, 2007) at 8, online: <http://www.carriersekani.ca/images/docs/lup/EAO%20Critique%20-%20CSTC.pdf>.
[349] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 19(1)(a).
[350] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 42(1).
[351] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 117(2).
[352] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49.
[353] See, *Dawber v Ontario* 36 CELR (3d) 191, 2008 CarswellOnt 3658.
[354] *Regulation Respecting Environmental Impact Assessment and Review*, RQ, c Q-2, r 9, s 3.

additional information and background data.[355] This evaluation also requires analysis of cumulative impact effects of past actions.[356]

- In Oregon, broad assessments of cumulative impacts are required in EAs for chemical process mines. This assessment must evaluate "the total cumulative impact on the environment that results from the incremental impact of an action when added with other past, present and reasonably foreseeable future actions, regardless of the agency or persons that undertake the other action, or whether the actions are on private, state or federal land".[357]
- Under South Africa law, cumulative impact assessments are also a mandatory requirement.[358]

Assess cumulative effects of different types of activities in project area
[Tags: EA; Cumulative Impacts]

Under BC law, there are no mandatory requirements to consider cumulative effects of multiple activities in a given area. Conversely, consideration of other types of activities in assessing cumulative impacts is required under South African law, which defines "cumulative impact" as "the impact of an activity that in itself may not be significant, but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area".[359]

Assess cumulative socio-economic effects
[Tags: EA; Cumulative Impacts]

Although BC law requires consideration of social and economic effects in EAs, there is no requirement to assess the cumulative socio-economic effects of proposed projects. Given the problems with BC's mineral tenure system (see: ***Chapter 4: Mineral Tenure and Land Use Planning***), there is virtually no control over the concentration of mining activities in a particular region. As such, many BC First Nations face multiple, simultaneous projects across their traditional territories. For First Nations who do not have enough trained personnel to occupy multiple jobs, such simultaneous development results in proponents having to bring in labour from outside the local communities, which can have major socio-economic implications.[360]

Other jurisdictions clearly recognize the need to address cumulative socio-economic effects. In the Yukon for example, the regulatory authority may undertake studies of "socio-economic effects that are

[355] Council on Environmental Quality Regulations for Implementing NEPA, ss 1508.7 and 1508.25; See also, US Environmental Protection Agency, Office of Federal Activities, *Consideration Of Cumulative Impacts In EPA Review of NEPA Documents* (Washington, DC: US EPA, 1999), online http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf.
[356] 43 CFR§ 46.115.
[357] O Rev Stat § 517.979(3)(b).
[358] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 31(2)(l)(i).
[359] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 1(1).
[360] First Nations Mining Summit, *The State of Mineral Exploration and Mining in British Columbia 2008* (Prince George: First Nations Mining Summit, 2008) at 24.

cumulative geographically or over time".[361] In the US, cumulative impacts are defined as "the total effects on a resource, ecosystem, or human community of that action".[362] One possible approach to assessing these effects is through the collection of evidence of impacts caused by previous development projects.[363]

Determine significance of effects based on cumulative impacts
[Tags: EA; Cumulative Impacts; Significance Determination]

Under BC law, there are no explicit requirements to consider cumulative impacts when assessing the significance of adverse effects. In contrast, under US federal law, it is explicitly recognized that although actions may be individually insignificant "significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment".[364] Similarly, under South African law, the assessment of the significance of cumulative impacts must also be included in the EA.[365]

Mitigation of Adverse Effects

> *There is an absence of provincial legislation or policy concerning options for mitigation, including offsetting of environmental impacts resulting from major projects. This often leads to disagreement between proponents and ministry staff during the development of environmental mitigation measures [...]This situation generates disparate practices among provincial decision-makers, as well as uncertainty and frustration for the EAO, natural resource ministries and proponents.*
>
> – BC Auditor General (2011)[366]

Under BC law, the regulatory authority must consider whether the proposed project has significant adverse effects "taking into account practical means of preventing or reducing to an acceptable level any potential adverse effects of the project".[367]

Issue

BC's current laws lack sufficient guidance on environmental mitigation requirements.[368] This leads to inconsistency in the ways that environmental impacts are addressed, which may result in arbitrary

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[361] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 112(1).
[362] Council on Environmental Quality Regulations for Implementing NEPA, s 1508.8; See also, US Environmental Protection Agency, Office of Federal Activities, *Consideration Of Cumulative Impacts In EPA Review of NEPA Documents* (Washington, DC: US EPA, 1999) at 2, online http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf.
[363] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at x.
[364] 40 CFR § 1508.27.
[365] *Environmental Impact Assessment EIA Regulations* (Government Notice R.543 in Government Gazette 33306 of 18 June 2010) South Africa, s 22(2)(i)(i).
[366] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011,) at 17, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[367] *Environmental Assessment Act*, SBC 2002 c 43, s 10(1).

decisions about the acceptability of adverse effects. For example, the creation of employment opportunities may be used to mitigate other project-related social and economic impacts on First Nations.[369] To address these issues, the government is currently developing an Environmental Mitigation Policy.[370]

Recommended Solutions

Define what constitutes adequate "mitigation"
[Tags: EA; Mitigation]

The United Nations Environment Programme has organized the elements of mitigation into a hierarchy of actions: [371]

1. Use preventative measures to avoid adverse impacts (as far as possible);
2. Minimize or reduce adverse impacts to "as low as practicable" levels; and
3. Remedy or compensate for adverse residual impacts that are unavoidable and cannot be reduced further.

BC law has been criticized for lack of clarity on what constitutes acceptable "mitigation" of adverse effects.[372] Mitigation measures attached to EA Certificates are also often expressed in overly general terms that make enforcement challenging.[373] CEAA 2012 provides a clearer definition of what constitutes mitigation for the purposes of a federal EA: under that Act, mitigation measures are "measures for the elimination, reduction or control of the adverse environmental effects of a designated project, and includes restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means".[374]

Involve First Nations and local communities in developing appropriate mitigation measures
[Tags: EA; Mitigation; Traditional Knowledge; Duty to Consult; Indigenous Rights; Public Consultation]

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[368] British Columbia, Ministry of Environment, *Why develop this policy?* (Victoria: Ministry of Environment, 2012), online: <http://www.env.gov.bc.ca/emop/development.html>.
[369] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency, 2000) at s 4.2.2, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[370] British Columbia Ministry of Environment, *Policy for Mitigating Impacts on Environmental Values (Environmental Mitigation Policy): Final Working Draft* (11 June 2012), online: <http://www.env.gov.bc.ca/emop/docs/EMPolicyFinalWorkingDraft.pdf>.
[371] Hussein Abaza et al, *Environmental Impact Assessment,* Course Module, (United Nations Environment Programme, 2007) at s 7, online: <http://eia.unu.edu/course/?page_id=173>.
[372] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 51, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[373] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 50, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[374] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 2(1).

BC's Ministry of Environment is currently consulting with First Nations in the development of its Environmental Mitigation Policy.[375] Such consultation is also needed for determining appropriate mitigation measures for specific projects. Under Wyoming law, proponents must meet with local governments affected by a proposed facility to "determine the mitigation required to minimize any adverse impacts resulting from the proposed facility".[376] This encourages the development of effective and locally supported avoidance, management, and mitigation measures for potential impacts.[377] Under Mexico's Constitution, respect must be given to the wishes of Aboriginal peoples in "determining approaches for achieving the greatest benefit from the productive resources on their lands".[378]

EA Certificate

The final stage of the EA process is the Minister of Environment and Minister of Energy and Mines's decision on whether to approve the project.[379] If the project is approved, it is issued an EA Certificate.[380] No other approvals, including mine permits, can be issued until the EA Certificate is issued.[381] Similarly, no construction, operation, modification, dismantling or abandonment of a facility (like a mine) can start until the EA Certificate is issued.[382] Once issued, however, the EA Certificate remains in effect for the life of the project.[383]

The Ministers will grant the project EA approval if it they determine that it will not pose adverse effects, that cannot be mitigated. At the time of writing, only two mining projects have ever been denied an EA Certificate in BC (although projects are regularly withdrawn or terminated).

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[375] Robyn Hooper and Jessica Miles, *Environmental Mitigation and Offsetting Policy – First Nations Workshops: Key Findings* (Victoria: Ministry of Environment, 2011), online: <http://www.env.gov.bc.ca/emop/feedback/docs/EMOP-FirstNationsWorkshopKeyFindings.pdf>.

[376] *Industrial Development Information and Siting Act*, Wy Stat § 35-12-107(f).

[377] David Lawrence, *The Significance of Social and Economic Impacts in Environmental Assessment* (Ottawa: Canadian Environmental Assessment Agency, 2004) at 8.4, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=2&toc=show>.

[378] *Political Constitution of the United Mexican States,* of 1917, art 27, s VII.

[379] The responsible ministers for EA's on mines are the Minister of Environment, and the Minister of Energy, Mines and Natural Gas: British Columbia, Environmental Assessment Office, Fairness and Service Code (Victoria: Environmental Assessment Office, 2009) at 8, online: <http://www.eao.gov.bc.ca/pdf/EAO_FairnessAndServiceCode_Jan09.pdf>.

[380] *Environmental Assessment Act*, SBC 2002, c 43, s 17(3). Note: The ministers may also elect to require the proponent to provide more information.

[381] *Environmental Assessment Act*, SBC 2002, c 43, s 9: any approvals granted without meeting this requirement are of no force and effect.

[382] *Environmental Assessment Act*, SBC 2002, c 43, s 8(1).

[383] *Environmental Assessment Act*, SBC 2002, c 43, ss 8(2), 18(6); British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 39, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>. Projects must usually be substantially started within 5 years of the issuance of the EA certificate.

One such refusal was the proposed Morrison Lake Mine in northern BC, which was denied an EA Certificate in October 2012. Although the EAO concluded that any adverse effects could be mitigated, the ministers, following the recommendations of the EAO Executive Director, denied the certificate.[384]

Government Accountability

Reasons for Decision

Although it is standard practice for the government to provide reasons for its EA recommendations and decisions, it is not required.[385] Under BC law, the EAO Executive Director has broad discretion to decide whether to provide reasons for recommendations made in referring the EA to the ministers for their final decision.[386] Similarly, the ministers are not required to provide reasons for their final decision on whether to issue or deny and EA Certificate.

Issue

Neither the EAO Executive Director nor the ministers are required to give reasons for their decisions or respond to the public's comments. This lack of transparency reduces public confidence in the process.

Recommended Solutions

<u>Provide reasons for all EA decisions</u>
[Tags: EA; Reasons; Decision; Certificate]

Unlike BC, the regulatory authority in other jurisdictions must provide reasons for its EA decision – for example:

- Under the *Mackenzie Valley Resource Management Act*, regulatory authorities must issue and make publicly available written reasons for decisions or recommendations that it makes.[387]
- Under Manitoba law, when a public hearing has been held on the EA of a proposed project, the regulatory authority must provide written reasons for its decision.[388]
- Under Yukon law, the Yukon Environmental and Socio-economic Assessment Board must provide a written report to the regulatory authority summarizing its recommendations on the EA review. The regulatory authority is then required to respond to the report in writing and describe any action they plan to take.[389]

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[384] British Columbia, Environmental Assessment Office, *Information Bulletin Morrison Mine Project Denied Environmental Assessment Certificate,* Victoria, Environmental Assessment Office, Oct 1, 2012 at 1, online: <http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_224_b_waa.html>.
[385] As discussed above, the EAO may give recommendations and reasons when submitting its assessment to the minister, but this is a discretionary, rather than mandatory requirement.
[386] *Environmental Assessment Act*, SBC 2002, c 43, s 17(2).
[387] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 121.
[388] *Environment Act*, CCSM c E125, s 11(13).
[389] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 8,101(3).

- Until the former CEAA, the Minister was required to advise the public of the extent to which recommendations made in a mediator or review panel's report had been adopted, and the reasons for not adopting recommendations.[390]
- Under European Union law, the regulatory authority must make reasonable efforts to inform the public about reasons for making decisions, and the consideration on which those decisions were based.[391]

The *Aarhus Convention* states that the public should be provided reasons and informed about considerations on which a decision was based.[392] Although Canada is not a signatory of this Convention, this provision suggests that the requirement to provide reasons for government decisions is becoming a point of customary international law.

Require written responses to public comments
[Tags: EA; Public Consultation; Reasons]

In BC, it is standard practice for proponents to respond to public comments when providing information to the EAO. This is, however, not a legal requirement and neither the EAO nor the ministers must show if and how these public comments were considered.

In contrast, under California law the regulatory authority must prove that it has considered the public's comments by responding in writing to all such comments.[393] Under US federal law, the regulatory authority must assess and consider comments both individually and collectively, and must respond by one or more of the following means:[394]

- modify alternatives, including the proposed action;
- develop and evaluate alternatives not previously given serious consideration by the agency;
- supplement, improve, or modify its analyses;
- make factual corrections;
- explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position; and
- if appropriate, indicate those circumstances that would trigger agency reappraisal or further response.

[390] *Canadian Environmental Assessment Act*, SC 1992, c 37, s 53(2)(a)-(e);
[391] EC, *Directive 2011/92/EU of the European Parliament and of the council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment*, [2011] OJ, L 26, 28/01/2012 at art 2(2)(d).
[392] *United Nations Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)*, 25 June 1998, Economic Commission for Europe, 4th Ministerial Conference, UN Doc ECE/CEP/43, art 6(9), online: <http://www.un-documents.net/aarhus.htm>. This Convention applies to various metal production and processing activities including roasting of metal ore.
[393] Cal PRC § 21091(d)(2)(A) (2011).
[394] 40 CFR § 1503.4(a).

Require written responses to First Nations' comments
[Tags: EA; Indigenous Rights; Reasons]

In a recent judgment, the BC Court of Appeal stated that for a consultation process to be considered reasonable, it should require "persuasive reasons why the course of action the petitioners proposed was either not necessary, was impractical, or was otherwise unreasonable. Without a reasoned basis for rejecting the petitioners' position, there cannot be said to have been a meaningful consultation."[395] This reflects the recognized need to communicate how discussions with First Nations changed or altered the scope or elements of the EA.[396] As follow up, it has been recommended that when an EA decision has been made, the regulatory authority should consult with affected Aboriginal communities to determine if, from their perspective, meaningful consultation has occurred.[397]

Some jurisdictions have enacted clear laws detailing how the comments of Aboriginal peoples should be considered in the EA review process. For example, in the Yukon, the regulatory authority must consider "*fully and fairly*" any views presented to it whenever exercising its duty to consult.[398] Under several agreements signed with Aboriginal communities in northern Canada, decision-makers are explicitly required to consider recommendations from Aboriginal people; if they reject these recommendations, the decision-makers must provide explanations.[399]

Right to Appeal EA Decision

Issue

BC's law does not provide an appeal process by which the public, including affected First Nations, can appeal an EA decision.[400] This omission has been criticized for failing to provide a mechanism to deal with complaints about the rigour of the analysis.[401] Without a substantive appeal process, complaints are only dealt with in a court of law through judicial review. This process is not an appropriate substitute

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[395] *West Moberly First Nations . British Columbia (Chief Inspector of Mines)*, 2011 BCCA 247 at para 144.
[396] Centre for Indigenous Environmental Resources, *Meaningful Involvement of Aboriginal Peoples in Environmental Assessment* (Winnipeg: Centre for Indigenous Environmental Resources, 2008) at 48.
[397] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency 2000) at s 6, Schedule 7, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[398] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 3.
[399] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 *Environmental Impact Assessment Review* 319 at 329.
[400] *Environmental Assessment Act,* SBC 2002 c 43, s 23.4. The sole reference to "appeals" in the BC Environmental Assessment Act provides that, despite other enactments, if the Minister issues concurrent approvals for other applications (such as mine permits – discussed below in Section 8 of this Phase), the minister's decision is final and not subject to review or appeal under the legislation of which that enactment forms part; Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 64, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.; see also *Do RAV Right Coalition v Hagen*, 2006 BCCA 571.
[401] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (Prince George: First Nations Energy & Mining Council, 2009) at 17-18;
Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 67, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>..

for the right to appeal because it generally fails to adequately review substantive issues for which greater accountability is needed.[402]

Recommended Solution

Provide appeal mechanism in EA legislation
[Tags: EA; Appeal; Review]

Many jurisdictions have incorporated appeal mechanisms in their EA laws to permit members of the public to challenge the EA decisions. Such appeal provisions can help address procedural flaws in the EA process, such as a failure to hold a required public hearing, and also highlight any substantive issues that the regulatory authority may have failed to consider.[403]

The right to appeal EA decisions is provided in numerous Canadian jurisdictions – for example:

- In Manitoba, any person who is affected by a director's decision may file an appeal with the Minister of Environment. Ministerial decisions in turn may be appealed to Cabinet (Lieutenant Governor in Council).[404]
- In Quebec, "any order issued by the Minister...may be contested by the municipality or person concerned before the Administrative Tribunal of Quebec".[405]
- In Newfoundland and Labrador, any person who is aggrieved of a decision or order made under the *Environmental Protection Act* may appeal to the Minister of Environment. Questions of law or mixed fact and law may be appealed to the Trial Division of the Supreme Court.[406]
- In Saskatchewan, there is a legal process for appealing EA screening matters.[407]

Outside Canada, appeals of EA decisions are provided in laws of Egypt,[408] Jordan,[409] Morocco,[410] Qatar,[411] Pakistan,[412] the US,[413] New Zealand,[414] India,[415] Kenya,[416] Mauritius,[417] and Guyana.[418]

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[402] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 64-65, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[403] Environmental Law Alliance Worldwide, *Guidebook for evaluating mining project EIAs* (Eugene: Environmental Law Alliance Worldwide, 2010) at 21-23.
[404] *Environment Act*, CCSM c E125, ss 27, 28.
[405] *Environment Quality Act*, RSQ c Q-2, s 31.3, 96.
[406] *Environmental Protection Act*, SNL 2002, c E-14.2, s 107, 108.
[407] *The Environmental Assessment Act*, SS1979-80, c E.10.1, s 18.
[408] Karma El-Fadl and Mutasem El-Fadel, "Comparative assessment of EIA systems in MENA countries: challenges and prospects" (2004) 24 *Environmental Impact Assessment Review* 553 at 559.
[409] Karma El-Fadl and Mutasem El-Fadel, "Comparative assessment of EIA systems in MENA countries: challenges and prospects" (2004) 24 *Environmental Impact Assessment Review* 553 at 559.
[410] Karma El-Fadl and Mutasem El-Fadel, "Comparative assessment of EIA systems in MENA countries: challenges and prospects" (2004) 24 *Environmental Impact Assessment Review* 553 at 559.
[411] Karma El-Fadl and Mutasem El-Fadel, "Comparative assessment of EIA systems in MENA countries: challenges and prospects" (2004) 24 *Environmental Impact Assessment Review* 553 at 559.
[412] Obaidullah Nadeema and Thomas Fischer, "An evaluation framework for effective public participation in EIA in Pakistan" (2011) 31 *Environmental Impact Assessment Review* 36 at 37.

Adaptive Management and Amendments to EA Certificates

Under BC law, a proponent can apply to the EAO for an amendment to an EA Certificate.[419] This application must include a statement of the reasons for the request.[420] The regulatory authority has the discretion to determine the procedure for reviewing the application.[421] **None of the public consultation requirements under BC law explicitly apply to applications to amend EA Certificates**.[422] After reviewing the application, the regulatory authority may amend the EA Certificate by varying, deleting, or attaching new conditions to it.[423] [Note that the EAO also retains the right to vary an EA Certificate in response to an emergency or other circumstance that warrants, or will warrant, a variation – this includes in cases of non-compliance.[424]]

Issue

In BC, EA Certificates are usually amended at the request of *proponents* to further their development goals.[425] Although the EAO may amend the EA Certificate in exigent circumstances or in cases of non-compliance, the legislation does not explicitly contemplate the right to amend the EA Certificate for environmental protection or adaptive management purposes. Similarly, the law does not explicitly contemplate amendment of the EA Certificate when research or monitoring determines that impacts are greater than anticipated, or that additional mitigation or other measures are required.[426] This legal structure thereby fails to provide the flexibility needed to implement adaptive management and ensure social and environmental protection throughout the life of the project.[427]

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[413] Council on Environmental Quality Executive Office of the President, *A Citizen's Guide to the NEPA* (Washington, DC: Department of Environment, 2007) at 30, online: < http://ceq.hss.doe.gov/nepa/Citizens_Guide_Dec07.pdf>. Some federal agencies, such as the Bureau of Land Management and the Forest Service, have an administrative appeals process.
[414] *New Zealand Resource Management Act 1991* (NZ) 1991/69. Assessments for "resource consents" are required and these may be appealed by "affected persons" to the Environment Court.
[415] *The National Environment Appellate Authority Act, 1997* (No 22 of 1997) India, s 11.
[416] *Environmental Management and Co-ordination Act* (Act No 8 of 1999) Kenya, s 129.
[417] *Environmental Protection Act of 2002,* (Act No 19 of 2002) Mauritius, part VIII.
[418] *Environmental Protection Act 1996, (*Act No 11 of 1996) Guyana, s 18, 28, 29, 51-57.
[419] *Environmental Assessment Act*, SBC 2002, c 43, ss 19, 37; British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 8, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[420] *Environmental Assessment Act*, SBC 2002, c 43, s 19(1).
[421] *Environmental Assessment Act*, SBC 2002, c 43, s 19(2).
[422] *Public Consultation Policy Regulation*, BC Reg 373/2002;
British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 37. Provincial policy states that "Where appropriate, the process will involve consulting with working group members and First Nations ... In addition, the Executive Director may require some form of public consultation in relation to an amendment application, but again this will vary based on the nature of the proposed change and other relevant factors, such as the degree to which the public and interested parties have already been engaged regarding the amendment request."
[423] *Environmental Assessment Act*, SBC 2002, c 43, s 19(3).
[424] *Environmental Assessment Act*, SBC 2002, c 43, s 31(1).
[425] *Environmental Assessment Act*, SBC 2002, c 43, ss 19, 37.
[426] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 68, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.
[427] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 51-52, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

Recommended Solutions

Require public and First Nations engagement for major amendments to EA Certificate
[Tags: EA Certificate; Public Consultation; Amendment]

Unlike BC, Manitoba law requires that an amendment application for major proposed alterations be reviewed in accordance with the same process as the original EA application.[428] This ensures that the public is able to comment and suggest areas for improvement based on its local knowledge and experiences with the project.

Regular EA reviews to encourage dynamic and responsive process
[Tags: EA Certificate; Amendment; Adaptive Management]

Adaptive management requires that information, processes and technologies are regularly reviewed and revised. In Mozambique, the EA Certificate (environmental licence) must be reviewed every five years.[429] This mandatory review is an important follow-up tool as it provides a regular opportunity to amend the legally enforceable requirements in response to observed impacts and the success of mitigation efforts.

Encourage adaptive management in decision-making
[Tags: EA Certificate; Amendment; Adaptive Management; Environmental Protection]

Adaptive management entails the use of monitoring results to improve mitigation efforts, as needed.[430] Such an approach can transform the EA process from a static process into a dynamic one.[431] US federal law recognizes the value of an adaptive management approach, in mandating that regulatory authorities:

> [...] should use adaptive management, as appropriate, particularly in circumstances where long-term impacts may be uncertain and future monitoring will be needed to make adjustments in subsequent implementation decisions.[432]

There can be positive and negative aspects to adaptive management. In some circumstances regulators and proponents have used the concept of adaptive management as an excuse to avoid necessary baseline and other studies. In such cases, the argument is that the proponent can move ahead with the project in the absence of baseline information and studies as long as they provide information at some point in the future to allow for "adaptive management". This contrasts with the definition above which

[428] *Environment Act*, CCSM c E125, s 14(3).
[429] *Environmental Regulation for Mining Activities* (Decree n.° 26/2004 of 20 August) Mozambique, art 13.
[430] Ciaran O'Faircheallaigh, *Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience* (2007) 27 Environmental Impact Assessment Review 319 at 321.
[431] Joe Arts, Paula Caldwell and Angus Morrison-Saunders, "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference", (2001) 19(3) Impact Assessment and Project Appraisal, 175 at 175–185.
[432] 43 CFR § 46.145.

relates to true adaptive management where adequate baseline and other studies have been carried out but there is still a need for monitoring and review of long-term impacts to deal with uncertainties.

Under Alberta law, the regulatory authority may amend an approval on its own initiative if "an adverse effect that was not reasonably foreseeable at the time the approval was issued has occurred, is occurring or may occur".[433] Adaptive management was also explicitly recognized under the former CEAA, which provided that the results of follow-up programs (when adopted) could be used for adaptive management purposes.[434] This provision is no longer present in CEAA 2012.

Encourage adaptive management through research and development
[Tags: EA; EA Certificate; Amendment; Adaptive Management]

Japan recognizes the importance of research for adaptive management, by legally requiring the national government to promote research and development of "technologies necessary for conducting environmental impact assessments" and "to disseminate the results thereof".[435]

Monitoring and Enforcement of Certificate Conditions and Commitments

The EAO's oversight of certified projects is not sufficient to ensure that potential significant adverse effects are avoided or mitigated.

– BC Auditor General (2011)[436]

Overview of BC Law

A proponent's legal obligations under an EA are provided as either conditions or commitments.

Conditions, which address procedural issues common to every project, are attached the EA Certificates. Once an EA Certificate has been issued, all authorized activities must be carried out in accordance with these conditions.[437] Most EA Certificates have approximately ten conditions. These commonly include: the requirement to adhere to the details of the application, compliance reporting requirements, duration of the Certificate, and reasons for their suspension, cancellation or amendment.[438]

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[433] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 70(3).
[434] *Canadian Environmental Assessment Act*, SC 1992 c 37, s 38(5).
[435] *Environmental Impact Assessment Law* (Law No. 81 of 1997) Japan, art 51, online: <http://www.env.go.jp/en/laws/policy/assess/index.html>.
[436] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 6, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[437] *Environmental Assessment Act*, SBC 2002, c 43, ss 8(2), 18(6).
[438] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 15, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>; British Columbia, Environmental Assessment Office, Frequently Asked Questions (Victoria: Environmental Assessment Office, undated), online: <http://www.eao.gov.bc.ca/FAQ.html>. "The EA certificate may contain requirements for: Monitoring the effects of the project; Comparing the anticipated effects of the project, as set out in the EA application, with the actual effects; Evaluating the adequacy of measures implemented to prevent or mitigate adverse effects; and Periodically reporting the results of the above activities to the EAO or another agency."

Commitments, on the other hand, are intended to address project-specific issues raised by the working group and others.[439] These are included in a "Table of Commitments", often prepared by the proponent and appended to the EA Certificate.[440] There are no legal requirements guiding proponents in developing these commitments.[441] Thus, the commitments are often criticized for:[442]

- being qualified as "where feasible", "where possible" and "where economically feasible";
- using vague or unenforceable language to avoid verification and measurement;
- lacking clarity on timing obligations; and
- lacking clarity on how decisions will be made on unresolved issues.

Enforcement is required to ensure EA conditions and commitments are upheld. This includes four types of follow-up processes: monitoring, evaluation, management and communications.[443]

Effective follow-up programs have several benefits that can help both the present and future projects - including the ability to:[444]

- monitor whether expected impacts materialize;
- respond to unanticipated impacts;
- take advantage of unexpected opportunities to enhance environmental outcomes;
- learn from experience;
- adapt to post-EA changes in project design, project operating characteristics and environmental knowledge; and
- manage the risk and uncertainty involved in predicting the future impacts of human activity on complex and dynamic environmental and social systems.

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[439] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 62, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>; *Environmental Assessment Act*, SBC 2002, c 43, s.8; British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, 2010) at 47-48, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>; These commitments are initially drafted by the proponent and are reviewed and revised by the EAO during the course of the EA.

[440] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 62, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>; *Environmental Assessment Act*, SBC 2002, c 43, s 8; British Columbia, Environmental Assessment Office, *Application Information Requirements Template* (Victoria, Environmental Assessment Office, October 2010) at 47-48, online: <http://www.eao.gov.bc.ca/pdf/AIR_Template_oct2010.pdf>.

[441] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 63, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

[442] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 62-63, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

[443] Joe Arts, Paula Caldwell and Angus Morrison-Saunders, "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference", (2001) 19(3) Impact Assessment and Project Appraisal, 175 at 175–185;
Angus Morrison-Saunders & Joe Arts , "Introduction to EIA follow-up", in Angus Morrison-Saunders& Joe Arts, eds, *Assessing Impact: Handbook of EIA and SEA Follow-up* (London: Earthscan, 2004) 1 at 4-5.

[444] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 *Environmental Impact Assessment Review* 319 at 320.

In BC, if the Minister considers that the project is not being carried out, constructed, operated, modified, dismantled or abandoned in accordance with the EA Certificate, he or she may order that the project cease until it does so comply, or that the proponent takes measures to mitigate the effect of the non-compliance within a specified time frame.[445] EA Certificates may also be suspended, cancelled or amended where the proponent is in default of a requirement under the Certificate, a Supreme Court order, or convicted of an offence under the EA Act.[446]

Issue

Although BC law provides some recourse for incidents of non-compliance, it fails to require the necessary follow-up plans and actions to identify those incidents. The BC Auditor General has criticized the EAO for failing to evaluate the effectiveness of EA mitigation measures to ensure that the conditions and commitments are being met.[447] This raises serious concerns about the implementation of EA commitments.

Recommended Solutions

Require monitoring plans for all potential adverse effects
[Tags: EA; Monitoring Plan; EA Certificate; Conditions; Commitments]

> *Without some formalized system of follow-up to an EA,*
> *the process risks being nothing more than a pro forma exercise designed to secure project implementation rather than an environmental management tool*
> *for mitigating impacts, enhancing intended benefits & contributing to sustainability.*
> – First Nations Energy and Mining Council (2009)[448]

BC law does not require monitoring plans to assess compliance with EA conditions and commitments.[449] As recommended by BC's Auditor General, post-certification monitoring responsibilities should be clearly set out, along with compliance mechanisms for each commitment.[450] As the most directly

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[445] *Environmental Assessment Act*, SBC 2002, c 43, s 34(1).
[446] *Environmental Assessment Act*, SBC 2002, c 43, s 37(2).
[447] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 6, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[448] First Nations Energy & Mining Council, *Environmental Assessment and First Nations in BC: Proposals for Reform* (Prince George: First Nations Energy & Mining Council, 2009) at 18-19.
[449] British Columbia, Environmental Assessment Office, *Environmental Assessment Office User Guide* (Victoria: Environmental Assessment Office, 2010) at 35. Provincial states that: "The EAO may hold a post-environmental assessment process meeting with the proponent and permitting agencies to review the certificate's conditions and commitments, the project status, and permitting requirements. A lead ministry may then assume responsibility to act as the proponent's primary point of contact and coordinate permitting activities"; See also, British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 22, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>. Contains examples of EA projects that have incorporated good practice principles into monitoring activities.
[450] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects* (Victoria: Office of the Auditor General, 2011) at 7.

affected by proposed activities, local communities and First Nations should be directly involved in developing and implementing monitoring plans.[451]

The importance of requiring monitoring plans is recognized in several jurisdictions. In Nova Scotia, the EA must include a program to monitor the environmental effects during construction, operation, and abandonment stages of a project.[452] In Manitoba, the EA must include a description of the planned monitoring of efforts to mitigate adverse environmental impacts.[453] In Nunavut, the EA must include the monitoring program that the proponent proposes to establish, or that should be established, for ecosystem and socio-economic impacts.[454] In Alberta, the EA must include plans to monitor both predicted environmental impacts and proposed mitigation measures.[455]

Require mandatory follow-up programs
[Tags: EA; Monitoring; Enforcement]

Unlike BC, many jurisdictions have enacted laws that mandate follow-up programs - for example:

- Under CEAA 2012, an EA must take into account a project's follow-up program.[456] Where follow-up plans are developed, the regulatory authority has broad powers to ensure their implementation.[457]
- Under the *Mackenzie Valley Resource Management Act*, follow-up programs must be undertaken to evaluate the soundness of the EA and the effectiveness of the mitigation or remediation measures imposed as conditions of the EA approval.[458]
- In the Northwest Territories, environmental agreements signed for the Ekati, Diavik and Snap Lake diamond mines establish environmental monitoring agencies / boards whose mandates include monitoring to verify the accuracy of the EA and the effectiveness of mitigation measures.[459]

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[451] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa: Canadian Environmental Assessment Agency, 2000) at s 4.2.4, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.
[452] *Environmental Assessment Regulations*, NS Reg 26/95, as am, s 19(1)(j).
[453] *Licensing Procedures Regulation*, Man Reg 163/88, s 1(1)(k).
[454] *Nunavut Land Claims Agreement*, 1993, ratified by *Nunavut Land Claims Agreement Act* SC 1993, c 29, s 12.5.5.
[455] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 49(i).
[456] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 19.
[457] *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 19, 30, 31,37, 43; Canada, Canadian Environmental Assessment Agency, *Follow-up programs under the Canadian Environmental Assessment Act. Operational Policy Statement*, (Ottawa: Canadian Environmental Assessment Agency, 2011), online: http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=499F0D58-1, According to federal government policy, follow-up programs are required for projects assessed by a comprehensive study, mediation, or review panel. Although CEAA 2012 allows for follow-up measures, critics claim that it is seldom done well or at all Jason Prno, *Assessing the Effectiveness of Impact and Benefit Agreements from the Perspective of their Aboriginal Signatories* (MA Thesis, University of Guelph, 2007) at 24, online: <http://www.collectionscanada.gc.ca/obj/thesescanada/vol2/002/MR33902.PDF>, [unpublished].
[458] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 111(1).
[459] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 *Environmental Impact Assessment Review* 319 at 327; Government of

Follow-up is also legally required in the Netherlands.[460]

Monitor and compare predicted versus actual effects
[Tags: EA; Monitoring; Enforcement; Effects]

Although monitoring the actual, versus predicted, impacts of a project is critical to the EA process,[461] it is not a legal requirement in BC. Conversely, under European Union law, member states are required to monitor environmental effects and compare the predicted effects with those that actually occur. These activities must be carried out with the goal of identifying – early on – any unforeseen adverse effects.[462] Under CEAA, follow-up programs are defined as programs for verifying the accuracy of the EA and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project.[463] These studies are essential, especially to account for and respond to unexpected and/or cumulative effects.[464]

Mandate periodic investigations to assess compliance
[Tags: EA; Monitoring; Enforcement; Effects; Compliance]

On-site visits and investigations are essential for obtaining an on-the-ground understanding of the practical implementation of EA obligations. In China, staff from the environmental protection bureaus must randomly conduct a minimum of three on-site investigations during the operational phase to assess the implementation of EA obligations.[465]

Canada, Government of the North West Territories and BHP Diamonds Inc, *Environmental Agreement* (January 6, 1997) art I, online: <http://www.monitoringagency.net/LinkClick.aspx?fileticket=%2bHCwiwiJm7E%3d&tabid=87>; Government of Canada, Government of the North West Territories, Diavik Diamond Mines Incorporated, Dogrib Treaty 11 Council, Lutsel K'e Dene Band, Yellowknives Dene First Nation, North Slave Metis Alliance and Kitikmeot Inuit Association, *Environmental Agreement* (March 8, 2000), art 1, online: <http://www.diavik.ca/documents/Diavik_Environmental_Agreement.pdf>; Government of Canada, Government of the North West Territories, De Beers Canada Mining Inc, Dogrib Treaty 11 Council, Lutsel K'e Dene Band, Yellowknives Dene First Nation and North Slave Metis Alliance *Environmental Agreement De Beers Snap Lake Diamond Project* (May 31, 2004) art I, online: <http://www.slema.ca/wp-content/uploads/2011/02/De-Beers-Final-Environmental-Agreement-PDF1.pdf>. Note – all these agreements contain explicit statements that the agreements are legally binding. Other responsibilities of these boards include: ongoing review of environmental management systems; monitoring to verify the accuracy of the EA and the effectiveness of mitigative measures; facilitating the effective involvement of Indigenous peoples; and, integrating traditional knowledge into environmental monitoring and management.

[460] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 Environmental Impact Assessment Review 319 at 321; *Environmental Management Act* (No 239 of 2002) Netherlands, § 7.39.

[461] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 68, online: <http://www.elc.uvic.ca/publications/documents/ELC_EA-IN-BC_Nov2010.pdf>.

[462] EC, *Directive 2001/42/EC of the European Parliament and the Council of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment*, [2001] OJ, L 197/30 at art 10.

[463] *Canadian Environmental Assessment Agency*, SC 1992 c 37, s 2(1); [Also present in CEAA 2012, s 2(1) of Bill C-38]

[464] Angus Morrison-Saunders & Jos Arts, "Exploring the Dimensions of EIA Follow-up" (Paper delivered at the 24th annual meeting of the International Association for Impact Assessment, Vancouver, 24-30 April 2004) at 8, online: <http://wwwstaff.murdoch.edu.au/~angusms/Publications/conferences/ams-arts-iaia04.pdf> [unpublished].

[465] Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132 Environmental Monitoring & Assessment 53 at 62.

Promote on-going First Nations' participation in EA follow-up activities
[Tags: EA; Indigenous Rights]

First Nations should have the opportunity to participate in follow-up and monitoring programs, including their initial design, implementation, and analysis of results.[466] To support such on-going participation, funding is necessary. The Canadian Environmental Assessment Agency provides 'participant funding' to support the participation of First Nations in the EA process.[467] This funding, however, is minimal and short-lived and does not cover participation in any follow-up activities.[468] Better practice is to provide adequate participant funding throughout the entire project life.

Sustainability Assessment Model

Failings in the current EA model have prompted a shift towards a broader "Sustainability Assessment" model.[469] The main objective of this model is to ensure that development contributes to sustainability. This entails a change in focus away from negative effects and towards encouraging positive ones.[470]

> *Sustainability assessment (SA) asks the question: Does this project advance our economy & society toward a sustainable future? And not just: How can this project be made less bad? SA seeks to improve positive elements of a project as well mitigate negative elements. SA asks questions about fairness & justice as well, by emphasizing inter-generational equity as well as intra-generational equity.*
>
> – Ecojustice (2011)[471]

This approach recognizes that although trade-offs between different elements of sustainability should always be avoided; in some cases they are necessary. Where this is the case, the trade-offs should be guided by the following:[472]

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[466] Pat Larcombe, *Determining Significance of Environmental Effects: An Aboriginal Perspective* (Ottawa, Canadian Environmental Assessment Agency, 2000) at s 4.2.4, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=072A8227-1&offset=2&toc=show>.

[467] Canada, Canadian Environmental Assessment Agency, *Participant Funding Program* (Ottawa, Canadian Environmental Assessment Agency, 2012), online: < http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=E33AE9FB-1>.

[468] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 Environmental Impact Assessment Review 319 at 323.

[469] Robert B Gibson, *Sustainability-based assessment criteria and associated frameworks for evaluations and decisions: theory, practice and implications for the Mackenzie Gas Project Review (A report prepared for the Joint Review Panel for the Mackenzie Gas Project)* (Ottawa: Canadian Environmental Assessment Agency, 2006) at 4, online: <http://www.ceaa.gc.ca/155701CE-docs/Robert_B_Gibson-eng.pdf >. Sustainability assessments, one form of strategic EA, should include "socio-ecological system integrity; livelihood sufficiency and opportunity; intergenerational equity; intra-generational equity; resource maintenance and efficiency; socio-ecological civility and democratic governance; precaution and adaptation; and immediate and long term integration."

[470] Robert B Gibson, *Specification of sustainability-based environmental assessment decision criteria and implications for determining 'significance' in environmental assessment* (Ottawa: Canadian Environmental Assessment Agency, 2000) at 7, online: <http://www.ceaa.gc.ca/default.asp?lang=En&n=086E7767-1&toc=show&offset=1gt> at 7.

[471] EcoJustice, *Toward Sustainability: The Seven-year Review of the* Canadian Environmental Assessment Act (Vancouver/Toronto: EcoJustice, 2011) at 6, online: <http://www.ecojustice.ca/media-centre/media-release-files/ceaa-review-submission>.

- maintenance of maximum net gains;
- avoidance of significant adverse effects especially in areas of existing concern;
- denial of trade-offs that displace significant adverse effects from the present to the future generation;
- explicit justifications for all trade-off proposals; and
- examination of all trade-off proposals in an open processes.

The Sustainability Assessment model moves away from merely determining whether significant adverse effects are likely or not. Instead, a likely outcome from a Sustainability Assessment is an "evaluation matrix". For example, possible outcomes can be classified as:[473]

- fully beneficial results: likely improved outcomes and no significant damages anticipated;
- results with net benefits: some negative effects that can likely be mitigated through tested methods;
- no assurance of net benefits: significant damages are likely and adequate enhancement of positive effects coupled with mitigation of adverse effects may depend on more information or firmly imposed conditions; or
- likely net losses.

This type of graded evaluation promotes a careful trade-off analysis that supports more sustainable development.

Issue

The current EA process is limited in scope and does not adequately evaluate long term risks and benefits associated with projects. In focusing on mitigation of environmental harm, the current EA process ignores broader issues, such as society's need for the project, and if minerals might be better left for the use of future generations.

Recommended Solution

<u>Replace current EA model with a Sustainability Assessment model</u>
[Tags: EA; Sustainability Assessment]

Sustainability assessment models have emerged in many joint panel reviews (for example, the Mackenzie Gas Project[474]). In addition, they have been partially embedded in federal laws implementing

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[472] Robert B Gibson, *Sustainability-based assessment criteria and associated frameworks for evaluations and decisions: theory, practice and implications for the Mackenzie Gas Project Review (A report prepared for the Joint Review Panel for the Mackenzie Gas Project)* (Ottawa: Canadian Environmental Assessment Agency, 2006) at 4, online: <http://www.ceaa.gc.ca/155701CE-docs/Robert_B_Gibson-eng.pdf>.
[473] Heather McLeod-Kilmurray and Gavin Smith, "Unsustainable Development in Canada: Environmental Assessment, Cost-Benefit Analysis, and Environmental Justice in the Tar Sands" (2010) 21 J E LP-CAN 65 at 73.
[474] Canadian Environmental Assessment Agency, *Foundation for a Sustainable Future, Report of the Joint Review Panel for the Mackenzie Pipeline Project, Executive Summary*, (Ottawa, Canadian Environmental Assessment Agency, 2010) at 5, online <http://www.assembly.gov.nt.ca/_live/documents/content/10-03-02TD4-16(5).pdf>.

northern aboriginal claims agreements (including the *Yukon Environmental and Socio-economic Assessment Act*[475], and the *Mackenzie Valley Resource Management Act*[476]). Strategic-level EAs have also been adopted in other jurisdictions including the EU and China.[477]

[475] *Yukon Environmental and Socio-economic Assessment Act*, SC 2003, c 7, s 42(1)(h).
[476] *Mackenzie Valley Resource Management Act*, SC 1998, c 25, s 115.
[477] EC, *Directive 2001/42/EC of the European Parliament and the Council of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment* [2001] OL, J 197/30; Qiaoling Chen, Yuanzhi Zhang and Ari Ekroos, "Comparison of China's Environmental Impact Assessment (EIA) Law with the European Union (EU) EIA Directive" (2007) 132 *Environmental Monitoring and Assessment* 53 at 53. The Environmental Impact Assessment Law of the P. R. China was adopted on the 1st September 2003 (hereinafter China EIA law). China EIA law provides that Strategic Environmental Assessment (SEA) is to complement the current project-oriented EIA process in regional and sector plans and programs.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 7:

Permits for Mine Development and Operation

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
March, 2013

The opinions expressed in this document are solely those of the authors. They should not be taken as reflecting the views of the Fair Mining Collaborative, the University of Victoria Environmental Law Centre, the Real Estate Foundation, the Wilburforce Foundation, the West Coast Environmental Law Environmental Dispute Resolution Fund, The Nature Conservancy, or Advocates for International Development. This publication is presented with the understanding that neither the publisher nor the authors are engaged in rendering legal, engineering, or other professional services or advice. In no event, including negligence on the part of the authors, the reviewers, the funders or the publisher, will the authors, reviewers, funders or the publisher be liable for any direct, indirect or consequential damages resulting from the use of this material. The authors offer no opinion as to the accuracy of the information summarized in this report and disclaim any responsibility for the accuracy or inaccuracy of such information. Readers interested in the specific details of the law or regulations of a country or jurisdiction cited in this report should consult original and up-to-date sources for that information.

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Chapter Summary

The mine permit phase is the fourth phase in the mine licensing process, following staking, exploration and environmental assessment (if required). **Chapter 7: Permits for Mine Development and Operations** considers the legal requirements associated with the application for and issuance of a mine permit in BC and identifies laws from other jurisdictions which, if adopted in BC, would strengthen BC's mining regime.

A mine permit is the document that gives a proponent rights to use the land to extract minerals. In BC, mine permits are usually required for surface or underground development or production, major expansions or modifications to existing producing mines and underground exploration requiring excavation, large pilot projects, bulk samples, trial cargos or test shipments. Generally, mine permits are required for all projects, including those that fall below EA thresholds. Thus, they provide an extra layer of public consultation and government oversight of mine projects.

However, the Chief Inspector of Mines has the power to exempt even large-scale mines from the requirement to obtain a mine permit where he or she deems it justifiable based on the "nature of the proposed work". There are no specific legal requirements to guide the Chief Inspector in making this decision. In contrast, other jurisdictions require permits for all large-scale mines.

Proponents are required to include specific information in a mine permit application, including a regional map, information on present use and condition of the land and watercourses, a mine plan, a plan for environmental protection of land and watercourses during the construction and operation phases, a commitment to annually report on reclamation and environmental monitoring, reclamation plans and an estimate of the total expected costs of outstanding reclamation obligations. The regulatory authority may tailor the mine permit application content requirements in order to avoid duplicate submissions. As detailed engineering and design information is generally not provided at the environmental assessment stage, authorities will generally focus their attention on this information at the mine permit stage.

However, additional information is needed for the government to make an informed decision about potential social, cultural, economic and environmental consequences of the proposed mine. Other jurisdictions require that mine permit applications include information on baseline data collected over a minimum time period, descriptions of land-use productivity, a plan for promoting local employment and business opportunities, details on the proponent's technical and financial resources and information on proponent's past mining practices and compliance history.

Proponents are not required to pay an application fee when submitting a mine permit application. Numerous other jurisdictions legally require mine permit application fees. BC should charge application fees that are based on the scale and complexity of the proposed mine to account for the different government resources required to review more complex applications.

Once the ministry receives the mine permit application, the Chief Inspector may refer the application either to various advisory committees, such as a Regional Mine Development Review Committee ("RMDRC"), or to other government agencies for review. BC's laws should require that other government agencies whose statutory interests may be affected by a proposed mining operation be

notified of mine permit applications and recommendations made by other government agencies be included as mine permit conditions. Finally, approval should be required from other government bodies responsible for environmental protection.

While provincial policy requires consultation with First Nations, it is not explicitly required under BC's mining laws. Further, while BC provincial policy states that the public has opportunities to influence mine permitting decisions by participating in public meetings, open houses and other public forums, as well as by submitting comments during the public comment period, there is no guarantee that the public will be notified of a mine permit application or that public opinion will affect the Chief Inspector's decision about whether or not to issue a mine permit. BC law should require notification and consultation with First Nations on mine permit applications. It should also require public notification of mine permit applications, public information sessions during the government's review of mine permit applications and funding for public participation in mine permit application reviews. BC should also establish legal criteria for use of public comments.

The Chief Inspector of Mines has broad discretion to approve a mine permit application where he or she "considers the application for a permit is satisfactory". The Minister of Energy and Mines may approve a mine permit application where he or she "considers it to be necessary in the public interest". In assessing whether a permit is "satisfactory", the Chief Inspector must ensure that certain, limited criteria are met, such as design standards for major impoundments, major dumps, tailings impoundments, water management facilities and plans for the prediction and mitigation of acid rock drainage.

If the Chief Inspector refers the application to a RMDRC, the RMDRC reviews the mine permit application, provides government agencies with a statutory interest in mine development proposals 60 days to review the application and makes a recommendation to the Chief Inspector as to whether or not the mine permit should be granted.

When deciding whether to grant the mine permit, the Chief Inspector must take into consideration written representations submitted by affected or interested persons, recommendations from the RMDRC and any written representations from other government ministries and agencies. However, BC laws do not specify which factors must be taken into account whether to issue the permit and what factors will necessarily lead to a denial of the mine permit application.

Other jurisdictions require consideration of the interests of Indigenous peoples, consideration of whether mine plans comply with existing land use plans, the nature of the mineral reserve, cumulative effects, consideration and evaluation of post-mining uses of mine-related facilities, the proponent's past mining practices and history of compliance, and the proponent's ability to meet legal requirements.

Some other jurisdictions also specify factors that would automatically lead to a denial of the mine permit application, for example where lands are unsuitable for mining, where cumulative impacts are not sufficiently mitigated, if site reclamation is unfeasible, if the proponent has previous convictions or does not have a local office. Other jurisdictions also require independent environmental studies and site inspections during reviews of mine permit applications. Incorporating similar provisions into BC law would ensure that factors important to First Nations and British Columbians are given precedence in the decision making process.

A decision by the Chief Inspector does not need to be accompanied by written reasons and is not subject to appeal (apart from by judicial review), which makes it difficult for the public, First Nations, landowners or the proponent to challenge the issuance or denial of mine permit applications. Other jurisdictions require reasons for decisions and provide a statutory right of appeal.

The Chief Inspector of Mines has broad powers to impose mine permit conditions, which can help fill legislative gaps and promote more responsible mining practices. However, the only condition required under BC law is the requirement to file reclamation security, which the Chief Inspector has the discretion to exclude. Mandated minimum permit conditions would help ensure greater consistency and certainty of local community protection from mining activities across the province. Specific conditions required by other jurisdictions include conditions specified by other government agencies, recognition of Indigenous peoples' constitutional rights, the publication of annual environmental, socio-economic and cultural monitoring reports an annual fee requirement and a specific term for which the mine permit remains valid.

Mines generally have lifespans of several decades, during which time mine site conditions often change. In BC, if a proponent wishes to have its mine permit conditions revised, it must apply to the Chief Inspector. BC's laws do not provide sufficient details on when a mine permit amendment must be sought, the factors that the Chief Inspector must consider in evaluating the application, or the extent of consultation. Other jurisdictions have laws that clearly specify that mine permit conditions must be amended to reflect material changes, such as mine expansion. This provision should be coupled with a requirement that companies provide notice of material changes to the regulatory authority, as is required under Ontario legislation. Also, in other jurisdictions, the regulatory authority can amend a mine permit for environmental reasons. If a mine permit is amended, other jurisdictions legally require public consultation and that the regulatory authority consider whether reclamation is feasible. In order to properly manage mines over their operational life, BC should include similar provisions in its mining law.

In dealing with mine permit renewal applications, the Chief Inspector has broad powers to impose changes on existing conditions, including mine permit terms. BC laws do not specify what the Chief Inspector must consider in deciding whether or not to approve a mine permit renewal. Other jurisdictions have laws that require the regulatory authority to consider specific conditions, including the proponent's past performance. Additionally, other jurisdictions have established deadlines for submitting mine permit renewal applications and require an application fee for mine permit renewals.

Changes in mine ownership are common in the mining industry. It is imperative that successive owners and operators are bound by the same obligations as the original proponent, including permit conditions and agreements entered into with First Nations. BC's mine permit transfer application process does not require new proponents to provide sufficient information, specify what factors the Chief Inspector must consider in evaluating applications for mine permit transfers or hold new owners and operators legally responsible for newly acquired mining operations. Other jurisdictions address these issues with laws that require new owners to submit a plan for continued mining activities and proof of capacity to carry it out, deny transfers of mine permits if the transfer is not in the public interest, require new mine owners to assume all existing liabilities upon transfer of the mine permit and require an application fee for mine permit transfers.

Table of Contents

Chapter Summary **246**

Introduction **252**

Mine Permit Applications **253**

Requirement for Mine Permit Application *253*

Overview of BC Law 253

Issue 253

Recommended Solution 253

Require mine permits for all large scale mines 253

Content of Mine Permit Application *254*

Overview of BC Law 254

Issue 256

Recommended Solutions 256

Include adequate baseline data collected over minimum time period 256

Include description of land-use productivity 256

Include plan for promoting local employment and business opportunities 256

Include details on proponent's technical and financial resources 257

Include information on proponent's past mining practices and compliance history 257

Require application fee proportional to cost of review and scale of project 258

Consultation at Mine Permit Application Stage *259*

Consultation with Other Government Agencies 259

Overview of BC Law 259

Issue 260

Recommended Solutions 260

Notify other government bodies of mine permit applications 260

Include recommendations by other government agencies as mine permit conditions 261

Require approval from government bodies responsible for environmental protection 261

First Nations Consultation 261

Overview of BC Law 261

Issue 262

Recommended Solution 262

Notify and consult with First Nations on mine permit application 262

Public Consultation 262

Overview of BC Law 262

Issue 263

Recommended Solutions 263

Notify public of all mine permit applications and make copies of the application readily available for public viewing 263

Hold public information sessions during government's review of mine permit application 265

Provide funding for public to participate in mine permit application review 265

Establish criteria for use of public comments 266
Criteria for Evaluating Mine Permit Applications *267*
Overview of BC Law 267
Issue 268
Recommended Solutions: Consultation Criteria 268
Consider First Nations' interests in reviewing mine permit application 268
Recommended Solutions: Land and Resource Management Criteria 269
Consider whether Mine Permit Application complies with Land Use Plan 269
Consider and evaluate potential post-mining uses of mine-related facilities 270
Deny mine permit application for lands unsuitable for mining 270
Consider nature of mineral reserve in reviewing mine permit application 271
Recommended Solutions: Environmental Criteria 271
Conduct independent environmental studies and site inspections during reviews of mine permit applications 271
Consider cumulative effects in reviewing mine permit application 272
Deny mine permit where cumulative impacts not sufficiently mitigated 272
Deny application if site reclamation is unfeasible 272
Recommended Solutions: Compliance and Capacity Criteria 273
Require proponent to have a local office before mine permit is granted 273
Consider proponent's past mining practices and history of compliance, and deny permit if previously convicted 273
Favour proponents with a demonstrated ability to meet legal requirements 274
Accountability in Mine Permit Decisions *274*
Overview of BC Law 274
Issue 274
Recommended Solutions 274
Provide written reasons for mine permit application review decisions 274
Provide public with statutory right to appeal mine permit decision 275
Conditions to attach to Mine Permits *275*
Overview of BC Law 275
Issue 275
Recommended Solutions 276
Specify minimum mine permit conditions 276
Attach conditions specified by other government agencies 276
Attach the recognition of Indigenous peoples' constitutional rights as a mine permit condition 277
Attach as a condition the preparation and publication of annual environmental, socio-economic and cultural monitoring reports 277
Require payment of annual mine permit fees 277
Extend term of mine permit to end of reclamation 277
Mine Permit Amendment Applications 278
Overview of BC Law 278
Issue 278
Recommended Solutions 278
Amend mine permit conditions to reflect material changes, such as mine expansion 278

Amend mine permit where necessary for environmental protection 279
Consider reclamation feasibility in reviewing mine permit amendment applications 279
Consult with public on mine permit amendment applications.....279

Mine Permit Renewal Applications.....280
Overview of BC Law 280
Issue.....280
Recommended Solutions.....280
Specify conditions for approving and refusing mine permit renewal applications.....280
Consider proponent's past performance in evaluating mine permit renewal application 280
Establish deadlines for submitting mine permit renewal application.....281
Require application fee for mine permit renewal.....281

Mine Permit Transfer Applications 282
Overview of BC Law 282
Issues 282
Recommended Solutions.....282
Require plan for continued mining activities and proof of capacity to carry it out 282
Deny transfer of mine permit if not in public interest 283
Require new mine owner to assume all existing liabilities upon transfer of mine permit 283
Require application fee for mine permit transfer 283

Introduction

The fourth phase in the mine licensing process – after a mineral claim has been staked, exploration work has identified a profitable ore body, and (in most cases) an environmental assessment has been conducted – is the mine permitting phase.[1]

In contrast to a mineral claim (which only grants the miner the right to the minerals in the ground) or the permits for exploration activities (which only grant the miner the right to enter on the land to explore and search for the minerals), the mine permit grants the miner the right to use the land to exploit the minerals in the ground. These rights allow the miner to carry out more intrusive mining activities, build new mine facilities and disturb more land.

Under BC's *Mines Act,* permits ("mine permits") are usually required for:

- surface or underground development or production;
- major expansions or modifications to existing producing mines; and
- underground exploration requiring excavation, large pilot projects, bulk samples, trial cargos or test shipments.[2]

To obtain a mine permit, the proponent must submit a *Mines Act* application ("mine application") and a project description to the Ministry of Energy and Mines (see Content of Mine Permit Application, below). The proponent may also be required to publish a "notice of filing" application in the BC Gazette and in a local newspaper.[3] Following the publishing of such notice and before a permit can be issued, a 30 day review period is provided for responses from any person affected by, or interested in, the mine application.[4] Greater public involvement may be required at the discretion of the Mining Operations Branch Regional Manager or the Manager, Reclamation and Permitting for "Major Mine applications".[5]

The mine application is reviewed by the Regional Mine Development Review Committee (RMDRC), which makes a recommendation to the Chief Inspector as to whether or not the mine permit should be granted (see Criteria for evaluating mine permit application, below). Before making this recommendation, the government may first be required to consult First Nations.[6]

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[1] Note: Different jurisdictions have adopted different terminology for the licence to operate a mine, including mine licence, concession, granted interest, etc. For ease of comparison, the term "mine permit", as adopted under BC legislation, is used in this Code to represent the licence (issued by the regulatory authority responsible for overseeing mining operations) that grants the miner the right to use the land to exploit the minerals therein.

[2] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 10.1.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[3] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) p 10.2.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[4] British Columbia, Ministry of Energy and Mines, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at 3.6.1, online < http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/PERMITAPPLICATIONREQUIREMENTS/Pages/default.aspx>.

[5] British Columbia, Ministry of Energy and Mines, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at 3.6.2, online < http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/PERMITAPPLICATIONREQUIREMENTS/Pages/default.aspx>.

[6] Government of British Columbia, *Updated Procedures for Meeting Legal Obligations When Consulting First Nations (Interim)*, (Victoria: Province of British Columbia, 2010) online: <http://www.gov.bc.ca/arr/reports/down/updated_procedures.pdf>.

This chapter considers the legal requirements associated with the application for, and issuance of, a mine permit, including:

- mine permit exemptions;
- mine permit application requirements (applicant, content and fees);
- criteria for review of mine permit application;
- conditions to attach to mine permits; and
- mine permit amendment, renewal and transfer requirements.

Mine Permit Applications

Requirement for Mine Permit Application

Overview of BC Law

In BC, the Chief Inspector of Mines has broad discretion to exempt a miner from the requirement to obtain a mine permit where he or she deems it justifiable based on the "nature of the proposed work".[7] No specific legal requirements guide the Chief Inspector in making this decision.

Issue

The discretion afforded to the Chief Inspector in BC includes the discretion to exempt large scale mining operations from the requirement to apply for and obtain a mine permit. The law does not, however, provide any guidance on how the Chief Inspector should exercise this discretion in deciding whether to exempt a mine from the basic mine permit requirement.

Recommended Solution

<u>Require mine permits for all large scale mines</u>
[Tags: Mine Permit; Discretion]

In contrast to BC, other jurisdictions only allow select small mining operations to be exempt from the requirement to obtain a mine permit. Such exemptions are only available for projects that fall below clearly defined thresholds. For example:

- in Arizona, operating permits are required for surface disturbances exceeding 5 contiguous acres in area;[8]
- in California, a mine permit is not required if the disturbed area is less than or equal to 1 acre and if the amount of overburden is less than 1000 cubic yards;[9]
- in Wyoming, reduced requirements are imposed on operations that mine less than 10,000 cubic yards and affect less than 10 acres per year; and[10]
- in Newfoundland and Labrador, a small-scale designation may be made based on specific factors, including the nature of materials mined or milled, the location of operation with respect

[7] *Mines Act*, RSBC 1996 c 293, s 10(2).
[8] Ariz Rev Stat Ann (West) § 27-921, (West Supp 1994-95).
[9] Cal Pub Res Code § 2714(d) (2011) [*Surface Mining and Reclamation Act*]
[10] Wyo Stat § 35-11-401(j) (2011).

to surface or underground mining, the requirement for a tailings impoundment area, the total volume or tonnage produced by operation, and the size of area affected.[11]

Content of Mine Permit Application

Overview of BC Law

In BC, the following information and documents must be included in a mine permit application:[12]

- a regional map showing the location and extent of the mine.
- information on present use and condition of the land and watercourses, including: ownership and habitation of land in vicinity of the mine; land capability; geology; climate; surface water and groundwater quality and flow; air quality; vegetation; fisheries and aquatic resources; and wildlife.
- a mine plan that includes information on[13]
    - site infrastructure,
    - abandoned, historic and adjacent mines,[14]
    - disturbed areas,
    - a program for the conservation of cultural heritage resources,
    - mining methods,
    - traffic control procedures,
    - development schedule and projected mine life,
    - projected volumes of ore and waste,
    - drainage features,
    - water bodies, watercourses, sloughs, and tailings pond overflow channels,
    - water treatment facilities,
    - water balances,
    - material handling plans and stockpile locations, and
    - plans for protection and reclamation of the land;[15]
- a plan for environmental protection of land and watercourses during the construction and operation phases, including acid rock drainage and metal leaching prediction, erosion control and sediment retention, and environmental monitoring and surveillance showing that

[11] Small Scale Operations Regulations, Nfld. Reg. 41/00.
[12] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.1.4, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[13] *Mines Act*, RSBC 1996 c 293s 10(1); for a detailed list of the requested content of a mine plan *see*: British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act - Appendix I* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009).
[14] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 6.8.1(2), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[15] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 6.8 & 10.1.4(3), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.; see also, Mines Act, RSBC 1996 c 293, s 27(c).

reclamation standards are met and that protection of land and watercourses are achieved and maintained;

- a commitment to annually report on reclamation and environmental monitoring;
- reclamation plans, including an operational reclamation plan for the upcoming 5 years and a final conceptual reclamation plan for closure, which includes plans for post-closure long-term maintenance and proposed land and watercourse uses;
- a cost estimate of the total expected costs of outstanding reclamation obligations over the planned life of the mine; and
- other plans to guide operations throughout the course of the mine's lifespan including: an emergency and rescue plan, an underground workings plan;[16] and a mine haulage road plan.[17]

Additional guidance on content requirements is outlined in the non-binding policy *Guide to Processing a Mine Project Application under the British Columbia Mines Act.*[18] This guidance document asks proponents to provide more detailed information on the above-listed components of the mine permit application, including:

- general reasons for the permit application and parties involved in the application development;
- a project overview, including benefits of the project;
- the proponent's past and proposed public and First Nation consultation initiatives;
- the scope of project and all the components of the proposed mine project, which may include off-site facilities, access roads, rail load-outs, explosives mixing plants, etc.; and
- the project setting and characteristics, including details on public health, socio-community conditions (including population demographics, housing, transportation and services), socio-economic conditions (including labour supply, local and regional economy, and businesses), and information on local Indigenous peoples (including non-confidential information on traditional use, cultural objects and sites, land-use plans, and documents on Aboriginal peoples' rights and title).

In most cases, much of this information would have already been required and considered at the environmental assessment phase. To avoid duplication, where the baseline data is current to within a couple years, the regulatory authority may tailor the mine permit application content requirements in order to avoid duplicate submissions.[19] However, detailed engineering and design information is

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[16] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 6.3.1(2), 6.3.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[17] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 6.9.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[18] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), Appendix 6, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

[19] British Columbia, Ministry of Energy and Mines, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at Appendix I, online <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.

generally not provided at the environmental assessment stage. As a result, at the mine permit application stage, authorities will generally focus their attention on the detailed engineering and design information.[20]

Issue

The information currently required in a mine permit application is often insufficient for the government to make an informed decision about the potential social, cultural, economic and environmental consequences of the proposed mine.

Recommended Solutions

Include adequate baseline data collected over minimum time period
[TAGS: Mine Permit Application, Content, Baseline Data]

In BC, proponents must include details regarding the present use and condition of the land and watercourses in the mine permit application. However, there is no specified length of time during which such data must be collected. As such, there is no assurance that the baseline studies are collected over a sufficiently long period of time to accurately establish the baseline (pre-mining) conditions.

The need to collect adequate baseline data is recognized in Montana where groundwater and surface water hydrologic data must be collected from "a sufficient number of sources and length of time to characterize the hydrologic regime".[21] This provision helps ensure that an accurate understanding of environmental conditions is established before mining plans and operations are approved.

Include description of land-use productivity
[TAGS: Mine Permit Application, Content, Land Use]

In BC, proponents must include a description of the land capability and the present land-use in their mine permit application.[22] However, they are not required to provide information on the *productivity* of these land-uses. Details on productivity are necessary for the development of long-term land use plans, and for ensuring that vulnerable areas are adequately protected and that disturbed lands can be returned to pre-mining uses post-closure. In West Virginia, reclamation plans for coal mining operations must include "the best information available on the productivity of the land prior to mining, including appropriate classification as prime farmlands, and the average yield of food, fiber, forage or wood products from the lands obtained under high levels of management".[23] A similar requirement could be included in the reclamation plan that must be submitted as part of BC's mine permit application.

Include plan for promoting local employment and business opportunities
[TAGS: Mine Permit Application; Content; Employment; Economic Benefit; Plan]

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[20] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 9, 64, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.
[21] Mont Code § 82-4-335(5)(k) (2011).
[22] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.1.4(2)(k), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[23] W Va Code § 22-3-10(a)(2)(C) (2011).

As mentioned above, provincial guidance documents recommend that details on socio-community and socio-economic conditions be included with the mine permit application. However, these suggestions are not enshrined in BC mining laws.[24] By contrast, in Zambia, applications for large-scale mining licences must include a proposal for the "employment and training of citizens of Zambia"[25] and a proposal for promoting local business development.[26] Similar requirements are in place in Sierra Leone.[27] These approaches promote early planning for employing local residents and engaging local businesses in mine services to help bolster local socio-economic conditions.

Include details on proponent's technical and financial resources
[TAGS: Mine Permit Application; Content; Technical; Financial Information]

Information about a proponent's technical and financial resources can be used to determine whether it has the capacity to actually carry out its legal commitments. In Papua New Guinea, a mine permit application must include a statement on the applicant's particulars of the technical and financial resources.[28] Similarly, details of the applicant's financial resources and technical advice available to the miner must be submitted with a mine permit application in New South Wales (Australia).[29]

Include information on proponent's past mining practices and compliance history
[TAGS: Mine Permit Application; Content; Past Practices; History; Track Record; Compliance]

In BC, proponents are not required to provide details about their previous mining experience or history of compliance with applicable laws. Provincial guidance documents merely ask proponents to provide their "history, description and contact information" and "name of the firm [or] individual managing the project" in the mine permit application.[30]

Other jurisdictions demand much more information from proponents, such as details on available resources and technical expertise and past criminal or regulatory offences. For example:

- In New South Wales (Australia), applicants must submit details of their 'environmental performance record', including details of any convictions under environmental protection legislation or other relevant legislation in the five years immediately before the application is made, as well as any revoked or suspended previous approvals under environmental protection legislation.[31]
- Under US federal coal mining law, the applicant must submit a schedule listing all notices and final resolutions of violations of US laws "pertaining to air or water environmental protection

[24] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Guide to Processing a Mine Project Application under the British Columbia Mines Act (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 70-71, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.
[25] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 25(3)(g).
[26] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 25(3)(h).
[27] *Mines and Minerals Act* (No 12 of 2009) Sierra Leone, s 138.
[28] *Mining Act 1992* (Consolidated to No 49 of 2000, Papua New Guinea), s 42(b)(iii).
[29] *Mining Act 1992* (NSW), s 51(5)(c).
[30] BC Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), at 56.
[31] *Mining Regulations 2010* (NSW), s 4(1).

incurred by the applicant in connection with any surface coal mining operation during the three-year period prior to the date of application".[32]

- In New Mexico, applications must include a statement describing "any current or previous … mining permits in the United States held by the applicant and the permit identification and each pending application".[33] This allows the regulatory authority to assess the applicants' previous experiences and performance at mines across the country. Applicants must also indicate whether they have ever "held a federal or state mining permit which, in the five-year period prior to the date of submission of the application, has been superseded or revoked or has had a mining bond or similar security deposited in lieu of bond forfeited and, if so, a brief explanation of the facts involved".[34]

Require application fee proportional to cost of review and scale of project
[TAGS: Mine Permit Application, Content, Application Fee]

In BC, proponents are not required to pay an application fee when submitting a mine permit application. As such, the government does not recover the public funds expended on the review of mine permit applications. Mine permit application fees are legally mandated in numerous other jurisdictions, including the Yukon,[35] New Brunswick,[36] Minnesota,[37] Montana,[38] New Mexico,[39] Oregon,[40] and Sweden.[41]

In New Mexico, the legislation explicitly associates the application fee with the "actual or anticipated cost of reviewing, administering and enforcing the permit".[42] Similarly, in Oregon, the application fee must cover government costs to monitor compliance with the permit.[43] To alleviate the potential financial burden of an application fee on proponents, US federal legislation provides that the regulatory authority may "develop procedures so as to enable the cost of the fee to be paid over the term of the permit".[44]

Application fees should be determined by the scale and complexity of the proposed mine to account for the different government resources required to review more complex applications. Manitoba, for example, requires different application fees for different classes of mining projects. Class 2 mining developments (which include mines, other than pits and quarries, milling facilities, refineries, and smelters) are subject to a $5,000 application fee, whereas Class 3 mining developments (which include

[32] 30 USC 25 § 1260(c). If the applicant is in violation of applicable laws, the permit application will be denied until the applicant submits proof that the violation has been corrected or is in the process of being corrected.
[33] N Mex Stat § 69-25A-10(B)(3) (2010). (This statute is set to be repealed July 1, 2014.)
[34] N Mex Stat § 69-25A-10(B)(5) (2010). (This statute is set to be repealed July 1, 2014.)
[35] *Kaska Mining Regulation*, Y O/C 2004/24, s 5(2).
[36] *Mining Act*, SNB 1985, c M-14.1, s68(1)(c)(vii).
[37] Minn Stat § 93.481(1)(3)(ii) (2011).
[38] Mont Code § 82-4-335(4) (2011).
[39] N Mex Stat § 69-25A-10(A) (2011) (To be repealed July 1, 2014).
[40] O Rev Stat § 517.800(1)(a) (2011).
[41] *Minerals Ordinance,* (Ordinance 2005:162) Sweden, ss 19 and 20.
[42] N Mex Stat § 69-25A-10(A) (2011) (To be repealed July 1, 2014).
[43] O Rev Stat § 517.920 (2011).
[44] 30 USC 25 § 1257(a).

Potash mines and milling facilities) are subject to a $100,000 application fee.[45] Oregon's legislation also recognizes that application fees should reflect the complexity of the project and provides that where an application "requires extraordinary department resources because of concerns about slope stability or proximity to waters of the state or other environmentally sensitive areas, the applicant shall pay to the department an additional fee in an amount determined by the State Geologist to be adequate to cover the additional costs for staff and other related expenses".[46]

Consultation at Mine Permit Application Stage

Consultation with Other Government Agencies

Overview of BC Law

Due to the high likelihood of wide-ranging social and environmental impacts from mining, it is important to have government agencies representing different statutory interests review mine permit applications. In BC, the Chief Inspector is required to establish advisory committees and regional advisory committees (such as the Regional Mine Development Review Committees)[47] to assist in carrying out his or her duties under the *Mines Act*.[48] The stated purpose of these committees is to co-ordinate multi-agency mine-review processes with the goal of fostering "socially and environmentally responsible mine developments by providing an open, transparent, efficient and timely process for the review and permitting of proposed mine projects".[49]

Once established, the Chief Inspector *may* refer mine permit applications to these advisory committees for review.[50] The committees have 60 days to conduct their review of the mine permit application.[51] Where the Chief Inspector does not refer a mine permit application to these committees, she or he *may* circulate the application to other government ministries and agencies, that would then have 30 days to provide written representations.[52] Any comments received from the advisory committees or other

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[45] *Environment Act Fees Regulation*, Man Reg 168/96, Schedule 2; *Classes of Development Regulation,* Man Reg 164/88; see also: Manitoba, Government of Manitoba, *The Environmental Assessment and Licensing Process Under The Manitoba Environment Act: Information Bulletin No. 97-01E* (Winnipeg: Manitoba Conservation, 2002) at 1.

[46] O Rev Stat, 517.800(1)(b) (2011).

[47] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 11, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

[48] *Mines Act,* RSBC 1996 c 293, s 9; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 11, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

[49] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2010) at 3, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.

[50] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.3.1, 10.3.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[51] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.3.1, 10.3.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[52] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.3.3, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

government ministries or agencies must be taken into account in the subsequent issuance of the mine permit.[53]

Issue

Although the Chief Inspector is empowered to refer mine permit applications to other government agencies for review, this practice is discretionary. As such, there is no guarantee that ministries and agencies whose mandate and programming may be affected by a proposed mine will be given an opportunity to participate in the review of the mine permit application. This is especially problematic where a proposed mine does not qualify for, or has been exempt from, an environmental assessment.

Recommended Solutions

Notify other government bodies of mine permit applications
[Tags: Mine Permit Application; Consultation; Government Agencies]

At minimum, other government agencies whose statutory interests may be affected by a proposed mining operation should be notified of mine permit applications. This is recognized in several jurisdictions – for example:

- US federal coal mining law requires the regulatory authority to notify "various local governmental bodies, planning agencies, and sewage and water treatment authorities of water companies in the locality in which the proposed surface mining will take place" of the operator's intention to mine, and provide a reasonable time in which these bodies can submit comments.[54]
- Under the New South Wales (Australia) mining legislation, before granting a mining lease the relevant minister must provide notice (and an opportunity to object) to each government agency that, in the opinion of the minister, would be materially affected by the granting of the lease and must also notify the Director of Planning.[55] In relation to the Director of Planning, the notice must contain a description of the land and a detailed description of the proposed works and rehabilitation activities.[56]
- In California, whenever surface mining operations are proposed within the 100-year floodplain for any stream, and within one mile, upstream or downstream, of any state highway bridge, the lead agency receiving the application must notify the Department of Transportation. This department then has a set period of 45 days to review and comment on the proposed surface mining operations with respect to any potential damage to the state highway bridge from the proposed surface mining operations.[57] Similarly, notification of any surface mining proposals for lands within the boundaries of the San Gabriel Basin Water Quality Authority that may penetrate the groundwater aquifer must be provided to the appropriate California regional

[53] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.4.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[54] 30 USC 25 § 1263(a).
[55] *Mining Act 1992* (NSW), Schedule 1, s 6(1).
[56] *Mining Act 1992* (NSW), Schedule 1, s 6(2).
[57] *California Surface Mining and Reclamation Act of 1975*, Public Resources Code, Division 2, Chapter 9, Section 2710 et seq, §2770.5.

water quality control board, and any water-master for the groundwater recharge basin. These authorities can charge administrative fees for reviewing any such applications.[58]

Include recommendations by other government agencies as mine permit conditions
[Tags: Mine Permit Application; Consultation; Government Agencies]

Under BC law, the Chief Inspector must merely "*take into consideration*" submissions by other agencies on a mine permit application. In contrast, in Oregon each cooperating agency must develop permit conditions within its expertise and authority, and these must be included as conditions to specific chemical process mine permits.[59]

Require approval from government bodies responsible for environmental protection
[Tags: Mine Permit Application; Consultation; Government Agencies]

In New Brunswick, a mine permit will not be granted until the Minister has received the approval from both the Minister of Environment and Minister of Agriculture, Aquaculture and Fisheries.[60] This ensures that government agencies focused on environmental protection have an adequate opportunity to comment on and influence mine permit conditions.

First Nations Consultation

Overview of BC Law

According to provincial policy documents, the current practice is for the Chief Inspector to refer mine permit applications to the BC Regional Mine Development Review Committees.[61] The stated purpose of these committees is to co-ordinate multi-agency mine-review processes with the goal of fostering "socially and environmentally responsible mine developments by providing an open, transparent, efficient and timely process for the review and permitting of proposed mine projects".[62] These committees have been established in each of the ministry's five administrative regions.[63] On-going membership includes representatives from provincial and federal government agencies, while local government, First Nations' representatives and members of the general public, are invited to participate on a project-specific basis.[64] Government policy recognizes First Nation participation on these

[58] *California Surface Mining and Reclamation Act of 1975*, Public Resources Code, Division 2, Chapter 9, Section 2710 et seq, § 2770.6(a).
[59] O Rev Stat § 517.982(2) (2011).
[60] *Mining Act*, SNB 1985, c M-14.1, s 68(2).
[61] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 11, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.
[62] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2010) at 3, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.
[63] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 7, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.
[64] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 7, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

committees as contributing to the government's duty to consult, but not constituting "the full level of engagement required to address asserted Aboriginal interests".[65] Provincial policy also states that "during deliberations, the Chief Inspector also considers all government and proponent First Nations consultation and accommodation efforts outlined in a First Nations consultation summary and recommendations report provided by the Aboriginal Relations Branch of the Ministry".[66]

Issue

BC's mining laws do not explicitly require the government to consult with First Nations in mine permit application reviews - consultation is only referred to in non-binding policy documents.

Recommended Solution

Notify and consult with First Nations on mine permit application
[Tags: Mine Permit Application; Notice; Consultation; First Nations]

In 2004, the Supreme Court of Canada held that the provincial government owed a legal duty to consult with the Haida people before issuing timber licences to the forestry industry.[67] The same rule is equally applicable to the mining industry. First Nations peoples must be engaged in the review of mine permit applications that may impact their rights. Explicit legal requirements for notice of mine permit applications to Indigenous peoples are provided in other jurisdictions. For example, in Victoria (Australia), applicants are legally required to provide notice of certain applications for a licence within 14 days to local registered Aboriginal parties for an area in which the application relates.[68]

[Note that the following recommendations for public notification and consultation should also be extended to affected First Nations.]

Public Consultation

Overview of BC Law

The government alone cannot – nor should it be expected to – protect the environment. Everyone has a stake in a healthy, clean and safe environment; everyone, therefore, has a part to play in ensuring its well-being.

– House of Commons Standing Committee on Environment and Sustainable Development (1995)[69]

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[65] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2010) at 7, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.

[66] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 16, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

[67] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73 at para 10; *see also*, *Haida Nation v British Columbia (Ministry of Forests) and Weyerhaeuser,* 2002 BCCA 462 at paras 62-63, 115.

[68] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 18(b).

[69] Canada, House of Commons Standing Committee on Environment and Sustainable Development, *It's About Our Health! Towards Pollution Prevention*,(Ottawa: House of Commons, 1995) at 203.

BC provincial policy states that the public has opportunities to influence mine permitting decisions by participating in public meetings, open houses and other public forums, as well as by submitting comments during the public comment period.[70] However, the provincial Auditor General recently recognized that although the provincial government's core values support the use of public participation, "these values have not been translated into principles for conducting public participation".[71] The Auditor General also held that as a general principle, "the more significant the impact, the greater the need for public participation".[72] This suggests that a high level of public participation is needed for mining activities, which can have substantial, far-reaching impacts.

Under BC mining law, the Chief Inspector *may* require that notice of a filing of a mine permit application be published in the Gazette and local newspapers. Where a notice of the application has been published, a person affected by, or interested in, the application will have 30 days to view the application and make written representations to the Chief Inspector.[73] The law then requires the Chief Inspector to take these comments into consideration.[74] The scope of this duty to take comments "*into consideration*" is not clearly defined.

Issue

There is no guarantee that the public will be notified that a mine permit has been applied for or that public opinion will affect the Chief Inspector's decision about whether or not to issue a mine permit.

Recommended Solutions

Notify public of all mine permit applications and make copies of the application readily available for public viewing
[Tags: Mine Permit Application; Notice; Consultation; Public]

As indicated above, BC laws do not mandate that notice of a mine permit application always be given to the public: rather, the requirement to provide notice is subject to the Chief Inspector of Mines' discretion.[75] By contrast, mandatory public notice is legally mandated in other jurisdictions – for example:

- In the US, the federal mining law requires a mine permit application to include a copy of the applicant's advertisement of the application. This advertisement must have been "published in a newspaper of general circulation in the locality of the proposed site at least once a week for

[70] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2010) at 5, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.
[71] British Columbia, Office of the Auditor General, *Public Participation: principles and best practices for British Columbia,* (Victoria: Office of Auditor General, 2008) at 35.
[72] British Columbia, Office of the Auditor General, *Public Participation: principles and best practices for British Columbia* (Victoria: Office of Auditor General, 2008) at 28.
[73] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.2.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[74] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.4.1(1), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[75] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at 3.6.1, online: <http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/PERMITAPPLICATIONREQUIREMENTS/Pages/default.aspx>.

four successive weeks", and include "the ownership, a description of the exact location and boundaries of the proposed site sufficient so that the proposed operation is readily locatable by local residents, and the location of where the application is available for public inspection".[76] To ensure public access, the law requires that surface coal mining and reclamation permit applications be filed with "the recorder at the courthouse of the county or an appropriate public office approved by the regulatory authority where the mining is proposed to occur".[77]

- In Minnesota, notice of a pending mine permit application must be filed in a local newspaper at least once a week for four successive weeks before the application is filed.[78]
- In South Dakota, notice of a mine permit application must be published in a local newspaper once a week for two weeks after the application is filed. This notice must include the:
    - identity and address of the applicant;
    - location of the proposed mining operation;
    - primary mineral to be mined;
    - proposed dates of commencement and completion of the operation;
    - proposed future use of the affected land;
    - location where additional information about the operation may be obtained; and
    - location of office and final date for filing objections.[79]
- In Ontario, proposals to award surface rights for mining operations, to approve closure plans and to enter lands to rehabilitate mine hazards must be posted on an on-line, publically accessible environmental registry. This process provides notice to the public and an opportunity to provide input that must be considered by the government before it makes a final decision in relation to these instruments.[80]
- In Sweden, the regulatory authority must send notice of the application and a copy of the environmental assessment to the affected property owners and other right holders identified in the mining legislation.[81]
- In Burkina Faso, the mining legislation states that mine permits can only be granted after a public inquiry has been open for one month in the concerned districts.[82]
- In New South Wales (Australia), an applicant for a mining lease must, within 14 days of filing the application, publish a notice in both a state-wide and a local newspaper.[83]
- In Western Australia, notice of the mine permit application must be served on all interested parties (the owner and any leaseholder or mortgagee), a copy of the application must be

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[76] 30 USC 25 §1257(b); N Mex Stat § 69-25A-10(B)(6) (2010). Note: This statute to be repealed July 1, 2014.
[77] 30 USC 25 §1257(e); N Mex Stat § 69-25A-10(E) (2010). Note: This statute to be repealed July 1, 2014.
[78] Minn Stat § 93.481(1)(5) (2011).
[79] S Dak Codified Laws § 45-6B-16 (2011).
[80] *See*, *Environmental Bill of Rights*, c28 SO 1993, Part II; *Classification of Proposals for Instruments Regulation*, O Reg 681/94, Part III; *Classification of Proposals for Instruments Regulation*, O Reg 681/94, Part III.
[81] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 78 online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[82] Koh Naito, Felix Remy and John P Williams, *Review of Legal and Fiscal Frameworks for Exploration and Mining* (London: Mining Journal Books Ltd, 2001) at 99; *Mining Code* (Decree No 2003-308) Burkino Faso, art 20.
[83] *Mining Act 1992* (NSW), s 51A(1).

advertised in a state-wide newspaper and all mining proposals must be made available for public inspection.[84]

As part of this requirement, proponents should also be required to make their mine plans available to the public and to First Nations for viewing of proposed site boundaries and the location of mine infrastructure, such as tailings impoundments.

Hold public information sessions during government's review of mine permit application
[Tags: Mine Permit Application; Notice; Information; Public]

The Organisation for Economic Co-operation and Development (OECD) recommends that the public should be granted an opportunity to comment on permit applications before the regulatory authority reaches its decision.[85] Public information sessions provide important opportunities for dialogue between the local community, miner and government before a development is approved and carried out. These sessions must be held sufficiently early in the development process to allow modifications to proposed plans in response to public input. [86] The importance of public sessions was recently recognized by the BC Auditor General who found that direct discussions between the public and government officials were an important method of influencing decision-making. The Auditor General further recognized that the public were more likely to engage in public participation on a face-to-face basis and unlikely to participate via the internet.[87]

The importance of public hearings are clearly recognized in Minnesota, where they are mandatory when "any person owning property which will be affected by the proposed operation" or a "local governmental agency having responsibilities affected by the proposed operations" files written objections to the proposed application.[88] The public hearing must be held "in the locality of the proposed operations within 30 days of receipt of such written objections and after appropriate notice and publication of the date, time, and location of the hearing".[89] The proposed amendments to Quebec's mining legislation also mandate public consultation in the local area before a mining lease application can be filed. The rehabilitation and restoration plan must be available to the public at least 30 days before such consultation begins.[90]

Provide funding for public to participate in mine permit application review
[Tags: Mine Permit Application; Consultation; Public; Funding]

The public right to participate and the availability of costs for that participation are inseparable issues. If we conclude that the public can and should contribute, it necessarily

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[84] *Mining Act 1978* (WA), s74. See also Environmental Defender's Office of Western Australia (Inc) Mining Law Fact Sheet (updated January 2011), online: <http://www.edowa.org.au/files/factsheets/me_mining.pdf>.
[85] OECD, *Guiding Principles of Effective Environmental Permitting Systems,* at 11 (Paris: OECD, 2007), online: <http://www.oecd.org/dataoecd/21/59/37311624.pdf>.
[86] Dixon Thompson, "Avenues of participation in natural resource development and disposition" in Nigel Bankes and J Owen Saunders, eds, *Public Disposition of Natural Resources: Essays from the First Banff Conference on Natural Resources Law -Banff, April 12-15, 1983* (Calgary: Canadian Institute of Resources Law 1984) 185 at 191.
[87] British Columbia, Office of the Auditor General, *Public Participation: Principles and Best Practices for British Columbia* at 16 (Victoria: Office of the Auditor General, 2008).
[88] Minn Stat § 93.481(2) (2011).
[89] Minn Stat § 93.481(2) (2011).
[90] Bill 79: *An Act to amend the Mining Act*, 1st Sess, 39th Leg, Quebec, 2009, s 33(3).

follows that sufficient resources should be made available to enable them to present an effective case.

– Linda Duncan (1984)[91]

The complexity and extensive documentation associated with proposed mining activities often makes it impossible for members of the public to engage in the review process. Direct funding grants to public representatives can help promote meaningful public engagement. Direct grant funding has been provided in several proposed resource development projects including the BC Royal Commission of Inquiry into Uranium Mining, the Mackenzie Valley Pipeline Inquiry, the Beaufort Sea Environmental Assessment Panel and the Arctic Pilot Project.[92] Recently, the Canadian federal government enacted the *Jobs and Economic Growth Act* which granted the Canadian Nuclear Safety Commission the authority to issue funding to the public, First Nations and other stakeholders to participate in its regulatory processes.[93]

Establish criteria for use of public comments
[Tags: Mine Permit Application; Consultation; Public]

Local communities often have in-depth knowledge of local social and environmental conditions and can be a source of invaluable information. In BC, government policy documents state that one of the purposes of the Regional Mine Development Review Committees is to work "with project proponents, First Nations and potentially affected communities early in project planning to identify and scope the issues and information required to satisfy a co-ordinated approach to meeting all provincial, local and federal government statutory permitting requirements, to the extent possible."[94] However, this approach is not codified in law there are no legal criteria for incorporating public comments into decision-making. The BC Auditor General recently recognized this as a problem: "although most governments are consulting with the public, they do not consistently consider the feedback they receive. Governments need to be clear on how they will consider the input and how they will follow up with the public to demonstrate that they have met their commitments in this regard."[95]

Conversely, in Oregon, mining legislation clearly states that public information meetings and comments periods for chemical process mine permit applications are intended to "determine the data that should be collected during the baseline data collection phase of the consolidated application process to address the issues identified".[96] In addition, Oregon's legislation clearly states that the purpose of these hearings and of the acceptance of written comments from the public is to determine "whether the information contained in the consolidated application is complete and sufficient to allow the permitting agencies to

[91] Linda F Duncan, "Equal pay for work of equal value: a public interest perspective on intervener costs" in Nigel Bankes and J. Owen Saunders, editors, *Public Disposition of Natural Resources: Essays from the First Banff Conference on Natural Resources Law – Banff, April 12-15, 1983* (Calgary: Canadian Institute of Resources Law, 1984) 249 at 249.
[92] Ian A Blue, "Costs and Intervenor Finding – the National Energy Board" in Nigel Bankes and J Owen Saunders, eds, *Public Disposition of Natural Resources: Essays from the First Banff Conference on Natural Resources Law -Banff, April 12-15, 1983* (Calgary: Canadian Institute of Resources Law, 1984) 235 at 238-239.
[93] Bill C-9, *The Jobs and Economic Growth Act,* 3d Sess, 40th Parl, 2010, cl 2150.
[94] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2010) at 3, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>.
[95] British Columbia, Office of the Auditor General, Public Participation: Principles and Best Practices for British Columbia (Victoria: Office of the Auditor General, 2008) at 20.
[96] O Rev Stat § 517.969(2)(c) (2011).

determine whether to issue a permit".[97] Such explicit descriptions of how public comments will be used can help promote meaningful and effective public consultation.

Criteria for Evaluating Mine Permit Applications

Overview of BC Law

In BC, the Chief Inspector of Mines has broad discretion to approve a mine permit application providing he or she "considers the application for a permit is satisfactory".[98] The Minister of Energy and Mines is also empowered to exercise the same powers as the Chief Inspector where he or she "considers it to be necessary in the public interest".[99] In assessing whether a permit is "satisfactory", the Chief Inspector must ensure that certain, limited criteria are met. For example, the application must contain design standards for major impoundments, major dumps, tailings impoundments, water management facilities and plans for the prediction and mitigation of acid rock drainage.[100] In addition, the mine plan and reclamation program must be:[101]

- prepared while taking into account the health and safety of the public and workers;
- designed to make it as practicable as possible in the future to mine zones affected by the plan;
- designed to protect the land and watercourses; and
- prepared by licensed professionals when so required by the Chief Inspector.

The Chief Inspector may also refer the application to a Regional Mine Development Review Committee ("RMDRC") or to other ministries and agencies.[102] The RMDRC is composed of representatives from federal and provincial government agencies that may be affected by the proposed mine plan.[103] For projects that do not exceed BC's *Environmental Assessment Act* thresholds (see discussion on thresholds in **Chapter 6: Environmental Assessments for Mining Activities**), potentially affected First Nations may also be invited to participate as standing members on a project-specific basis for mines proposed within their traditional territories.[104] However, for proposals that exceed the *Environmental Assessment Act* thresholds and where First Nations have already participated in the environmental assessment process

[97] O Rev Stat § 517.977(1) (2011).
[98] *Mines Act*, RSBC 1996 c 293, s 10(3).
[99] *Mines Act*, RSBC 1996 c 293 s 11.
[100] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.1.5-10.1.9, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[101] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.1.10, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[102] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.3.1-10.3.3, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[103] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at 3.4, online: <http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/PERMITAPPLICATIONREQUIREMENTS/Pages/default.aspx>.
[104] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Terms of Reference for Regional Mine Development Review Committees* (January 2010) at 5, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/ToR.pdf>; British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Operating Guidelines for Regional Mine Development Review Committees* (January 2010) at 4, online: < http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/RMDRCs/Documents/Operating_Guidelines.pdf>.

with the Environmental Assessment Office, First Nations are not given the opportunity to be members of the RMDRC.

The RMDRC is charged with reviewing the mine permit applications and making a recommendation to the Chief Inspector as to whether or not the mine permit should be granted. In making its recommendation, the RMDRC first provides all government agencies with a statutory interest in mine development proposals 60 days to review the application.[105] When deciding whether to grant the mine permit, the Chief Inspector must take into consideration written representations submitted by affected or interested persons, recommendations from the RMDRC, and any written representations from other government ministries and agencies.[106]

Issue

Although proponents are required to provide significant detail in their mine permit applications, BC laws fail to specify which factors must be taken into account in deciding whether to issue the permit and what factors will necessarily lead to a denial of the mine permit application.

Recommended Solutions: Consultation Criteria

Consider First Nations' interests in reviewing mine permit application
[Tags: Mine Plan; Decision-Making; First Nations]

Although the Chief Inspector must take into consideration written representations submitted by affected or interested persons, there is no explicit statutory requirement that the Chief Inspector consider First Nations' interests when reviewing a mine permit application. Conversely, many other jurisdictions clearly mandate that the regulatory authority take into account Indigenous peoples' interests when reviewing mine permit applications. For example:

- In New South Wales (Australia), the regulatory authority must take into account the need to conserve and protect the features of Aboriginal, architectural, archaeological, historical or geological interest in or on the land on which the application is sought when deciding whether or not to grant the licence.[107]
- In Sweden, the Sami right of reindeer husbandry must be taken into consideration in the award of permits under the mining law.[108]

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[105] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.3.2, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>; see also, British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 13, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.

[106] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.4.1, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[107] *Mining Act 1992* (NSW), s 237(1)(b).

[108] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 60, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

- Under Columbia's Constitution, the state is bound to take measures to protect against detrimental effects brought to their attention by the community during the consultation period.[109] This constitutional article provides that the exploitation of natural resources in Indigenous peoples' territories must not be carried out so as to derogate from the cultural, social, and economic integrity of the Indigenous communities.[110]

Recommended Solutions: Land and Resource Management Criteria

Consider whether Mine Permit Application complies with Land Use Plan
[Tags: Mine Permit Application; Criteria; Land Use Plan]

In BC, the mine plan is not required to comply with (or even acknowledge) any other land use planning instrument that may exist for the particular area. As such, the mine plan is developed and assessed in isolation from provincial, municipal or First Nations' land use plans.

Conversely, in Ontario, the *Far North Act* explicitly recognizes First Nations' rights to "contribute their traditional knowledge and perspectives on protection and conservation for the purposes of land-use planning".[111] Under this legislation, a joint body can be established between interested First Nations and the provincial government.[112] This joint body is empowered to make recommendations regarding First Nation participation funding and dispute resolution processes.[113]

Under Ontario's *Far North Act*, there must also be a community land-use plan before a new mine can be opened.[114] The community land-use plan must be reviewed at a minimum of once every ten years.[115] The objectives of the land-use planning are:[116]

- a significant role for First Nations in the planning;
- the protection of areas of cultural value in the Far North and the protection of ecological systems in the Far North by including at least 225,000 square kilometres of the Far North in an interconnected network of protected areas designated in community based land-use plans;
- the maintenance of biological diversity, ecological processes and ecological functions, including the storage and sequestration of carbon in the Far North; and
- enabling sustainable economic development that benefits First Nations.

Another approach adopted has been adopted in Sweden, where legal provisions that apply to mineral exploitation mandate that in determining priorities with regards to conflicting land-uses, "priority shall be given to the purpose or purposes that are most likely to promote sustainable management of land, water and the physical environment in general".[117]

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[109] *Republic of Colombia Constitution of 1991*, art 330.
[110] *Republic of Colombia Constitution of 1991*, art 330.
[111] *Far North Act*, SO 2010, c 18, s 6.
[112] *Far North Act*, SO 2010, c 18, s 7(1).
[113] *Far North Act*, SO 2010, c 18, s 7(4)(b).
[114] *Far North Act*, SO 2010, c 18, s 12.
[115] *Far North Act*, SO 2010, c 18, s 9(9).
[116] *Far North Act*, SO 2010, c 18, s 5.
[117] *The Environmental Code*, (DS 2000:61) Sweden, c 3, s 10.

Consider and evaluate potential post-mining uses of mine-related facilities
[Tags: Mine Permit Application; Decision-Making; Criteria; Post-Mine Use]

Early consideration of post-closure land uses can help guide the selection of appropriate mine facilities. This is recognized in Montana where an assessment of the potential post-mining use of mine-related facilities for other industrial purposes must be included in the mine permit application. This must be accompanied by evidence of consultation with local government authorities, which ensures that post-closure mining activities reflect the wishes of local communities.[118]

Deny mine permit application for lands unsuitable for mining
[Tags: Mine Permit Application; Decision-Making; Criteria; Land Use; No Go Zone]

Some jurisdictions have clear legal provisions that identify land as being unsuitable for mining –mine permit applications will not be approved on those lands. For example, in South Dakota, mine permits will not be issued for operations proposed on "unsuitable land", which is defined as land on which the following conditions cannot be satisfactorily mitigated:[119]

- reclamation is not physically or economically feasible;
- substantial deposition of sediment in stream or lake beds, landslides, or water pollution cannot feasibly be prevented;
- loss or reduction of long-range productivity of aquifer, public and domestic water wells; watershed lands, aquifer recharge areas, or significant agricultural areas;
- loss of biological productivity of the land would jeopardize threatened or endangered species of wildlife indigenous to the area;
- any probable adverse socio-economic impacts of the proposed mining operation outweigh the probable beneficial impacts of the operation; or
- affected land is special, exceptional, critical, or unique.

On the latter point, land is deemed special, exceptional, critical or unique if it possesses one or more of the following characteristics:[120]

- it is so ecologically fragile that, once it is adversely affected, it could not return to its former ecological role in the reasonably foreseeable future;
- it has such a strong influence on the total ecosystem of which it is a part that even temporary effects felt by it could precipitate a system-wide ecological reaction of unpredictable scope or dimension; or
- it has scenic, historic, archaeological, topographic, geologic, ethnologic, scientific, cultural, or recreational significance.

Montana has adopted a similar approach. There, mining and prospecting is prohibited where it would adversely affect the use, enjoyment and fundamental character of the land itself or of neighbouring

[118] Mont Code § 82-4-335(5)(o) (2011).
[119] S Dak Codified Laws § 45-6B-33 (2011).
[120] S Dak Codified Law § 45-6B-33.3 (2011).

lands where these have special, exceptional, critical, or unique characteristics.[121] Montana law explicitly states that when assessing lands for their historic, archaeological, ethnologic, and cultural significance, "particular attention should be paid to the inadequate preservation previously accorded Plains Indian history and culture".[122] This important provision explicitly attempts to recognize and overcome challenges posed by the cumulative loss of cultural sites.

Consider nature of mineral reserve in reviewing mine permit application
[Tags: Mine Plan; Decision-Making; Mineral Reserve]

Another important consideration in reviewing mine permit applications is whether the mineral deposit is sufficient to justify commercial exploitation: the lower the grade of deposit, the higher the risk of early mine abandonment. As discussed above, BC mine permit applications must include a mine plan that outlines projected volumes of ore and waste. However, there are no requirements as to how this data must be considered when deciding whether to approve the application. By contrast, in Zambia, the regulatory authority must consider "whether or not there are sufficient deposits or reserves of minerals to justify their commercial exploitation" when reviewing large-scale mining applications.[123]

Consideration of mineral reserves should also be made in light of the needs of future generations. New Zealand's resource management law requires all persons making decisions under the law to have particular regard to the finite characteristics of natural resources such as mining ores.[124]

Recommended Solutions: Environmental Criteria

Conduct independent environmental studies and site inspections during reviews of mine permit applications
[Tags: Mine Permit Application; Criteria; Environment; Inspection]

Adequate environmental information must be obtained before a decision can be made on whether to approve a mine permit application. This need is recognized in New South Wales (Australia), where the regulatory body may require environmental impact studies to be carried out before making a decision on a mine permit application.[125] In addition, a preliminary site visit may be required before the regulatory authority can make a sound decision or when setting permit terms and conditions. In Montana, the regulatory authority is legally required to inspect a site before issuing a permit. Where adverse weather conditions delay this site inspection, the set permit review timelines may be extended.[126] Similar requirements are in place in South Dakota.[127]

In the Yukon, before a mine permit may be issued, a government engineer must order an inspection of the subject lands. Applicants must also provide information and data concerning the proposed land-use to enable the engineer to evaluate quantitative and qualitative effects of the proposed land-use

[121] Mont Code Ann § 82-4-227 (2011). Note: the definition of these lands is similar to South Dakota's legislation.
[122] Mont Code Ann § 82-4-227 (2011).
[123] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 26(1)(a).
[124] *New Zealand Resource Management Act 1991* (NZ) 1991/69, s 7.
[125] *Mining Act 1992* (NSW), ss 237(2).
[126] Mont Code § 82-4-337(1)(d)(i) (2011).
[127] S Dak Codified Laws § 45-6B-20 (2011).

operation.[128] This information may result in the engineer imposing a variety of terms and conditions to the permit.[129]

Consider cumulative effects in reviewing mine permit application
[Tags: Mine Permit Application; Criteria; Environment; Cumulative Effects; Cumulative Impacts]

In BC, there are no legal requirements to consider cumulative effects in the review of mine permit applications. In contrast, US federal law mandates that no permit application shall be approved until the application affirmatively demonstrates, and the regulatory authority concludes, that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area, based on an assessment of probable cumulative impacts of all anticipated mining in the area.[130] Similarly in New Mexico, a mine permit application must include a cumulative impact assessment that outlines the: "probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime, quantity and quality of water in surface and ground water systems, including the dissolved and suspended solids under seasonal flow conditions, and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the director of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability".[131]

Deny mine permit where cumulative impacts not sufficiently mitigated
[Tags: Mine Permit Application; Criteria; Environment; Cumulative Effects; Cumulative Impacts]

In Montana, the probable cumulative impact of all anticipated mining in the area on the hydrologic balance must be also considered. A mine permit application will be denied if the applicant is unable to design the proposed operation in such a manner as to prevent material damage to the hydrologic balance outside the permit area.[132]

Deny application if site reclamation is unfeasible
[Tags: Mine Permit Application; Criteria; Environment; Reclamation]

In Manitoba, the director must be satisfied with the proponent's closure plan for site rehabilitation before approving an application.[133] In Oregon, the regulatory authority must consult with local soil and water conservation districts regarding the feasibility of reclamation and give special attention to possible impacts to groundwater aquifers. Where reclamation is not achievable, the mine permit application will be denied.[134] This legal provision ensures that mining is only carried out where reclamation is possible. Importantly, this determination is based on the input of scientists familiar with local ecosystems in the area of the proposed mine. Similarly, in Montana, a mine permit will be denied if reclamation of the affected land cannot be carried out.[135]

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[128] *Land Use Regulation*, Y O/C 2003/51, ss 7 (class A permit), 8 (class B permit). The differentiation in permit class is based on the degree of earth disturbance.
[129] *Land Use Regulation*, Y O/C 2003/51, s 22(1).
[130] 30 USC 25 § 1260(b)(3).
[131] N Mex Stat § 69-25A-10(B)(11) (2011). Note: Statute to be repealed July 1, 2014.
[132] Mont Code Ann § 82-4-227 (2011).
[133] *Mines and Minerals Act*, CCSM c M162, ss 111(2), 120.
[134] O Rev Stat § 517.915(3), (5) (2011).
[135] Mont Code Ann § 82-4-227 (2011).

Recommended Solutions: Compliance and Capacity Criteria

Require proponent to have a local office before mine permit is granted
[Tags: Mine Permit Application; Decision-Making; Criteria; Local Office]

In the current global mining market, many foreign mining companies operate in BC from abroad. Where foreign companies do not have a local office, it can make public access to them more difficult. This problem presents itself with foreign owned BC companies. BC's former *Company Act* required that at least one director was a BC resident and that the majority of directors were Canadian residents.[136] This requirement was eliminated in BC's *Business Corporations Act*. Conversely, the importance of a local presence is still recognized in other jurisdictions. For example, in Zambia, mining rights will only be granted to companies who have an office established in the country.[137]

Consider proponent's past mining practices and history of compliance, and deny permit if previously convicted
[Tags: Mine Permit Application; Decision-Making; Criteria; Compliance; Track Record]

Unlike other jurisdictions, BC law does not require the Chief Inspector to consider the applicant's track record or history of compliance before issuing a mine permit. A similar 'risk-based' compliance and enforcement regime is used by the BC Oil and Gas Commission, which must ensure that the track records of oil and gas companies are taken into account for monitoring and enforcement activities.[138]

Not only is this a legal requirement elsewhere, but many jurisdictions prohibit the issuance of mining permits to applicants with a poor track record. For example:

- In New South Wales (Australia), the applicant's environmental performance record will be assessed when evaluating a mining application. This includes details of any convictions under environmental protection legislation or other relevant legislation in the five years immediately before the application is made, as well as any revoked or suspended previous approvals under environmental protection legislation.[139] The regulatory authority may refuse to issue a permit to an applicant who has contravened the mining legislation or that "has been convicted of any other offence relating to mining or minerals".[140]
- Under US federal coal mining law, the applicant must submit a schedule listing all notices and final resolutions of violations of US laws "pertaining to air or water environmental protection incurred by the applicant in connection with any surface coal mining operation during the three-year period prior to the date of application".[141] Where this schedule indicates that any surface coal mining operation owned or controlled by the applicant is currently in violation of applicable

[136] *Company Act*, RSBC 1996, c 62, s 143 (repealed); Replaced by *Business Corporation Act,* SBC 2002, c 57, s 120.
[137] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 7(2)(b).
[138] BC Oil and Gas Commission, *Compliance and Enforcement Manual* (December 2012) at 16, online: <http://www.bcogc.ca/industry-zone/documentation/Compliance-and-Enforcement>.
[139] *Mining Regulations 2010* (NSW), s 4(1).
[140] *Mining Act 1992* (NSW), s 63(2)(a).
[141] 30 USC 25 § 1260(c).

laws, the permit application will be denied until the applicant submits proof that the violation has been corrected or is in the process of being corrected.[142]

- In Colorado, no mining permits will be issued to any operators that are currently in violation of state mining laws.[143]
- In Zambia, mining rights will not be granted to a company whose directors or shareholders have been convicted under a Zambian law and fined or imprisoned.[144]
- In the Philippines, the government requires that applicants have a satisfactory environmental track record before they can enter into an agreement with the government to conduct mining activities.[145]

Favour proponents with a demonstrated ability to meet legal requirements
[Tags: Mine Permit Application; Decision-Making; Criteria; Applicant]

In some instances, mine permit applications may be submitted by different applicants for the same land at the same time. In BC, priority is generally granted on a 'first come, first serve' basis.[146] In contrast, other jurisdictions grant priority to the most capable applicants. For example, in Victoria (Australia), where more than one application for a licence in respect of the same land is received on the same day, the regulatory authority must assign priority to the application it believes will best further the objectives of the legislation after considering the relative merits of the applications and the likely ability of each applicant to meet the legislative requirements.[147]

Accountability in Mine Permit Decisions

Overview of BC Law

In BC, the Chief Inspector's decision to issue or deny a mine permit does not need to be accompanied by written reasons and is not subject to appeal (apart from by judicial review).

Issue

The combination of no written reasons and no statutory appeal mechanism makes it difficult for any party (the public, First Nations, landowners or the proponent) to challenge the issuance or denial of mine permit applications.

Recommended Solutions

Provide written reasons for mine permit application review decisions
[Tags: Mine Permit Application; Reasons]

[142] 30 USC 25 § 1260(c).
[143] Colo Rev Stat § 34-32-120 (2011).
[144] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 7(2)(b).
[145] *Philippines Mining Act of 1995*, (Rep Act No 7942), s 27.
[146] Mineral Tenure Act, RSBC 1996, c 292, s 6.8.
[147] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 23.

In BC, the Chief Inspector is not required to give reasons for his or her decision to issue or deny a mine permit application. Conversely, other jurisdictions such as Zambia require that the regulatory authority provide reasons for denying an application.[148]

Provide public with statutory right to appeal mine permit decision
[Tags: Mine Permit Application; Public; Appeal]

Apart from seeking a judicial review, there is no statutory mechanism to appeal the issuance or denial of a mine permit in BC. In contrast, an appeal process is provided in Western Australia, where persons wishing to object to a mine permit application have 35 days to lodge a notice of objection and may then have an opportunity to be heard by the Warden.[149] In Sweden, certain environmental organizations are explicitly entitled to appeal mine permit decisions.[150]

Conditions to attach to Mine Permits

Overview of BC Law

In BC, the Chief Inspector of Mines has broad powers to impose mine permit conditions that she or he "considers necessary", as well as additional conditions or changes in the existing conditions after granting the mine permit.[151] Mine permit conditions may also include commitments identified in the environmental assessment.[152] Proponents are legally required to comply with these mine permit conditions.

Mine permit conditions can help fill legislative gaps and promote more responsible mining practices. There are no minimum mandatory conditions that must be attached to mine permits in BC.[153] The only condition specified in the legislation is the requirement to file reclamation security. However, even this is not mandatory because the Chief Inspector retains the discretion to exclude this requirement.[154]

Issue

The lack of minimum mine permit conditions, coupled with the Chief Inspector's broad discretion, creates inconsistent environmental and social protection from mining activities across the province. Provincial policy documents have recognized that this approach results in inconsistent treatment at different mines.[155]

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[148] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 26(3).
[149] Regulation 146 of the *Mining Regulations 1981* (WA). See also Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 185, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[150] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 67, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>. "Environmental Code entitles environmental organisations of more than three years standing with 2,000 or more members to appeal judgments and decisions concerning permits."
[151] *Mines Act,* RSBC 1996 c 293, s 10(3), (7).
[152] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 15, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[153] *Mines Act,* RSBC 1996 c 293, s 10(3).
[154] *Mines Act,* RSBC 1996 c 293, s 10(4).
[155] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mine Reclamation Security Policy in British Columbia: A Paper for Discussion*, (Victoria, Ministry of Mines, Energy and Petroleum Resources, 1995) at 9.

Recommended Solutions

Specify minimum mine permit conditions
[Tags: Mine Permit; Conditions]

BC's current mining laws grant regulators significant discretion on setting specific mine permit terms and conditions. Mandated minimum permit conditions would help ensure greater consistency and certainty of local community protection from mining activities across the province. Many jurisdictions already clearly specify minimum permit conditions.

For example, in New Brunswick, one of the necessary pre-conditions to opening a mine is ministerial approval of the lessee's program for the protection, reclamation and rehabilitation of the environment. Another mandatory condition is that the lessee "institute and carry out a program for the protection of the environment affected by the mining operation; undertake and complete a program for the reclamation and rehabilitation of the environment affected by the mining operation; and leave the environment in a condition satisfactory to the Minister".[156]

Manitoba also requires the "safe and secure disposal of earth, rock, waste or refuse resulting from work done under the lease and for the safe and secure disposal of water that is removed from the workings under the lease".[157]

Mining legislation in Queensland (Australia)[158] and Malaysia[159] also specifies mandatory conditions for mine permits. This promotes a more thorough and consistent approach and ensures that important matters are not overlooked.

Attach conditions specified by other government agencies
[Tags: Mine Permit; Conditions; Government Agencies]

As discussed above, it is important to have other government departments consider a mine permit application where mining activities may impact statutory issues that they are responsible for. In BC, there is no guarantee that comments from other agencies will be granted legal weight by being included as legally enforceable mine permit conditions. In contrast, Oregon's laws require that conditions recommended by other ministries must be incorporated into permits for chemical process mines.[160] If these comments are not followed, the regulatory agency must provide written reasons for deviating from the environmental evaluations.[161] By enacting a similar law, BC could, for example, ensure that commitments attached to environmental assessment certificates become legally enforceable.

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[156] *Mining Act*, SNB 1985, c M-14.1, ss 77-78.
[157] *Mines and Minerals Act*, CCSM c M162, ss 118, 120.
[158] *Mineral Resources Act 1989* (Qld), for example, see s 276.
[159] *Mining Ordinance,* (No 20 of 1960) Sabah, Malaysia, ss 11 and 23: "…the licensee has no right to interfere with the flow or with the banks of any river, creek, stream, water-course or the sea shore…" and "…no person shall in the course of mining operations interfere with the bank of any river, creek, stream, water-course or sea shore or divert, contaminate or diminish or otherwise interfere with the flow of any river, creeks, stream, water-course or sea shore…"
[160] O Rev Stat § 517.988 (2011)
[161] O Rev Stat § 517.981(1) (2011).

Attach the recognition of Indigenous peoples' constitutional rights as a mine permit condition
[Tags: Mine Permit; Conditions; Rights]

Indigenous peoples' rights in Canada have been granted Constitutional protection. However, as mining activities can have significant impacts on Indigenous peoples' traditional territories, Indigenous peoples' rights should also be explicitly recognized under mining laws. This is recognized in Ontario where legislation specifies that every mine permit issued, including old mine permits and all mine permit renewals, "shall include or be deemed to include the following provision: The Lessee's rights under this lease are subject to the protection provided for existing Indigenous or treaty rights in section 35 of the Constitution Act, 1982 and the Lessee shall conduct itself on the demised premises in a manner consistent with the protection provided to any such right".[162]

Attach as a condition the preparation and publication of annual environmental, socio-economic and cultural monitoring reports
[Tags: Mine Permit; Conditions; Reporting]

In BC, proponents are required to submit a program for the environmental protection of land and watercourses during the construction and operational phases of the mining operation, and an annual report of reclamation and environmental monitoring work performed.[163] In Mozambique, the law goes further by requiring all mine permit holders to annually submit an environmental management report that describes the findings from their environmental, biophysical, socio-economic and cultural monitoring.[164]

Require payment of annual mine permit fees
[Tags: Mine Permit; Conditions; Fees]

Many jurisdictions include the payment of an annual mine permit fee as a mandatory mine permit condition. This fee helps cover government administrative, compliance and enforcement costs. There are currently no provisions under BC law that mandate the payment of annual mine permit fees. In contrast, revenues generated by annual maintenance fees are a key aspect of the Latin American Mining Law Model, in which revenues are used to fund the necessary mining sector administrative institutions (cadastre and registry, inspectorate, geological service) which help assure its self-sufficiency.[165] Similarly, in Minnesota, annual fees (determined by whether the mine has been in production) are imposed on mine permit holders.[166]

Extend term of mine permit to end of reclamation
[Tags: Mine Permit; Conditions; Term]

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[162] *Mining Act*, RSO 1990, c M 14, s 86.1.
[163] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) ss 10.1.4(4) and (5), online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[164] *Environmental Regulation for Mining Activities* (Decree n° 26/2004 of 20 August) Mozambique, art 14.
[165] John P Williams, "The Latin American Mining Law Model" in Elizabeth Bastida, Thomas Wade and Janeth Warden-Fernandez, eds, *International Comparative Law and Policy: Trends and Prospects,* (The Hague: Kluwer International, 2005) 741 at 751 (reference 17).
[166] Minn Stat § 93.482(1) (2011).

BC mining law does not explicitly state how long a mine permit remains active. This differs from other jurisdictions that explicitly set out permit terms and renewal terms. For example, Manitoba,[167] Yukon,[168] Northwest Territories and Nunavut[169] set out 21 year terms with the option to renew for second 21 year terms; New Brunswick mandates 20 year terms with option to renew for two additional 20 year terms;[170] and Quebec provides for 20 year terms with three possible renewals of 10 year periods.[171] An alternative approach is to grant a permit for the term determined to be necessary to complete the proposed mining operation, including reclamation activities: Minnesota has adopted this approach.[172]

Mine Permit Amendment Applications

Overview of BC Law

Mines generally have lifespans of several decades, during which time mine site conditions often change. In BC, if a proponent wishes to have its mine permit conditions revised, it must apply to the Chief Inspector.[173] This application must be approved before any changes are made to the existing mine plan and reclamation program.[174] The Chief Inspector has broad powers to impose additional conditions, or change existing conditions, where he or she considers it necessary.[175]

Issue

BC's laws do not provide sufficient details on when a mine permit amendment must be sought, the factors that the Chief Inspector must consider in evaluating the application, or the extent to which consultation must take place before a decision is made.[176]

Recommended Solutions

<u>Amend mine permit conditions to reflect material changes, such as mine expansion</u>
[Tags: Mine Permit Amendment]

Under US federal law, any extensions to the area covered by a mine permit, other than incidental boundary revisions, must be made pursuant to an application for another permit.[177] In New Zealand, the regulatory authority must consider whether the extension "*will facilitate a more rational carrying out of activities under the permit*".[178] Under European Union law, member states must ensure that government authorities update permit conditions where there are substantial changes in the operation of the waste facility or the waste deposited.[179] This provision should be coupled with a requirement that

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[167] *Mines and Minerals Act*, CCSM c M162, s 110(1).
[168] *Quartz Mining Act*, SY 2003, c 14, s 103.
[169] *Northwest Territories and Nunavut Mining Regulations*, CRC c 1516, ss 59(1), (2).
[170] *Mining Act*, SNB 1985, c M-14.1, ss72, 73.
[171] *Mining Act*, RSQ, c M-13.1, s 104.
[172] Minn Stat § 93.491(3) (2011).
[173] *Mines Act,* RSBC 1996 c 293, s 10(6).
[174] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.1.11, online: <http://www.em.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[175] *Mines Act,* RSBC 1996 c 293, ss 10(3), (7).
[176] *Mines Act,* RSBC 1996 c 293, s 10(6).
[177] 30 USC 25, § 1261(a)(2).
[178] *Crown Minerals Act*, (NZ) 1991/70, s 36(2).
[179] Directive 2006/21/EC OJ L 102/15 of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 7(4) of 4/11/06.

companies provide notice of material changes to the regulatory authority, as is required under Ontario legislation.[180] Such provisions ensure that mine expansions are carefully considered before approval is granted.

Amend mine permit where necessary for environmental protection
[Tags: Mine Permit Amendment; Environment]

Although BC mining law grants the Chief Inspector broad powers to change mine permit conditions, the law does not explicitly state that this can be done for environmental protection purposes. In contrast, BC's *Environmental Management Act* empowers the regulatory authority to amend a waste permit on its own initiative for several purposes, including to decrease the authorized quantity of the discharge, emission or stored material, or to change the works, method of treatment or any other condition of the permit such that there is a lesser impact on the environment.[181] Similarly, in Victoria (Australia), the Minister can vary a licence, add a licence condition, or vary, revoke or cancel a licence condition if she or he decides it is necessary "for the protection of the environment or the rehabilitation or stabilisation of the land to which the licence applies" or "to ensure that appropriate environmental offsets are provided for or implemented".[182]

Consider reclamation feasibility in reviewing mine permit amendment applications
[Tags: Mine Permit Amendment; Reclamation]

The feasibility of reclamation is an important consideration in applications for changes in mine permit conditions. Amendment applications should only be approved where reclamation continues to be feasible. Under US federal law, legal provisions prohibit the approval of a mine permit revision application unless reclamation can be accomplished under the revised reclamation plan. Any revisions proposing significant alterations to the existing reclamation plan are also subject to minimum notice and hearing requirements.[183]

Consult with public on mine permit amendment applications
[Tags: Mine Permit Amendment; Public; Consultation]

To promote greater transparency, adequate public participation must be carried out throughout mine life. Under European Union law, member states must ensure that the public is informed of any updates to mine permit conditions.[184] In addition, the law mandates that the public be entitled to express comments before a decision is taken,[185] and that public consultations be taken into account in making a decision.[186] In Minnesota, the law provides that where a proposed amendment constitutes a substantial change to the mine permit, the applicant must publish a notice of the change and hold a public hearing if written objections are received.[187]

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[180] *Mine Development and Closure Under Part VII of the Act*, O Reg 240/00, s 6.
[181] *Environmental Management Act*, SBC 2003, c 53, ss 14(4)(b)(vii), 16(1).
[182] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 34(2).
[183] 30 USC 25 § 1261(a)(2).
[184] Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 8(3).
[185] Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 8(4).
[186] Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 8(5).
[187] 2010 Minnesota Statutes, 93.481(3)

Mine Permit Renewal Applications

Overview of BC Law

In BC, mine plans, reclamation programs, and any design reports associated with the mine must be renewed every five years to account for changes to mine and reclamation plans. The proponent may also apply, on their own accord, to the Chief Inspector to extend the term of a mine permit.[188] Such renewals are obtained by submitting a permit renewal application in the same manner as the original *Mines Act* permit application. The new permit is called an 'amended permit' and it supersedes all previous permits.[189] In dealing with renewal applications, the Chief Inspector has broad powers to impose changes on existing conditions, including mine permit terms, where he or she considers it necessary.[190]

Issue

BC laws do not specify what the Chief Inspector must consider in deciding whether or not to grant a mine permit renewal application.[191]

Recommended Solutions

<u>Specify conditions for approving and refusing mine permit renewal applications</u>
[Tags: Mine Permit; Renewal; Conditions]

As indicated above, BC law does not require the Chief Inspector to consider any particular factors when deciding whether to approve an application for a mine permit renewal. By comparison, in Zambia, legal provisions clearly state that renewal applications will be refused for various reasons, including if "the programme of the intended mining operations will not ensure the proper conservation and use in the national interest of the mineral resources in the mining area".[192] Similarly, in Papua New Guinea, the regulatory authority may refuse a renewal application where it considers it is in the best interest of the state to do so.[193] Clear criteria for refusing to renew a permit are also outlined under Botswana law. There, the regulatory authority will refuse to renew a permit if it does not deem that the proposed program of mining operations will ensure the most "efficient and beneficial use of the mineral resources in the mining area".[194] In Queensland (Australia), specific requirements for permit renewal are also clearly set out in the mining law with the relevant required to take into consideration, among other things, whether the operations to be conducted during the renewal term are an appropriate land use and "will conform with sound land use management".[195]

<u>Consider proponent's past performance in evaluating mine permit renewal application</u>
[Tags: Mine Permit; Renewal; Conditions; Compliance History; Track Record; Past Performance]

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[188] *Mines Act,* RSBC 1996 c 293, s 10(6).
[189] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Application Requirements for a Permit Approving the Mine Plan and Reclamation Program Pursuant to the Mines Act R.S.B.C. 1996, C. 293 (March 1998)* at Appendix III, online: <http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/PERMITAPPLICATIONREQUIREMENTS/Pages/default.aspx>.
[190] *Mines Act,* RSBC 1996 c 293, ss 10(3), (7).
[191] *Mines Act,* RSBC 1996 c 293, s 10(6).
[192] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 35(6)(c).
[193] P Mining Act 1992 (Consolidated to No 49 of 2000) Papua New Guinea, s 28(2).
[194] *Mines and Minerals Act* (Cap 66:01 of 1977) Botswana, s 39(4).
[195] *Mineral Resources Act 1989* (Qld), ss 286-87.

BC's Chief Inspector should consider the proponent's past performance and history of compliance in determining whether or not to renew a mine permit. This practice, which is recognized in the following jurisdictions, helps ensure that poor practices do not continue unfettered:

- In New South Wales (Australia), legal provisions provide that mine permit renewal applications can be refused where the miner has contravened mining laws in the past.[196]
- In Zambia, legal provisions provide that mine permit renewal applications will be refused where mining development has not proceeded with reasonable diligence.[197]
- In the Yukon, the proponent must provide satisfactory evidence of compliance with conditions of the mine permit and all applicable legislation before a renewal will be granted.[198]
- In Botswana, the regulatory authority is required to reject a renewal application where the miner is in default, or the regulatory authority is not satisfied that the mining development has proceeded with reasonable diligence.[199]

Even in BC, forestry legislation provides that on expiry, a replacement "special use permit" may only be granted if the regulatory authority is satisfied with the applicant's performance of the conditions of the permit.[200] A similar requirement is missing from BC's mining laws.

Establish deadlines for submitting mine permit renewal application
[Tags: Mine Permit Renewal; Conditions; Time]

Proponents should apply to renew mine permits sufficiently in advance of their expiration to allow adequate time for government officials to review the application. Time periods for submitting a mine permit renewal application are specified in laws of several jurisdictions. For example, Zambia requires applications for renewals to be submitted one year before the expiry of the licence.[201] Similarly, under US federal law, applications for mine permit renewals must be made at least 120 days before the expiry of a valid mine permit.[202]

Require application fee for mine permit renewal
[Tags: Mine Permit Renewal; Application; Fee]

An important consideration in establishing legal requirements for renewing a mine permit is the regulatory authority's capacity to adequately review the applications. Recognizing this need, several jurisdictions have mandated mine permit renewal application fees. For example, in Oregon, holders of operating permits must pay an annual renewal fee that includes a base fee and a tonnage rate on mined ore.[203] The regulatory authority is also empowered to raise or reduce the tonnage rate to reflect the department's actual administration expenses,[204] and impose an additional fee to cover staff time if the

[196] For example, *Mining Act 1992* (NSW), s 198(2).
[197] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 35(6).
[198] *Quartz Mining Act*, SY 2003, c 14, s 103.
[199] *Mines and Minerals Act* (Cap 66:01 of 1977) Botswana, s 39(4)(a), (b)(i).
[200] *Provincial Forest Use Regulation*, BC Reg 176/95, s 12.
[201] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 35(1).
[202] 30 USC 25 § 1256(d)(3).
[203] Or Rev Stat § 517.800(2).
[204] Or Rev Stat § 517.800(7).

reclamation plan is changed.[205] Permit renewal application fees are also provided under legislation in Zambia,[206] and in Minnesota where the fee is 10% of the initial permit application fee.[207]

Mine Permit Transfer Applications

Overview of BC Law

Changes in mine ownership are common in the mining industry. It is thus imperative that successive owners and operators are bound by the same obligations as the original proponent, including permit conditions and agreements entered into with First Nations. BC mining laws require that, before commencing mining activities, a new mine owner must apply to the Chief Inspector to either obtain a permit or to amend the name of the permit holder on an existing permit.[208]

Provincial policy adds the following requirements:

- the original permit holder continues to be responsible for the mine until a new permit has been issued to the new owner/operator;[209]
- the new owner must agree in writing to assume all liabilities associated with the mine;[210] and
- a proposed change of mine ownership can trigger an assessment of a mine's liabilities, and the transfer may be refused by the Chief Inspector if she or he is not satisfied that the new owner has sufficient financial security in place to cover the outstanding liabilities.[211]

Issues

BC's mine permit transfer application process does not require new proponents to provide sufficient information, specify what factors the Chief Inspector must consider in evaluating applications for mine permit transfers; or hold new owners and operators legally liable and responsible for newly acquired mining operations.

Recommended Solutions

<u>Require plan for continued mining activities and proof of capacity to carry it out</u>
[Tags: Mine Permit Transfer; Information; Application; Condition]

In Sweden, new owners must submit a plan for the continuation of mining activities, as well as a report on their technical and financial capacity for accomplishing this plan.[212] Similar legal requirements are in place in Mozambique.[213]

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[205] Or Rev Stat § 517.800(3).
[206] *Mines and Minerals Development Act*, (No 7 of 2008) Zambia, s 35(2).
[207] Minn Stat § 93.481(3).
[208] *Mines Act,* RSBC 1996 c 293, s 11.1.
[209] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), at 19.
[210] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 19.
[211] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), at 18.
[212] *Minerals Act,*(Ordinance 1991:45) Sweden c 6, s 1; *Minerals Ordinance,* (Ordinance 2005:162) Sweden, s 25.
[213] *Mozambique Mining Regulation* (Decree nº 62/2006 of 26 December), art 108.

Deny transfer of mine permit if not in public interest
[Tags: Mine Permit Transfer; Public Interest; Condition]

There may be times when a transfer of a mine permit is not in the public's best interest. In BC, however, there are no specific legal provisions that mandate that the public interest be taken into account when making a decision on a mine permit transfer application. In contrast, New Brunswick's law clearly states that the regulatory authority may refuse to consent to the transfer where it is in the public interest to do so.[214] Similar provisions are in place in Ghana.[215]

Require new mine owner to assume all existing liabilities upon transfer of mine permit
[Tags: Mine Permit Transfer; Liability]

As indicated above, the BC requirement that new owners assume all existing liabilities associated with a mine is a non-binding policy requirement. Conversely, in Ontario, the law explicitly provides that when a mine licence is transferred, the transferee is liable for any rehabilitation obligations, regardless of when those obligations were created.[216]

Require application fee for mine permit transfer
[Tags: Mine Permit Transfer; Fee; Application]

No permit transfer fees are specified under BC mining law.[217] In contrast, other jurisdictions, including Colorado and Minnesota, recognize the importance of securing an adequate fee to cover administrative costs for transferring permits.[218] In Minnesota, the permit transfer application fee is 10% of the fee for a permit application.[219]

[214] *Mining Act*, SNB 1985, c M-14.1, s 74.
[215] *Minerals and Mining Act 2006*, (Act 703) Republic of Ghana, s 53(1).
[216] *Mining Act*, RSO 1990, c M.14, s 78.6.
[217] *Mineral Tenure Act Regulation*, BC Reg 529/2004, Schedule B, s 11. A $10 claim transfer fee is provided under the Mineral Tenure Act.
[218] Colo Rev Stat § 34-32-119 (2011); Minn Stat § 93.481(5) (2011).
[219] Minn Stat § 93.481(5) (2011).

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 8:

Compliance and Enforcement in the Mining Sector

By Maya Stano, P.Eng., LL.B., LL.M. and Emma Lehrer, B.Sc., LL.B.
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Chapter Summary

In the 1980s, a study of environmental law in Canada showed that although legislative and regulatory measures were satisfactory in principle, enforcement efforts had been inconsistent and inadequate in practice. This problem was coined the "implementation gap". Thirty years later, the same problem still exists. As discussed in **Chapter 8: Compliance and Enforcement in the Mining Sector**, legal provisions exist to support strong law enforcement at mines in BC. The problem lies in practical implementation, or lack of implementation, of these laws. Accordingly, this chapter reviews the existing enforcement regime for mining activities in BC, discusses key issues facing the enforcement of environmental laws at mines in BC and suggests ways to improve enforcement at mine sites and protection of local communities and ecosystems from mining activities based on model laws from other jurisdictions.

In BC, mine proponents must comply with commitments and obligations under an Environmental Assessment Certificate, provincial mining legislation and mine permit conditions, provincial and federal environmental legislation and licences issued thereunder, and legal obligations and licences issued under other legislation (e.g. forestry, transportation, right-of-ways, etc.).

Under British Columbia's *Environmental Assessment Act*, the regulatory authority is granted broad powers to inspect any works or activities connected with a reviewable project. However, despite having powers to implement strong sanctions for non-compliance, the EAO has been criticized for failing to enforce EA commitments and conditions

Compliance provisions are provided under both the provincial *Mineral Tenure Act* and *Mines Act*. Additionally, legal provisions under BC's *Mines Act* empower inspectors to inspect mines. Under the *Mineral Tenure Act,* if a proponent contravenes the *Mineral Tenure Act*, *Criminal Code*, *Heritage Conservation Act*, *Mines Act* or associated regulations, BC's Chief Gold Commissioner is empowered to order the proponent to come into compliance within a specified period of time, suspend the proponent's Free Miner Certificate (FMC) suspend any exploration or mineral development or production until the proponent complies and cancel a mineral claim if the proponent deliberately fails to comply with orders or other legal requirements.

Failure to comply with the *Mines Act*, regulations, the Health, Safety and Reclamation Code (HSR Code), or orders made under these instruments, constitutes an offence, for which, upon conviction, a proponent may be given a fine up to $100,000, imprisoned for up to one year, or sentenced to a fine and imprisonment.

Under the *Environmental Management Act*, the Conservation Officer Service (COS), the enforcement arm of the Ministry of Environment, is given broad powers to conduct inspections and investigations. COS's enforcement powers at mines are relatively restricted, although it is empowered to issue a remediation order when asked to do so by the Chief Inspector or where the land or water use is "*formally changed*" from that approved under the mine permit.

Various offences that may occur at mine sites are also listed under the *Water Act.* Under the *Water Act*, the maximum sentences for proponents who commit non-continuing offences are a maximum fine of $200,000, maximum imprisonment of 6 months, or both, and for continuing offences a maximum fine of $200,000 for each day the offence continues, maximum imprisonment of 6 months, or both. The *Water Act* also lists high-penalty offences, for which the penalty includes increased fines (maximum of $1 million) and lengthier imprisonment terms (maximum one year).

Under the federal *Fisheries Act*, inspectors have broad powers to conduct inspections, examine and sample substances and products, and conduct tests and measurements. Offences under the *Fisheries Act* include both summary and indictable offences.

The *Canadian Environmental Projection Act* (CEPA) governs a number of toxic substances that may be used or produced at mines in BC. Enforcement officers are granted broad powers to inspect any place where toxic substances are located. Enforcement officers may issue an order requiring proponents to refrain from doing a contravening action, stopping or shutting down an activity, unloading or reloading the contents of any conveyance and taking other measures he or she considers necessary to facilitate compliance or restore or protect the components of the environment damaged or put at risk by the alleged contravention. CEPA also permits any adult Canadian to request that the government investigate an alleged offence.

BC's regulatory authorities are granted broad discretion in implementing environmental and social protection measures, which can allow for inconsistent application of the law. Also, where there are no minimum legal requirements, the regulatory authority may simply decide not to enforce laws relating to environmental and social protection. For example, neither the *Environmental Management Act* nor the *Mines Act* requires an independent body to ensure compliance throughout the various stages of the lifecycle of a mine. The *Mines Act* merely provides that an inspector *may at any time* inspect a mine. Other jurisdictions provide more direction to the regulatory authority, with laws that require inspections at all stages of the mining life cycle and at designated frequencies and establish sentencing for environmental offences.

There has been an increasing trend towards replacing actual intervention with voluntary compliance and technical advice. The failings of this approach have been widely recognized. In BC, the Chief Inspector is not required to include specific information in annual compliance reports. Public disclosure of the identities of violators has been recognized as a powerful deterrent to non-compliance. Accordingly, other jurisdictions have enacted laws that require the disclosure of monitoring reports, compliance results and offences to the public. Some jurisdictions have also enacted legal provisions that grant individuals the right to request or initiate public investigation of alleged offences and grant enforcement powers to the public and local communities. In addition, other jurisdictions have laws that grant standing to members of the public to sue for environmental harm caused by mining activities, involve Indigenous people in proponent compliance and enforcement and grant enforcement powers to local

government and enforcement officials. BC should enact similar laws that allow First Nations, interest groups, and members of the public to contribute to the enforcement of environmental law.

One of the greatest challenges to effective enforcement is the lack of government capacity and availability of resources. Over the past decade, provincial and federal government departments responsible for enforcement at mines have suffered from severe budget cuts, which has resulted in a reduced workforce, a significant reduction in the number of site inspections and prosecutions and a deterioration of the protection of local communities. Other jurisdictions address capacity issues through laws that charge fees to recover inspection and administrative costs associated with issuing orders and allow recovery of enforcement and remediation costs from proponents.

To address jurisdictional issues regarding the enforcement of environmental laws, the federal and provincial governments have established a harmonization process for inspection and enforcement of environmental protection laws. For example, under Canada's amended *Fisheries Act,* the federal and provincial governments can enter into agreements to download responsibility for administration and enforcement to the Province. These agreements increase the burden on already resource-poor provincial regulators, permit governments to effectively abandon the field, risk the possibility that neither level of government will assume responsibility and risk a bias where one level of government is benefiting financially from a project. Other jurisdictions address these issues by appointing an independent monitoring and enforcement agency for mining activities, prohibiting persons with conflicts of interest from carrying out mine inspections and creating a specialized court to rule on environmental matters. Enforcement activities could also be co-ordinated through the provincial inter-agency compliance and enforcement committee, which BC's Environmental Assessment Office recently joined.

Although proponents in BC may face penalties for disobeying the law, those penalties do not always reflect damage caused by the offence. Nor do the sentences necessarily require the proponent to pay for remediation. Laws in other jurisdictions expand liability to hold proponents financially responsible for damage they cause to Indigenous knowledge systems, local economies and livelihoods, and biological diversity. Recognizing that consultants hired by proponents to complete environmental assessments need to be held accountable, other jurisdictions have extended liability to consultants completing environmental assessments. Other jurisdictions also empower the courts to order that proponents post security, provide for cancellation of mineral tenure for continued non-compliance, prohibit offenders from applying for new licences, subject mining companies to profit stripping, legislate heavier penalties for repeat offenders, encourage creative sentencing provisions, establish long or indefinite limitation periods for commencing an action and replace strict liability offences with absolute liability offences for mining activities.

Table of Contents

Chapter Summary **288**

Introduction **293**
Overview of BC Law 294
Environmental Assessment Certificate 294
Provincial Mining Laws and Permit Conditions 295
Provincial Environmental Laws 297
Environmental Management Act (EMA) 297
Water Act 298
Federal Environmental Laws 299
Fisheries Act 299
Canadian Environmental Protection Act, 1999 (CEPA) 301

Challenges to Enforcement **303**
Discretionary Laws *303*
Issue 303
Recommended Solutions 304
Require inspections at all stages of mining life cycle and at minimum frequencies 304
Establish minimum sentencing for environmental offences 305
Voluntary Compliance *305*
Issue 305
Recommended Solutions 306
Disclose monitoring reports, compliance results and offences to public 306
Allow public to request investigation of alleged violations of environmental laws 307
Grant enforcement powers to the public and local communities 307
Grant rights of standing to members of the public and non-governmental organizations 308
Involve First Nations in proponent compliance and enforcement 309
Grant enforcement powers to local government and enforcement officials 310
Lack of Government Capacity *311*
Issue 311
Issue 311
Recommended Solutions 312
Charge fees to recover inspection costs 312
Charge fees to recover administrative costs associated with issuing orders 312
Allow recovery of enforcement costs from proponent 312
Allow recovery of remediation costs from proponent 313
Lack of Independent Enforcement Agency *313*
Issue 313

Recommended Solutions....315
Appoint independent monitoring and enforcement agency for mining activities....315
Prohibit persons with conflicts of interest from carrying out mine inspections....315
Institute specialized court to rule on environmental matters....316
Insufficient Penalties and Liability....316
Issue....316
Recommended Solutions....316
Expand liability to cover social, cultural, economic and environmental impacts....316
Combine posting of security with issuance of orders....317
Extend liability to consultants completing environmental assessments....317
Cancel mineral tenure for continued non-compliance....318
Prohibit offenders from applying for new licences....318
Subject mining companies to profit stripping....318
Legislate heavier penalties for repeat offenders....318
Encourage creative sentencing provisions....319
Establish long or indefinite limitation periods for commencing an action....319
Replace strict liability offences with absolute liability offences for mining activities....320

Introduction

A good law, however, is not enough. It must be enforced – ruthlessly if need be.

– Tom McMillan: former federal Minister of Environment (1998)[1]

Enforcement is broadly defined as government or private action taken to determine or respond to non-compliance with legal obligations.[2] Rigorous enforcement is widely recognized as necessary to ensure that proponents comply with legal requirements. Not only is strong enforcement desirable from the public's point of view, it is also good for business. Without adequate enforcement, proponents who abide by the law risk facing an economic disadvantage compared to competitors who do not. As such, enforcement plays a significant role in creating a level economic playing field.[3] In addition, inspectors can facilitate the transfer of experience and learning between different companies that have encountered similar environmental compliance challenges.[4] Surveys confirm that business leaders consider the strong enforcement of laws to be important to them.[5] Despite the importance of doing so, however, there is a lack of enforcement of environmental obligations in BC. The Environmental Assessment Office, for example, has been criticized for "not adequately fulfilling its compliance and enforcement responsibilities for certified projects".[6]

The following sections review the existing enforcement regime for mining activities in BC and suggest ways to improve enforcement at mine sites and protection of local communities and ecosystems from mining activities.

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[1] Linda F Duncan, "Enforcement and Compliance" in Elaine Hughes, Alastair R Lucas, and William A Tilleman eds, *Environmental Law and Policy*, 3 ed (Toronto: Emond Montgomery Publications Limited, 2003) 347 at 360.

[2] Linda F Duncan *Effective Environmental Enforcement: The Missing Link to Sustainable Development* (LLM Thesis, Dalhousie University Law School, 1999) at 13 [unpublished].

[3] Peter Krahn, "Enforcement versus voluntary compliance: An examination of the strategic enforcement initiatives implemented by the Pacific and Yukon Regional office of Environment Canada: 1983 to 1998" (Paper delivered at the 5th Conference on Environmental Compliance and Enforcement Proceedings, Monterey, CA, November 1998) at 38 [unpublished].

[4] DN Dewees, "The Effect of Environmental Regulation: Mercury and Sulphur Dioxide" in ML Friedland, ed, *Securing Compliance: Seven Case Studies* (Toronto: University of Toronto Press, 1990) 354.

[5] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 11.

[6] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 18, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.

Overview of BC Law

In BC, proponents must comply with commitments and obligations under:[7]

- their Environmental Assessment Certificate;
- provincial mining legislation and mine permit conditions; and
- provincial and federal environmental legislation and licences issued thereunder.

Proponents must also comply with legal obligations and licences issued under other legislation (e.g. forestry, transportation, right-of-ways, etc.).[8] Generally, the government department responsible for issuing the licences or administering the legislation is also responsible for enforcing the law.[9] The following sections review the enforcement provisions enacted under these legal instruments.

Environmental Assessment Certificate

Under British Columbia's *Environmental Assessment Act*, the regulatory authority is granted broad powers to inspect any works or activities connected with a reviewable project.[10] If construction or operation activities are not carried out in accordance with a proponent's EA Certificate, the regulatory authority may:[11]

- order that the activities cease until they are in compliance;[12]
- order that measures be adopted to mitigate the non-compliance;[13]
- suspend the proponent's rights under the EA Certificate;[14]
- cancel the EA Certificate;[15] or
- amend or attach new conditions to the EA Certificate.[16]

Despite these potentially strong sanctions for non-compliance, the EAO has been criticized for not implementing a proactive enforcement strategy.[17] According to the Auditor General, the "EAO has not

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[7] In addition, proponents may be bound by the terms of agreements with third parties, such as First Nations and landowners. A review of contract law is beyond the scope of this document. Therefore, enforcement of these commitments is not discussed.
[8] See Mine Development and Operation chapter for a discussion of other operating licences required for mining activities.
[9] The primary government ministries at the federal level are the Department of Fisheries and Oceans (DFO) and Environment Canada. At the provincial level, the primary ministries are the Ministry of Environment, the Ministry of Energy and Mines, and the Ministry of Natural Resource Operations.
[10] *Environmental Assessment Act*, SBC 2002, c 43, s 33 (for any purpose related to the administration or enforcement of the Act or related regulations).
[11] British Columbia, Environmental Assessment Office, Environmental Assessment Office User Guide (Victoria: Environmental Assessment Office, 2010) at 38, online: <http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf>. According to provincial policy, EAO staff may respond to non-compliances by applying a range of options from education, through formal letters, penalties and ultimately certificate suspension or cancellation.
[12] *Environmental Assessment Act*, SBC 2002, c 43, s 34(1)(b).
[13] *Environmental Assessment Act*, SBC 2002, c 43, s 34(1)(b).
[14] *Environmental Assessment Act*, SBC 2002, c 43, ss 37(1)(a), 37(2)(c), 41(2)(b)(i).
[15] *Environmental Assessment Act*, SBC 2002, c 43, ss 37(1)(a), 37(2)(c), 41(2)(b)(i).
[16] *Environmental Assessment Act*, SBC 2002, c 43, ss 37(1)(b), 37(2)(c), 41(2)(b)(i).
[17] Mark Haddock, *Environmental Assessment in BC* (Victoria: University of Victoria Environmental Law Centre, 2010) at 68; Note that even if the EAO was exercising its powers, its actions could still be over-ridden by the BC Minister of the Environment who

deemed penalties, certificate suspension or cancellation necessary".[18] The failure of the EAO to enforce EA commitments and conditions has been widely acknowledged and criticized.[19] In a recent report, the Auditor-General criticized the EAO for:[20]

- Being reactive rather than proactive;
- Lacking a compliance and enforcement program to monitor projects and ensure compliance;
- Failing to regularly carry out formal site inspections; and
- Failing to use its power to issue penalties or suspend or cancel EA Certificates.

The EAO responded to the Auditor-General's report, making various commitments to address the issues that were raised. These include commitments to develop an enhanced monitoring, compliance and enforcement program and increase public disclosure of project monitoring and compliance.[21] The extent to which these commitments are implemented will be seen over the upcoming years.

[Note: EAs are also regulated at the federal level under the recently amended *Canadian Environmental Assessment Act, 2012* (CEAA). To date, it is unclear how these amendments will affect enforcement at the federal level.]

Provincial Mining Laws and Permit Conditions

In BC, compliance provisions are provided under both the provincial *Mineral Tenure Act* and *Mines Act*.

Under the *Mineral Tenure Act,* if a proponent contravenes the *Mineral Tenure Act*, *Criminal Code*, *Heritage Conservation Act*, *Mines Act* or associated regulations, BC's Chief Gold Commissioner is empowered to suspend the proponent's Free Miner Certificate (FMC).[22] Without an FMC, the proponent may no longer acquire or maintain a mineral title, nor access the mineral land for exploration or

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retains broad discretion to reinstate a cancelled or suspended EA Certificate, and cancel any conditions previously attached to the Certificate, see: *Environmental Assessment Act*, SBC 2002, c 43, s 40.

[18] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 19, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.

[19] West Coast Environmental Law, *Please Hold. Someone Will Be With You: A report on diminished monitoring and enforcement capacity in the Ministry of Water, Land and Air Protection* (Vancouver: West Coast Environmental Law, 2004), online: WCEL <http://wcel.org/sites/default/files/publications/Please%20Hold%20-%20A%20Report%20on%20Diminished%20Monitoring%20and%20Enforcement%20Capacity%20in%20the%20Ministry%20of%20Water,%20Land%20and%20Air%20Protection.pdf>. Although the EAO User Guide provides that inspections *may* be undertaken where appropriate, government staff report that successive staff and budget cuts have had significant impacts on their enforcement capabilities and they do not consider the enforcement of EA certificates to be within their mandate.

[20] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 18, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.

[21] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 10, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>. The EAO's commitment is in response to the Auditor General's recommendation to: "Provide appropriate accountability information for projects certified through the environmental assessment process".

[22] *Mineral Tenure Act,* RSBC 1996 c 292, s 10(1).

development. Before a FMC can be suspended, the proponent must be given notice and an opportunity for a hearing.[23] The proponent may also appeal the FMC cancellation.[24]

If a proponent does not comply with legal requirements, or contravenes the protection of a protected heritage property, the Chief Gold Commissioner may order the proponent to come into compliance within a specified period of time.[25] If the non-compliance is not corrected, the Chief Gold Commissioner may suspend any exploration or mineral development or production until the proponent complies.[26] The mineral claim may also be cancelled if the proponent deliberately fails to comply with orders or other legal requirements.[27] The proponent may appeal a decision to cancel a claim.[28]

Under the *Mines Act*, proponents must take all reasonable measures to ensure compliance with legal requirements.[29] If a proponent fails to comply with conditions of the mine permit, the Chief Inspector is granted broad powers to do any of the following:[30]

- order the proponent to stop the mining operation;
- apply all or part of the security toward payment of the cost of the work required to be performed or completed;
- close the mine; or
- cancel the permit.

Legal provisions under BC's *Mines Act* empower inspectors to inspect a mine *at any time*.[31] Where an inspector finds that a mine is not being operated in accordance with its legal requirements,[32] he or she may make an order for remedial action.[33] In addition, if the inspector believes on reasonable grounds that the proponent is contravening a remedial order or any other provision under the *Mines Act* or associated regulations, the inspector may order the proponent to take immediate remedial action, or suspend regular work or close the whole or part of the mine until the remedial action is taken.[34] Failure to comply with the *Mines Act*, regulations, the Health, Safety and Reclamation Code (HSR Code), or

[23] *Mineral Tenure Act*, RSBC 1996 c 292, s 10(1).
[24] *Mineral Tenure Act*, RSBC 1996 c 292, s 10(3).
[25] *Mineral Tenure Act*, RSBC 1996 c 292, s 18(1).
[26] *Mineral Tenure Act*, RSBC 1996 c 292, s 18(2).
[27] *Mineral Tenure Act*, RSBC 1996 c 292, s 18(4).
[28] *Mineral Tenure Act*, RSBC 1996 c 292, ss 18(6),(7).
[29] *Mines Act*, RSBC 1996 c 293, s 24.
[30] *Mines Act*, RSBC 1996 c 293, s 10(8).
[31] *Mines Act*, RSBC 1996 c 293, ss 5,6,15(1).
[32] *Mines Act*, RSBC 1996 c 293, s 35(1). The legal requirements include any provision of the Act, the regulations, the Code, permit, or an order made under section 15 of the Mines Act.
[33] *Mines Act*, RSBC 1996 c 293 s 15(4)(d). Remedial action contained in an inspection report.
[34] *Mines Act*, RSBC 1996 c 293, s 15(4.1).

orders made under these instruments, constitutes an offence, for which, upon conviction, a proponent may be sentenced to:[35]

- a maximum fine of $100,000;
- imprisonment for up to one year; or
- a fine and imprisonment.

If the offence is committed by a corporation, a director or officer who authorized, permitted or acquiesced in the offence may also be fined or imprisoned.[36] For continuing offences, the proponent may be fined $550 to $5,000 for each day that the offence continues after receipt of notice from the inspector.[37] Finally, if the proponent does not comply with an order, the inspector may also apply to the Supreme Court for a court order directing the person to comply.[38] Unfortunately, court orders are often insufficiently enforced with long delays before corrective action is taken.[39]

Provincial Environmental Laws

The primary pieces of provincial environmental legislation that apply to mines in BC are the *Environmental Management Act* (EMA) and the *Water Act*. Although these are both administered by the BC Minister of Environment (MOE), powers of inspection are also provided under BC's *Mines Act*.[40]

Environmental Management Act (EMA)

The Conservation Officer Service (COS) is the enforcement arm of the MOE and is empowered to conduct inspections and investigations.[41] [Note that inspections serve to verify compliance with

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[35] *Mines Act*, RSBC 1996 c 293, ss 37(2)(3); Nancy Bircher, "Making it Happen: The evolution of pulp and paper mill compliance in BC", (Paper delivered at the Fifth International Conference on Environmental Compliance and Enforcement, Monterey, CA November 1998) 73 at 76, online: <http://www.inece.org/5thvol2/bircher2.pdf>. Compare this to the successful history of pollution prevention at pulp and paper mills in the province, where maximum penalties for pollution offences were set at $1 million per day with potential jail sentences of up to three years.

[36] *Mines Act*, RSBC 1996 c 293, s 37(5).

[37] *Mines Act*, RSBC 1996 c 293, s 37(4).

[38] *Mines Act*, RSBC 1996 c 293, s 35(2).

[39] British Columbia, Forest Practices Board, *Special Investigation 99002: Significant breaches of the Forest Practices Code along the power line corridor for the Kemess South Mine* (Victoria: Forest Practices Board, 2000) at 21, online: <http://www.fpb.gov.bc.ca/SIR04_Significant_Breaches_of_the_Forest_Practices_Code_along_the_Power_Line_Corridor_for_the_Kemess_South_Mine.pdf>. "In 1999, the Forest Practices Board investigated non-compliance issues related to the construction of the power line to the South Kemess mine in northern BC. Ineffective enforcement allowed the licensees to continue to delay corrective actions for extended periods. The Board found that while [the Ministry of Energy and Mines] issued corrective orders under the Mines Act, it failed to enforce those orders and stated that this was a "significant breach of government's enforcement duties under the (Forest Practices) Code".

[40] *Mines Act,* RSBC 1996 c 293, s 15.

[41] *Environmental Management Act*, SBC 2003 c 53, ss107, 109; British Columbia, Ministry of Environment, *Compliance and Enforcement Policy and Procedure, Version 2*, (Victoria: Ministry of Environment, 2009) at 11-12. "Designated ministry staff, primarily Conservation Officers and Park Rangers, are authorized to conduct investigations"; "Inspections include reviewing monitoring data or other materials supplied by the regulated party."; British Columbia, Ministry of Environment, *Compliance and Enforcement Policy and Procedure, Version 2*, (Victoria: Ministry of Environment, 2009) at 16-20. The MOE Compliance and Enforcement Policy and Procedure sets out a non-compliance decision matrix, where "the most important factor in determining an appropriate response is the effectiveness of the tool in achieving compliance as quickly as possible with no recurrence". Available compliance tools include advisory, warning (document that notifies a party that they are not in compliance with a

regulatory requirements, whereas investigations serve to gather evidence to support court proceedings in cases of suspected non-compliance.[42]] These powers are relatively broad and include the authority to:[43]

- inspect, analyze, measure, sample or test land, and any article, substance or waste located on or in the land, and premises;
- examine and make copies of records;
- require equipment to be operated, used and set in motion for inspection; and
- take photographs, videos and audio recordings.

Due to the fact that an investigation could lead to criminal sanctions, investigators must be careful to abide by the Charter of Rights of Freedoms in conducting their investigation. If not, any evidence obtained could be rendered inadmissible, which could result in the charges being stayed.

Under the EMA, the COS's enforcement powers at mines are relatively restricted.[44] However, it is empowered to issue a remediation order when asked to do so by the Chief Inspector or where the land or water use is "*formally changed*" from that approved under the mine permit.[45] However, this provision appears to be used very infrequently. In the rare occasion it is used, fines are generally small (typically $575) or non-existent.[46]

Water Act

Various offences that may occur at mine sites are also listed under the *Water Act*, including:

- unauthorized deposits of tailings into streams;[47]
- unauthorized water diversions;[48]
- unauthorized water uses;[49]

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specific regulatory requirement and warns of an escalating response should non-compliance continue), order, administrative sanction (suspension, restriction, or cancellation of ministry authorizations, including approvals, licences or permits), ticket (a charging document which may be used instead of "formal charges." .

[42] British Columbia, Ministry of Environment, *Compliance and Enforcement Policy and Procedure, Version 2*, (Victoria: Ministry of Environment, 2009) at 11.

[43] *Environmental Management Act,* SBC 2003 c 53, ss 109(4)-(6).

[44] *Environmental Management Act*, SBC 2003 c 53, ss 66(2), 67(2), 68(2), 69. This was a change implemented in the 2002 amendments to the Waste Management Act which altered the enforcement powers of the Ministry of Water, Land and Air Protection managers by restricting them from issuing pollution prevention and pollution abatement orders to certain type of mining facilities.

[45] *Environmental Management Act*, SBC 2003 c 53, s 68(2)(c).

[46] Maya Stano, *The Raven Mine: A Regulatory & Fiscal Black Hole?* (Victoria: Environmental Law Centre, 2011) at 13 (Table 1), online: <http://www.coalwatch.ca/sites/default/files/RavenCoal_BlackHole_MayaStano_ELC-Spring2011.pdf>.
Notably, a recent offence by a company working on the proposed Gething Coal mine resulted in a remediation order with no associated monetary penalty. This reflects the government's approach to merely order offenders to return to compliance levels rather than actually imposing a fine or penalty for the offence.

[47] *Water Act*, RSBC 1996 c 483 s 93(2)(j).

[48] *Water Act*, RSBC 1996 c 483, ss 93(2)(k),(l).

[49] *Water Act*, RSBC 1996 c 483, ss 93(2)(n),(o).

- unauthorized changes in and about a stream;[50] and
- breaches of licence conditions.[51]

The maximum sentences for proponents who commit these offences are:[52]

- Non-continuing offences: maximum fine of $200,000, maximum imprisonment of 6 months, or both; or
- Continuing offences: maximum fine of $200,000 for each day the offence continues, maximum imprisonment of 6 months, or both.

The *Water Act* also lists some high-penalty offences, for which the penalty includes increased fines (maximum of $1 million) and lengthier imprisonment terms (maximum one year).[53] These high-penalty provisions may apply, for example, to proponents who contravene orders under the *Fish Protection Act*.[54] The *Water Act* also empowers the court to impose creative sentencing, which may include directions to remedy the harm caused by the offence or publicly publish facts regarding the offence.[55] If a corporation commits the offence, an employee, officer, director or agent of the corporation who authorized, permitted or acquiesced in the offence is also liable.[56] Finally, legal provisions explicitly state that if a licence is abandoned, suspended, terminated or cancelled, the proponent is not relieved of liability for damage resulting from the works constructed, operated or maintained by the proponent, or from a defect, insufficiency or failure of the works.[57]

Federal Environmental Laws

At the federal level, the environmental legislation that most commonly applies to mines in BC is the *Fisheries Act* and the *Canadian Environmental Protection, 1999* (CEPA).[58]

Fisheries Act

Note: In 2012, Canada's federal government severely amended the *Fisheries Act.* One of the major changes is the shift away from protection of fish habitat to protection of fisheries. The following discussion cites the provisions of Bill C-38, which, although not in force at the time of writing, received Royal Assent on 29 June 2012.

Under the *Fisheries Act*, inspectors have broad powers to enter places, premises, vehicles or vessels (that are not used as private dwelling places), where activities have been carried out, are being carried

[50] *Water Act*, RSBC 1996 c 483, s 93(2)(q).
[51] *Water Act*, RSBC 1996 c 483, s 93(2)(r).
[52] *Water Act*, RSBC 1996 c 483, s 93(4).
[53] *Water Act*, RSBC 1996 c 483, s 94(2).
[54] *Water Act*, RSBC 1996 c 483, s 94(1).
[55] *Water Act*, RSBC 1996 c 483, s 95(1).
[56] *Water Act*, RSBC 1996 c 483, s 97.
[57] *Water Act*, RSBC 1996, c 483, s 25.
[58] *Fisheries Act*, RSC 1985, c F-14; *Canadian Environmental Protection Act*, SC 1999, c 33.

out, or are likely to be carried out, that result in the alteration or disruption of fish habitat, or in the deposit of a substance in water frequented by fish.[59] These powers include the right to conduct inspections, examine and sample substances and products, and conduct tests and measurements.[60] In addition, an inspector may direct a proponent to take remedial measures where he deems it to be necessary.[61] Proponents are required to provide inspectors with all reasonable assistance required to carry out the inspector's duties.[62]

If a proponent is found to be:

- carrying out unauthorized work that results in the harmful alteration or disruption, or the destruction, of fish habitat or in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery; or
- throwing overboard ballast, coal ashes, stones or other deleterious substances in any river, harbour or roadstead, or in any water where fishing is carried on or deposits or permit the deposit of a deleterious substance of any type in water frequented by fish;

the proponent may be penalized as follows.[63]

Upon conviction of a summary offence

Type of Proponent	First/Subsequent	Min Fine	Max Fine	Imprisonment
Individual	First	$5,000	$300,000	N/A
Individual	Second/Subsequent	$10,000	$600,000	6 months max.
Small Revenue Corporation[64]	First	$25,000	$2,000,000	N/A
Small Revenue Corporation	Second/Subsequent	$50,000	$4,000,000	N/A
Large Revenue Corporation	First	$100,000	$4,000,000	N/A
Large Revenue Corporation	Second/Subsequent	$200,000	$8,000,000	N/A

Upon conviction of an indictable offence

Type of Proponent	First/Subsequent	Min Fine	Max Fine	Imprisonment
Individual	First	$15,000	$1,000,000	N/A
Individual	Second/Subsequent	$30,000	$2,000,000	3 years max.
Small Revenue Corporation	First	$75,000	$4,000,000	N/A
Small Revenue Corporation	Second/Subsequent	$150,000	$8,000,000	N/A
Large Revenue Corporation	First	$500,000	$6,000,000	N/A

[59] *Fisheries Act*, RSC 1985 c F-14, ss 38(3) (formerly s 38(3.1), 49(1)).
[60] *Fisheries Act*, RSC 1985 c F-14, s 38(3.1) (formerly s 38(3)).
[61] *Fisheries Act*, RSC 1985, c F-14, s 38(6).
[62] *Fisheries Act*, RSC 1985, c F-14, s 38(10).
[63] *Fisheries Act*, RSC 1985, c F-14, ss 40(1),(2),(3).
[64] *Fisheries Act*, RSC 1985, c F-14, s 40(2.1). Small revenue corporations are those whose gross annual revenue is less than $5,000,000.

Large Revenue Corporation	Second/Subsequent	$1,000,000	$12,000,000	N/A

Other offences listed under the *Fisheries Act* include failure to provide requested information or required reports or take required remedial measures.[65] In addition to the punishments listed above, the *Fisheries Act* empowers the court to impose additional fines if a proponent acquires monetary benefits as a result of the offence.[66] The court may also:

- cancel any licence or suspend any licence for a period of time;[67]
- prohibit the proponent from applying for a new licence within a set time period;[68] and
- make other orders containing a wide range of prohibitions, directions or requirements.[69]

Liability for unauthorized deposits of deleterious substances in water frequented by fish is joint and several.[70] However, these strict liability offences are subject to the due diligence defence. Where a proponent can show due diligence, they will not be found guilty (irrespective of the environmental harm that occurred).[71]

The administration and enforcement of the provisions relating to fisheries protection (formerly fish habitat protection) and pollution prevention must be summarized by the regulatory authority in an annual report.[72] This report must include a statistical summary of convictions for that year.[73] It remains to be seen what the recent amendments to the *Fisheries Act* will mean for the protection Canada's fisheries and fish habitat, and what penalties will be imposed upon proponents who violate the law.

Canadian Environmental Protection Act, 1999 (CEPA)

> *Compliance with [CEPA] and its regulations is mandatory. Enforcement officials throughout Canada will apply the Act in a manner that is fair, predictable and consistent. … Enforcement officials will examine every suspected violation of which they have knowledge, and will take action consistent with this Enforcement & Compliance Policy.*
>
> – *Canadian Environmental Protection Act* Enforcement & Compliance Policy[74]

[65] *Fisheries Act*, RSC 1985, c F-14, s 40(3).
[66] *Fisheries Act*, RSC 1985, c F-14, s 79.
[67] *Fisheries Act*, RSC 1985, c F-14, s 79.1(a).
[68] *Fisheries Act*, RSC 1985, c F-14, s 79.1(b).
[69] *Fisheries Act*, RSC 1985, c F-14, s 79.2.
[70] *Fisheries Act*, RSC 1985, c F-14, s 80.
[71] *Fisheries Act*, RSC 1985, c F-14, s 78.6; see *R v Jack Cewe Ltd*, (1987), 4 FPR 271 (BC Prov Ct), in which company took all reasonable steps in the circumstances to solve environmental problems including participating in government committee which had not identified a problem with company's operations, complying with all government directions, and spending $1.2 million on implementing environmental protection measures.
[72] *Fisheries Act*, RSC 1985, c F-14, s 42.1(1).
[73] *Fisheries Act*, RSC 1985, c F-14, s 42.1(2).
[74] Canada, Environment Canada, *Canadian Environmental Protection Act Enforcement and Compliance Policy* (Ottawa: Supply & Services, 1988) at 9, online: <http://www.ec.gc.ca/alef-ewe/default.asp?lang=en&n=AF0C5063-1>.

CEPA governs a number of toxic substances that may be used or produced at mines in BC.[75] Enforcement officers are granted broad powers to inspect any place where toxic substances are located.[76] These powers include rights to examine toxic substances, open and examine packages believed to contain toxic substances, examine relevant records, take samples, conduct tests and take measurements.[77] Where an enforcement officer has reasonable grounds to believe the proponent is in non-compliance, he may issue an Environmental Protection Compliance Order.[78] This order may require the proponent to take one or a number of different measures, including:[79]

- refraining from doing the contravening action;
- stopping or shutting down an activity;
- unloading or reloading the contents of any conveyance;
- taking any other measure that the enforcement officer considers necessary to:
    - facilitate compliance with the order;
    - restore the components of the environment damaged by the alleged contravention; or
    - protect the components of the environment put at risk by the alleged contravention.

CEPA also contains several unique enforcement provisions, such as:

- any adult Canadian may request the government to investigate an alleged offence;[80]
- if the government fails to act, or gives an unreasonable response to such a request, the person who made the request is granted standing to bring an "Environmental Protection Action";[81] and
- any person who is about to suffer loss or damage as a result of a contravention of the Act may seek an injunction to stop the associated conduct.[82]

These legal provisions theoretically establish broad enforcement powers. However, as with BC's environmental laws, these enforcement provisions are infrequently applied.[83] Similarly, the federal

[75] *Canadian Environmental Protection Act*, SC 1999, c 33, schedule 1 (list of toxic substances).
[76] *Canadian Environmental Protection Act,* SC 1999, c 33, s 218(1); some restrictions on private dwelling places (ss 218(2),(3)).
[77] *Canadian Environmental Protection Act*, SC 1999, c 33, s 218(10).
[78] *Canadian Environmental Protection Act*, SC 1999, c 33, s 235.
[79] *Canadian Environmental Protection Act*, SC 1999, c 33, s 235(4).
[80] *Canadian Environmental Protection Act*, SC 1999, c 33, s 17.
[81] *Canadian Environmental Protection Act,* SC 1999, c 33, s 22.
[82] *Canadian Environmental Protection Act,* SC 1999, c 33, s 39.
[83] House of Commons of Canada, *The Canadian Environmental Protection Act, 1999--Five-Year Review: Closing the Gaps* (Ottawa: House of Commons Standing Committee on Environment and Sustainable Development, 2007) at 44, online: <http://cmte.parl.gc.ca/Content/HOC/committee/391/envi/reports/rp2614246/envirp05/05-rep-e.htm>. As of 2007, only 34 public prosecutions had resulted in convictions under the *Canadian Environmental Protection Act*. This means that either there were very few infractions of CEPA or very poor enforcement. The Committee recommended that Environment Canada "create a system to measure and evaluate the role and implementation of the enforcement provisions of CEPA 1999".

government has rarely, if ever, exercised its discretionary power to enforce environmental laws on provincial lands or waters because of trans-boundary environmental concerns.[84]

Challenges to Enforcement

In the 1980s, a study of environmental law in Canada showed that although legislative and regulatory measures were satisfactory in principle, enforcement efforts had been inconsistent and inadequate in practice. This problem was coined the "implementation gap".[85] Thirty years later, the same problem still exists. As discussed above, relatively strong legal provisions exist to support strong law enforcement at mines in BC. The problem lies in the practical implementation, or lack of implementation, of these laws.

The following sections discuss key issues facing the enforcement of environmental laws at mines in BC. They include:

- discretionary laws and the challenges discretion poses to enforcement;
- voluntary compliance;
- cuts to government budgets and lack of government capacity; and
- insufficient penalties and liability, and harmonized enforcement efforts.

These are discussed in detail in the following sections.

Discretionary Laws

While discretion does not preclude people from doing good work; it tends to reduce the consistency and accountability for specific outcomes and standards of practice.[86]

Issue

BC's regulatory authorities are granted broad discretion in implementing environmental and social protection measures.[87] Such discretion can be problematic because it allows for inconsistent application of the law.[88] Furthermore, when broad discretion is coupled with no minimum legal requirements, the regulatory authority may elect not to enforce laws relating to environmental and social protection measures.[89] For example, when the government found excessive concentrations of mercury in the

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[84] *Canadian Environmental Protection Act,* SC 1999, c 33, s 165; David R Boyd, "Unnatural Law: Rethinking Canadian Environmental Law and Policy" (Vancouver: UBC Press, 2003) at 184.
[85] L Giroux, *A Statement by the Canadian Environmental Advisory Council on Enforcement Practices of Environment Canada*" (Ottawa: Minister of Supply and Services Canada, 1985); K Webb, *Pollution Control in Canada: The Regulatory Approach in the 1980s (Study Paper)*(Ottawa, Law Reform Commission of Canada, 1988) at 17.
[86] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 24.
[87] *Mines Act,* RSBC 1996 c 293, s 38(4).
[88] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 24.
[89] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 34.

tailings of the Golden Bear mine in Northern BC, the regulatory authority did not require the company to stop discharging the pollutant. Instead, the government allowed the company to continue discharging mercury so long as it did not show up at the downstream monitoring location.[90]

Similarly, under Canada's *Fisheries Act*, the government has discretion to require modifications or restrictions to an activity, or alternatively, ending the activity causing the offence.[91]

Recommended Solutions

Require inspections at all stages of mining life cycle and at minimum frequencies
[Tags: Enforcement; Inspections]

Although BC's inspectors have broad powers to perform inspections under the *Mines Act* and the *Environmental Management Act,* there is no positive duty on any independent body to ensure compliance throughout the various stages of the lifecycle of a mine. The *Mines Act* merely provides that an inspector *may at any time* inspect a mine.[92]

By contrast, Ontario's mining legislation imposes a positive duty on inspectors to determine if the terms and conditions of licences, leases, exploration plans, permits, closure plans, and any other approvals issued under the mining law are being complied with.[93] This duty requires that investigations take place throughout all stages of the life cycle of a mine.

Inspections early in the mining process are imperative to ensure that any problems are discovered early on. The need for inspections early in the mining process is recognized in several jurisdictions. For example, in Washington, legal provisions mandate that additional inspections are to be conducted during the construction phase of the mining operations to ensure compliance.[94] Under European Union law, member states are to ensure that inspections be carried out prior to the commencement of deposit operations, and at regular intervals thereafter.[95]

In recognition of the importance of frequent mine inspections to ensure ongoing compliance, some jurisdictions have also enacted explicit legal provisions mandating a minimum number of mine site inspections. For example, in Washington, mines must be inspected at least quarterly, unless prevented

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[90] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 34.
[91] *Fisheries Act*, RSC 1985, c F-14, s 37(2).
[92] *Mines Act,* RSBC 1996 c 293, s 15(1).
[93] *Mining Act*, RSO 1990, c M.14, s 157(4).
[94] Wash Rev Code tit 78 § 44.161(2007).
[95] EC, *Commission Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC*, [2006] OJ, L 102/15 at art 17(1).

by inclement weather conditions.[96] In California, mine inspections must be carried out at least once a year.[97]

Establish minimum sentencing for environmental offences
[Tags: Enforcement; Fines]

Canada's *Environmental Enforcement Act* recently amended various federal environmental statutes to provide for minimum fines for serious offences. For example, large revenue corporations who are found guilty of a summary conviction offence or indictable offence are liable for minimum fines of $100,000 and $500,000 respectively.[98]

Voluntary Compliance

Issue

In the past, there were significant success stories from strong enforcement of environmental and natural resource laws in BC.[99] Unfortunately, this is no longer the case. There has been an increasing trend towards replacing actual intervention with voluntary compliance and technical advice.[100] The failings of this approach have been widely recognized. For example, the Organisation for Economic Co-operation and Development (OECD) has commented that Canada's "*wide use of voluntary approaches has not always been effective or efficient*".[101] Similarly, in a review of Environment Canada's enforcement initiatives, the former Head of Inspections recognized the failure of voluntary compliance programs and peer-inspection programs in achieving satisfactory levels of compliance.[102] This lack of

[96] Wash Rev Code tit 78 § 44.161 (2011).
[97] *California Surface Mining and Reclamation Act of 1975*, 2 Cal PRC § 2774(b)(2007).
[98] Bill C-16, *Environmental Enforcement Act*, 2nd Sess, 40th Parl, 2009 cl 1 (assented to 18 June 2009).
[99] See e.g. *Antisapian Chemical Waste Control Regulation* BC Reg 300/90. David R Boyd, *Unnatural Law: Rethinking Canadian Environmental Law and Policy* (Vancouver: UBC Press, 2003) at 33.This regulation helped reduce the aquatic discharge of toxic chemicals used as wood preservatives by the lumber industry by 90%.
[100] Linda F Duncan, "Enforcement and Compliance" in Elaine Hughes, Alastair R Lucas, and William A Tilleman eds *Environmental Law and Policy*, 3d ed (Toronto: Emond Montgomery Publications Limited, 2003) 348 at 360; Demonstrated by recent Ministry of Forests, Mines and Lands reference to the voluntary BC Mining Association's Towards Sustainable Mining checklist http://www.bcbudget.gov.bc.ca/2011/sp/pdf/ministry/for.pdf at 19 and low return of inspection compliance forms – see http://www.bcbudget.gov.bc.ca/2011/sp/pdf/ministry/nro.pdf at 20-21; British Columbia, Ministry of Environment, *Compliance Management Framework* (Victoria: Ministry of Environment, 2007), online: <http://www.env.gov.bc.ca/compliance/mgmt_framework.html>; West Coast Environmental Law, *No Response: A Survey of environmental law enforcement and compliance in BC*, (Vancouver, West Coast Environmental Law, 2007) at 13. "As a proportion of the number of enforcement actions, the percentage of written warnings has actually risen since 1995. In the early 1990s, written warnings represented approximately one-third of the enforcement actions taken. In 2004 and 2005, they represented half. Since written warnings carry fewer consequences than tickets or charges, this trend may represent a shift in enforcement philosophy to a greater reliance on voluntary compliance"; Ethan Baron, "Do-it-yourself conservation: Will bears go on Facebook?" *The Province* (September 15, 2010) online: Canada.com <http://www2.canada.com/theprovince/news/story.html?id=5af70c01-19b5-4acc-8931-845d1ea56c44>.
[101] OECD, *OECD Environmental Performance Reviews: Canada 2004,* Environmental Performance Reviews, (Paris: OECD, 2004) at 17.
[102] Peter Krahn, "Enforcement versus voluntary compliance: An examination of the strategic enforcement initiatives implemented by the Pacific and Yukon Regional office of Environment Canada: 1983 to 1998" (Paper delivered at the 5th Conference on Environmental Compliance and Enforcement Proceedings, Monterey, CA, 1998) at 26, [unpublished]. "A review

enforcement runs counter to the general public's support for strong enforcement of environmental laws.[103] If the current government is not committed to enforcing environmental laws, then First Nations, interest groups, and members of the public should be afforded this opportunity.

Recommended Solutions

Disclose monitoring reports, compliance results and offences to public
[Tags: Enforcement; Disclosure; Public]

In BC, the Chief Inspector must submit an annual report "*showing results during the previous year in achieving the purposes of this Act*".[104] This vague language is not clarified by any explicit requirements for enforcement reporting. As a result, the Chief Inspector's annual reports offer little more than general statistics on the number of orders issued, with limited details on the nature or subject of these orders. The details of the orders can only be accessed directly from the regional mines offices, which makes the information largely inaccessible and reduces the opportunity for public involvement.[105] The lack of data in the annual reports is exacerbated by the lack of a published non-compliance reporting system.[106] The Auditor-General also recently recognized that although various government departments do conduct compliance and enforcement activities related to environmental assessment projects, they do not regularly publish detailed information on their findings.[107]

Public disclosure of the identities of violators has been recognized as a powerful deterrent to non-compliance.[108] This was one element of the successful enforcement of pulp and paper legislation in BC.[109] The *Canadian Environmental Protection Act, 1999* established an Environmental Registry that

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of 19 different regulatory groups found that those industrial sectors which relied solely on self-monitoring or voluntary compliance had a compliance rating of 60% versus the 94% average compliance rating for those industries which were subject to federal regulations combined with a consistent inspection program. Voluntary compliance programs and peer-inspection programs could not achieve satisfactory levels of compliance."

[103] Ipsos-Reid, *Environment Canada Corporate Communications Survey*, 2007, cited in: Canada, *Evaluation of the Enforcement Program* (Ottawa: Environment Canada, 2009) at Annex 2. The same survey pointed out that more than three quarters of the population does not feel that Government is going far enough to meet its enforcement responsibilities.

[104] *Mines Act*, RSBC 1996 c293 s 36.

[105] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 31.
Although inspection reports are publicly available, they are not online and are scattered in different files. Thus they are difficult for the public to assess.

[106] Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancovuer: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 31. The Ministry of Environment does have this type of system in place.

[107] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 20, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.

[108] "Environmental crime: does deterrence work?", *RCMP Gazette* 68:3 (2006).

[109] Nancy Bircher, "Making it Happen: The evolution of pulp and paper mill compliance in BC", (Paper delivered at the Fifth International Conference on Environmental Compliance and Enforcement, Monterey, CA November 1998) 73 at 76, online: <http://www.inece.org/5thvol2/bircher2.pdf>. "The Ministry published media releases listing the names of companies significantly out of compliance with environmental legislation and permits".

must contain copies of orders made under the act.[110] In addition, under Canada's new *Environmental Enforcement Act*, a corporate offender must, upon conviction, notify shareholders and their identity will be posted for a minimum of five years on a publicly accessible registry.[111]

Allow public to request investigation of alleged violations of environmental laws
[Tags: Enforcement; Public; Investigation]

Some jurisdictions have enacted legal provisions that grant individuals the right to request or initiate public investigation of alleged offences. Provisions for the involvement of individuals in enforcement are already provided under the *Canada Environmental Protection Act*, which allows citizens to request the government to investigate an alleged offence[112] and to be granted standing to bring an "Environmental Protection Action" if the government fails to act.[113] Persons affected by the conduct may also seek an injunction.[114] Similar legal provisions have been enacted in the Northwest Territories,[115] Alberta,[116] Nova Scotia,[117] Yukon,[118] and Ontario.[119]

Most BC Environmental Assessment Certificates require proponents to submit periodic compliance reports to the Environmental Assessment Office.[120] These reports, when submitted, may be posted on the EAO's website (e-PIC) where they are publicly available. The reports are filed under the "Completed/Certified" heading for individual projects on e-PIC. These monitoring reports provide the public with some (not impartial) information about whether or not the conditions of an Environmental Assessment Certificate are being complied with. This is consistent with the Auditor General's recommendation that the EAO makes appropriate monitoring, compliance and outcome information available to the public to ensure accountability.[121]

Grant enforcement powers to the public and local communities
[Tags: Enforcement; Public]

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[110] *Canadian Environmental Protection Act*, SC 1999, c 33 s 12.
[111] Bill C-16, *Environmental Enforcement Act*, 2nd Sess, 40th Parl, 2009 cl 50.8 (assented to 18 June 2009).
[112] *Canadian Environmental Protection Act*, SC 1999, c 33, s 17.
[113] *Canadian Environmental Protection Act,* SC 1999, c 33, s 22.
[114] *Canadian Environmental Protection Act,* SC 1999, c 33, s 39.
[115] *Environmental Rights Act*, RSNWT 1988 (Supp.), c 83, s 4.
[116] *Alberta Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 186.
Also, persons directly affected by the designation of a site as contaminated may submit a statement of concern to the ministry director (RSA 2000, c E-12, s 127).
[117] *Environment Act*, SNS 1994-95, c 1, s 115.
[118] *Environment Act*, RSY 2002, c 76, s 14.
[119] *Environmental Bill of Rights*, 1993, SO 1993, c 28, Part V.
[120] Office of the Auditor General of BC, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: 2011, 2011/2012 Report 4), online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO> at 18.
[121] Office of the Auditor General of BC, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: 2011, 2011/2012 Report 4), online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO> at 16.

The "implementation gap" identified for enforcement at mines in BC highlights the need for more enforcement personnel. Local community group members, if adequately trained, can help provide some of this enforcement taskforce. The role of local communities in enforcement is recognized the Philippines, where legal provisions mandate that peoples' organizations and non-governmental organizations shall be allowed and encouraged to participate in ensuring that mining contractors or permittees shall observe all the requirements of environmental protection.[122] Even in Canada, the Compliance and Enforcement Policy for the former *Fisheries Act* stated that "the public will be encouraged to report suspected violations of the habitat protection and pollution prevention provisions of the *Fisheries Act*".[123]

Grant rights of standing to members of the public and non-governmental organizations
[Tags: Enforcement; Public; Standing]

Numerous jurisdictions have enacted legal provisions that grant standing to members of the public to sue for environmental harm caused by mining activities. For example:

- Under the *Canadian Environmental Protection Act, 1999*, the public is granted the right to sue for harm to natural resources.[124]
- In the Yukon, any person adversely affected by the issuance of a licence or use of water or deposit of waste authorized by the regulations is entitled to be compensated by the licensee and may sue to recover such compensation in a court of competent jurisdiction.[125]
- In the Northwest Territories, members of the public are granted standing to prosecute environmental offences and to initiate action for injunction or damages to protect the environment and the public trust (which is defined as the interest of public in environmental quality for future generations).[126]

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[122] *Philippine Mining Act of 1995*, (Rep Act No 7942) s 70.
[123] Environment Canada, *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act - November 2001* (Ottawa: Environment Canada, 2001) online: <http://www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=D6B74D58-1&offset=2&toc=show>.
[124] *Canadian Environmental Protection Act*, SC 1999, c 33 s 22; Environment Canada, *Formative Evaluation of CEPA 1999: Environment Canada* (Ottawa: Environment Canada, 2005) Part 2.2.
As of 2005, no private prosecution to enforce a provision of CEPA had been tried in court () This is not surprising given the outcomes of such efforts under other federal legislation, particularly the Fisheries Act. In the "great majority" of such cases; see, Keith Ferguson, "Challenging the Intervention and Stay of an Environmental Private Prosecution" (2004) 13 JELP 153 at 155 and 188. Attorneys-General have, for various reasons, stepped in and stayed or withdrawn the proceedings (; House of Commons, Standing Committee on Environment and Sustainable Development, *Evidence related to an Act respecting pollution prevention and the protection of the environment and human health in order to contribute to sustainable development* (October 21, 1998) at para 1545 et seq, online: <http://cmte.parl.gc.ca/cmte/CommitteePublication.aspx?COM=110&SourceId=51233&SwitchLanguage=1>. To address this barrier, comprehensive guidelines regarding the Attorney General's entitlement to stay or take over private prosecutions of regulatory offences, have been suggested but do not yet exist; Department of Justice Canada, *The Federal Prosecution Service Desktop* (Ottawa: Department of Justice Canada, undated), Part VI (Policy in Certain Types of Litigation Chapter 26: Private prosecutions), online: <http://www.justice.gc.ca/en/dept/pub/fps/fpd/ch26.html>. This document contains basic "guidelines".
[125] *Waters Act,* SY 2003, c 19, s 28.
[126] *Environmental Rights Act,* RSNWT 1988, c 83 (Supp), ss 5,6.

- In Ontario, any person who has suffered or may suffer a direct economic loss or direct personal injury as a result of a public nuisance causing environmental harm may bring an action. The consent of the Attorney-General to bring the action is not necessary, nor is it relevant whether other persons have been similarly injured.[127]
- In Kharthoum (Sudan) any person has the right to lodge a civil claim in a case where there has been some environmental damage without having to prove his or her connection with such damage.[128]
- Under Bolivia's Constitution, any person, individually or on behalf of a community, is empowered to bring legal actions to defend the environment.[129]
- Under Ecuador's Constitution, individuals and community groups are granted the right to file legal proceedings and resort to judicial and administrative bodies to obtain from them effective custody in environmental matters. This includes the possibility of requesting precautionary measures that would make it possible to end the threat or the environmental damage that is the object of the litigation.[130]

Under European Union law non-governmental organisations must also be granted standing.[131] In Sweden, the *Environmental Code* entitles environmental organisations of more than three years standing with 2,000 or more members to appeal judgments and decisions concerning permits. Persons not owning property within a mining area may also be entitled to appeal if their immediate surroundings are affected in certain ways.[132]

<u>Involve First Nations in proponent compliance and enforcement</u>
[Tags: Enforcement; First Nations Consultation]

It has been suggested that BC's EAO "should annually review compliance with affected First Nations".[133] Not only should First Nations be informed of proponent compliance, there are also opportunities for their involvement in enforcement. A potential model for such community enforcement is BC's own Coastal Guardian Watchmen: a group of First Nations resource practitioners who work in forestry, parks

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[127] *Environmental Bill of Rights*, SO 1993, c 28, s 103.
[128] *Environmental Protection Act of 2001.*
[129] Bolivia Constitution, October 2008, online: <http://faculty.smcm.edu/mfbilgin/nueva_cpe.txt>, Article 34
[130] Republic of Ecuador, Constitution of 2008, art 397.
[131] EC, Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, O, LJ 143/56, art 12.1. "[T]he interest of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient for the purpose of subparagraph (b). Such organisations shall also be deemed to have rights capable of being impaired for the purpose of subparagraph (c)."
[132] Eva Liedholm Johnson, Mineral Rights: Legal Systems Regulatory Exploration and Exploitation (DCL Thesis, Royal Institute of Technology, 2010) (Stockholm: Royal Institute of Technology, 2010) at 67, online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[133] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Best Practices for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009), Best Practice No. 54.

and fisheries to monitor, protect and restore important cultural and ecological values.[134] Although the Coastal Guardian Watchmen do not have legal standing to ensure compliance, their monitoring and reporting activities help to identify incidents of non-compliance and bring them to the government's attention.

The ability of First Nations to enforce environmental laws and regulations has also been codified in agreements. For example, in the Diavik and Snap Lake agreements, these rights include the right to take legal action if the proponents do not comply with applicable environmental legislation and regulations.[135] Similarly, the *Environmental Agreement* between the government of the Northwest Territories, Indigenous peoples and proponents, provides Indigenous peoples the right to pursue enforcement of their terms.[136] In Nunavut, legal provisions mandate that the Nunavut Water Board shall grant full standing to various Indigenous groups to make representations respecting their interests in relation to the areas that those groups have traditionally used and continue to use. The Water Board must take any such representations into account in its decision-making.[137] In Brazil, the Constitution grants Indigenous peoples standing rights to sue to defend their rights and interests.[138]

<u>Grant enforcement powers to local government and enforcement officials</u>
[Tags: Enforcement; Local Government]

Local officials, if adequately trained, can help fill the need for improved enforcement. This is recognized in Washington State where the regulatory authority is empowered to delegate some or all of its enforcement authority by contractual agreement to a county, city, or town that employs personnel who are, in the opinion of the department, qualified to enforce plans approved by the department.[139]

Similarly, local police can also fill to provide the necessary enforcement personnel. In Papua New Guinea, legal provisions mandate that all members of the police force shall, when required by the regulatory authority, aid in carrying out the regulatory authority's powers, functions and duties under the mining legislation, including enforcement responsibilities.[140] Similarly, in the Philippines, the

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[134] See generally, Coastal Guardian Watchmen Network, online: <http://coastalguardianwatchmen.ca/>.
[135] Ciaran O'Faircheallaigh, "Environmental agreements, EIA follow-up and aboriginal participation in environmental management: The Canadian experience" (2007) 27 Environmental Impact Assessment Review 319 at 327-328.
[136] Government of Canada, Government of the North West Territories and BHP Diamonds Inc, *Environmental Agreement* (January 6, 1997) art I, online: <http://www.monitoringagency.net/LinkClick.aspx?fileticket=%2bHCwiwiJm7E%3d&tabid=87>; Government of Canada, Government of the North West Territories, Diavik Diamond Mines Incorporated, Dogrib Treaty 11 Council, Lutsel K'e Dene Band, Yellowknives Dene First Nation, North Slave Metis Alliance and Kitikmeot Inuit Association, *Environmental Agreement* (March 8, 2000), art 1, online: <http://www.diavik.ca/documents/Diavik_Environmental_Agreement.pdf>; Government of Canada, Government of the North West Territories, De Beers Canada Mining Inc, Dogrib Treaty 11 Council, Lutsel K'e Dene Band, Yellowknives Dene First Nation and North Slave Metis Alliance *Environmental Agreement De Beers Snap Lake Diamond Project* (May 31, 2004) art I, online: <http://www.slema.ca/wp-content/uploads/2011/02/De-Beers-Final-Environmental-Agreement-PDF1.pdf>
[137] *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, SC 2002, c 10, s 50:
[138] *Constitution of the Federative Republic of Brazil, 1988*, art 232.
[139] Wash Rev Code tit 78 § 44.050.
[140] *Mining Act 1992 (Consolidated to No 49 of 2000) Papau New Guinea,* s 166.

regulatory authority may deputize any member or unit of the Philippine National police to police mining activities.[141]

Lack of Government Capacity

Issue

One of the greatest challenges to effective enforcement is the lack of capacity and availability of resources. Over the past decade, provincial and federal government departments responsible for enforcement at mines have suffered from severe budget cuts. This has resulted in a reduced workforce, a significant reduction in the number of site inspections and prosecutions, and a deterioration of the protection of local communities.[142]

Recently, recognizing the need for a large workforce, the provincial government's Resource Management Coordination Process began transferring officials from the Ministry of Forests to conduct mine inspections. This process has included both in-class and field training (shadowing of mining inspectors). This suggests a shift towards greater inspection capacity for mines in the province. However, concerns remain that forestry inspectors may not have sufficient expertise with mining issues, and there is a risk that they may focus more on familiar forestry issues (such as roads and forest habitat) as opposed to other mining-focused issues (such as acid rock drainage, underground workings, and different components of mining plants and facilities).

Issue

Adequate funding is one of the key elements of a successful enforcement regime. In BC, some success has been achieved in incorporating pre-approved funding arrangements in EA Certificates.[143] However,

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[141] *Philippine Mining Act of 1995*, (Rep Act No 7942) s 9.

[142] British Columbia, *Annual Reports of the Chief Inspector of Mines* (Victoria: Ministry of Energy and Mines, 2000-2010), online: <http://www.empr.gov.bc.ca/MINING/HEALTHANDSAFETY/CI/Pages/default.aspx>. The number of mine visits reported showed a significant drop from over two thousand annually in 2001, to less than four hundred in 2004 before rebounding to just over one thousand visits in 2008 (*only half the inspections done in 2001*).; Karen Campbell, Lisa Sumi, Alan Young, *Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC* (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 37-38: "In the past, sites were visited as many as eight times a year, but in some regions this number has been cut in half. More remote mine sites may not be visited at all"; Maya Stano, *The Raven Mine: A Regulatory & Fiscal Black Hole?* (Victoria: Environmental Law Centre, 2011) at 38, online: <http://www.coalwatch.ca/sites/default/files/RavenCoal_BlackHole_MayaStano_ELC-Spring2011.pdf>; "[T]he ability to review and comment on monitoring data dropped dramatically when staff cutbacks eliminated mining technicians. Among other things, mining technicians used to write letters to mining companies, acknowledging receipt of monitoring data, and addressing any incidents of non-compliance."; "B.C. Budget Axes Environment" *Pacific Free* Press (2 March 2010) online: Pacific Free Press <http://www.pacificfreepress.com/news/1/5734-bc-budget-axes-environment.html>. MOE employees who retire are not being replaced; See: West Coast Environmental Law, *Please Hold, Someone Will Be With You* (Vancouver: West Coast Environmental Law, 2004) online: <http://www.wcel.org/wcelpub/2004/14099.pdf>.

[143] British Columbia, Office of the Auditor General, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: Office of the Auditor General, 2011) at 23, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>. "For example, the Greenville-to-Kincolith Road project was expected to have significant direct and indirect residual impacts on grizzly bears. Approaches to mitigate impacts resulted in an extensive program of bear–human conflict avoidance, education, enforcement and a monitoring program from 2000 to 2009. The plan, estimated to cost over $500,000, was jointly funded by the proponent (Ministry of Transportation) and the federal Department

there is a need for legal provisions that ensure consistent and adequate funding sources for effective enforcement. The following recommended solutions demonstrate some available methods for achieving this goal.

Recommended Solutions

Charge fees to recover inspection costs
[Tags: Enforcement; Capacity; Cost Recovery; Fee]

As mentioned above, a minimum of one inspection a year must be carried out at surface mining operations in California. The associated legal provisions explicitly state that the proponent is responsible for the reasonable cost of the inspections.[144] Similar legal provisions are in place in Washington State.[145] In Quebec, legal provisions empower the government to enact regulations regarding fees payable by the proponent to cover the costs of control and monitoring measures. The fee levels are to be based on the nature and characteristics of the proponent's activities and the number and seriousness of the offences of which the proponent has been convicted.[146]

Charge fees to recover administrative costs associated with issuing orders
[Tags: Enforcement; Capacity; Cost Recovery; Fee]

In New South Wales (Australia), the regulatory authority is empowered to impose a fee to recover the administrative costs associated with the preparation and issuance of a direction under the Mining Act.[147]

Allow recovery of enforcement costs from proponent
[Tags: Enforcement; Cost Recovery; Capacity]

Cost recovery also exists for private prosecutions. Allowing private prosecutors to recover their costs from the fines helps encourage further use of private prosecutions. Various jurisdictions have adopted legal provisions to this end, including Canada (federal government);[148] Yukon[149] and the Northwest Territories.[150]

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of Indian Affairs and Northern Development. Interviewees reported that this plan was successfully implemented because the budget (including resources and personnel) was secured before the environmental assessment certificate was approved"; David R Boyd, "Unnatural Law: Rethinking Canadian Environmental Law and Policy" (Vancouver: UBCPress, 2003) at 33. "In 1990, the Antisapian Chemical Waste Control Regulation (BC Reg 300/90) was especially successful at reducing the aquatic discharge of toxins from the lumber industry due to federal enforcement actions that were financed by the Fraser River Action Plan."

[144] *California Surface Mining and Reclamation Act of 1975*, Cal PRC, 2 § 2774(b)(2007).
[145] Wash Rev Code tit 78 § 78.56.080(3) (2011).
[146] *Environment Quality Act,* RSQ, Q-2, s 31(t).
[147] *Mining Act 1992* (NSW), No 29, s 240E(1).
[148] *Fishery (General) Regulations*, SOR 93/53, s 62.
[149] *Environment Act*, RSY 2002, c 76, s 19(2).
[150] *Environmental Rights Act*, RSNWT 1988 (Supp), c 83, s 5.

Allow recovery of remediation costs from proponent
[Tags: Enforcement; Cost Recovery; Capacity]

BC's *Water Act* allows a court to order that the offender pay the government an amount of money as compensation for the cost of any remedial or preventive action taken by or caused to be taken on behalf of the government as a result of the commission of the offence.[151] Similarly, under Canada's amended *Fisheries Act,* proponents may be required to pay for any necessary measures taken by an inspector or fisheries officer to conserve or protect fish and fish habitat.[152]

In the European Union, if the government has carried out preventive and remedial actions itself, it may recover those costs from proponents responsible for the damage. The same polluter pays principle applies to environmental assessments carried out to determine the extent of damage and the action to be taken to repair it.[153]

Lack of Independent Enforcement Agency

Issue

To address jurisdictional issues surrounding the enforcement of environmental laws, the federal and provincial governments have established a harmonization process for inspection and enforcement of environmental protection laws.[154] This initiative seeks to reassign responsibility for administering and enforcing Canada's environmental laws to one or the other level of government.[155] This initiative is based on the rationale that it will achieve cost savings and improved environmental performance. However, it has been widely criticized as being based on a "*myth unsupported by any data*" that the desired results would materialize.[156] Most recently, the Auditor-General critiqued this approach on the grounds that it would fail to achieve adequate enforcement of legal commitments and obligations.[157]

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[151] *Water Act,* RSBC 1996, c 483, s 95(1)(c).
[152] *Fisheries Act*, RSC 1985, c F-14, s 38(7.1).
[153] Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, arts 10, 17. Note the competent authority must initiate cost recovery proceedings within five years of the date on which the remediation and repair measures have been completed or the date on which the liable operator, or third party, has been identified.
[154] Canadian Council of Ministers of the Environment, *Inspections and Enforcement Sub-Agreement* (Endorsed by CCME Council of Minister, April 30-May 1, 2001, Winnipeg) at 1,online: <http://www.ccme.ca/assets/pdf/insp_enfsubagr_e.pdf>; *Canada – British Columbia Fish Habitat Management Agreement*, between the Government of Canada and the Government of British Columbia (July 13, 2000), online: <http://www.dfo-mpo.gc.ca/habitat/role/141/1413/partagr-entpart/bc-cb-eng.htm >.
[155] House of Commons Standing Committee on Environment and Sustainable Development, The Canadian Environmental Protection Act, 1999--Five-Year Review: Closing The Gaps: Report of the Standing Committee on Environment and Sustainable Development (Ottawa: House of Commons Standing Committee on Environment and Sustainable Development, 2007) at para 5, online: <http://cmte.parl.gc.ca/Content/HOC/committee/391/envi/reports/rp2614246/envirp05/05-rep-e.htm>.
[156] Peter Krahn, "Enforcement versus voluntary compliance: An examination of the strategic enforcement initiatives implemented by the Pacific and Yukon Regional office of Environment Canada: 1983 to 1998" (Paper delivered at the 5th Conference on Environmental Compliance and Enforcement Proceedings, Monterey, CA, 1998) at 40, [unpublished]."The common inference that there is overlap and duplication of effort between federal and provincial enforcement agencies is not supported by the available data"; House of Commons Standing Committee on Environment and Sustainable Development, The

Under Canada's amended *Fisheries Act,* the federal and provincial government can enter into agreements to download responsibility for administration and enforcement to the Province (especially where equivalent Provincial laws already exist).[158] A key challenge raised by this devolution of responsibility is the increased burden placed on already resource-poor provincial regulators. In addition, there are concerns that once one level of government devolves its responsibility to another level, it progressively abandons the field, making it very difficult to return to its previous role.[159] The harmonization agreement also provides that the enforcement and inspection activities are to be carried out by the level of government that is "*best situated*".[160] Without further clarification, this raises potential confusion that may lead to neither level of government assuming the responsibility, especially where budget cuts reduce enforcement capacity.

Finally, environmental protection enforced by two levels of government is especially important to prevent against bias where one level is benefiting financially from the project.[161] Mining activities are provincially regulated and generate provincial revenue. As such, there is an apparent conflict of interest for the provincial government to be solely responsible for enforcing environmental laws while at the same time trying to encourage investment.

One initiative that may actually serve to improve compliance and enforcement is the provincial inter-agency compliance and enforcement committee, which BC's EAO recently joined. This committee was formed to support the natural resource and environment agencies in co-ordinating compliance and

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Canadian Environmental Protection Act, 1999--Five-Year Review: Closing The Gaps: Report of the Standing Committee on Environment and Sustainable Development (Ottawa: House of Commons Standing Committee on Environment and Sustainable Development, 2007) at para 123, online: <http://cmte.parl.gc.ca/Content/HOC/committee/391/envi/reports/rp2614246/envirp05/05-rep-e.htm>. "There is insufficient evidence of overlap and duplication of environmental regulations and activities between the federal and provincial/territorial governments, thus making it doubtful that greater administrative efficiency and cost savings would be achieved under the agreement. ... Rather than assuring that environmental practices and regulations of the two levels of government are complementary, the ultimate effect of the Accord and Sub-agreements will be to eliminate one level of regulations and practices".

[157] Office of the Auditor General of BC, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: 2011, 2011/2012 Report 4), online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO> at 18: "We found that, with the exception of commitments that are tied to specific permits, agency responsibilities for monitoring compliance with environmental assessment certificates are not clear. Most interviewees reported that they had little if any communication with the EAO on these matters once a certificate had been issued."

[158] *Fisheries Act*, RSC 1985, c F-14, ss 4.1, 4.2.

[159] House of Commons Standing Committee on Environment and Sustainable Development, The Canadian Environmental Protection Act, 1999--Five-Year Review: Closing the Gaps: Report of the Standing Committee on Environment and Sustainable Development (Ottawa: House of Commons Standing Committee on Environment and Sustainable Development, 2007) at para 116, online: <http://cmte.parl.gc.ca/Content/HOC/committee/391/envi/reports/rp2614246/envirp05/05-rep-e.htm>.

[160] Canadian Council of Ministers of the Environment, *Inspections and Enforcement Sub-Agreement* (Endorsed by CCME Council of Minister, April 30-May 1, 2001, Winnipeg) at ss 4.1.3 and 4.1.4, online: <http://www.ccme.ca/assets/pdf/insp_enfsubagr_e.pdf>.

[161] Greg Simmons et al., *Digging up Trouble: The Legacy of Mining in BC* (Vancouver: Sierra Legal Defence Fund, 1998) at 17: for example, the Kemess South mine is a situation where the provincial government is financially involved to an extent that its impartiality appears compromised; the presence of a second level of regulation provides the process at least some degree of balance.

enforcement activities. However, due to recent ministry reorganizations, little work has been completed to date.[162] The concept of coordinating enforcement efforts by way of this type of committee is, however, a step in the right direction towards more collaborative enforcement efforts between provincial ministries.

Recommended Solutions

Appoint independent monitoring and enforcement agency for mining activities
[Tags: Enforcement; Conflict of Interest; Independent]

The number of different laws that apply to mines in BC highlights the need for coordinated enforcement efforts. However, mere delegation of enforcement responsibilities from one government department to another has proven to be insufficient. The need for a separate, independent agency to enforce environmental laws was recognized by Canada's Standing Committee on Environment and Sustainable Development.[163] This approach has been adopted in Ontario, where their historically high conviction rate for environmental offences was directly attributable to the creation of the Investigation and Enforcement Branch: a specialized enforcement branch that was separate from the Ministry of Environment's abatement section.[164] A similar approach has been adopted in Washington State where the department of ecology must appoint a metals mining coordinator to assist agencies coordinate their inspection and monitoring responsibilities.[165] As such, rather than merely shifting responsibilities, a specific position is created to aid in the coordination of enforcement responsibilities.

Prohibit persons with conflicts of interest from carrying out mine inspections
[Tags: Enforcement; Conflict of Interest]

BC's *Mines Act* imposes the duty to ensure compliance with the law on the owner, agent or manager of the mine.[166] To promote greater transparency, legal provisions should mandate that individuals with an interest in a particular mine not be responsible with enforcement at that mine. This is recognized in California, where a surface mine inspection may not be performed by any person who holds a financial interest in or has been employed by the surface mining operation in any capacity (including as a consultant or as a contractor) during the year preceding the inspection.[167]

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[162] Office of the Auditor General of BC, *An Audit of the Environmental Assessment Office's Oversight of Certified Projects*, (Victoria: 2011, 2011/2012 Report 4) at 19, online: <http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO>.
[163] Standing Committee on Environment and Sustainable Development, "Enforcing Canada's Pollution Laws: The Public Interest Must Come First!", Third Report, May 1998, at paras 101-102, online: http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=1031521&Language=E&Mode=1&Parl=36&Ses=1.
[164] Standing Committee on Environment and Sustainable Development, "Enforcing Canada's Pollution Laws: The Public Interest Must Come First!", Third Report, May 1998, at paras 101-102, online: http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=1031521&Language=E&Mode=1&Parl=36&Ses=1.
[165] Wash Rev Code tit 78 § 56.060(2011).
[166] *Mines Act,* RSBC 1996 c 293, s 24(1).
[167] *Surface Mining and Reclamation Act of 1975*, 2 Cal PRC, § 3504.5(c)(2007).

Institute specialized court to rule on environmental matters
[Tags: Enforcement; Expertise]

As recognized by the United Nations Environment Programme, "courts are the most prevalent formal institutional setting for sanctioning the violation of environmental laws and regulations and ensuring compliance".[168] Given the scientific and technical expertise necessary to understand and effectively determine matters related to environmental offences, several jurisdictions have established specialized courts to adjudicate environmental law issues.

New South Wales (Australia) has a specialised Land and Environment Court, which has equal status to the Supreme Court and is responsible for interpreting and enforcing the State's environmental law.[169] The Court has jurisdiction to hear and dispose of proceedings arising under the mining legislation. Similarly, in Queensland (Australia) a specialist Land Court is responsible for hearing disputes under mining and environmental legislation,[170] but also has the power to issue injunctions to restrain activities that may result, for example, in unlawful harm to Aboriginal cultural heritage or the prohibited excavation or relocation of cultural heritage.[171] Sudan's Khartoum State offers another example of a specialized court set up to deal with the state's environmental and conservation violations.[172]

Insufficient Penalties and Liability

Issue

Although proponents may face harsh penalties for disobeying the law, the penalties are not necessarily proportional to or reflective of the damage caused by the offence. Nor does the sentence necessarily require the proponent to pay for remediation. The sections below highlight some ideas for different penalties for consideration in sentencing.

Recommended Solutions

Expand liability to cover social, cultural, economic and environmental impacts
[Tags: Enforcement, Traditional Knowledge, Environmental Protection]

In some jurisdictions, liability is broadly expanded to explicitly hold proponents financially responsible for damage they cause to Indigenous knowledge systems, local economies and livelihoods, and damage to biological diversity. For example, in Zambia, legal provisions provide that liability shall extend to:

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[168] Carl Bruch & Elizabeth Mrema, *Manual on Compliance with and Enforcement of Multilateral Environmental Agreements* (Nairobi: United Nations Environmental Program, 2006) at 505, online at: <http://www.unep.org/delc/portals/119/UNEP_Manual.pdf>.
[169] *Land and Environment Court Act* (NSW, Australia), 1979 No 204.
[170] *Land Court Act 2000* (QLD, Australia).
[171] *Land Court Act 2000* (QLD, Australia), s32H. Also see the Land Court of Queensland fact sheet on cultural heritage available at http://www.landcourt.qld.gov.au/fact-sheets.asp.
[172] Carl Bruch & Elizabeth Mrema, *Manual on Compliance with and Enforcement of Multilateral Environmental Agreements* (Nairobi: United Nations Environmental Program, 2006) at 509, online at: <http://www.unep.org/delc/portals/119/UNEP_Manual.pdf>.

- "any negative impact on the livelihood or indigenous knowledge systems or technologies of any community";[173]
- "any air, water or soil contamination or damage to biological diversity";[174]
- "any reduction in yields of the local community";[175] and
- "any damage to the economy of an area or community".[176]

In Queensland (Australia), proponents can be held financially liable for breaching their duty of care to avoid harm to Aboriginal cultural heritage as well as unlawfully excavating, relocating or taking away Aboriginal cultural heritage or for the unlawful possession Aboriginal cultural heritage.[177] For example, proponents can be fined up to AU$1,000,000 for breaching their duty of care.[178]

Combine posting of security with issuance of orders
[Tags: Enforcement; Security]

To promote compliance with various permits and orders, some jurisdictions empower the courts to order that proponents post security to ensure compliance. In Newfoundland and Labrador, for example, proponents who are convicted of an offence under the *Environmental Protection Act* may be ordered by the court to take positive action to remedy or prevent an environmental effect related from the offence; and post security in an amount that will ensure compliance with the order.[179] This legislation also provides the Minister with the power to require that proponents post security to ensure compliance with any order made by the Minister to control, manage, eliminate, remedy or prevent an adverse effect or an environmental effect.[180]

Extend liability to consultants completing environmental assessments
[Tags: Enforcement; Security]

Environmental assessments are generally completed by consultants hired by the proponent. To accompany this responsibility, consultants need to be held liable for the information they provide in the environmental assessments. This is recognized in Mozambique, where: "*Registered consultants are civilly and criminally liable for the information in their environmental impact studies and jointly and severally with their clients for activities carried out in accordance with their advice that nevertheless*

[173] *Mines and Minerals Development Act*, 2008 (No.7) Zambia, s 123(5)(b).
[174] *Mines and Minerals Development Act*, 2008 (No.7) Zambia, s 123(5)(e).
[175] *Mines and Minerals Development Act*, 2008 (No.7) Zambia, s 123(5)(d).
[176] *Mines and Minerals Development Act*, 2008 (No.7) Zambia, s 123(5)(f).
[177] *Aboriginal Cultural Heritage Act,* 2003 (Qld, Australia), ss 24, 25 and 26.
[178] *Aboriginal Cultural Heritage Act,* 2003 (Qld, Australia), s24. See also the Queensland government's Duty of Care Guidelines available at < http://www.datsima.qld.gov.au/atsis/aboriginal-torres-strait-islander-peoples/indigenous-cultural-heritage/legislation-and-guidelines/duty-of-care-guidelines>
[179] *Environmental Protection Act*, SNL 2002, c E-14.2, s 77.
[180] *Environmental Protection Act*, SNL 2002, c E-14.2, s 99.

result in damage to the environment."[181] Such a provision may help deter consultants from minimizing the risk of harm to the environment that they report on in their work.

Cancel mineral tenure for continued non-compliance
[Tags: Enforcement; Penalties]

In BC, if an inspector believes on reasonable grounds that a person is not in compliance with the law or permit conditions and that the contravention has a detrimental environmental impact, the inspector *may order* that the mine is closed until remedial action is taken. [182] Only where a delay in remedying a hazard would be dangerous to persons or property, is the inspector required to make an order regarding remediation.[183] BC's laws do not allow or oblige an inspector to take any further action against a proponent for non-compliance. By contrast, in New Brunswick, the regulatory authority will investigate a failure to comply and may then cancel the mining lease, extend the time to comply, or make any other order or decision that he considers just and equitable.[184] If an extension is granted, and the proponent continues not to comply, "the Minister *shall* cancel the lease".[185]

Prohibit offenders from applying for new licences
[Tags: Enforcement; Non-Compliance; Offender]

A powerful disincentive for proponents to flout their environmental responsibilities is the risk that they will be prevented from applying for new licences. This consequence for non-compliance is provided for under Canada's new *Environmental Enforcement Act*, which empowers the court to prohibit an offender from applying for new licences or permits for a set period of time.[186]

Subject mining companies to profit stripping
[Tags: Enforcement; Penalties; Profit Stripping]

Profit stripping is another persuasive enforcement tool. Where profits were made in the commission of an offence, several federal statutes now direct judges to impose additional fines equal to such profits.[187] Similar provisions are in place in Alberta.[188]

Legislate heavier penalties for repeat offenders
[Tags: Enforcement; Sentencing; Penalties]

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[181] *Environmental Impact Evaluation Process Regulation* (Decree n.° 45/2004 of 29 September, as amended by Decree n.º 42/2008, de 4 November) Mozambique, art 23, paragraph 4.
[182] *Mines Act,* RSBC 1996 c 293 s 15(4.1)(c).
[183] *Mines Act,* RSBC 1996 c 293 s 15(c).
[184] *Mining Act*, SNB 1985, c M-14.1, s 84(2).
[185] *Mining Act*, SNB 1985, c M-14.1, s 84(3).
[186] Bill C-16, *Environmental Enforcement Act*, 2nd Sess, 40th Parl, 2009 cl 2(g) (assented to 18 June 2009).
[187] See e.g., *Migratory Birds Convention Act*, 1994, SC 1994, c22, s 13(5).
[188] *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 216.

Many jurisdictions have enacted legal provisions that provide for progressive use of heavier fines for repeat offenders. For example, in Manitoba, corporations first face fine up to $500,000, and subsequent offences up to $1 million.[189] Similar provisions are in place in Ontario.[190] Many federal statutes were recently amended to allow for fines to be doubled for repeat offenders, making large revenue corporations potentially liable to fines of up to $12 million.[191] The *Environmental Enforcement Act* also amended several statutes to provide for cumulative fines: where an offence involves more than one animal, plant or object, the fine imposed may be the total cumulative fine that would have been imposed if each of the harmed animals, plants, or objects had been the subject of a separate prosecution.[192]

Encourage creative sentencing provisions
[Tags: Enforcement; Sentencing]

Various jurisdictions have recognized the need for creative sentencing for environmental offenders, including community service work, payment of scholarships for environmental studies, and reduction in production quotas. For example, Canada's new *Environmental Enforcement Act* amended several federal statutes to recognize community service work as a sentencing option for environmental offences.[193] Community service is also contemplated as a creative sentencing measure for offences under BC's *Water Act.*[194] In addition, Canada's new *Environmental Enforcement Act* includes payment of scholarships for environmental studies as a creative sentencing option.[195] In Indonesia, legal provisions provide that a sanction for failing to comply with the law may include the reduction of up to 50 percent of the offender's quota for mining production.[196]

Establish long or indefinite limitation periods for commencing an action
[Tags: Enforcement, Liability]

[189] *Environment Act*, CCSM, c E125, s 33.
[190] *Environmental Protection Act*, RSO 1990, c E.19, s 187(2).
[191] Bill C-16, *Environmental Enforcement Act*, 2nd Sess, 40th Parl, 2009 cl 1 (assented to 18 June 2009).
[192] *Antarctic Environmental Protection Act*, SC 2003 c 28, s 53.1; *Canada National Marine Conservation Areas Act*, SC 2002 c 18, s 24(2.1); *Canada National Parks Act*, SC 2000 c 32, s 27(1); *Canada Wildlife Act*, RSC 1985 c W-9, s 13.12; *Saguenay-St. Lawrence Marine Park Act*, SC 1997 c 37, s 20.2; *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*, SC 1992 c 52, s 22.09.
[193] See e.g., *Canada National Marine Conservation Areas Act*, SC 2002 c 18, s 27(1)(m); *Canada National Parks Act*, SC 2000 c 32, s 30(1)(m).
[194] *Water Act,* RSBC 1996, c 483, s 95(1)(d).
[195] Bill C-16, *Environmental Enforcement Act*, 2nd Sess, 40th Parl, 2009 cl 2(j) (assented to 18 June 2009); See e.g., *Antarctic Environmental Protection Act*, SC 2003 c 20 s 66(1)(m); *Canada National Marine Conservation Areas Act*, SC 2002 c 18, s 27(1)(r); *Canada National Parks Act*, SC 2000 c 32, s 30(1)(r).
[196] *Domestic Market Regulation,* (No 34 of 2009) Indonesia.

Under the BC *Mines Act*, the prosecution of offenders is hampered by the fact the Chief Inspector is required to lay information within only six months after the facts relating to the offence come to his or her attention (or one year in the case of mine permit offences).[197]

These limitation periods are significantly shorter than what is provided in other jurisdictions, and even under BC's other environmental and resources legislation.[198] For example, at the federal level, both the *Fisheries Act* and the *Canadian Environmental Protection Act, 1999* provide a two-year limitation period.[199] In the Yukon, a two-year limitation period is also provided.[200] Ecuador's Constitution goes even further by providing that "the legal proceedings to prosecute and punish those responsible for environmental damages shall not be subject to any statute of limitations."[201] The European Union has instituted a five-year period of limitations for the regulator to recover costs against a polluter and a thirty-year statute of limitations for specified environmental offences.[202]

<u>Replace strict liability offences with absolute liability offences for mining activities</u>
[Tags: Enforcement, Due Diligence]

As indicated above, the due diligence defence is available for most mining related offences. Therefore, even if environmental harm occurs, proponents may avoid responsibility if they can establish that their actions met the due diligence standard. In recognition of the importance of the polluter pays principle, other jurisdictions have replaced their strict liability offences with absolute liability offences. For example, Canada's new federal *Environmental Violations Administrative Monetary Penalties Act* prevents persons named in a notice of violation from being able to raise the defences of due diligence and mistake of fact.[203] Similarly, under Canada's *Arctic Waters Pollution Prevention Act,* it is absolute liability offence to deposit waste in Arctic waters.[204]

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[197] *Mines Act*, s 37(3.1)(b).
[198] *Environmental Assessment Act*, SBC 2003 c 43 s 46; *Water Act*, RSBC 1996 c 483, s 98.
[199] *Fisheries Act* RSC 1985 c F-14, s 82; *Canadian Environmental Protection Act,* SC 1999, c 33 s 23(1),275(1).
[200] *Quartz Mining Act*, SY 2003, c 14, s 151(1).
[201] Republic of Ecuador, Constitution of 2008, art 396.
[202] EC, Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, O, LJ 143/56, arts 10, 17.
[203] *Environmental Violations Administrative Monetary Penalties Act*, SC 2009, c 14, s 11(1).
[204] *Arctic Waters Pollution Prevention Act,* RSC 1985, c A-12, s 7(1).

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 9:

Mine Closure and Post Closure

By Maya Stano, P.Eng., LL.B., LL.M. and Glenn Grande B.A., B.Ed.

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The opinions expressed in this document are solely those of the authors. They should not be taken as reflecting the views of the Fair Mining Collaborative, the University of Victoria Environmental Law Centre, the Real Estate Foundation, the Wilburforce Foundation, the West Coast Environmental Law Environmental Dispute Resolution Fund, The Nature Conservancy, or Advocates for International Development. This publication is presented with the understanding that neither the publisher nor the authors are engaged in rendering legal, engineering, or other professional services or advice. In no event, including negligence on the part of the authors, the reviewers, the funders or the publisher, will the authors, reviewers, funders or the publisher be liable for any direct, indirect or consequential damages resulting from the use of this material. The authors offer no opinion as to the accuracy of the information summarized in this report and disclaim any responsibility for the accuracy or inaccuracy of such information. Readers interested in the specific details of the law or regulations of a country or jurisdiction cited in this report should consult original and up-to-date sources for that information.

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Chapter Summary

Historically, closed mines were simply abandoned, leading to widespread and toxic contamination of local ecosystems. Today, mine closure has become an integral part of the planning process *before* mining activities begin. **Chapter 9: Mine Closure and Post Closure** discusses BC's laws related to mine closure and post closure and compares them with innovative legislation from other jurisdictions.

To help set acceptable reclamation objectives, identify methods of achieving these objectives and develop a cost estimate as a basis for mine reclamation security, BC requires mines to create and file both short-term operational plans detailing reclamation over the upcoming five years and long-term conceptual final remediation plans for mine closure. Some contents of the conceptual final remediation plans are legally required while others are only encouraged under provincial policy.

However, the requirement for and content of closure plans in BC is subject to the Chief Inspector's significant discretion. In addition, there are inadequate legal requirements to promote transparent and consistent closure plan reviews, revisions, and amendments. There are no mandatory legal requirements to have closure plan reviewed by interested parties or that any such recommendations made actually be adopted.

To help ensure that important content is included in all closure plans, plans meet set standards, and the potential for adverse effects is considered in advance and thereby minimized at closure, BC should incorporate mine closure policy requirements into law.

To promote consistent and adequate reviews of closure plans, other jurisdictions require consultation with First Nations on the content of closure plans, require that closure plans be made available to the public, involve local communities in review of mine closure plans and involve the local government in review of closure plans.

Also, to help guard against errors and omissions and promote a multi-collaborative review process, comments from other government agencies should be granted legal weight and information sharing should be required of all regulatory agencies. Other jurisdictions have laws that require mandatory review of closure plans by other relevant government departments, require other agencies and government departments to assist the mining regulatory authority in the review of closure plans, require oversight of related processes the responsibility of one government department, require proof of economic feasibility of closure plans and require support of the closure plan review process by requiring miners to pay for the review costs.

Closure plans need to be reviewed and updated regularly to reflect changing or unexpected conditions. In BC, however, there is no legal requirement to update reclamation and closure plans. Instead, updates are governed by non-binding policies and on a case-by-case basis according to conditions contained in individual mine permits. Other jurisdictions require that closure plans are reviewed and updated at minimum every five years and following unexpected environmental impacts, require consultation with local authorities when updating or amending closure plans, and require reviews of and updates to closure plans following unexpected environmental impacts.

Post-closure land use is key in closure planning as it sets goals for closure activities. BC does require that specific factors related to land use be taken into account in closure planning, but the law fails to integrate local and First Nations' land use plans into the closure planning process. Other jurisdictions have enacted laws requiring that closure plans conform to regional land-use plans, that landowners be consulted on post-closure land use and that different types of reclamation requirements be clearly specified for various post-closure land uses. BC should incorporate similar laws into its mining legislation, and go further, by mandating a specific post-closure land use that allows for the exercise of specific First Nations rights, such as the restoration of habitat for specific species, or suitable growing conditions for native plants.

The sudden stoppage of work at a mine, or its sudden closure, can occur for a variety of reasons, and be temporary or long-term. BC Law mandates a 90-day notice before mine closure, and seven days notice for work stoppage. However, there are no legal provisions that prevent a mine from filing a 7-day work stoppage notice and remaining "un-closed" indefinitely. Other jurisdictions have laws that address this issue with clear notice requirements for both temporary and permanent mine closures and minimum content requirements for stop-work notices.

Prior to mine closure, proper planning and laws should be in place to help ensure the continued economic prosperity of communities following the closure of a mine. Alternatives for promoting longer-term benefits for local communities after mining activities end include research and development, and local manufacturing.

Research and development is a key component in building a long-term sustainable development strategy for the mining industry and can be encouraged through a technology policy or through legal provisions that authorize particular agencies to carry out research and development, and that secure funding for such research from operating mines. Other jurisdictions have enacted legal provisions that empower agencies to conduct research and development and mandate financial contributions to a research and development fund by operating mines.

Current resource policies in BC favour the export of unprocessed natural resources over local manufacturing into value-added goods. This renders obsolete the potential long-term benefits that could otherwise be gained from the creation of stable manufacturing jobs. Other jurisdictions promote local manufacturing through laws that promote local processing and value-added manufacturing of mineral ore and that ensure that domestic needs are met before exporting raw materials.

For successful site reclamation, mines need to reclaim areas while mining, rather than leaving all mine site reclamation until after the mine closes. This is referred to as progressive reclamation. While many jurisdictions, including BC, recognize the benefits of progressive reclamation, BC mining law contains no explicit requirements for progressive reclamation. BC law also lacks a fixed end-date for reclamation, thereby failing to ensure effective, timely, and responsible mine closure. Other jurisdictions have laws which explicitly require progressive reclamation, require clearly defined reclamation completion schedules and set legally enforceable time limits for completion of separate phases of site reclamation.

When reclaiming mine sites in BC, the miner must meet certain reclamation standards. BC's Health, Safety and Reclamation Code states reclamation standards for re-vegetation, growth media, metal uptake, landforms, watercourses, water quality, disposal of chemicals and re-agents, monitoring and post-closure land use.

- **Re-vegetation:** Although BC's approach to re-vegetation is notable, greater detail and more specific legal requirements for re-establishing natural succession and processes (such as nutrient cycling and soil formation) have been adopted in other jurisdictions. For example, other jurisdictions have established measurable and enforceable criteria to determine if ecosystem restoration goals have been attained. Some jurisdictions also require conservation of topsoil through salvaging, measures to prevent erosion, weeds and contamination, and specified time limits for its removal. Other jurisdictions require that re-vegetation be commenced promptly (to reduce soil erosion and loss of soil nutrients), preceded by ground preparation and testing with trial plots, accomplished with native species and similar to the natural vegetation cover of surrounding areas. Additional requirements of laws of other jurisdiction include the cross-reference of mining reforestation activities with forestry laws, thresholds to demonstrate effective re-vegetation within set time periods, regular inspections of re-vegetation activities and assessment of re-vegetation by other agencies and government departments. By including similar laws in its mining legislation, BC reclamation standards for re-vegetation can be strengthened to ensure that sites are restored to self-sustaining ecosystems.
- **Landforms:** BC law does not have clear reclamation standards for site topography. Under BC law, land and watercourses must be reclaimed, where practicable, "in a manner that is consistent with the adjacent landforms". In addition, land must be left in a manner that ensures long-term stability, where stability is defined as "safety of an earth mass against structural failure or movement". Other jurisdictions have laws with clear descriptions of final site topography requirements and require assessments of the effect of mine workings on the stability of the ground surface. BC should incorporate similar provisions in its mining law.
- **Water Courses and Water Quality:** BC law contains few requirements regarding watercourse rehabilitation, water quality standards and long-term water treatment. In addition, the Chief Inspector retains significant discretion regarding the application and enforcement of these requirements. Laws in other jurisdictions require hydro-geological analysis of reclamation plans in sensitive areas, mandate restoration of meandering watercourses and rehabilitation of stream-banks, mandate erosion control measures and promote joint reclamation planning where two or more mines share a common boundary. Taking this one step further, BC should prohibit mines from meeting water quality objectives by using long-term water treatment facilities.
- **Chemicals and Re-agents:** A wide variety of chemicals are generally used at mine sites. Sufficient care must be taken to ensure these toxic chemicals are not released into the environment during or after mining activities are complete. BC mining law does not contain adequate legal requirements for managing chemicals and re-agents. BC should enact a law that clearly address responsibilities for the disposal of chemicals and toxins.

Once reclamation has been completed, there may still be significant environmental effects. Some of these may take years to develop or become apparent. BC law already requires reclamation monitoring and reporting; however, additional legal requirements would enhance both mitigation efforts and accountability. Laws in other jurisdictions set clear legal thresholds for action in reclamation monitoring programs. In addition, other jurisdictions mandate the inclusion of a monitoring schedule in post-closure environmental program plans, monitoring of vegetation and animal tissue for metal uptake, the online posting of annual reclamation reports to simplify public access, environmental audits to evaluate results of post-closure environmental monitoring and independent review of the adequacy of site reclamation. Finally, other jurisdictions require annual reclamation reports to encourage adaptive management of closure plans.

Mining activities require a variety of infrastructure that must be adequately decommissioned to protect local communities after mine closure. However, BC's laws do not contain adequate legal provisions regarding the long-term decommissioning of mining infrastructure. The following are legal provisions that promote comprehensive decommissioning of mine infrastructure:

- **General Provisions:** Other jurisdictions have laws that mandate sharing of infrastructure decommissioning information with local communities and also mandate the preparation and implementation of management plans for contaminated soils.
- **Mine Openings**: BC law has specific requirements regarding sealing mine openings, but lacks specific, enforceable legal provisions regarding the marking and rehabilitation of mine openings. Other jurisdictions have specific legal requirements for fencing and signage for the mine worksite and specific legal requirements for rehabilitating open pits.
- **Mine Waste Dumps:** Mining activities inherently disturb large volumes of soil and rock. As a result, waste rock, ore and other soils are generally stockpiled at the mine site during operation. An understanding of slope stability is necessary for the safe and economic design of waste rock, ore and other stockpiles. Absent such understanding, stockpiles can pose a serious threat to local downstream communities. To address this issue, other jurisdictions mandate an engineering analysis of stockpile slope stability. Other jurisdictions also have legal provisions that mandate mine waste must be stockpiled in such a manner as to facilitate phased reclamation.
- **Access Roads:** Although BC's provincial policy outlines adequate re-vegetation and sediment prevention measures for decommissioning roads, these policies are not legally binding. Detailed legislation governs re-vegetation of mine access roads in other jurisdictions. Legal provisions in other jurisdictions also mandate that roads to be decommissioned must be cross-ditched to avoid erosion gullies. BC should adopt similar measures to limit erosion and sedimentation resulting from abandoned mine access roads.

In BC, a miner is released of all legal obligations under the *Mines Act* when all legal conditions under the mining legislation and mine permit have been fulfilled to the satisfaction of the Chief Inspector and there are no on-going inspection, monitoring, mitigation or maintenance requirements. No other

government department or affected party is required to sign-off on the closure certificate. Other jurisdictions require the maintenance of mine facilities in saleable operating condition for two years after closure to promote new ownership, require thorough assessments of reclamation activities before releasing miner's obligations and require reviews by other affected agencies before the release of legal obligations. Adopting these additional requirements in BC could promote further economic activity, and protect the public purse from unforeseen occurrences.

Orphaned mines are mine sites where the mine owner cannot be found or is financially unable to complete the remediation works. BC has over a thousand historic mine sites that have potential to generate acid or leach metals into the environment. Although some work is being done to address orphaned mine issues, BC has inadequate legal provisions in place to carry out the remediation of orphaned mines. Other jurisdictions have laws which prioritize the remediation of mines through consultation with land-use planning agencies and promote community involvement in orphaned mine clean-up. In addition, the European Union requires member states to establish an orphaned mine inventory that is publicly available and regularly updated. Finally, a number of other jurisdictions have adopted legal provisions that ensure a more secure source of funding for cleaning up orphaned mines. This initiative often takes the form of operating mines paying into an orphaned mine fund. BC law needs similar provisions in order to deal with the numerous orphaned mines in the province.

Table of Contents

Chapter Summary **324**

Introduction **333**

Closure Plans **334**

Overview of BC Law *334*

Issue 336

Recommended Solutions 336

Incorporate closure plan policy requirements into law 336

Adequate Review of Closure Plans **336**

First Nations and Public Consultation *337*

Issue 337

Recommended Solutions 337

Require consultation with First Nations on the content of closure plan 337

Make closure plans available to the public 337

Involve local communities in review of mine closure plans 337

Involve local government in review of closure plans 338

Involvement of Other Agencies 338

Issue 338

Recommended Solutions 338

Mandatory review of closure plan by other relevant government departments 338

Commit other agencies and government departments to assist the mining regulatory authority in the review of closure plans 339

Make oversight of related processes the responsibility of one government department 339

Require proof of economic feasibility of closure plan 340

Support the closure plan review process by requiring miners to pay for the review costs 340

Revisions & Amendments 341

Overview of BC Law 341

Issue 341

Recommended Solutions 341

Review and update closure plans at minimum every 5 years 341

Require consultation with local authorities when updating or amending closure plans 341

Review and update closure plans following unexpected environmental impacts 342

Post-Closure Land Use *342*

Overview of BC Law 342

Issue 343

Recommended Solutions 343

Integrate post-mine closure land use with local and First Nations land-use plans 343

Legislate mandatory consultation with landowners and First Nations on post-closure land use 344

Adopt clear reclamation standards for different post-closure land uses 344

Work Stoppage **345**
Overview of BC Law 345
Issue 346
Recommended Solutions 346
Clarify notice requirements for temporary and permanent mine closure 346
Minimum content requirements for stop-work notice 347

Post-Closure Community Development **347**
Research and Development *348*
Recommended Solutions 348
Empower agencies to conduct research and development 348
Mandate financial contributions to a research and development fund by operating mines 349
Local Manufacturing *349*
Recommended Solutions 349
Promote local processing and value-added manufacturing of mineral ore 349
Ensure that domestic needs are met before exporting raw materials 350

Site Reclamation **351**
Progressive Reclamation *351*
Overview of BC Law 351
Issue 352
Recommended Solutions 352
Enact clear, legal requirements for progressive reclamation 352
Issue 353
Recommended Solutions 353
Legislate a clearly defined reclamation completion schedule 353
Set time limits for completion of reclamation activities 354

Reclamation Standards **354**
Overview of BC Law *355*
Reclamation Standards for Re-Vegetation, Growth Media and Metal Uptake *356*
Overview of BC Law 356
Issue 357
Recommended Solutions 357
Establish measurable and enforceable criteria to determine if ecosystem restoration goals have been attained 357
Conserve topsoil through: salvaging; measures to prevent erosion, weeds and contamination; and specified time limits for removal 358
Require ground preparation, such as scarification and placement of growth media, to prepare for re-vegetation, ... 359
Require testing with trial plots before full-fledged re-vegetation activities are carried out 360
Commence re-vegetation promptly to reduce soil erosion and loss of soil nutrients 360
Require re-vegetation with native species 361
Require re-vegetation equal to the natural vegetation cover of surrounding areas 362
Cross-reference mining reforestation activities with forestry laws 362
Set thresholds to demonstrate effective re-vegetation within set time period 362

Legislate regular inspections of re-vegetation activities 363
Mandate assessment of re-vegetation by other agencies and government departments 363
Reclamation Standards for Landforms *363*
Overview of BC Law 363
Issue 364
Recommended Solutions 364
Clarify the description of final site topography requirements 364
Require assessments of the effect of mine workings on the stability of the ground surface 364
Reclamation Standards for Water Courses and Water Quality *364*
Overview BC Law 364
Issue 366
Recommended Solutions 366
Prohibit mining operations from requiring long-term water treatment 366
Require hydro-geological analysis of reclamation plans in sensitive areas 367
Mandate restoration of meandering watercourses and rehabilitation of stream-banks 367
Mandate erosion control measures 368
Promote joint reclamation planning where two or more mines share a common boundary 368
Reclamation Standards for Chemicals and Re-agents *369*
Overview of BC Law 369
Issue 369
Recommended Solution 369
Enact mining law provisions that clearly address responsibilities for the disposal of chemicals and toxins. 369
Reclamation Monitoring & Reporting 369
Overview of BC Law 370
Issue 371
Recommended Solutions 371
Set clear legal thresholds for action in reclamation monitoring program 371
Mandate the inclusion of a monitoring schedule in post-closure environmental program plan 372
Mandate monitoring of vegetation and animal tissue for metal uptake 372
Mandate the online posting of annual reclamation reports to simplify public access 373
Mandate environmental audits to evaluate results of post-closure environmental monitoring 373
Mandate independent review of the adequacy of site reclamation 373
Require reference to annual reclamation reports to encourage adaptive management of closure plans 374
Infrastructure Decommissioning 374
Mine Plants, Buildings & Equipment *374*
Overview of BC Law 374
Hazardous Waste Facilities *375*
Overview of BC Law 375
Issue 376
Recommended Solutions 376
Mandate sharing of infrastructure decommissioning information with local communities 376

Mandate the preparation and implementation of management plans for contaminated soils 376
Mine Openings – Underground Workings and Open Pits *376*
Overview of BC Law 376
Issue 377
Recommended Solutions 378
Clarify the legal requirements for fencing and warning signs around mine openings 378
Enact specific legal requirements for rehabilitating open pits 378
Mine Waste Dumps – Waste Rock, Ore and Other Stockpiles *378*
Overview of BC Law 378
Issue 379
Recommended Solutions 379
Mandate an engineering analysis of stockpile slope stability 379
Mandate the stockpiling of mine wastes in a manner that facilitates phased reclamation 380
Access Roads *380*
Overview of BC Law 380
Issue 380
Recommended Solutions 380
Mandate the re-vegetation of all mine access roads that are to be reclaimed 380
Mandate the implementation of erosion control measures in road decommissioning 381

Release of Mine Permit Obligations 381
Overview of BC Law 381
Issue 381
Recommended Solutions 381
Require the maintenance of mine facilities in saleable operating condition for two years after closure to promote new ownership 381
Require thorough assessments of reclamation activities before releasing miner's obligations 382
Require reviews by other affected agencies before the release of legal obligations 382

Orphaned Mines 382
Overview of BC Law 382
Issue 384
Recommended Solutions 384
Coordinate the clean-up of orphaned mines with land-use planning 384
Promote community involvement in orphaned mine clean-up 385
Legislate the establishment of an orphaned mine inventory that is public available and regularly updated 385
Create an orphaned mine clean-up fund paid into by operating mines 385

Introduction

Historically, closed mines were simply abandoned. This led to widespread and toxic contamination of local ecosystems. The infamous Mt. Washington Mine, for example, was a major contributor to the loss of salmon stocks in the Tsolum River on Vancouver Island.[1] Salmon did not return until millions of taxpayer dollars were spent on remediation. Similarly, BC's Britannia Beach mine site cost taxpayers $70 million to remediate and address its toxicity issues.[2]

Today, mine closure has become an integral part of the planning process *before* mining activities begin.[3] This reflects a common expression in the mining industry that 'the day a mine opens, it begins to close.'

This chapter delves into legal provisions on the following issues related to mine closure:

- Closure plans (when they are required, what they must contain, and how they should be reviewed and approved);
- Work Stoppage
- Post-closure community development;
- Reclamation (to what standards, monitoring and reporting, and decommissioning mining infrastructure);
- Release of mine permit obligations; and
- Orphaned mines.

[1] Online: <https://circle.ubc.ca/bitstream/handle/2429/8048/04Healy%20Paper.pdf?sequence=1>, at 3.
[2] Maya Stano, *The Raven Mine: A Regulatory & Fiscal Black Hole?* (Victoria: Environmental Law Centre, 2011) at 22, online: <http://www.coalwatch.ca/sites/default/files/RavenCoal_BlackHole_MayaStano_ELC-Spring2011.pdf>.
[3] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Mineral and Coal Exploration Notice of Work Application* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2011) online: <http://www.em.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW(Jun21_2011).pdf>.

Terminology: Various jurisdictions use different terminology to describe mine closure activities. For consistency, and to simplify the comparison of laws from different jurisdictions, the following terminology has been adopted here:

- ***Closure plans*** - broadly includes decommissioning, reclamation and socio-economic plans.
- ***Decommissioning*** - the act of dismantling infrastructure associated with mining activities.
- ***Reclamation*** - the act of restoring areas impacted by mining activities; this includes site remediation, rehabilitation and restoration.
- ***Remediation*** - the act of de-contaminating areas polluted by mining activities.
- ***Rehabilitation*** - the act of restoring disturbed areas, to the extent possible, to their natural state.
- ***Restoration*** - the act of restoring areas impacted by mining activities. This term is often used interchangeably with the term 'reclamation.' For consistency 'reclamation' is used here rather than 'restoration.'

Closure Plans

Closure plans are generally prepared early in the development of a mine and included in the mine permit application. Early closure plan preparation is important for setting acceptable reclamation objectives, identifying methods of achieving these objectives, and developing a cost estimate as a basis for mine reclamation security (also referred to as reclamation bonds).

Overview of BC Law

BC law mandates short-term and long-term reclamation planning. Proponents must submit two mine reclamation plans as part of the initial mine permit application process:[4]

(1) **Short-term operational plan** detailing reclamation over the upcoming five years; and
(2) **Conceptual final reclamation plan** for mine closure that includes:
    - details on long-term post-closure maintenance; and
    - proposed use and capability objectives for the land and watercourses.[5]

Provincial policy further encourages proponents to include the following in the conceptual final reclamation plan:[6]

[4] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(6)(7), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[5] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(7)(a),(b), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

- end land use objectives;
- land capability objectives;
- long-term stability, both physical and chemical, for all structures and discharges from the mine;
- structures and/or equipment to remain in place following mine decommissioning plans for long term post-closure facility maintenance;
- reclamation of waste dump and tailings;
- reclamation of pit and underground workings;
- sealing of underground workings;
- watercourse reclamation;
- road reclamation;
- proposed program to assess trace element uptake in soils and vegetation at mine closure;
- disposal of toxic chemicals; and
- operational and post-closure monitoring.

Subject to the Chief Inspector's discretion, the *Health, Safety and Reclamation Code for Mines in British Columbia* (HSR Code) further requires short and long-term plans to:[7]

- take into consideration the health and safety of the public and workers;
- make it as practicable as possible in the future to mine zones affected by the plan;
- protect the land and watercourses; and
- be prepared by licensed professionals, or persons who, in the opinion of the Chief Inspector, are qualified to perform the work, when so required by the Chief Inspector.

Under BC law, the Chief Inspector also has significant discretion in reviewing and deciding whether to approve a mine closure plan. This includes the discretion to decide: whether to refer the application to other ministers and agencies for recommendations;[8] whether to demand that licensed professionals prepare the plans;[9] the level of public participation; and whether to integrate the mine plan with local land use plans.

The law grants broad discretion to the Governor in Council,[10] the Minster, and the Chief Inspector to consider the unique challenges and considerations for different mines. This also means, however, that

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[6] *Mines Act*, RSBC 1996, c 293, Appendices: Application requirements for a permit approving the mine plan and reclamation, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.

[7] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.10, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[8] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.3.3, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[9] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.10(4), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[10] *Mines Act,* RSBC 1996, c 293, s 38(a).

the authorities, and in particular the Chief Inspector, may deviate from the typical requirements and make decisions independently of the views of others, including proponents, other government agencies, First Nations, landowners, members of the public, or other affected and interested parties.

Although closure plans are included with the mine permit application in BC, the Chief Inspector retains the discretion to decide whether notice of the mine permit application must be published in local newspapers.[11] Where published, persons affected by such a notice, or interested in the application, only have 30 days to submit written representations to the Chief Inspector.[12]

BC law also does not mandate that closure plans be reviewed by other agencies. Since mining activities can have far-reaching impacts, however, it is important that government departments and agencies with relevant interests also review closure plans before mine permit approvals are granted.

Issue

The requirement for and content of closure plans in BC is subject to the Chief Inspector's significant discretion. In addition, there are inadequate legal requirements to promote transparent and consistent closure plan reviews, revisions, and amendments. There are no mandatory legal requirements to have closure plan reviewed by interested parties or that any such recommendations made actually be adopted.

Recommended Solutions

Incorporate closure plan policy requirements into law
[Tags: Closure; Reclamation Plans; Closure Plans; Legislation]

In BC, both the statutory and policy requirements for mine closure plans are subject to the Chief Inspector's discretion. In contrast, in Newfoundland and Labrador, reclamation and closure plan guidelines are incorporated by direct reference into the law.[13] This helps ensure that important content is included in all closure plans, plans meet set standards, and the potential for adverse effects is considered in advance and thereby minimized at closure.

Adequate Review of Closure Plans

The following sections describe Issues and Recommended Solutions from other jurisdictions that promote consistent and adequate reviews of closure plans. The sections are separated as follows:

- ***First Nations and Public Consultation;***
- ***Involvement of other Agencies;***

[11] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.2.1, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[12] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.2.2, 10.4.1(1), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[13] *Mining Regulations*, Nfld Reg 42/00, s 7(1).

- ***Revisions and Amendments;*** and
- ***Post Closure Land Use*.**

First Nations and Public Consultation

Issue

Local communities generally bear the heaviest impacts from local mining activities and their aftermath. BC, however, has no mandatory legal avenues for public participation in the review of closure plans.

The Chief Inspector's significant discretion in deciding whether to notify local communities of closure plans that have been submitted, coupled with the short comment period where communities are in fact notified, significantly undermines the involvement of affected communities and impedes the incorporation of valuable local knowledge into closure planning.

Recommended Solutions

Require consultation with First Nations on the content of closure plan
[Tags: Closure; Indigenous Rights; Meaningful Consultation; Negotiated Agreements; Land Use Planning; Free, Prior, and Informed Consent]

BC law does not explicitly require that consultation on mine closure plans be carried out with affected First Nations. Rather, First Nations consultation on closure plans is merely suggested in policy guidelines. In contrast, Ontario law expressly requires First Nations' consultation before closure plans are filed.[14] In addition, when making a decision on whether to approve an application to rehabilitate a mine hazard, the regulatory authority "shall consider whether Aboriginal community consultation has occurred in accordance with any prescribed requirements".[15]

Make closure plans available to the public
[Tags: Closure Plan; Public Consultation]

Legally requiring public accessibility to closure plans increases transparency of both the regulatory process and the mining operation. This is recognized under Oregon law which proclaims as a public document the complete reclamation plan, minus proprietary information. This makes the plan publicly available.[16]

Involve local communities in review of mine closure plans
[Tags: Closure Plan; Review; Public Consultation]

[14] *Mine Development Closure,* O Reg 240/00, s 12(2)(e).
[15] *Mining Act*, RSO 1990, c M 14, s 139.2(4.1).
[16] Or Rev Stat vol 12 c 517, § 915(2)(2011).

In Idaho, the regulatory authority may call a public hearing to determine whether the closure plan complies with the legal requirements: interested persons are entitled to appear and give testimony at these hearings.[17] This promotes greater public involvement in the review of closure plans.

Involve local government in review of closure plans
[Tags: Closure Plan; Local Government; Consultation]

Local governments are also an important source of information on local socio-environmental conditions, and should therefore also be notified about closure plan submissions and consulted during the review process. This is recognized under Idaho law which requires that the regulatory authority notify local cities and counties when it receives a closure plan for a surface mining operation. These cities and counties then have an opportunity to review the non-confidential portions of the plan and provide comments.[18] Similarly, under Washington law, the regulatory authority must solicit comments from the local government prior to approving a reclamation plan. [19]

Involvement of Other Agencies

Issue

A lack of multi-departmental review requirements renders closure plan processes vulnerable to errors and omissions. Notably, if written comments from other government agencies are not afforded legal weight, there is little incentive for them to commit adequate resources to review the plan. It is therefore important that comments from other government agencies be granted legal weight.[20]

In addition, to promote a multi-collaborative review process, the law should impose information-sharing duties not only on the mining regulatory authority, but also on other regulatory agencies. Recommended Solutions that address these issues are provided below. It is important to note, however, that information sharing should not be limited to the closure plan review phase. Instead, it should be undertaken throughout the course of the mining cycle to promote in-depth exchange of views.[21]

Recommended Solutions

Mandatory review of closure plan by other relevant government departments
[Tags: Closure Plan; Review; Consultation]

[17] Idaho Stat tit 47, § 1507(d)(2012).
[18] Idaho Stat tit 47, § 1507(7)(2012).
[19] Wash Rev Code tit 78, § 44.091(2011).
[20] *Species At Risk Act*, SC 2002, c 29, s 27(3): One example of an agency whose recommendations may become law is under Canada's Species At Risk Act, whereby the Minister is required to amend the list of protected species according to the Committee on the Status of Endangered Wildlife in Canada's assessment if the Governor in Council has not taken a course of action within nine months after receiving the assessment.
[21] Dan Shrubsole and Dianne Draper, "On Guard for Thee? Water (Ab)uses and Management in Canada", from: *Eau Canada: The Future of Canada's Water*, Karen Brakker, ed (Vancouver: UBC Press, 2007) at 46.

Mining laws in South Dakota[22] and Colorado[23] require other government agencies and departments to conduct reviews of closure plan. Similarly, in Quebec, the mining law mandates that the regulatory authority shall only approve a rehabilitation and restoration plan after consultation with the Minister of Sustainable Development, Environment and Parks.[24] The State of Wyoming goes one step further and requires that the director not only consult, but also advise, and co-operate with other state and federal government agencies. [25]

Commit other agencies and government departments to assist the mining regulatory authority in the review of closure plans
[Tags: Closure Plan; Review; Multi-Agency]

To regulate efficiently and successfully, the mining regulatory authority should be able to rely on other government agencies and departments for support in reviewing mine closure plans. This is ensured in Colorado, where a duty is imposed on the following agencies to furnish, "as far as practicable, whatever data and technical assistance the board may request and deem necessary for the performance of total reclamation and enforcement duties":[26]

- Department of Agriculture;
- Department of Higher Education;
- State Conservation Board;
- Colorado Geological Survey;
- Division of Parks & Outdoor Recreation;
- Division of Wildlife;
- Division of Water Resources;
- University of Colorado, Colorado State University, and Colorado School of Mines; and
- State Forester.

This type of legal provision helps clarify duties, and provides a legal avenue through which funding for such support may be channelled.

Make oversight of related processes the responsibility of one government department
[Tags: Closure Plans; Reclamation Plans; Government]

Since closure and reclamation issues often cross several disciplines, it can be useful to combine the efforts of different departments to collectively address the multiplicity of concerns, rather than isolating

[22] S Dak CL c 45 § 6B-11, online: < http://legis.state.sd.us;statutes;DisplayStatute.aspx?Type=Statute&Statute=45-6B-11>: The Department of Environment and Natural Resources must send copies of the reclamation plan to the Department of Agriculture, the Department of Education, and the Department of Game, Fish and Parks. Written comments on the proposed plan must be submitted within 30 days.
[23] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 §32-116(7)(j)(2011): The regulatory authority must confer with the local board of county commissioners and the board of supervisors of the conservation district (if the mining operation is within the boundaries of a conservation district) before approving any new reclamation plan.
[24] *Mining Act*, RSQ c M-13.1, s 232.5.
[25] Wyo Stat tit 35 § 11-109(a)(ii).
[26] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 art 32 §106(2).

them. This can be accomplished by combining the regulation of related processes into one government department. For example, in Nevada, the same department administers both reclamation programs and the water quality program.[27] Similarly, the South Dakota Department of Environment and Natural Resources combines the administration of mine reclamation with that of environmental protection.[28] Montana's Department of Environmental Quality also combines mine reclamation and environmental protection into a common department.[29]

Require proof of economic feasibility of closure plan
[TAGS: Closure Plans; Feasibility; Review]

US federal environmental law requires that proposed closure actions be demonstrated as being economically feasible. Where this is not demonstrated, the operator must re-engineer the process design or mine plan to ensure that the proposed closure procedures can be undertaken with the available financial resources.[30] This ensures that viable strategies that can be feasibly integrated are built into the closure plan.

Similarly, Wisconsin's stringent "Prove It First" law requires a mining company applying for a mine permit to first prove that they have successfully mined in conditions similar to Wisconsin's, in the US or Canada, for at least ten years without polluting the local water bodies, and that they have operated a mine which, at least ten years post closure, has not polluted the local water bodies.[31]

Support the closure plan review process by requiring miners to pay for the review costs
[Tags: Closure Plans; Review; Expenses]

BC mining law does not establish closure plan review fees. As such, all administrative costs associated with the review are drawn from the public purse. Other jurisdictions have enacted laws aimed to alleviate this heavy burden. For example, Idaho law empowers the regulatory authority to collect a reasonable fee for reviewing and approving a permanent closure plan.[32]

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[27] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States", (Boulder: Summary Report for the National Wildlife Federation, 2000) at 2, online: http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf.

[28] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States", (Boulder: Summary Report for the National Wildlife Federation, 2000) at 35, online: http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf

[29] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States", (Boulder: Summary Report for the National Wildlife Federation, 2000) at 25, online: http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf

[30] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure", (Washington DC: CRC Press LLC, 2000) at 189.

[31] *1997 Wisconsin Act* 171, s 293.50 1,2. The definition of pollution in this act reads "degradation that results in any violation of any environmental law as determined by an administrative proceeding, civil action, criminal action or other legal proceeding."

[32] Idaho Stat tit 47 §1506(g)(2012).

Revisions & Amendments

Overview of BC Law

In BC, there is no legal requirement to update reclamation and closure plans. The initial mine permit application must include both a short-term (5 year) reclamation plan and a final comprehensive closure plan. As time progresses, these reclamation plans should be updated to reflect changing costs, mining conditions, reclamation techniques, and closure objectives. BC law, however, does not have a general requirement for regular updates of closure plans. Instead, the issue is governed by non-binding policies and on a case-by-case basis according to conditions contained in individual mine permits.[33]

Issue

Lack of legal requirements to regularly update closure plans leaves the process vulnerable to arbitrary discretion, lack of enforcement, and inconsistent application.

Recommended Solutions

Review and update closure plans at minimum every 5 years
[Tags: Closure; Third-Party Review; Resource Policy]

Other jurisdictions legally require regular updates of closure plans. For example, Quebec and Saskatchewan law require reviews of closure plans at least every 5 years.[34] Further, where a miner in Saskatchewan fails to conduct the required review, the regulatory authority can hire an independent third party to complete the review at cost to the miner.[35]

Require consultation with local authorities when updating or amending closure plans
[Tags: Closure; Consultation; Free, Prior and Informed Consent; Resource Policy]

Local authority involvement in closure plan reviews and updates is equally, if not more, important than at the initial closure plan submission stage. Over time, the local community and elected authority may notice impacts that require further mitigation, or have interests in new locations being developed. These must be considered in the design of updated or amended closure plans. Recognizing this, Colorado law

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[33] BC Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 18, 79: The requirement to submit updated closure plans is usually specified as a permit condition. Provincial policy suggests such updates are generally required every five years. According to the same policy, updates that are received are referred to the RMDRC in the same manner as the original mine permit application; BC Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 18. Provincial policy also states that mine plan renewals must occur concurrently with reclamation plan renewals: online: <https://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates at 4.5>. Although permit conditions are legally enforceable, there is no guarantee that update requirements will be included as such permits – this is because the sole mention of 5-year update requirement is in provincial policy, which on its own carries no enforceable legal weight.

[34] *Mineral Industry Environmental Protection Regulations, 1996*, RRS c E-10.2, Reg 7, s 16(1)(a).
Mining Act, RSQ, c M-13.1, s 232.6(1).

[35] RRS c E-10.2, Reg 7, s 16(3), *Mineral Industry Environmental Protection Regulations*, 1996.

requires the regulatory authority to confer with the local county and conservation district before approving changes to an existing reclamation plan.[36]

Review and update closure plans following unexpected environmental impacts
[Tags: Closure; Environmental Assessment; Review]

When mining activities have unexpected adverse impacts on the environment, it is important to promptly re-evaluate the closure plan and make necessary amendments to mitigate adverse impacts. This is recognized in several jurisdictions. For example, in Ontario, if aquatic life in the receiving water body has been adversely affected during operation or closure, the closure plan must be amended "to specify the steps that will be taken to re-establish a diverse and viable aquatic community."[37]

Post-Closure Land Use

Overview of BC Law

Post-closure land use is key in closure planning as it sets goals for closure activities. Legal approaches adopted to address this important issue, both in BC and in other jurisdictions, are described in the following section. In BC, some regional land use planning processes have been critiqued for their failure to adequately consult affected First Nations people and for their predominant focus on resource development at the expense of long-term sustainability. Closure solutions should address this issue by ensuring that post-mining land use is consistent with affected First Nations' uses, proposed uses and own land-use plans, land-use plans jointly developed by First Nations and the province, and other legitimate regional land-use plans.

There are many factors that should be considered in determining an appropriate post-closure land use. Under BC mining law, the following factors must be taken into account in determining reclamation standards:

- Previous and potential land uses;[38]
- Maintenance of average pre-mining land capability (for lands that are to be reclaimed);[39] and
- Long-term stability of land, watercourses and access roads.[40]

Provincial policy further recommends that mine permit applications include: reclamation objectives; a general description of how the proposed reclamation program will achieve these objectives; and how

[36] *Colorado Mined Land Reclamation Act,* Colo Rev Stat tit 34 §32-116(7)(j) (2011).
[37] *Mine Development and Closure,* O Reg 240/00, Schedule 1, s 40.
[38] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.4, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[39] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.5, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[40] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

their success will be measured.[41] Where wildlife habitat is an end land use, target wildlife species should also be identified.[42] The following Recommended Solutions expand on these basic requirements mandated under BC law.

Issue

The diverse variety of post-closure scenarios demands the inclusion of local and First Nations land use plans in closure planning to reflect local objectives.

Recommended Solutions

Integrate post-mine closure land use with local and First Nations land-use plans
[Tags: Closure Plans; Land Use Plans; Indigenous Rights]

Land-use plans are important guides for determining appropriate local post-closure land uses. In BC there are currently no legal requirements mandating that post-mine closure land use be integrated with local land-use plans. Conversely, many other jurisdictions have recognized the importance of integrating these two processes. For example:

- In West Virginia, mine reclamation plans must contain a description of post-mining land use that conforms to the regional land-use plan.[43]
- In Washington, post mine-closure land use must be "consistent with the local land use designation"[44] and the basic objective of reclamation is to "re-establish on a continuing basis the vegetative cover, slope stability, water conditions, and safety conditions suitable to the proposed subsequent use consistent with local land-use plans for the surface mine site".[45]
- In Colorado, the operator is responsible "for assuring that the mining operation and the post-mining land use comply with city, town, county, or city and county land use regulations".[46]
- In Minnesota, all rules adopted by the state government for mine reclamation must conform to any state and local land use planning programs.[47]
- US federal law mandates that coal mines be restored to a land-use that is consistent with applicable land use policies and plans.[48]
- Under Manitoba law "rehabilitation" is defined to include the actions taken to leave a site in "a state that is compatible with adjoining land uses" and "that conforms, where applicable, to a

[41] *Mines Act* RSBC 1996, c 29, Appendix 1, s 4.4.2 (March 1998) online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates>.
[42] *Mines Act* RSBC 1996, c 29, Appendix 1, s 4.4.1 (March 1998) online: <http://www.empr.gov.bc.ca/Mining;Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates>.
[43] *Surface Coal Mining and Reclamation Act*, W Va § 22-3-10(a)(3)(A), online: <http://www.dep.wv.gov/dmr/codes/Documents/2009%20Mining%20Code.pdf>:"The post-mining land use proposed in any reclamation plan for lands proposed to be mined by surface mining methods shall comport with the land use that is specified in the approved master land use plan for the area".
[44] Wash Rev Code tit 78 §§ 44.091, 1(a)(2011).
[45] Wash Rev Code tit 78 § 44.131(2011).
[46] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 §32-109(6)(2011).
[47] Minn Stat §93.47(3) (2011).
[48] *Surface Mining Control and Reclamation Act*, USC, tit 30 c 25 §1265(b)(2).

zoning by-law or development plan under The Planning Act".[49] In addition, lands disturbed by mining activities must be rehabilitated to a condition that is "environmentally compatible with adjoining lands".[50]

Legislate mandatory consultation with landowners and First Nations on post-closure land use
[Tags: Closure Plans; Indigenous Rights; Consultation; Landowner]

The Model Mining Development Agreement Project (MMDA) encourages companies to only submit a final closure plan once they have consulted with communities in the areas affected by mining operations.[51] Several jurisdictions have incorporated similar ideas into law, legally granting landowners a consultation opportunity on post-closure land use. For example:

- In Western Australia, the Western Australian Government's *Guidelines for Mining Proposals in Western Australia* provide that post closure land use options presented in the closure plan should be developed with stakeholder involvement, with the mine closure plan "reviewed annually, or at appropriate intervals, in response to continual improvement or best practice and any changes relayed to… relevant stakeholders".[52] Additionally, the Western Australian Government's *Guidelines for Preparing Mine Closure Plans* provide that mine closure plans must demonstrate that an effective communication strategy has been developed or put in place to engage with stakeholders and "that the interests of and concerns of key stakeholders [which is defined as post-mining land owners/managers and relevant regulators, including indigenous/traditional land owners] have been considered.[53]
- In Colorado, when determining post-closure land use the miner must consult with the landowner where possible.[54]

As traditional landowners, this consultation right must be extended to First Nations people on whose traditional territories mining activities occur.

Adopt clear reclamation standards for different post-closure land uses
[Tags: Closure Plans; Reclamation Standards; Land Use Plans]

BC law sets out general reclamation standards that broadly apply to all types of post-closure land uses.[55] Other jurisdictions have adopted legal provisions that clearly specify different types of reclamation

[49] *Mines and Minerals Act*, CCSM c M162, s 1(1).
[50] *Mine Closure Regulation,* Man Reg 184/94, ss 50,52.
[51] Mining Law Committee of the International Bar Association "Model Mining Development Agreement: A Template for Negotiation and Drafting" (2011), s 26.1(b).
[52] Government of Western Australia, Dept. of Mines and Petroleum, "Guidelines for Mining Proposals in Western Australia" (2006) s 4.7.1. Available online at: http://www.dmp.wa.gov.au/834.aspx
[53] Government of Western Australia, Dept. of Mines and Petroleum, "Guidelines for Preparing Mine Closure Plans" (June 2011) s4.8. Available online at: http://www.dmp.wa.gov.au/834.aspx
[54] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 § 32-116(7)(j)(2011).
[55] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

requirements depending on the specific post-closure land use. For example, in South Dakota, these include forest planting, rangeland restoration, and agricultural or industrial uses.[56] Similarly, California law outlines different reclamation performance standards for different purposes. For example, for prime agricultural land reclamation, California law mandates that fertilizers or other soil amendments shall not contaminate surface or groundwater.[57] Such clear requirements promote greater certainty that reclamation will adequately achieve specific post-closure land uses.

Another specific post-closure land use should allow for the exercise of specific First Nations rights, such as the restoration of habitat for specific species, or suitable growing conditions for native plants. Although the authors were unable to find existing legal provisions that provide for this, such a provision would grant First Nations people greater certainty to meaningfully exercise their Constitutionally recognized rights.

Work Stoppage

Overview of BC Law

Work can stop at a mine for a variety of reasons, including: labour strikes, ore depletion, drops in metal prices, company bankruptcy, or machine failure of a temporary or long-term nature. This may or may not lead to a long-term mine shutdown. As such, mine closure may or may not transpire from a work stoppage. Theoretically, work may cease at a mine in BC for many years, although the mine may never fully 'close', thereby delaying full implementation of the closure plan.

Under BC law, only 7 days' notice must be provided for mine work stoppage.[58] This makes it possible for a mine to close very suddenly, which could be detrimental to local communities that have become economically dependent on that source of revenue. When a mining activity is stopped with 7-day notice, the proponent must continue to carry out the mine permit conditions, and carry out a program of site monitoring and maintenance.[59] Where mining operations do not start up within a year, the mine is in

[56] S Dak CL, c 45 §6B-45, online: <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=45-6B-45>.
[57] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3707(d)(2007).
[58] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.1, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[59] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.2(1)(a)(b), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>;
Metal Mining Effluent Regulations, SOR;2002-222, s 32: for any mines depositing effluent with deleterious substances into water: "(1) An owner or operator who intends to close a mine shall (a) provide written notice of that intention to the authorization officer; (b) maintain the mine's rate of production at less than 10% of its design rated capacity for a continuous period of three years starting on the day that the written notice is received by the authorization officer; and (c) conduct a biological monitoring study during the three-year period referred to in paragraph (b) in accordance with Division 3 of Part 2 of Schedule 5".

stasis, triggering additional legal requirements for the miner. This includes requirements to:[60]

- submit an application for a permit amendment that includes a revised program;
- provide detailed and up-to-date engineered drawings regarding site hazards to local emergency agencies; and
- if practicable, make plans available on site at a conspicuous location.

A basic requirement for mine closure is the provision of notice by the miner of its intention to close. If a proponent decides to close the mine, the miner must also file specific plans with the Chief Inspector within 90 days of mine closure. These plans include plan view drawings and cross-sections of surface and underground workings.[61]

Specific legal requirements with respect to **reclamation standards** and **infrastructure decommissioning** are also provided under BC law; they are discussed later in this Chapter.

Issue

BC Law mandates a 90-day notice before mine closure; however, there are no legal provisions that prevent a mine from filing a 7-day work stoppage notice and remaining "un-closed" indefinitely. In addition, since the filing of a notice to stop work under the 7-day minimum requirement can eventually lead to closure, the window of time that a community receives regarding the a mine closure may be extremely small.

Recommended Solutions

Clarify notice requirements for temporary and permanent mine closure
[Tags: Closure Plans; Notice; Reclamation Plans; Decommissioning]

Laws in other jurisdictions mandate that notice and other requirements be fulfilled where temporary mine closure extends over a period of time. For example:

- In New Brunswick, if a mine ceases production, or decreases production to less than 60% of planned capacity, the miner must immediately inform the minister, and provide reasons for the work stoppage or reduction.[62]
- Manitoba requires that 90-days notice[63] be given to the director if the proponent plans to close the mine temporarily or permanently, or plans to suspend production for more than 90 days.[64]

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[60] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.2(2), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[61] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.3, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[62] *Mining Act*, SNB 1985, c M-14.1, s 76(1).
[63] *Mines and Minerals Act*, CCSM, c M162, s 115.
[64] *Mine Closure Regulation,* Man Reg 67/99, s 6.

- Ghana requires proponents to provide three-months notice prior to stopping production at a mine.[65] If work stoppage is unavoidable, then notice must be provided within 14 days of the work stoppage.[66]
- In Saskatchewan, if a pollution control facility (which is necessary to operate a mine) is closed for more than 180 days, the miner must apply for government approval to extend the temporary closure.[67]

These types of approaches are also supported by provisions in some First Nations Mining Policies.[68]

Minimum content requirements for stop-work notice
[Tags: Closure Plans; Notice; Reclamation Plans; Decommissioning]

Clear content requirements for stop-work notices are provided in other jurisdictions. For example, Saskatchewan requires notices to include updated plans for the mine as well as methods for disposing explosives, abandoning shafts and securing the site.[69] Ghana requires that reasons for suspended production at a mine be included in the notice.[70] This is important information for a regulatory authority to have available when planning future uses of the affected areas.

Post-Closure Community Development

Mines tend to operate for several years, if not decades. Without proper planning, however, there is a significant risk that social conditions in local communities will degrade at mine closure if a disproportionate dependency on mining has developed.[71] Laws are needed to help ensure that communities are well positioned to avoid developing an exclusive dependency on mining-related revenues. Although there are many alternatives for promoting longer-term benefits for local

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[65] *Minerals and Mining Act, 2006*, Republic of Ghana Act 703, s 51(1).
[66] *Minerals and Mining Act, 2006*, Republic of Ghana Act 703, s 51(2).
[67] *Mineral Industry Environmental Protection Regulations*, 1996, RRS c E-10.2 Reg 7, s 10.
[68] *Land and Resources Act (First Reading),* Ta'an Kwach'an Council, s 37(2): the holder of a land use authorization must provide a notice of discontinuance at least 30 days before the proposed date of the discontinuance.
[69] *Mines Regulations*, 2003, RRS c O-1.1 Reg 2, ss 7(2), 405(2)(b),406: A notice of an intended closure must include the following: Description of the methods for: disposing explosives, fuses and detonators; abandoning shaft compartments & disposal of hoisting ropes; securing shafts & entrances from the surface; fencing ; securing of pits & other openings on the surface; securing safety of the mine site; and updated plans of: surface; each underground level; vertical mine sections at suitable intervals; and ventilation.
[70] *Minerals and Mining Act, 2006*, Republic of Ghana, s 51(1).
[71] Joan Kuyek and Catherine Coumans, *No Rock Unturned: Revitalizing the Economies of Mining Dependent Communities* (MiningWatch Canada, 2003) at 3, online: <http://www.miningwatch.ca/sites/www.miningwatch.ca/files/No_Rock_Unturned%20(1).pdf>: "The social environment in the community where the mine is operating often gets worse with closure: violence, increased drug and alcohol use, depressed expectations, power struggles, more extreme social hierarchy, and paralysis of normal ways of making decision are common"; Christopher Pollon, "Report from the Edge of BC's Copper Belt", *The Tyee*, (13 January 2011), online: <http://thetyee.ca/News/2011/01/13/Stikine;> : "Eskay Creek, an underground gold mine, came and went in the space of about 13 years, during which time the Tahltan were among the most prosperous native people in B.C., enjoying near full employment. But the native jobs tended towards truck driving, catering and chamber-maiding; by the time Barrick Gold called it quits in early 2008, Iskut had little to show for it".

communities after mining activities end, [72] this section focuses on two alternatives which are promoted by laws in other jurisdictions: research and development, and local manufacturing.

Research and Development

Research and development is a key component in building a long-term sustainable development strategy for the mining industry. Traditionally, the mining industry re-invested very little into innovation; particularly in contrast to manufacturing firms, which generally demonstrate much higher commitment to research and development and other forms of innovation.

One way to encourage research and development is through a technology policy. Such a policy could include, for example:

- a technology transfer strategy;
- tax relief on research and the training of engineers and managers in environmental technology;
- government grants for collaborative university-industry research projects;
- information dissemination programmes; and,
- training for regulators so they are informed disseminators of information on environmental technologies.[73]

The lack of reinvestment in research and development by the mining industry can also be overcome by legal provisions that authorize particular agencies to carry out research and development, and that secure funding for such research from operating mines. These Recommended Solutions are considered below.

Recommended Solutions

Empower agencies to conduct research and development
[Tags: Innovation; Research and Development]

Several jurisdictions have enacted legal provisions that empower specific agencies to carry out research and development. For example:

- In Manitoba, the Minerals Research Advisory Group, appointed by the Lieutenant Governor in Council, is empowered to "promote and assist scientific and technological innovation through basic and applied research and development in respect of mineral exploration and mining."[74]

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[72] See: Joan Kuyek and Catherine Coumans, *No Rock Unturned: Revitalizing the Economies of Mining Dependent Communities* (MiningWatch Canada, 2003) at 3, online: <http://www.miningwatch.ca/sites/www.miningwatch.ca/files/No_Rock_Unturned%20(1).pdf>, for an overview of options available to mining communities.
[73] R.E. Hester and R.M. Harrison , eds, "Mining and its environmental impact: Issues in environmental science and technology" (London: The Royal Society of Chemistry, 1994) at 155.
[74] *Mines and Minerals Act*, CCSM c M162, ss 23-26.

- In Colorado, a Mines Land Reclamation Board is empowered to initiate and encourage studies and programs relating to the development of less destructive methods of mining operations, better methods of land reclamation, and more effective reclaimed land use.[75]
- In the United States, land grant universities[76] are required to play a significant role in fundamental research, as well as the evaluation and analysis of policies and programs that affect the public at large in a variety of disciplines critical to global policy-makers.

Mandate financial contributions to a research and development fund by operating mines
[Tags: Research and Development; Mining Community]

A secure source of funding is essential to ensure adequate research and development is carried out. This approach is adopted at the federal level for the oil and gas industry. Canadian federal law requires petroleum operators holding an exploration, significant discovery or a production licence to contribute to the Environmental Studies and Research Fund.[77] The objective of this fund is to finance environmental and social studies to determine the terms and conditions under which exploration, development and production activities should take place.[78] A similar approach would be beneficial to encourage a more sustainable BC mining industry.

Local Manufacturing

Current resource policies in BC favour the export of unprocessed natural resources over local manufacturing into value-added goods. This renders obsolete the potential long-term benefits that could otherwise be gained from the creation of stable manufacturing jobs. The following Recommended Solutions describe some approaches adopted in other jurisdictions to promote greater local use of mineral resources.

Recommended Solutions

Promote local processing and value-added manufacturing of mineral ore
[Tags: Value-Added; Socio-Economic Benefit]

Some jurisdictions have adopted legal provisions that promote the domestic processing of ore rather than its shipment overseas. For example:

- In Ontario, legal provisions require that all extracted ores and minerals be "treated and refined in Canada so as to yield refined metal or other product suitable for direct use in the arts without further treatment."[79]
- In Manitoba, mining lease applications must include details of the proposed processing of minerals mined under the lease within the province.[80]

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[75] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 §32-107(1)(2011).
[76] Governed under the *Morrill Land-Grant Act of 1850* and administered by the Association for Public and Land-Grant Universities, online: <https://www.aplu.org/>.
[77] *Canadian Petroleum Resources Act,* ss 75-83.
[78] *Canadian Petroleum Resources Act*, ss 76,79.
[79] *Ontario Mining Act*, RSO 1990, c M14, s 91(1): in the absence of an exemption granted by the Lieutenant Governor in Council.

- In New Brunswick, the regulatory authority is empowered to require miners to process in the province any mineral mined in the province when economically feasible.[81]
- In Saskatchewan, the provincial corporate income tax grants an incentive to corporations that process to the prime metal stage non-Saskatchewan, Canadian minerals imported into the province.[82]
- In New Zealand, the regulatory authority is empowered to direct petroleum mining permit holders to refine or process their product within the country.[83]
- In India, the National Mineral Policy states that emphasis should be placed on the export of minerals in value-added form.[84]

In BC, similar legal provisions have been adopted for the forestry industry. These require timber cut in the province to also be used in the province.[85] Exemptions to these legal requirements are only available where the regulatory authority is satisfied that the timber would be in surplus of the requirements of the existing provincial timber processing facilities or where the timber or wood residue cannot be processed economically in the vicinity of the land from which it is cut or produced, and cannot be transported economically to a processing facility located elsewhere in the province.[86] Although recent trends of raw log exports from BC suggest that these exemptions are frequent, the existence of these provisions in BC forestry laws highlights past recognition of the importance of local manufacturing as opposed to mere export of raw resources.

<u>Ensure that domestic needs are met before exporting raw materials</u>
[Tags: Domestic Need; Export; Resource]

Legal provisions that require domestic needs to be satisfied before raw materials may be exported can also promote local manufacturing efforts. To ensure such benefits remain with local communities, public consultation and joint planning efforts must be conducted. Various legal approaches have been adopted to meet this objective:

- Indonesian mining law mandates that the processing and purification of certain types of mineral mining commodities must first satisfy domestic needs.[87]

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[80] *Mines and Minerals Act*, CCSM c M162, s 111(1)(b).
[81] *Mining Act*, SNB 1985, c M-14.1, ss 76(2),(3): "The Minister shall not require a lessee to process or further process minerals in the Province unless he is satisfied that the lessee is economically able to do so".
[82] *The Income Tax Act 2000,* SoS c I-2.01, s 64.1(5)(a).
[83] *New Zealand Crown Minerals Act 1991,* No 70, s 45(1): "If, after consultation with the permit holder of a petroleum mining permit and having regard to the national interest, the Minister is satisfied that products are able to be manufactured in New Zealand by or on behalf of the permit holder from petroleum produced from land to which the permit relates, the Minister may direct that the permit holder refine or process (or cause to be refined or processed) in New Zealand so much of the petroleum as may be required for the manufacture of those products".
[84] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure" (Washington DC: Lewis Publishers, 2000) at 299: Clause 8 of the [Indian] National Mineral Policy, 2008 states that efforts should be made to export minerals in value added form as far as possible.
[85] *Forest Act,* RSBC 1996, c 157, s 127; *Manufactured Forest Products Regulation,* BC Reg 240/2003.
[86] *Forest Act*, RSBC 1996, c 157, ss 128(3)(a)(b).
[87] *Regulation of the Minister of Energy and Mineral Resources*, Republic of Indonesia, No 07 of 2012, Art A, ss (2)(a)(d)(e); *Regulation of the Minister of Energy and Mineral Resources,* Republic of Indonesia, No 34 of 2009.

- The US *Federal Land Policy and Management Act* (1976) requires public lands to be managed for multiple and sustained yield, bearing in mind the country's needs for domestic sources of minerals, food, timber and fibre. [88]
- In Kazakhstan, the State has the right of priority to buy minerals from the share of foreign investor or non-state subsoil users at prices that do not exceed world market prices. [89]
- In Alberta, coal leaseholders who export coal must first make available for sale to Alberta residents the coal these residents require for their own domestic household needs.[90]

Notably, in Vietnam, the state grants preferential treatment to minerals required for domestic use and grants priority to projects that apply modern technology in mining and processing activities, and that produce products of high socio-economic value and efficiency.[91]

Site Reclamation

Site reclamation refers to those activities undertaken to restore areas impacted by mining activities. In this section, the term 'reclamation' is used to describe all rehabilitation and restoration activities undertaken to remedy environmental damage caused by mining activities. Reclamation as used here does not include decommissioning activities such as the dismantling of mining infrastructure, which are discussed in "**Infrastructure Decommissioning"***,* below.

Progressive Reclamation

Overview of BC Law

For successful site reclamation, reclamation activities must be carried out concurrently with mining activities rather than being left until mine closure; this is referred to as progressive reclamation. If disturbed lands are not promptly reclaimed, there is a greater potential for initially minor problems to escalate into serious environmental problems with long-term consequences and high clean-up costs. In addition, extensive resources (i.e., equipment, labour, funds, etc.) are required for reclamation; these resources may no longer be available on site after mine closure. Progressive reclamation also permits time for trial and error, and the flexibility to adapt to unexpected occurrences.

Many jurisdictions, including BC, recognize the benefits of progressive reclamation.[92] However, this recognition does not clearly translate into BC mining law, which contains no explicit requirements for progressive reclamation. Instead, progressive reclamation is implicitly required by way of the mandatory

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[88] *Federal Land Policy and Management Act (1976),* 43 USC tit 1701 § 102(a)(7).
[89] Gulzhan Nurakhmet, "The Mining Policy In Kazakhstan: The Role Of The State", *Energy Politics*, Issue X (Autumn 2006) at 82.
[90] *Mines and Minerals Act*, RSA 2000, c M-17, ss 69(1)(2).
[91] *Mineral Law*, Socialist Republic of Vietnam, Article 5-1, online: <http://www.vietnamlaws.com/freelaws/MineralLaw20Mar96[X1051].pdf>; Koh Naito, Felix Remy and John P. Williams, Review of Legal and Fiscal Frameworks for Exploration and Mining (London: Mining Journal Books Ltd, 2001) at 174.
[92] British Columbia Ministry of Energy, *Mines and Petroleum Resources, Mine Reclamation Costing and Spreadsheet* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006, Version 3.5.1) at 7, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/AnnualReclamationReports/Documents/costing_manual.pdf>.

environmental protection and reclamation program that must be carried out over the life of the mine and must protect land, watercourses and cultural heritage resources affected by the mine.[93] This program must be carried out during the construction and operational phases of the mine, and must include the following:[94]

- Acid rock drainage (ARD) / metal leaching (ML) prediction, prevention, mitigation and management plans;
- Erosion control and sediment retention plans; and
- Environmental monitoring and surveillance plans to demonstrate that reclamation standards are being met.

Annual reclamation reporting is also required under BC law.[95]

Although BC's current law is a good starting point, legal provisions adopted in other jurisdictions promote greater certainty that adequate progressive reclamation is carried out at all mines.

Issue

BC law lacks explicit requirements for progressive reclamation.

Recommended Solutions

Enact clear, legal requirements for progressive reclamation
[Tags: Reclamation Plans; Rehabilitation; Development; Operations]

As mentioned above, there are no explicit requirements under BC's mining law that clearly mandate progressive reclamation. In contrast, mining laws in several other jurisdictions explicitly require progressive reclamation. For example:

- In Manitoba, the miner must set out in a closure plan "the practices and procedures by which progressive rehabilitation of the project site will be carried out" and the miner must "at all times during the life of a project whether or not the operations of the project are discontinued or closed, take all reasonable steps to effect progressive rehabilitation of the project site as circumstances from time to time require." [96]

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[93] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.1, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. Submitted as part of the initial mine permit application, *Mines Act,* RSBC 1996, c 293, s 10(1).
[94] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(4), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[95] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(5), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[96] *Mines and Minerals Act*, CCSM, c M162, s 189(1).

- Ontario requires miners to "take all reasonable steps to progressively rehabilitate a site" regardless of whether closure has commenced and whether or not a closure plan has been submitted.[97]
- Montana law requires that "reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with the operation".[98]

Issue

BC law lacks a fixed end-date for reclamation, thereby failing to ensure effective, timely, and responsible mine closure.

Recommended Solutions

Legislate a clearly defined reclamation completion schedule
[Tags: Reclamation Plans; Operations]

To ensure reclamation is promptly carried out, it is imperative to have a clear schedule for the completion of reclamation activities. In BC, the mine permit application separates the reclamation process from the mining process, requiring a "development schedule for construction and mine sequencing"[99], a separate, operational, 5-year reclamation plan[100] and a conceptual final plan for closure or abandonment of a mine.[101]

Other jurisdictions require progressive reclamation schedules for mines. For example:

- Washington State law requires a "schedule for progressive reclamation of each segment of the mine" "so that reclamation can be initiated at the earliest possible time on each segment of the mine."[102]
- New Mexico law requires "a detailed estimated timetable for the accomplishment of each major step in the reclamation plan."[103]

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[97] *Ontario Mining Act*, RSO 1990, c M14, s 139.1(1).
[98] Mont Code Ann tit 82 c 4 §336(2)(2011).
[99] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(3)(d), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[100] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(6), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[101] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(7), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[102] Wash Rev Code tit 78 §§44.091 (1)(g)(h)(2011); *Mineral Lands and Mining,* USC tit 30 c 25 §1258(a): "Each reclamation plan submitted as part of a permit application pursuant to any approved State program or a Federal program under the provisions of this chapter shall include, in the degree of detail necessary to demonstrate that reclamation required by the State or Federal program can be accomplished, a statement of requires… (7) a detailed estimated timetable for the accomplishment of each major step in the reclamation plan", online:< http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc30.wais&start=1862711&SIZE=6194&TYPE=TEXT>.
[103] *Surface Mining Act*, N Mex Stat tit 69 c 25A §12(A)(7)(2011).

- Colorado law requires "such plan or schedule shall not be tied to any date specific, but shall be tied to the implementation or completion of different stages of the mining operation."[104]

Set time limits for completion of reclamation activities
[Tags: Mine Closure Reclamation Plans; Schedule]

To promote on-going and timely reclamation, it is useful to set time limits for reclamation that are legally enforceable. This approach is found in several jurisdictions that have adopted legally enforceable time limits for completion of separate phases of site reclamation**.** For example:

- **Idaho**: 1 year (for exploration drill holes, roads or trenches)[105]
- **Montana**: 2 years[106]
- **Washington State**: 2 years[107]
- **Oregon**: 3 years[108]
- **Colorado**: 5 years for each phase of reclamation [109]

Although these types of provisions promote more timely reclamation, care must be taken not to strictly adopt time limits where site-specific challenges require additional time for reclamation. One approach to address this concern is by providing for time extensions. Extensions to these time limits should be available when required to address site-specific challenges and when prior approval is obtained from the regulatory authority. This approach – of setting a basic time limit from which extensions can be sought rather than being readily available – helps promotes timely site reclamation.

Reclamation Standards

Under BC law, the mine manager is responsible for ensuring that reclamation standards and requirements for mine site reclamation are fulfilled throughout the life of the mine, including at closure and post-closure. This manager must be qualified and competent, as well as well versed and up-to-date on the process at all times.[110] The mine manager is not only responsible for the mine, its construction, closure, and reclamation, but can also act as liaison with First Nations resource managers during ongoing consultation through the life of a mine.

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[104] *Colorado Mined Land Reclamation Act,* Colo Rev Stat tit 34 §32-112(3)(c).
[105] Idaho Stat tit 47 §1511(a).
[106] Mont Code Ann 2009, tit 82 §4-336(3).
[107] Wash Rev Code tit 78 § 44.091(1)(g)(2011).
[108] Or Rev Stat vol 12 c 517 § 820(1): "Each reclamation plan submitted to the department must provide that all reclamation activities shall be completed within three years after the termination of mineral extraction from the surface mining operation...".
[109] *Colorado Mined Land Reclamation Act,* Colo Rev Stat tit 34 §32-112(7): "Each phase of reclamation is to be completed within five years after the date the operator advises the board that such phase has commenced, as provided in the introductory portion of section 34-32-116 (7) (q); except that such period may be extended by the board upon a finding that additional time is necessary for the completion of the terms of the reclamation plan".
[110] *Mines Act,* RSBC 1996, c 293, s 21(a).

Overview of BC Law

In BC, reclamation standards are outlined in the Health, Safety and Reclamation Code for Mines in British Columbia (HSR Code), subject to the *Mines Act,* for the following matters:

- Re-vegetation, growth media, metal uptake;[111]
- Landforms;[112]
- Watercourses and water quality;[113]
- Disposal of chemicals and re-agents;[114]
- Monitoring[115]; and
- Post-closure land use.[116]

Reclamation standards are also outlined in the *HSR Code* for infrastructure-related matters,[117] which are discussed below, under "**Infrastructure Decommissioning**".[118]

In addition to these mandated reclamation standards, provincial policy recommends that soil handling plans and erosion control and sediment retention plans also be included in reclamation programs.[119]

Exemptions from BC's legal reclamation standards are provided for old mines and in certain other defined circumstances.[120]

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[111] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.7.7, 10.7.8; 10.7.25-10.7.27, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[112] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.9, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[113] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.7.12, 10.7.29, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[114] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.28, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[115] British Columbia, Ministry of Energy, Mines and Petroleum Resources, Health, Safety and Reclamation Code for Mines in British Columbia (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.30, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[116] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.4 – 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[117] Including structures and equipment; dumps; open pits; impoundments; spillways; and mine openings.

[118] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.7.10, 10.7.11, 10.7.13-10.7.24;

[119] *Mines Act,* RSBC 1996 c 293 (Appendix I) s 4.1, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.

[120] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.2, 10.7.3(1), 10.7.3(2), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. The following exemptions apply: "Exemption from re-vegetation requirements if environmental disturbance occurred pre-1969 and the site has remained inactive since then; the Mine is specifically excluded by a condition of its permit from complying with a particular standard; and the Disturbance created by a mining activity has been reclaimed, inspected, and found to be satisfactory to an inspector".

Reclamation Standards for Re-Vegetation, Growth Media and Metal Uptake

Overview of BC Law

BC law states that reclamation must be completed as follows:

- Land must be reclaimed to a state that matches the *average* land capability that existed before mining;[121]
- Land that is re-vegetated must be returned to a "self sustaining state using appropriate plant species";[122]
- Growth medium on all re-vegetated land must "satisfy land use, capability, and water quality objectives";[123]
- All surficial soil materials removed for mining purposes must be saved for use in reclamation programs (with exceptions allowed;[124]
- Metal uptake by vegetation must be monitored (when required);[125]
- Ecological risk assessment for metal uptake (when required by the Chief Inspector);[126] and,
- If the above assessment identifies significant risk, the site must be made safe for plant and animal life by reducing the levels of metal uptake by vegetation. If it is not possible to reduce the metal uptake to a safe level, "other measures shall be taken to protect plant and animal life". [127]

There are also various guidelines for site re-vegetation under BC government policy.

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[121] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.5, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[122] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[123] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[124] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
Provincial policy states that the reclamation plan must "outline a proposed program to assess trace element uptake in soils and vegetation at mine closure, and where possible, during the mine life" at 4.4.11, online: <http://www.empr.gov.bc.ca/Mining;Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates>.

[125] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.25, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[126] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.26, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[127] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.27, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

These include recommendations that a re-vegetation plan be developed based on specific information such as: regional plant succession patterns; final site productivity; species objectives; soil characteristics; and, a review of results of other reclamation work in the area.[128] Provincial policy also recommends that the reclamation plan consider the development of vegetation. This must be supported by information on soil conditions, land use objectives, natural plant succession and the plant species the miner plans to establish.[129]

Although BC's approach is notable, greater detail and more specific legal requirements for re-establishing natural successional trajectories and processes (such as nutrient cycling and soil formation) have been adopted in other jurisdictions, as described below.

Issue

BC reclamation standards for re-vegetation can be strengthened to ensure that sites are restored to self-sustaining ecosystems.

Recommended Solutions

Establish measurable and enforceable criteria to determine if ecosystem restoration goals have been attained

[Tags: Ecology; Restoration; Enforcement]

Optimum site rehabilitation entails soil re-development and habitat reconstruction that restores ecosystems rather than merely establishing monoculture vegetation.[130] This is partially recognized under BC law, which requires that lands disturbed by mining activities be re-vegetated "to a self-sustaining state". The meaning of "state", however, is not defined and therefore does not explicitly mean restoration of habitats and ecosystems.[131] In contrast, the 1994 Whitehorse Mining Initiative recommendation that mine sites be returned to "self-sustaining ecosystems that are compatible with a healthy environment and with human activities"[132] places greater emphasis on the importance of establishing important biological processes than merely re-establishing basic vegetation.[133]

Other jurisdictions have enacted laws that more effectively adopt the Whitehorse Mining Initiative's recommendation. For example, US federal law requires that "a diverse and permanent vegetative cover capable of self-regeneration and plant succession and at least equal in extent of cover to the natural

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[128] BC Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), at 79.
[129] BC Ministry of Energy, Mines and Petroleum Resources, *Guide to Processing a Mine Project Application under the British Columbia Mines Act* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2009), at 79.
[130] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure" (Washington DC: CRC Press LLC, 2000) at 247.
[131] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.7.7, 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[132] Indian and Northern Affairs Canada, "Mine Site Reclamation Policy for Nunavut" (Ottawa: 2002) at 5.
[133] R.E. Hester and R.M. Harrison, eds, *Issues in environmental science and technology* (London: The Royal Society of Chemistry, 1994) at 35: These include nitrogen fixation, decomposition, nutrient cycling and retention, and important biotic interactions such as pollination.

vegetation of the area" be established on affected areas.[134] In California, the concept of a 'self-sustaining state' is also clearly described. There, the vegetative cover must be "capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer".[135]

Conserve topsoil through: salvaging; measures to prevent erosion, weeds and contamination; and specified time limits for removal
[Tags: Reclamation Plans; Conservation; Vegetation; Overburden; Topsoil]

Topsoil conservation is another key consideration for achieving successful site re-vegetation. This precaution helps conserve nutrient-rich soils, restore native site vegetation, and reduce costs and greenhouse gas generation associated with imported growth media. As mentioned above, BC law mandates that the growth medium on all re-vegetated lands satisfies land use, capability, and water quality objectives, [136] and that "all surficial soil materials removed for mining purposes shall be saved for use in reclamation programs, unless these objectives can be otherwise achieved."[137] Provincial policy also recommends that plans for erosion control, sediment retention and soil handling be included in reclamation programs.[138] However, as policy rather than law, these latter requirements are not legally enforceable.

More stringent legal requirements have been adopted in other jurisdictions. For example:

- Washington State law requires reclamation plans to include specific plans for topsoil conservation.[139]
- Colorado state law requires topsoil removed during mining activities to be segregated from other soil.[140] Colorado law also requires that where "topsoil is not replaced on a backfill area within a time short enough to avoid deterioration of the topsoil, vegetative cover or other means shall be employed so that the topsoil is preserved from wind & water erosion, remains free of any contamination by other acid or toxic material, and is in a useable condition for sustaining vegetation when restored during reclamation".[141]

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[134] *Surface Mining Control and Reclamation Act ,* USC tit 30 §1266(b)(6).
[135] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3705(a)(2007).
[136] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[137] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia (*Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
Provincial policy states that the reclamation plan must "outline a proposed program to assess trace element uptake in soils and vegetation at mine closure, and where possible, during the mine life" at 4.4.11, online: <http://www.empr.gov.bc.ca/Mining;Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates>.
[138] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.1, online: < http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages;appendices.aspx#ai>.
[139] Wash Rev Code tit 78 § 44.091 (1)(k)(2011) .
[140] *Colorado Mined Land Reclamation Act,* Colo Rev Stat tit 34 § 32-116(7)(f).
[141] *Colorado Mined Land Reclamation Act,* Colo Rev Stat tit 34 § 32-116(7)(f); *Surface Mining Control and Reclamation Act,* tit 30 USC c 25 § 1265(b)(5).

- Yukon law requires exploration activities to be carried out by removing the vegetative mat " so as to protect the seed and root stock contained within the mat" and storing it "separately from any or bedrock removed" so that it can be used" in re-establishing the vegetative mat when the exploration program ceases".[142]
- South Dakota State law requires specific means to be employed to protect topsoil from wind and water erosion, and contamination. These means must ensure that the topsoil is in a "useable condition for sustaining vegetation when restored during reclamation."[143]

California requires that both topsoil and suitable growth media stockpiles be planted with a vegetative cover, or be protected by "*other equally effective measures to prevent water and wind erosion and to discourage weeds*".[144] California law also mandates other specific performance standards for topsoil salvage, maintenance and redistribution. For example, topsoil must not be removed earlier than one year before mining activities disturb a particular area – this is intended to limit exposure times and reduce the potential for contamination.[145] In addition, soil salvage operations must be carried out in accordance with a schedule included in the approved reclamation plan that seeks to minimize the disturbed area and that is designed to achieve maximum re-vegetation success.[146]

<u>Require ground preparation, such as scarification and placement of growth media, to prepare for re-vegetation,</u>
[Tags: Re-vegetation; Scarification; Growth Media]

Re-vegetation is generally more effective where the ground has been scarified (left rough and loose), as this promotes seedling establishment and helps retain moisture. A number of jurisdictions legally mandate such ground surface preparation measures. For example:

- Ontario law requires ground scarification for re-vegetation of disturbed areas – such as flat surfaces compacted by heavy equipment, tailings, building sites, and transportation corridors.[147]
- Washington State law requires final reclaimed slopes to be left "roughly graded, preserving equipment tracks, depressions, and small mounds to trap clay-bearing soil and promote natural re-vegetation".[148]
- California State law mandates that where soil has been compacted by mining activities, "ripping, disking, or other means shall be used" to "eliminate compaction and to establish a suitable root zone in preparation for planting".[149]

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[142] *Quartz Mining Land Use Regulation,* YOIC 2003;64, Schedule 1, s 1.
[143] S Dak CL c 45 §6B-40, online: <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=45-6B-40>.
[144] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3711(d) (2007).
[145] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3711(a) (2007).
[146] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3711(c) (2007).
[147] *Mine Development and Closure,* O Reg 240/00, ss 71(4), 72(3), 73(2), 74(1). (Where appropriate).
[148] Wash Rev Code tit 78 § 44.141(4)(i)(2011) .
[149] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3705(c)(2007).

Once the ground surface has been scarified, adequate growth media must be laid down. For effective re-vegetation, this growth media must be of good quality and of sufficient thickness. BC policy requires that growth media on all re-vegetated land *"satisfy land use, capability, and water quality objectives."*[150] No additional details are outlined under BC law to ensure that this growth media supports long-term re-vegetation and ecosystem restoration. In contrast, laws in other jurisdictions outline more specific requirements to ensure appropriate growth media is used. For example, California law requires soil analyses to be completed to "determine the presence or absence of elements essential for plant growth and to determine those soluble elements that may be toxic to plants, if the soil has been chemically altered or if the growth media consists of other than the native topsoil."[151]

In the Yukon, conditions conducive to re-vegetation include "provision of an adequate soil layer with moisture retaining ability, no soil contamination by hydrocarbons or other hazardous substances, provision of adequate seed or root stock and contoured or otherwise stable slopes."[152]

Require testing with trial plots before full-fledged re-vegetation activities are carried out
[Tags: Re-vegetation; Trial Plot Testing]

Site reclamation activities have the greatest likelihood for success where sufficient time is available to run trial tests, learn lessons and adapt methods appropriately.[153] The ability to compare actual versus planned occurrences before mine closure can also offer valuable cost and time savings. Therefore, to ensure that re-vegetation activities are effective in the long run, preliminary testing should be conducted with vegetation trial plots. This is recognized in some jurisdictions. For example, California law requires that re-vegetation test plots be conducted simultaneously with mining to determine "the most appropriate planting procedures to be followed to ensure successful implementation of the proposed re-vegetation plan".[154]

Commence re-vegetation promptly to reduce soil erosion and loss of soil nutrients
[Tags: Re-vegetation; Dump Slope; Restoration]

Erosion and loss of soil nutrients associated with barren lands can hinder re-vegetation efforts. Successful re-vegetation thus depends on minimizing the length of time that the land lays barren. In BC, no specific legal requirements mandate prompt re-vegetation of barren lands. In contrast, Washington law requires that re-vegetation commence during the first proper growing season after dump slopes

[150] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.8, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[151] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(e)(2007).
[152] *Quartz Mining Land Use Regulation*, YOIC 2003/64, Schedule 1, s 2.
[153] Jodie Pritchard, Trina Jensen and David Welsh, "Options for Management and Closure of Tailings Storage Facilities", online: (2010) 211/2 Eng & Min J <http://www.docstoc.com;docs;46957361;Options-for-Management-and-Closure-of-Tailings-Storage-Facilities>. For example, the occurrence of extreme and heavy precipitation events can provide opportunities for rigorous testing of the design.
[154] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(b) (2007).

have been restored.[155] This promotes prompt re-vegetation and minimizes the length of time that the land is barren.

Require re-vegetation with native species
[Tags: Ecology; Traditional Knowledge; Cultural Keystone Species; Re-vegetation]

The types of plants selected to re-vegetate a mine site can significantly impact the success of efforts aimed at re-establishing self-sustaining ecosystems. Priority should be given to native plants species that are generally well suited to local soils and climates. BC law vaguely mandates that land be re-vegetated with "appropriate plant species"; there is no additional legal guidance on what species may be deemed "appropriate".[156] This raises several potential problems, including the possibility that a particular species is selected based on its performance capabilities observed in a different region and climate compared to that in which the mining activity took place.

Laws in other jurisdictions recognize the importance of using local native species for site reclamation. For example:

- Ontario law requires that the use of native species be considered in determining the appropriate re-vegetation measure for a site.[157]
- Yukon law requires that disturbed areas be re-vegetated with "native plant species or other species adaptable to the local environment to encourage re-vegetation comparable to similar, naturally occurring, environments in the area".[158] The law also specified that only non-invasive species be used for re-seeding or transplanting.[159]US federal law requires "a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area."[160]
- Colorado law requires that native species be given first consideration.[161]
- California law mandates that the vegetative cover or density, and species-richness, be similar to naturally occurring habitats in the surrounding area – the vegetative density, cover and species richness of naturally occurring habitats must be based on that documented in baseline studies carried out prior to the commencement of mining activities.[162] California law also mandates that native plant species be used to the maximum extent possible, with introduced species only used where necessary to meet the end uses specified in the approved reclamation plan.[163]

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[155] Wash Rev Code tit 78 § 44.141(7)(a)2011).
[156] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[157] *Mine Development and Closure,* O Reg 240/00, Schedule 1, s 69(10).
[158] *Quartz Mining Land Use Regulation,* YOIC 2003/64, Schedule 1, s 2.
[159] *Quartz Mining Land Use Regulation*, YOIC 2003/64, Schedule 1, s 3.
[160] *Surface Mining Control and Reclamation Act,* tit 30 USC c 25 § 1265(b)(19).
[161] *Colorado Mined Land Reclamation Act*, Colo tit 34 §32-116(7)(e)(2011).
[162] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(a)(2007).
[163] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(g)(2007).

- Washington law lists different species for dry versus wet areas in both the eastern and western portions of the state.[164]

For practical application, First Nations' traditional knowledge can be a valuable source of information on appropriate local native species for mine site re-vegetation. In addition, native seed collection from undisturbed areas on the mine site can be used to grow seedlings for re-vegetation of disturbed areas.

Require re-vegetation equal to the natural vegetation cover of surrounding areas
[Tags: Re-vegetation; Restoration]

Some jurisdictions have enacted laws that require re-vegetation of disturbed mining areas to at least the state of surrounding un-disturbed lands. For example, South Dakota law requires re-vegetation that is "at least equal in extent of cover to the natural vegetation of the surrounding area".[165] Similar requirements are provided under US federal law.[166]

Cross-reference mining reforestation activities with forestry laws
[Tags: Reforestation; Restoration]

In BC, forestry practices are extensively dealt with under provincial forestry laws. Where disturbed mining lands are to be re-forested, it is therefore useful and appropriate to incorporate by reference these existing forestry laws. This approach has been adopted in the Philippines where the miner is required to complete reforestation work in disturbed mining areas "in accordance with forestry laws, rules and regulations".[167]

Set thresholds to demonstrate effective re-vegetation within set time period
[Tags: Re-vegetation; Scheduling]

Re-vegetation efforts rarely yield immediately results. Rather, re-vegetation it is a process that takes time to become self-sustaining. This reality is partly recognized under BC law by way of the requirement that re-vegetation be completed to a self-sustaining state.[168] Other jurisdictions have taken a stronger stance in ensuring environmental protection and regeneration by specifying time periods during which re-vegetation must be shown to be effective. For example:

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[164] Wash Rev Code tit 78 § 44.141(7)(i)(2011).
[165] S Dak CL c 45 §6B-39, online: <http://legis.state.sd.us;statutes;DisplayStatute.aspx?Type=Statute&Statute=45-6B-39>; *Surface Mining Control and Reclamation Act,* USC tit 30 § 1265(b)(19).
[166] *Surface Mining Control and Reclamation Act*, USC tit 30 § 1266(b)(6).
[167] *Philippine Mining Act of 1995*, (Rep Act No 7942), s 72.
[168] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents;HSRC2008.pdf>.

- US federal coal mining law requires that successful re-vegetation generally be demonstrated for five years (2 years in areas eligible for mining). In dry areas, successful re-vegetation must be demonstrated for 10 years (5 years in dry areas eligible for further mining).[169]

In California, where irrigation has been used, the miner must demonstrate that re-vegetation has been self-sustaining without irrigation for a minimum of 2 years.[170] California law also deems reclamation to be complete only when "productive capability of the affected land is equivalent to or exceeds, for two consecutive crop years, that of the pre-mining condition or similar crop production in the area".[171]

Legislate regular inspections of re-vegetation activities
[Tags: Re-vegetation; Inspections]

Under BC law there are no clear and explicit legal requirements to conduct inspections of re-vegetation activities. Thus, inadequate re-vegetation efforts may not be noticed in time to effectively remedy the problematic situations. In contrast, Ontario law requires that re-vegetated areas be inspected on a semi-annually basis, and soil nutrients and pH be evaluated on an annual basis (in spring-time) until vegetation is successfully established.[172] Once vegetation has been established, annual inspections must be conducted to identify any necessary repairs, and to review the progress towards the development of a self- sustaining ecosystem.[173]

Mandate assessment of re-vegetation by other agencies and government departments
[Tags: Assessment; Re-vegetation; Intergovernmental]

As re-vegetation and ecosystem restoration may be beyond the expertise of the mining regulatory authority, support should be obtained from other expert government agencies when assessing the successes of these activities. This is recognized in Oregon where the State Department of Fish and Wildlife and the State Department of Agriculture must certify that a "self-sustaining ecosystem, comparable to undamaged ecosystems in the area" has been established at chemical process mine sites.[174]

Reclamation Standards for Landforms

Overview of BC Law

Under BC law, land and watercourses must be reclaimed, where practicable, "in a manner that is consistent with the adjacent landforms".[175] In addition, land must be left in a manner that ensures long-

[169] *Surface Mining Control and Reclamation Act* ,USC , tit 30 c 25 §1265(b)(20): Dry areas are those regions where the annual average precipitation is twenty-six inches or less.
[170] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(j) (2007).
[171] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3707(c)(2007).
[172] *Mine Development and Closure*, O Reg 240/00, Schedule 1, s 77(1) (2).
[173] *Mine Development and Closure*, O Reg 240/00, Schedule 1, s 78.
[174] Or Rev Stat vol 12 c 517 §956(3)(c).
[175] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.9, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

term stability,[176] where stability is defined as "safety of an earth mass against structural failure or movement".[177] More specific requirements are provided in mining laws from other jurisdictions as shown in the following Recommended Solutions.

Issue

BC law lacks explicit reclamation standards for site topography.

Recommended Solutions

Clarify the description of final site topography requirements
[Tags: Topography; Closure Plans; Restoration]

Washington state law clearly sets out the final site topography that must be re-established for site reclamation – it "shall generally comprise sinuous contours, chutes and buttresses, spurs, and rolling mounds and hills, all of which shall blend with adjacent topography to a reasonable extent. Straight planar slopes and right angles should be avoided."[178] In California, state law mandates that certain features be avoided in the final site topography, such as" un-natural topographic features, impediments to natural drainage, or conditions hazardous to human life and wildlife".[179] In addition, to avoid unnatural topographical features, the final topography cannot exceed pre-mining surface contour elevations by more than 25 feet.[180]

Require assessments of the effect of mine workings on the stability of the ground surface
[Tags: Surface Stability; Assessment; Closure Plans]

In Manitoba, the closure plan must include a description of the effect of all mine openings on the stability of the surface areas above and adjacent to areas used for mining activities to determine whether the surface area is likely to be disturbed.[181] This is an important consideration, particularly for underground operations where surface disturbances may not be immediately visible, but where subsequent subsidence could create dangerous conditions.

Reclamation Standards for Water Courses and Water Quality

Overview BC Law

Legal protection of water in BC is provided under the *Water Act,* the *Water Protection Act* and the associated regulations. The *Water Act Regulations* requires that streams be returned to their "*natural*

[176] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[177] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), Part 10, Definitions, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[178] Wash Rev Code tit 78 § 44.141(4)(d).
[179] *California Surface Mining and Reclamation Act of 1975,* 2 Cal §3704.1(c) (2007).
[180] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3704.1(e) (2007).
[181] *Mine Closure Regulation,* Man Reg 67/99, s 9.

state"[182] and prohibits the alteration of watercourses without a permit. The *Water Act Regulations* also state that "no substance, sediment, debris or material that could adversely impact the stream is (i) allowed or permitted to enter or leach or seep into the stream from an activity, construction, worksite, machinery or from components used in the construction of any works, or (ii) placed, used or stored within the stream channel".[183] However, as far as water quality is concerned, nothing is provided in either of these *Acts* or associated regulations to set water quality standards for water used for industrial purposes. Notably, section 2(e) of the *Environmental Management Act*, which previously governed non-potable water quality standards for industrial water use has been repealed. In addition, under the *Water Act,* water used for everything from hydraulic mining to processing ore and washing coal is explicitly excluded from being considered as 'industrial use' for rentals, usage fees, and tariffs.[184] Only water used for equipment maintenance (cleaning & cooling), testing, and flushing ore is considered 'industrial.' Thus, there are no water quality standards that consistently apply to all mine sites across the process. This is of particular concern to First Nations and remote communities across the province that rely on water not considered, or explicitly excluded, from the provincial mining laws.

The HSR Code only briefly addresses three water related issues: *water quality*, *drainage* and *production capacity*. It requires that watercourses be left in a manner that ensures long-term stability.[185] In addition, watercourses must be reclaimed to a condition that ensures that:[186]

- Drainage is restored to either original watercourses or to new watercourses that will sustain themselves without maintenance; and
- Level of productive capacity is not less than pre-mining productive capacity (unless the miner can provide evidence that demonstrates, *to the satisfaction of the Chief Inspector*, the impracticality of doing so).

If water quality from any component of the mine exceeds the applicable provincial water quality standards in the receiving environment, BC law mandates that remediation strategies be implemented "for as long as is necessary to mitigate the problem … when so required by the Chief Inspector."[187] This is problematic for two reasons; first, the discretion granted to the Chief Inspector provides for potential exemptions from this important legal requirement; and second, to ensure these requirements are met, a long-term water treatment facility may be required.

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[182] *Water Regulation,* BC Reg 204/88, s 41(g).
[183] *Water Regulation*, BC Reg 204/88, s 41(a).
[184] *Water Regulation*, BC Reg 204/88, s 1.1, Schedule A, Part 2, ss 6(a)-(b).
[185] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[186] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.12, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[187] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.29, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

Provincial policy lays out suggested requirements for the long-term protection of watercourses, including:

- Soil handling plans, and erosion control and sediment retention plans to include in reclamation programs;[188]
- Plans for the protection of watercourses and water quality during construction, throughout the mine life, and following closure. Such plans should include:[189]
    - prediction of effluent quality for all disturbances;
    - erosion control, sediment retention, and prevention of watercourse disturbance during the construction phase; and
    - geotechnical & hydraulic stability assessments for all water diversion, interceptor, and sediment retention structures.

In summary BC law broadly mandates long-term protection of watercourses, while policy provides more detailed guidance. In contrast, other jurisdictions have granted greater legal weight to the long-term protection of watercourses. For example, Manitoba requires "the restoration of all watercourses to their original courses or directed to new courses that will sustain themselves in the future without maintenance and that are consistent with the intended future use of the land". [190] Other innovative Recommended Solutions are described below.

Issue

BCs laws contain few requirements regarding watercourse rehabilitation, water quality standards and long-term water treatment. Concurrently, the Chief Inspector retains significant discretion regarding the application and enforcement of these minimal requirements.

Recommended Solutions

<u>Prohibit mining operations from requiring long-term water treatment</u>
[Tags: Water; Decommissioning]

The requirement to maintain long-term water treatment facilities poses an ongoing potential risk to local communities who remain in the area long after the mine is closed. It has therefore been recommended that regulatory authorities deny any mine proposal requiring long-term water treatment for which an end-date cannot be predicted with a reasonable degree of certainty.[191] This is recognized in mine reclamation guidelines adopted in the Northwest Territories, which state that effluent treatment

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[188] *Mines Act,* RSBC 1996, c 293, (Appendix I), ss 4.1, 4.3, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages;appendices.aspx#ai>.
[189] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 3.9, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#reclamation_cost_estimates>.
[190] *Mine Closure Regulation,* Man Reg 67/99, s 15(2)(m).
[191] David M. Chambers, "A Position Paper on Perpetual Water Treatment for Mines", (Bozeman: Centre for Science in Public Participation, 2000) at 2. Christian Wolkersdofer, *Water Management at Abandoned Flooded Underground Mines* (New York: Springer, 2008), online: <http://www.wolkersdorfer.info/publication/pdf/MineAbandonment.pdf>.

facilities may be used as a progressive reclamation tool, but are not appropriate for final reclamation.[192] In Ontario, legal provisions require all tailings, rock piles, overburden piles and stockpiles to be rehabilitated or treated to ensure permanent effluent quality.[193] Although the authors were unable to find specific laws prohibiting mines from meeting water quality objectives by using long term water treatment facilities, such a law would help preserve long term water quality and protect the public purse of future generations.

Require hydro-geological analysis of reclamation plans in sensitive areas
[Tags: Reclamation Plans; Water; Ecology]

BC law requires a mine plan to be submitted as part of the initial mine permit application. This plan must include the "source, use and water balance for any water required in the operation" and "overall site water balance".[194] There are, however, no legal requirements to apply this information to reclamation planning.

In contrast, other jurisdictions mandate that hydro-geological studies be completed with a focus on the reclamation plan. These types of studies assess subsurface hydrologic and geologic conditions in a specific area. Data on the type and thickness of geologic materials and groundwater presence, flow patterns and quality is collected and analyzed to gain an understanding of the groundwater source.

For example, in Washington a thoroughly documented hydro-geologic analysis of the reclamation plan may be legally required whenever mining is contemplated in any of the following areas:[195]

- Critical aquifer recharge areas;
- Special protection areas;
- Public water supply watersheds;
- Sole source aquifers;
- Wellhead protection areas; and
- Designated aquifer protection areas.

Implicit in this legal requirement is knowledge on the surrounding area and watershed. Thus, watershed and groundwater aquifer mapping will be required to meet this legal requirement.

Mandate restoration of meandering watercourses and rehabilitation of stream-banks
[Tags: Restoration; Water; Rehabilitation; Erosion; Sedimentation]

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[192] Indian Affairs and Northern Development, Canada, "Mine Site Reclamation Policy for the Northwest Territories", (Ottawa: Minister of Public Works and Government Services Canada, 2007) at 22.
[193] *Mine Development and Closure*, O Reg 240/00, s 24(2)(14).
[194] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.1.4(3)(i)(j), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[195] Wash Rev Code tit 78 § 44.091(1)(j)(2011).

Reclamation experience has shown that watercourse restoration must include the re-establishment of meandering flow patterns to be effective. Although rebuilding meandering flows is implicit under BC law, it is a clearer legal requirement in other jurisdictions. For example:

- Washington law requires that disturbed drainages be "graded and contain adequate energy dissipation devices so that essentially natural conditions of water velocity, volume, and turbidity are re-established".[196] This work must be completed within 6 months of reclamation of each segment of the mine.[197]
- California law requires that the reclamation plan include a description on the manner in which the affected streambed and stream banks be rehabilitated to a condition that minimizes erosion and sedimentation.[198] This ensures adequate attention at the planning stage is placed on the rehabilitation of these important buffer zones to minimize erosion and sedimentation.

Specific legal provisions such as these ensure that critically important stream reclamation activities are adequately considered.

Mandate erosion control measures
[Tags: Erosion; Water; Drainage]

Many jurisdictions have strong legislated erosion control requirements. For example, in California, legal provisions clearly mandate that erosion and sedimentation "be controlled during all phases of construction, operation, reclamation, and closure of a surface mining operation to minimize siltation of lakes and watercourses".[199] In addition, legal provisions mandate that surface runoff and drainage from mining activities be controlled by specific erosion control measures (i.e., berms, silt fences, sediment ponds, re-vegetation, hay bales) to protect surrounding land and water resources from erosion, gullying, sedimentation and contamination.[200]

Promote joint reclamation planning where two or more mines share a common boundary
[Tags: Reclamation Plans; Watershed]

Washington State has developed an innovative approach to reclamation plans: where two or more mines share a common boundary, the regulatory authority may require submission of a joint reclamation plan "to provide for optimum reclamation or to avoid waste of mineral resources". [201] This approach is particularly appropriate to BC where mineral claims are generally rectangular in shape and therefore do not correspond to natural watershed boundaries. Where two or more mines can combine reclamation efforts, there is greater opportunity for a watershed management approach that recognizes natural hydrological flows and that more adequately takes into account cumulative effects.

[196] Wash Rev Code tit 78 § 44.141(5)(2011).
[197] Wash Rev Code tit 78 § 44.141(5)(2011).
[198] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 2772(c)(8)(B) (2007).
[199] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3706(c) (2007).
[200] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3706(d) (2007).
[201] Wash Rev Code tit 78 § 44.101(2011): Joint reclamation plans may be required.

Reclamation Standards for Chemicals and Re-agents

Overview of BC Law

A wide variety of chemicals are generally used at mine sites. Sufficient care must be taken to ensure these toxic chemicals are not released into the environment during or after mining activities are complete. BC mining law mandates that any chemicals or reagents that cannot be returned to the manufacturer must be disposed of in compliance with municipal, regional, provincial and federal statutes.[202] Thus, the responsibility over chemical and toxin disposal is deferred to other legislation.

Issue

BC mining law does not contain adequate legal requirements for managing chemicals and re-agents.

Recommended Solution

Enact mining law provisions that clearly address responsibilities for the disposal of chemicals and toxins.
[Tags: Soil; Disposal; Hazardous Substances]

In Manitoba, the *Mines Closure Regulation* clearly states:[203]

> Before the operation of an advanced exploration project or mine is closed, the proponent of the project or the operator of the mine shall take all protective measures necessary to ensure [inter alia] the removal of all petroleum products, chemicals and waste from the project site; the rehabilitation of all landfill sites and other waste management sites; and require (if petroleum products, chemicals or waste have been stored during the life of the operation) the testing of the soil in the immediate vicinity of the storage sites and the control or disposal of any contaminated soil".

This requirement clearly outlines miners' responsibilities over chemicals and toxins that they employ in their operations.

Reclamation Monitoring & Reporting

After a mine closes, reclaimed lands may raise new environmental problems due to, for example:

- weathering of pyritic wastes, which may produce acidity and release toxic metals;
- decomposition of organic amendments, which releases metals previously held in stable organic complexes;
- depletion of nutrients required for re-growth;
- occurrences of extreme weather conditions that may affect site stability; and

[202] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.28, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[203] *Mine Closure Regulation*, Man Reg 67/99, s 15(2).

- upwards migration of acidity, heavy metals and salts that may affect ground surface conditions.[204]

In addition, although the removal of mine water generally ends at mine closure, underground mines often fill, leading to the release of contaminated mine water through adits or fractures that reach the ground surface.[205] Adequate post-closure environmental monitoring is therefore essential to ensure that local communities and ecosystems are protected from the effects of former mining activities.

Overview of BC Law

Under BC mining law, miners must carry out monitoring programs, as required by the Chief Inspector, to demonstrate the achievement of reclamation and environmental protection objectives, including land use, productivity, water quality, and stability of structures.[206] Every year, miners must submit to the government a summary report containing environmental protection and monitoring programs of reclamation and environmental monitoring work performed.[207] This annual reclamation reporting must be in a form specified either by the Chief Inspector or in a mine permit condition.[208] The form and content requirements for these annual reclamation reports are set out under provincial policy, and include the following:[209]

- Mining program: Surface development to date, over the past year, and projected over next five years.
- Environmental protection and reclamation program: Summary of areas disturbed and reclaimed and descriptions of various matters including: waste dump reclamation; re-vegetation; invasive plant management; metal uptake in vegetation; road and watercourse reclamation; existing and proposed Metal Leaching/Acid Rock Drainage (ML/ARD) prevention; control and treatment methods; and drainage and other environmental monitoring programs.
- Future reclamation programs: Description of the nature of the reclamation program and research activities planned for the coming year and a 5-year projection of anticipated mining and reclamation.

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[204] R.E. Hester and R.M. Harrison, eds "Mining and its environmental impact, Issues in environmental science and technology" (London: The Royal Society of Chemistry, 1994) at 46.
[205] US Environmental Protection Agency, "EPA Office of Compliance Sector Notebook Project, Profile of the Metal Mining Industry" (Washington DC: US Environmental Protection Agency1995) at 32.
[206] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.30, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[207] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.1.4(4)-(5), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>: In carrying out the program for environmental protection of land and watercourses. This program covers the prediction, prevention, mitigation and management of ARD/ML; erosion control and sediment retention; and environmental monitoring and surveillance.
[208] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.4(5), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[209] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.

- Reclamation liability cost estimates: Detailed estimate of the total costs of outstanding reclamation liabilities over the mine life, including long-term costs of monitoring, maintenance and water treatment.

At mine closure, miners must carry out a program of site monitoring and maintenance.[210] When a mine requires on-going post-closure management, the miner must submit a closure management manual that describes the mitigation, monitoring and maintenance requirements and tracks important changes that effect long-term mitigation, monitoring and maintenance requirements.[211]

Provincial policy expands on the matters for which long-term monitoring may be required, namely: "geotechnical, ML/ARD, re-vegetation, sedimentation or other requirements depending upon the site and closure plan".[212] In addition, provincial policy states that the mine permit application should include details on the means by which environmental protection and quality control will be achieved during all stages of reclamation, including details of the authority and reporting sequence of any environmental staff and the procedure for providing reports and updates to government agencies.[213]

As indicated in the following Recommended Solutions, stronger legal requirements for reclamation monitoring and reporting are provided in other jurisdictions.

Issue

Although BC law requires reclamation monitoring and reporting, additional legal requirements would enhance both mitigation efforts and accountability.

Recommended Solutions

Set clear legal thresholds for action in reclamation monitoring program
[Tags: Reclamation Plans; Monitoring]

A monitoring program that does not include clear thresholds for action threatens the adequacy of environmental protection at closed mines. These thresholds should automatically trigger clean-up efforts where environmental standards are exceeded. In Nunavut, the importance of clear thresholds has been recognized by way of government policy.[214] This has also been recognized in the *Mine Site Reclamation Policy* for the Northwest Territories, which states that "for a monitoring program to be meaningful, it must include provision for appropriate progressive responses which trigger action

[210] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.2(1)(b), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[211] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.12, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[212] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.4.13, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.
[213] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.2, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.
[214] Indian Affairs and Northern Development, Canada, "Mine Site Reclamation Policy for Nunavut" (Ottawa: Minister of Public Works and Government Services Canada, 2002) at 8.

whenever exceeded, including the establishment of thresholds or the identification of changes in circumstances."[215]

Mandate the inclusion of a monitoring schedule in post-closure environmental program plan
[Tags: Monitoring; Post-Closure; Enforcement]

A post-closure environmental program should have a clearly defined and enforceable monitoring schedule. In Saskatchewan, applications for approval of decommissioning and reclamation plans must set out such a schedule. Applications must also include time frames for "monitoring the mining site for physical and chemical stability and for detecting spills or the release of pollutants during and after decommissioning and reclamation".[216]

Mandate monitoring of vegetation and animal tissue for metal uptake
[Tags: Monitoring; Vegetation; Metal Uptake]

Metal uptake in vegetation (including lichen)[217] and animal tissue is a potentially significant concern in areas disturbed by mining activities. The potential for metal uptake in vegetation is in part recognized under BC law, which requires monitoring of vegetation for metal uptake "when required".[218] Ecological risk assessments are also contemplated, but are only mandatory when required by the Chief Inspector.[219] Further, where a significant ecological risk has been identified, BC law mandates that "reclamation procedures shall ensure that levels are safe for plant and animal life and, where this cannot be achieved, other measures shall be taken to protect plant and animal life".[220] It is unclear what constitutes "safe levels" and what is meant by "other measures." Again, much of the language is broad and discretionary and leaves gaps, including:

- No mandatory requirements to monitor vegetation for metal uptake;
- No requirements to monitor animal tissue for metal uptake;

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[215] Indian Affairs and Northern Development, Canada, "Mine Site Reclamation Policy for the Northwest Territories" (Ottawa: Minister of Public Works and Government Services Canada, 2002) at 8.
[216] *Mineral Industry Environmental Protection Regulations,* RRS c E-10.2, Reg 7, s 14(2)(b).
[217] Lichens are more vulnerable to potential metal uptake and surrounding environmental conditions. Given lichens are the main staple of Caribou, there is potential for bio-accumulation of metals in Caribou, that ultimately could lead into effects to humans eating the Caribou.
[218] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.25, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>; *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.4.6, online: <http://www.empr.gov.bc.ca/Mining;Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.
Provincial policy regarding tailings reclamation also states that: "For metal mines in particular, concerns related to trace element uptake in vegetation must be described. If full or partial flooding is planned for closure, long-term stability and maintenance requirements must be adequately addressed".
[219] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.26, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[220] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.27, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

- No clarification on what vegetation or animal tissue is to be monitored;
- No criteria for establishing whether or not there is a significant ecological risk (this determination is left to the Chief Inspector's discretion);[221]
- No requirements to consult with local communities or First Nations on their consumption of local vegetation and animal tissue; and
- No requirement to protect human health from consumption of vegetation or animal tissue.

In sum, BC's laws provide little guarantee that potential metal uptake will be considered in re-vegetation efforts. In contrast, under Northwest Territories' policy, the potential health concerns related to metal uptake in vegetation and animal life are recognized by requiring that re-vegetation be completed with "indigenous vegetation not used by wildlife or people if uptake of metals is a concern".[222] Notably, this is a policy, and not a legal requirement. Nevertheless, it highlights an important issue in the selection of appropriate plants for re-vegetation; an issue that can have long-term impacts on the post-closure land use of lands previously disturbed for mining activities.

Mandate the online posting of annual reclamation reports to simplify public access
[Tags: Reclamation; Public Consultation]

Simplifying data access by posting reclamation reports online helps promote transparency. This is recognized in Alberta where companies have been required to submit digital conservation and reclamation reports, with data on costs exempt, since 2009.[223]

Mandate environmental audits to evaluate results of post-closure environmental monitoring
[Tags: Environmental Audits; Post-Closure; Monitoring; Enforcement]

Audits are important tools for evaluating the post-closure environmental monitoring program. The BC government has recognized this for the forest industry, which is subject to random environmental and fiscal audits by the Forest Practices Board; a tribunal established to provide monitoring, enforcement, and oversight to forestry practices in BC.[224] At present, however, no similar requirement is imposed on the mining industry in the province.

Mandate independent review of the adequacy of site reclamation
[Tags: Review; Reclamation]

An independent review to assess the success of site reclamation creates a more transparent process. This is recognized in the state of Victoria (Australia), where the regulatory authority is empowered to

[221] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.26, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[222] Indian Affairs and Northern Development, Canada, "Mine Site Reclamation Policy for the Northwest Territories" (Ottawa: Minister of Public Works and Government Services Canada, 2007) at 21.
[223] Nathan Lemphers, Simon Dyer & Jennifer Grant, "Toxic Liability: How Albertans could end up paying for oil sands mine reclamation" (Drayton Valley: The Pembina Institute, 2010) at 23.
[224] *Forest and Range Practices Act,* SBC 2002 c 69, s 122(1).

require miners to "engage an auditor to certify that land has been rehabilitated as required".[225] In addition, an independent consultant's report must show that future risks have been managed to a level satisfactory to the regulatory authority.[226]

Require reference to annual reclamation reports to encourage adaptive management of closure plans
[Tags: Reclamation; Closure Plans; Evaluation]

Annual reclamation reports are useful adaptive management tools that should be used to evaluate the level of success that reclamation activities have had towards achieving closure objectives. These reports can be invaluable in determining whether closure plans should be amended to address previously unforeseen problems. This is recognized in Manitoba, where the law requires that annual reclamation reports include "an evaluation of whether or not the approved closure plan is adequate to properly rehabilitate the site".[227]

Infrastructure Decommissioning

Mining activities require a variety of infrastructure that must be adequately decommissioned to protect local communities after mine closure. Decommissioning activities include removing equipment and dismantling facilities to ensure the site is left in a safe state for humans and wildlife. Legal provisions that promote comprehensive decommissioning of mine infrastructure are discussed in the following sections.

Mine Plants, Buildings & Equipment

Overview of BC Law

Under BC law, the following activities must be carried out for mine plants, buildings and equipment as part of mine closure:[228]

- all machinery, equipment and building superstructures must be removed;
- concrete foundations must be covered & re-vegetated; and,
- all scrap material must be disposed of in a manner acceptable to an inspector.

Miners must remove all property from the mine within one year of the cancellation of the mineral title.[229] If the property is not removed within this time, the regulatory authority may issue an order

[225] *Victoria Mineral Resources (Sustainable Development) Act* (Vic). s 81A(1): "The Minister may require that an authority holder or a former authority holder engage an auditor to certify that land has been rehabilitated as required by section 78 for the purpose of deciding whether to return any rehabilitation bond under section 82" .
[226] C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 59.
[227] *Mine Closure Regulation*, Man Reg 67/99, ss 10(1)(d).
[228] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.10, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[229] *Mineral Tenure Act*, RSBC 1996, c 292, s 59(1): unless a longer period is set by the chief gold commissioner.

vesting the remaining property in the government, who may then dispose of such property on terms it deems appropriate without compensation to the miner.[230]

Hazardous Waste Facilities

Hazardous waste facilities are defined in the provincial *Hazardous Waste Regulation* as facilities (including piles, surface impoundments and storage facilities) used to handle, store, treat, destroy or dispose of hazardous waste.[231] This regulation requires closure plans to be prepared before the facilities commence operation. At closure, the facility must be closed within the period specified in, and in accordance with, the approved closure plan.[232]

Overview of BC Law

BC law contains broad legal provisions requiring land, watercourses and access roads to be left in a manner that ensures long-term stability.[233] The miner must take all practicable measures to ensure that the mine workings and fixtures remain secure.[234] Monitoring programs must be carried out to demonstrate that reclamation and environmental protection objectives (including land use, productivity, water quality and stability of structures) are being achieved.[235] Where a mine requires on-going mitigation, monitoring or maintenance, the miner must submit a closure management manual that:[236]

- describes and documents key aspects of the ongoing mitigation, monitoring and maintenance requirements; and
- tracks important changes to components of the system that effect long-term mitigation, monitoring and maintenance requirements.

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[230] *Mineral Tenure Act*, RSBC 1996, c 292, ss 59(2),(3); Mining Act, SNB 1985, c M-14.1, s 60(2); *Mining Act*, SNB 1985, c M-14.1, s 87(2); *Mining Act*, RSO 1990, c M.14, s 53(1); Mont Ann Code tit 82 c 4 § 336(9)(a) (2011); *Mines and Minerals Development Act,* (Zam) No.7, ss 119, 120; Idaho Stat tit 47 § 706 (2012); *Mineral Resources (Sustainable Development) Act* (Vic), ss 114(1)-(2); *Mining Act*, RSQ c M-13.1, s 216.

[231] *Hazardous Waste Regulation*, BC Reg 63/88, s 1(1).

[232] *Hazardous Waste Regulation*, BC Reg 63/88, s 14.

[233] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>:
Provincial policy expands on this: "Long-term stability, both physical and chemical, must be adequately addressed for all structures and discharges from the mine site. This must include consideration of future erosion, creep, mass wasting, and compatibility of final land forms with the surrounding landscape"; *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.4.3, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages;appendices.aspx#ai>.

[234] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.5, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[235] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.30, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[236] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.12, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

Issue

BC's laws do not contain adequate legal provisions regarding the long-term decommissioning of mining infrastructure.

Recommended Solutions

Mandate sharing of infrastructure decommissioning information with local communities
[Tags: Post-Closure; Decommissioning; Environment; Health & Safety]

It is imperative that local communities be adequately informed about post-closure infrastructure decommissioning plans. This need is recognized in Ontario's *Nuclear Safety and Control Act*, which mandates that applicants for a licence to abandon a uranium mine or mill must inform persons living in the vicinity of the mine or mill site of the general nature and characteristics of the anticipated effects of the abandonment on the environment and human health and safety.[237]

Mandate the preparation and implementation of management plans for contaminated soils
[Tags: Management Plans; Contamination]

In Ontario, soils in the vicinity of sites used for storing or transferring petroleum products, chemicals, ore, concentrates or waste during the life of a project must be sampled and tested for contamination. If contamination is found to exist, a management plan consisting of a risk assessment and action plan for the contaminated soils must be implemented.[238]

Mine Openings – Underground Workings and Open Pits

Overview of BC Law

Under BC law, miners must "take all practicable measures to prevent inadvertent access to mine entrances, pits and openings that are dangerous by reason of their depth or otherwise, by unauthorised persons and ensure that the mine workings and fixtures remain secure."[239]

Specific legal requirements for decommissioning underground mine workings in BC are as follows:

- All underground mine openings (shafts, raises, stope openings, adits, or drifts) must be "capped with a stopping of reinforced concrete or filled with material so that subsidence of the material will not pose a future hazard;"[240]

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[237] Joseph Castrilli, *Report on the Legislative, Regulatory, and Policy Framework Respecting Collaboration, Liability, and Funding Measures in relation to Orphaned, Abandoned, Contaminated, and Operating Mines in Canada* (Toronto: National Orphaned/Abandoned Mines Initiative, 2007) at 25;
Uranium Mines and Mills Regulations, SOR 2000-206, s 8(a).
[238] *Mine Development and Closure,* O Reg 240/00, Schedule 1, s 24(2)(13).
[239] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.5, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[240] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.21, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

- For shafts or raises, the stopping must be "secured to solid rock or to a concrete collar secured to solid rock" and capable of supporting a specified uniformly distributed load;[241]
- "Where there is evidence or a potential for use by wildlife, mine openings may be fitted with a barrier that allows wildlife passage but prevents human entry;"[242]
- A permanent and effective drain must be installed when mine openings are permanently closed and there is a risk that mine water may build-up dangerous pressures that could cause a blow-out of the fill or concrete.[243]

Specific legal requirements for decommissioning open pits in BC are as follows:

- Pit walls constructed in overburden must be reclaimed in the same manner as dumps;[244]
- Pit walls do not need to be re-vegetated;[245]
- Pit floors must be re-vegetated where they are free from water and safely accessible;[246] and
- Where pit floors will impound water, but not form part of the permanent water treatment system, the water body that is created in the pit must achieve use and productivity objectives.[247]

Provincial policy also recommends that geotechnical stability assessments be completed for the sealing of mine openings.[248]

Issue

BC law lacks specific, enforceable legal provisions regarding the marking and rehabilitation of mine openings.

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[241] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.22, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. "uniformly distributed load of 12 Kpa or a concentrated load of 24 kn, whichever is greater".

[242] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.23, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[243] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.24, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[244] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.13, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. "unless an inspector is satisfied that to do so would be unsafe or conflict with other proposed land uses".

[245] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.14, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>. "Pit walls including benches constructed in rock, and/or steeply sloping footwalls, are not required to be re-vegetated".

[246] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.15, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[247] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.16, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

[248] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.4.9, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.

Recommended Solutions

Clarify the legal requirements for fencing and warning signs around mine openings
[Tags: Enforcement; Monitoring; Health and Safety]

Under BC law, there are no explicit legal requirements to install fencing and warning signs around mine openings. Conversely, this is a mandatory legal requirement in other jurisdictions. For example, in Quebec, specific legal requirements for fencing are specified for the mine worksite.[249] In addition, warning signs must be placed at the entrance to the mine access roads and at set intervals.[250]

Enact specific legal requirements for rehabilitating open pits
[Tags: Pit Flooding; Closure Plans]

In Ontario, legal provisions specify preferred methods for rehabilitating open pits. Greatest preference is given to pit backfilling, followed by flooding "if fully justified in the closure plan".[251] Where flooding is the chosen method, "a professional qualified in hydrogeology shall predict the water elevation within the pit to provide an assurance of the continuing effectiveness of flooding as a protective measure".[252] Sloping may only be used if proven to be "more appropriate than backfilling or flooding".[253] Finally, where sloping is also deemed impracticable, boulder fencing or berming may be employed if fully justified in the closure plan.[254]

Mine Waste Dumps – Waste Rock, Ore and Other Stockpiles

Overview of BC Law

Mining activities inherently disturb large volumes of soil and rock. As a result, waste rock, ore and other soils are generally stockpiled on the mine site during operation. At closure, BC law requires these stockpiles (dumps) to be reclaimed in a manner that ensures:[255]

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[249] RRQ, c M-13.1, r 2, s 103: These requirements include: "fencing made of 9-gauge galvanized link steel, with openings not exceeding 60 mm on a side; the fence shall be at least 2.50 m high…".
[250] RRQ, c M-13.1, r 2, s 104: "Signs warning of the danger of the access to a mine and the underground worksites with a surface opening shall be placed at the entrance to the access road to the mine and on each of the sides of the fence or gate surrounding the danger sites, at an interval allowing their visibility, at a distance that may not exceed 30 m. Warning signs shall be made up of a non-corrosive metallic substance and shall bear at least the word "danger"."
[251] *Mine Development and Closure,* O Reg 240/00, Schedule 1, ss 21(1),(2).
[252] *Mine Development and Closure*, O Reg 240/00, Schedule 1, s 23(d).
[253] *Mine Development and Closure,* O Reg 240/00, Schedule 1, s 21(3).
[254] O Reg 240/00, Schedule 1, s 21(4).
[255] *Mines Act,* RSBC 1996, c 293, (Appendix I) s 4.4.5, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>. Provincial policy expands on some of these legal requirements: "Proposed waste rock dump reclamation must be described in detail, including anticipated final configurations, proposed re-sloping, post-closure water management, surface treatment to alleviate compaction, details of soil replacement, a description of proposed re-vegetation methods, and trace element uptake in vegetation (especially for metal mines). Conceptual post-mine cross-sections must be provided along with a map illustrating section locations. If possible, conceptual three-dimensional views of the final dump configurations should be provided. Creative design of waste dumps to optimize snow/water retention (where appropriate), habitat diversity and aesthetic consistency with the adjacent landscape are encouraged."

- long-term stability (to meet the criteria provided in the Interim Guidelines of the British Columbia Mine Waste Rock Pile Research Committee)[256]
- long-term erosion control;[257] and
- re-contouring that is consistent with the approved end land use.[258]

The material inventory maintained during operation of materials having ARD/ML potential must also be submitted to the regulatory authority at closure.[259]

Issue

The critical nature of slope stability requires clear legal provisions to govern decision-making.

Recommended Solutions

Mandate an engineering analysis of stockpile slope stability
[Tags: Slope Stability; Impoundment]

An understanding of slope stability is necessary for the safe and economic design of waste rock, ore and other stockpiles. Absent such understanding, stockpiles can pose a serious threat to local downstream communities.

BC law, however, does not explicitly require engineering analyses of final slope stability. Instead, it merely provides that "the long-term stability of exposed slopes of major impoundments shall meet the criteria provided in the Canadian Dam Association, Dam Safety Guidelines at the time of permitting or as amended by the chief inspector". [260] It is also left to the Chief Inspector's discretion as to whether a licensed professional will be required to prepare the closure plans. Conversely, this requirement is mandatory in other jurisdictions. For example, in California, final slope angles must be flatter than the critical gradient for the type of material involved. Furthermore, when final slopes approach the critical gradient an engineering analysis of the slope stability is required.[261]

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[256] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), ss 10.6.6, 10.7.11, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[257] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.11, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[258] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.1.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
Note: See section 3.3.3 (above) of this Module of the Code for a more detailed discussion on legal re-contouring requirements.
[259] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.5.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[260] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.6.7, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[261] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3502(b)(3)(2007).

Mandate the stockpiling of mine wastes in a manner that facilitates phased reclamation
[Tags: Reclamation; Waste Dumps]

Progressive reclamation of mine waste dumps is also an important consideration for reducing reclamation at closure. This need is recognized in California, where legal provisions mandate that mine waste must be stockpiled in such a manner as to facilitate phased reclamation. These mine wastes must also be segregated from topsoil, topsoil substitutes and growth media salvaged for use in reclamation.[262]

Access Roads

Overview of BC Law

BC law mandates that all mine access roads be left in a manner that ensures long-term stability.[263] In addition, all access roads to possibly dangerous mine surface areas must be effectively blocked to prevent inadvertent vehicular access.[264] Provincial policy expands on these legal requirements by stating that roads should be re-vegetated where applicable and road decommissioning should ensure geotechnical and hydraulic stability.[265]

Issue

Although BC's provincial policy outlines adequate re-vegetation and sediment prevention measures for decommissioning roads, these policies are not legally binding.

Recommended Solutions

Mandate the re-vegetation of all mine access roads that are to be reclaimed
[Tags: Re-vegetation; Reclamation; Growth Media; Decommission Roads]

Unlike in BC, detailed legislation governs re-vegetation of mine access roads in other jurisdictions. In Ontario, all transportation corridors must be closed off and re-vegetated "to an extent that is consistent with the specified future use of the land".[266] In California, all access roads, haul roads, and other traffic routes that are to be reclaimed must be stripped of any remaining road-base materials, prepared, covered with suitable growth media or topsoil, and re-vegetated.[267]

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[262] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §§ 2710,3704(c)(2007).
[263] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.6, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[264] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.20, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[265] *Mines Act,* RSBC 1996, c 293, (Appendix I), s 4.4.10, online: < http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/appendices.aspx#ai>.
(i.e., re-vegetation of most locations unless there is a specific elevation, terrain or other exemption agreed to by the Chief Inspector).
[266] O Reg 240/00, s 24(2)(7).
[267] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §§2710, 3705(d)(2007).

In Manitoba, legal provisions mandate road reclamation and require "the removal or preparation of roads, railways, airstrips and paths to promote re-vegetation".[268]

Mandate the implementation of erosion control measures in road decommissioning
[Tags: Reclamation; Decommissioning; Sedimentation; Cross-Ditched]

Uncontrolled sedimentation is one of the biggest environmental issues associated with resource roads: it destroys habitat, impacts water quality, and disrupts riparian equilibrium balance. The need for adequate erosion controls is recognized in Idaho where legal provisions mandate that roads to be decommissioned must be cross-ditched to avoid erosion gullies.[269] This can help limit uncontrolled sedimentation.

Release of Mine Permit Obligations

Overview of BC Law

In BC, a miner is released of all legal obligations under the *Mines Act* when:[270]

- all legal conditions under the mining legislation and mine permit have been fulfilled to the satisfaction of the Chief Inspector; and,
- there are no on-going inspection, monitoring, mitigation or maintenance requirements.

BC law does not require any other government department or affected party to sign-off on the closure certificate.

As described in the Recommended Solutions below, other jurisdictions impose more onerous legal requirements on miners before they are released from their legal obligations.

Note: **Chapter 10: Mine Securities** provides a more detailed analysis of the bonding and assurance issues in mining in BC.

Issue

BC Law has few requirements for the release of mine permit obligations. Additional requirements could promote further economic activity, and protect the public purse from unforeseen occurrences.

Recommended Solutions

Require the maintenance of mine facilities in saleable operating condition for two years after closure to promote new ownership
[Tags: Security; Post-Closure Maintenance]

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[268] *Mine Closure Regulation*, Man Reg 67/99, s 15(2)(n).
[269] Idaho Stat tit 47 §1509(a)(5)(2012).
[270] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.31, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

In Minnesota, the law requires owners or operators of iron mines or related facilities to maintain them in saleable operating condition for at least two years after operations are discontinued to allow the state and other interested public and private bodies to seek a new owner and operator.[271] This promotes efforts to continue the mine operation and new job-generating activities after mine closure.

Require thorough assessments of reclamation activities before releasing miner's obligations
[Tags: Assessment; Concessions; Exploitation]

Some mining impacts may not be immediately apparent, and require time for a clear understanding of long-term impacts. The need for adequate time to assess these long-term impacts is recognized in several Australian states:

- In the state of Victoria, the regulatory authority must take into account "the possibility that some of the damage caused to the land by the authorised activities may not become evident for some time" when deciding whether or not to release a mine operator from further liability.[272]
- In Western Australia and Queensland, the law explicitly states that the assessment period may take from five to ten years.[273]

Require reviews by other affected agencies before the release of legal obligations
[Tags: Review; Agencies; Intergovernmental]

In South Africa no closure certificate may be issued unless the regulatory authority and the Department of Water Affairs and Forestry have confirmed in writing that the provisions pertaining to health and safety and management of potential pollution to water resources have been addressed.[274]

Orphaned Mines

Orphaned mines are mine sites where the owner cannot be found or is financially unable or unwilling to carry out remaining site remediation. Early mining activities were often carried out with a lack of knowledge and consideration of the associated environmental impacts. As such, many communities worldwide continue to experience negative environmental impacts from lands on which mining activities ended decades, if not centuries ago. Legal provisions that promote meaningful community involvement and successful environmental clean up of these mine sites are described in the following sections.

Overview of BC Law

In BC, orphaned mines are regulated under the *Mines Act* and the *Environmental Management Act*.

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[271] Minn Stat § 93.003(1)(2011).
[272] *Mineral Resources (Sustainable Development) Act* (Vic). s 83(6); also: s 83(1) "The Minister must return the bond or bonds to the authority holder or former authority holder as soon as possible if the Minister is satisfied: (a) that the land has been rehabilitated as required by section 78 or 78A (as the case may be); and (b) that the rehabilitation is likely to be successful".
[273] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure", (Washington DC: CRC Press LLC, 2000) at 446.
[274] *Mineral and Petroleum Resources Development Act*, (S Afr), No 28 of 2002, s 43(5).

Under the *Mines Act*, inspectors are empowered to remediate closed or abandoned mines where they deem it necessary to avoid danger to persons or property, or to abate the pollution of the land and watercourses.[275] The remediation costs are to be drawn from the consolidated revenue fund[276] and the total cost (including interest) forms a lien and charge on the mine or mineral title that is due to the government.[277] However, the Minister is granted broad discretion to cancel this lien with or without payment of the debt owing.[278] In addition, the definitions of "closed mine" (i.e., a mine at which all mining activities have ceased but the owner remains responsible for compliance) and "abandoned mine" (i.e., mine for which all permit obligations have been satisfied and the mineral claims have reverted to the government) have been criticized for not being adequately broad to capture orphaned mines where a responsible person is no longer available and permit conditions have not been adequately satisfied even if the claims have reverted to the government.[279] There are also no criteria listed in the legislation for identifying orphaned mines or authorizing an inventory of these sites.[280] Finally, an exemption from re-vegetation requirements is also provided in the HSR Code for environmental disturbances that occurred before 1969 on sites that have been inactive since then.[281]

The *Environmental Management Act* provides a somewhat broader definition for "historic mine site." This term is defined as an area where the ground has been disturbed mechanically to produce coal or mineral bearing substances (including a site used for processing, concentrating or waste disposal) and for which no *Mines Act* permit exists and no identifiable owner or operator is taking responsibility for contamination at the site.[282] Unfortunately this broader definition does not grant the local community any greater protection from environmental impacts associated with these sites. Rather, the associated legal provisions exempt a person that holds mineral rights to the site for exploration purposes from the responsibility of remediating any contamination that existed at the time they acquired those rights.[283] As such, there are no legal provisions that promote the prompt remediation of these legacy mine sites.

Although inadequate legal provisions are in place to carry out the remediation of orphaned mines in BC, the provincial government has undertaken some work to address these sites. In the early 1990's the provincial and federal government initiated a project to compile information on closed and abandoned

[275] *Mines Act,* RSBC 1996, c 293, s 17(1).
[276] *Mines Act,* RSBC 1996, c 293, s 17(2).
[277] *Mines Act,* RSBC 1996, c 293, s 17(3).
[278] *Mines Act,* RSBC 1996, c 293, s 17(5).
[279] Joseph Castrilli, *Report on the Legislative, Regulatory, and Policy Framework Respecting Collaboration, Liability, and Funding Measures in relation to Orphaned;Abandoned, Contaminated, and Operating Mines in Canada* (Toronto: National Orphaned;Abandoned Mines Initiative, 2007) at 61.
[280] Joseph Castrilli, *Report on the Legislative, Regulatory, and Policy Framework Respecting Collaboration, Liability, and Funding Measures in relation to Orphaned;Abandoned, Contaminated, and Operating Mines in Canada* (Toronto: National Orphaned;Abandoned Mines Initiative, 2007) at 61.
[281] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008), s 10.7.2, online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[282] *Environmental Management Act*, SBC 2003, c 53, s 65(1).
[283] *Environmental Management Act*, SBC 2003, c 53, s 69(b).

mines in BC, and particularly the ARD potential associated with them.[284] Then, in 2000, the provincial Ministry of Energy and Mines carried out a Historic Mine Sites Project to begin to inventory historic mine sites in BC.[285] More than 1,800 historic mine sites were identified on Crown land across the province.[286]

In 2002, the Auditor General released a report criticizing the government's management of provincial contaminated sites extensively.[287] In response, the Crown Contaminated Sites Branch was established to manage contamination on Crown lands where no responsible party could be identified. This included the responsibility to carry out environmental investigations and remediation programs at priority orphaned mine sites. This agency has had some success in remediating some priority orphaned mine sites; however, without more secure funding, or legal provisions mandating community participation in the process, the long-term success of this program is uncertain.

Issue

BC's legislation requires comprehensive revision for dealing with the hundreds of orphaned mines across the province.

Recommended Solutions

Coordinate the clean-up of orphaned mines with land-use planning
[Tags: Orphaned Mine; Land Use Plan]

The clean-up of orphaned mines should be coordinated with land-use planning to ensure goals and objectives of local communities are achieved. This is recognized in Nunavut, where legal provisions empower the Nunavut Planning Commission to identify and prioritize the requirement to clean-up inactive mining sites. To the extent possible, this initiative is to be coordinated with development of land-use plans.[288]

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[284] Stephen J. Day and David P. Harpley, "Survey of Closed and Abandoned Mines in British Columbia for Acid Rock Drainage I: Regional Perspective", (Proceedings of the 16th Annual British Columbia Mine Reclamation Symposium, delivered at Smithers, BC, 1992) [unpublished], online: <https://circle.ubc.ca/bitstream/handle/2429/12592/1992%20-%20Day%2c%20Harpley%20-%20Survey%20of%20Closed%20and%20Abandoned%20Mines.pdf?sequence=1>.

[285] L. Barazzuol and G. Stewart, "Historic Mine Sites in British Columbia", (Victoria: BC Ministry of Energy and Mines, 2003) at 6, online: < https://circle.ubc.ca/bitstream/id/22277/12%20Stewart.pdf>: "Sites were identified principally through review of existing ministry data and developing a working definition of a historic mine site. Initial classification of historic mine sites included 1,887 unpermitted, "past producing" mines in the province, based on information contained in MINFILE (database of all known mineral occurrences in British Columbia). Further prioritization of sites included mineral deposits known to have geo-environmental characteristics, which may have a potential for generating acid and/or leaching of metals into the environment." Of these, 1,171 sites were identified in the BC.

[286] L. Barazzuol and G. Stewart, "Historic Mine Sites in British Columbia", (Victoria: BC Ministry of Energy and Mines, 2003) at 6, online: <https://circle.ubc.ca/bitstream/id/22277/12%20Stewart.pdf>.

[287] Gregg Stewart, "Jurisdictional Update" (British Columbia Ministry of Agriculture and Lands NOAMI Workshop on Best Practices for Orphaned and Abandoned Mines, October 26-27, 2006) at 1, online: <http://www.abandoned-mines.org/pdfs/presentations/JurisdictionalUpdateStewart.pdf>. The Auditor General recommended that: A lead agency should be identified with the appropriate authority to oversee development and implementation of a contaminated sites program; Government should develop a province-wide prioritization process for site identification; Government should establish a management accountability framework for its contaminated sites that requires the disclosure of environmental liabilities, expenditures and information about accomplishments.

[288] *Nunavut Land Claims Agreement Act*, SC 1993 c 29, s 11.9.1.

Promote community involvement in orphaned mine clean-up
[Tags: Public Consultation; Orphaned Mine; Reclamation]

Local communities should be engaged in the remediation of orphaned mines as they often have important knowledge on historical activities and associated negative impacts. In addition, the remediation of orphaned mines may play an important role in local land-use planning. There are several examples of successful community engagement in orphaned mine remediation in BC. For example, the Tsolum River Partnership was a coalition of community, industry and government involved in the planning and implementation of the Mt. Washington Mine remediation.[289] Legislation, however, is required to ensure this approach is adopted in other locations across the Province. The federal National Orphaned and Abandoned Mines Initiative (NOAMI) have published guiding principles for effective community involvement.[290] These principles include communication before decisions are made, financial provisions to support community involvement, public information sessions, consistent community involvement and meetings held in a manner that respects local cultures.[291]

In Idaho, the law mandates that the characterization, prioritization, and reclamation of eligible mines and affected lands be coordinated with other governmental, educational, and private organizations or agencies that have expertise and information regarding abandoned mines and affected lands. These other groups may also be compensated from the abandoned mine reclamation account for the services they provide.[292]

Legislate the establishment of an orphaned mine inventory that is public available and regularly updated
[Tags: Orphaned Mine; Public Consultation]

Under EU law, member states must develop an inventory of abandoned mines if they are, in effect, a waste facility used to store the "accumulation or deposit of extractive waste" that causes, or can cause negative environmental impacts or serious threats to human health or the environment. While this does not extend to all abandoned mines due to the criteria, this inventory must be periodically updated and made publicly available.[293]

Create an orphaned mine clean-up fund paid into by operating mines
[Tags: Security; Orphaned Mine; Contamination]

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[289] Wayne White and Alvin Tong, "Mount Washington Mine Remediation Project – Construction Phase" (Proceedings of the 34th Annual BC Mine Reclamation Symposium and 35th Annual Canadian Land Reclamation Association Meeting, Courtenay BC, September 20-23, 2010).
[290] "Best Practices in Community Involvement: Planning for and Rehabilitating Abandoned and Orphaned Mines in Canada", online: <http://www.abandoned-mines.org/pdfs/CommInvolvePamphlet2003-e.pdf>.
[291] "Best Practices in Community Involvement: Planning for and Rehabilitating Abandoned and Orphaned Mines in Canada" at 4, online:: <http://www.abandoned-mines.org/pdfs/CommInvolvePamphlet2003-e.pdf>.
[292] Idaho Stat tit 47 § 1708(2012).
[293] EC, Commission Directive 2006/21/EC of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 20 [2006] OJ, L 102/15.

One of the key goals identified by the Whitehorse Mining Initiative was to establish funding means for reclaiming old mine sites where the remediation responsibility could not be assigned.[294] However, in BC, the *Mines Act* requires orphaned mine remediation costs that are expended by the government to be drawn from the consolidated revenue fund.[295] This has resulted in a significant burden on the public purse – between 2001 and 2009 the provincial government committed over 200 million dollars to the management of the province's contaminated sites. Currently, there is no program in BC which collects these funds from the mining industry.[296] Conversely, other jurisdictions have adopted legal provisions that ensure a more secure source of funding for cleaning up orphaned mines – for example:

- In Washington, fines, interest, and other penalties collected by the mining department are to be used to reclaim surface mines abandoned before 1971.[297]
- In West Virginia, a general bond fund and a special trust are both available for sites abandoned after August 3, 1977 (where the bond is less than the reclamation costs) and for water treatment systems of orphaned ("forfeited") sites, respectively.[298]
- In California, miners must pay fees on each ounce of silver and gold produced. These fees are deposited in an Abandoned Mine Reclamation and Minerals Fund that can be used to "remediate features of historic abandoned mines and lands that they impact".[299]
- The US Federal Code also established an Abandoned Mine Reclamation Fund from which funds are distributed to qualifying states for use in reclamation of abandoned mine sites and adjacent impacted areas.[300] Coal mine operators are required to pay into this fund by way of a fee imposed on produced coal.[301]
- In New South Wales (Australia), the regulatory authority may sell any remaining mining infrastructure (buildings, plants, machinery, equipment, etc.) on an orphaned mine site ('derelict

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[294] The Whitehorse Mining Initiative, Leadership Council Accord, Final Report, October 1994, at 15.
[295] *Mines Act,* RSBC 1996, c 293, s 17(2).
[296] Gregg Stewart, "Jurisdictional Update" (British Columbia Ministry of Agriculture and Lands NOAMI Workshop on Best Practices for Orphaned and Abandoned Mines, October 26-27, 2006) at 2, online: <http://www.abandoned-mines.org/pdfs/presentations/JurisdictionalUpdateStewart.pdf>: "Regarding funding, the BC government since 2001 has committed 180 million dollars to for the management of the province's contaminated sites. An additional 47.2 million has been allocated to the program for 2007 to 2009. The source of these funds is direct government funding from general revenue. There currently are no partnership funding programs in BC with the mining industry or Good Samaritan programs and we need to move in that direction and the good work of NOAMI provides a starting point to advancing in these key policy areas".
[297] Wash Rev Code tit 78 § 44.045(3)(2011).
[298] *Surface Coal Mining and Reclamation Act,* W Va art 3 § 22-3-11(g), online: <http://www.dep.wv.gov/dmr/codes/Documents/2009%20Mining%20Code.pdf>: "The Special Reclamation Water Trust Fund is created within the State Treasury into and from which moneys shall be paid for the purpose of assuring a reliable source of capital to reclaim and restore water treatment systems on forfeited sites."
[299] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 2207(d)(4)(B)(i)(2007): "the board shall collect five dollars ($5) per ounce of gold and ten cents ($0.10) per ounce of silver mined within the state…"; *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 2207(d)(4)(B)(ii)(2007).
[300] *Surface Mining Control and Reclamation Act*, USC tit 30 C 25, §§ 1231, 1233(a)(3),(4).
[301] *Surface Mining Control and Reclamation Act*, USC tit 30 C 25, § 1232(a): "All operators of coal mining operations subject to the provisions of this chapter shall pay to the Secretary of the Interior, for deposit in the fund, a reclamation fee of 31.5 cents per ton of coal produced by surface coal mining and 13.5 cents per ton of coal produced by underground mining or 10 per centum of the value of the coal…"

mine site'), by public auction or by private sale (if not sold at public auction), and apply the proceeds to a fund for remediating such sites.[302]

- In Alberta, oil and gas producers are required to pay levies into an Orphan Fund, which is used to pay costs associated with suspension, abandonment and reclamation of wells and facilities.[303]

[302] *Mines Act 1992* ,NSW, s 242C(3)(a).
[303] *Oil and Gas Conservation Act*, RSA 2000 c O-6, part 11.

Fair Mining Practices:

A New Mining Code for British Columbia

Chapter 10:

Securing the Cost of Mine Clean-up

By Maya Stano, P.Eng., LL.B., LL.M.

March, 2013

The opinions expressed in this document are solely those of the authors. They should not be taken as reflecting the views of the Fair Mining Collaborative, the University of Victoria Environmental Law Centre, the Real Estate Foundation, the Wilburforce Foundation, the West Coast Environmental Law Environmental Dispute Resolution Fund, The Nature Conservancy, or Advocates for International Development. This publication is presented with the understanding that neither the publisher nor the authors are engaged in rendering legal, engineering, or other professional services or advice. In no event, including negligence on the part of the authors, the reviewers, the funders or the publisher, will the authors, reviewers, funders or the publisher be liable for any direct, indirect or consequential damages resulting from the use of this material. The authors offer no opinion as to the accuracy of the information summarized in this report and disclaim any responsibility for the accuracy or inaccuracy of such information. Readers interested in the specific details of the law or regulations of a country or jurisdiction cited in this report should consult original and up-to-date sources for that information.

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Chapter Summary

Security is a type of guarantee intended to ensure that there are sufficient assets available to cover the costs associated with any outstanding reclamation or decommissioning work should a mining company default on its obligations. These costs can be very high: Canada's taxpayers will pay an estimated $1 billion to remediate the Giant Mine near Yellowknife, and an estimated $700 million to clean-up the Faro Mine in the Yukon. In BC, over $70 million taxpayer dollars have already been spent to remediate the Britannia Mine. Further, these costs are likely underestimates and do not include future costs to taxpayers. The extensive environmental disturbance caused by mining activities, coupled with the fluctuating nature of mineral markets makes it imperative that adequate funds be secured in advance to cover any outstanding mine reclamation and decommissioning costs.

Despite advancements, gaps remain in BC's regulation of mine securities. **Chapter 10: Securing the Cost of Mine Clean-up** compares BC's laws regarding mine securities with laws from other jurisdictions that uphold the polluter-pays principle in a more comprehensive and effective manner.

Under the *Mines Act*, the Chief Inspector is empowered to require that the mining company deposit sufficient security to cover costs for government to complete outstanding reclamation work if the company defaults on its obligations. The actual amount of security is negotiated between the provincial government and the miner using the reclamation cost estimate that the miner submitted in the mine permit application.

BC law states that the reclamation cost estimate must include the costs of long-term monitoring and maintenance. Provincial policy sets out specific additional factors to be considered in reclamation cost estimates and additional guidance. Additional securities may also be required as a condition of licences issued under other provincial laws.

The availability of funds to carry out site remediation is heavily dependent on the type of security instrument used. The selection of an appropriate security instrument should be based on the level of assurance it provides that the miner will take all necessary and reasonable measures to protect the environment, balanced with the need to minimize tying up capital required for progressive reclamation. BC law does not provide adequate guidance to the regulatory authority regarding the selection of appropriate security instruments or how accessible the security deposit must be. To address similar issues, some jurisdictions have imposed legal limits on the regulatory authority's discretion in accepting different types of security instruments by specifying factors that must be taken into account in choosing an acceptable security instrument. Also, recognizing that securities need be easily and quickly converted into cash, legal provisions in other jurisdictions provide that any proposed form of security can be rejected if it is not convertible to cash within 180 days.

Securities have been required of most of the mines currently operating in BC. However, under provincial mining legislation, there is no mandatory legal requirement to post security**.** Instead, the Chief Inspector has the discretion to require security as a condition of the mine permit. Laws in other jurisdictions require security to be posted for all mines, require mandatory posting of security for mineral exploration activities, require mandatory timelines for posting security and impose consequences for failing to meet these timelines.

Further, in BC, policy provides that the amount of security required is determined on a case-by-case basis, based on the miner's reclamation estimate and negotiations carried out between the miner and the lead government agency. Other jurisdiction have laws that set minimum mine securities applicable to all mines, require a preliminary site inspection before setting security and require consideration of site-specific conditions and probability of successful reclamation when setting security amount. In addition, other jurisdictions only allow security amounts to be reduced in specified cases, such as where a miner's past performance warrants reduction or to promote a reduced site 'footprint'. Some jurisdictions apportion security relative to the degree of disturbance of lands across the mine site, require security for reclamation of tailings impoundments, require calculation of security based on independent contractor rates and/or government rates, require professional certification of reclamation cost estimates, and adjust the security amounts annually for inflation. Some jurisdictions also have laws which provide for additional security to cover administrative costs, require security for unexpected occurrences, require security to cover the costs of alternate water supplies, require additional security for mines using cyanide and toxic chemicals, apportion security relative to the degree of disturbance of lands and require professional certification of reclamation cost estimates. Similar laws are needed in BC to ensure that adequate funds are secured to cover remediation costs.

In BC, miners can, and often do, request that the reclamation cost estimate submitted as part of the mine permit application be kept confidential. Consequently, the public is unable to evaluate whether the cost estimate is reasonable or adequate to cover all necessary site remediation activities. Other jurisdictions have laws that mandate public disclosure of reclamation cost estimates and base security on consultation with local municipal governments, landowners and Indigenous people.

The amount of security held by the government should be reviewed periodically, as environmental conditions at mine sites are continuously changing. These changes include when new deposits are developed, mining activities are expanded, or new extractive technologies are introduced. BC law grants the Chief Inspector power to amend security whenever he or she considers it necessary. Further guidance is provided in provincial policy, which recommends a review every five years or whenever significant changes occur at the mine. However, security reviews are not always consistently carried out: a recent review of coal mine permits in BC found that lapses of 10 to 20 years occurred between mine security increases.

Other jurisdictions provide for regular reviews of securities by requiring reviews of security at frequent intervals, providing broad legal powers to review and re-calculate security – especially where site

inspections indicate deviations from closure plans, mandating fees to cover administrative costs of security review and requiring public notice and public review when miners request security reductions.

When a miner doesn't complete reclamation, or fails to meet permit conditions, the government needs to access the security funds. In BC, the Chief Inspector may, after giving notice, apply all or part of the security toward the cost of the work required. Although these are relatively strong legal requirements, they remain largely dependent on the Chief Inspector's discretion, without any oversight. Other jurisdictions set more specific rules on the circumstances in which the regulatory authority should apply the security to complete work. Examples include requiring forfeiture of security where mine reclamation is not completed within set time limits, allowing government to access security when a miner fails to comply with government-issued orders and making the miner liable for government clean-up costs that exceed the available security.

In BC, security is returned to a miner once all legal conditions under the legislation and mine permit have been fulfilled to the satisfaction of the Chief Inspector and there are no on-going inspection, monitoring, mitigation or maintenance requirements. Mine securities in other jurisdictions are not released until the miner has gone through more comprehensive checks and balances. For example, other jurisdictions require public involvement, and a site inspection, before security is released. By releasing security in stages, other jurisdictions have greater assurance of proper re-vegetation and groundwater restoration. This type of provision is often accompanied with a requirement to retain a set percentage of the security for a minimum of five years after completion of reclamation. Similar provisions require the demonstration of self-sustaining re-vegetation for a set time period before release of security.

In conclusion, mine securities in BC are vulnerable. Policy, rather than law, forms the backbone of the current system, and the Chief Inspector of Mines has discretion in all aspects of the mine security process. BC needs to tighten up its security requirements, to do otherwise risks the future financial wellbeing of the province.

Table of Contents

Chapter Summary **392**

Introduction **397**

Overview of BC Law **399**

Types of Security Instruments **402**
- Overview of BC Law 402
- Issue 403
- Recommended Solutions 404
  - Specific factors must be considered when selecting appropriate security instruments, including miner's past performance 404
  - Require security instrument to be quickly and easily convertible into cash 404

Requirement to Post Security **404**
- Overview of BC Law 404
- Issue 404
- Recommended Solutions 405
  - Require posting of security for all mines 405
  - Require mandatory posting of security for mineral exploration activities 406
  - Legislate mandatory timelines for posting security and impose consequences for failing to meet these timelines 407

Adequate Amount of Security **407**
- Overview of BC Law 407
- Issue 407
- Recommended Solutions 408
  - Set minimum mine securities applicable to all mines 408
  - Require preliminary site inspection before setting security 408
  - Consider site-specific conditions and probability of successful reclamation when setting security amount 408
  - Reduce security only where a miner's past performance warrants reduction 409
  - Reduce security for reduced site 'footprint' 410
  - Apportion security relative to the degree of disturbance of lands across the mine site 410
  - Require security for reclamation of tailings impoundments 411
  - Require calculation of security based on independent contractor rates and/or government rates 411
  - Require professional certification of reclamation cost estimate 412
  - Adjust amount of security annually to compensate for inflation 412
  - Include additional amount in security to cover administrative costs 412
  - Require security for unexpected occurrences 413
  - Require security to cover costs for alternate water supplies 413
  - Legislate additional security for mines using cyanide and toxic chemicals 414

Public Participation **414**
Overview of BC Law 414
Issue 414
Recommended Solutions 414
Mandate public disclosure of reclamation cost estimate on which security determinations are based. 414
Set security based on issues identified in consultation with local community 415

Regular Reviews and Updates of Securities **415**
Overview of BC Law 416
Issue 416
Recommended Solutions 416
Legislate frequent reviews of securities 416
Broaden legal powers to review and re-calculate security – especially where site inspections indicate deviations from closure plan 417
Mandate fee to cover administrative costs of security review 417
Require public notice and public review when miner requests security reductions 417

Government Access to, and Use of, Security Funds **418**
Overview of BC Law 418
Issue 418
Recommended Solutions 418
Mandate forfeiture of security where mine reclamation is not completed within set time limits 418
Allow government to access security where a miner fails to comply with government-issued orders 418
Make miner liable for government clean-up costs that exceed the available security 419

Return of Security **420**
Overview of BC Law 420
Issue 420
Recommended Solutions 420
Require public involvement before security is released 420
Require site inspection before security is released 421
Stagger release of security – retain a percentage of the security for a minimum of 5 years after completion of reclamation to ensure successful reclamation 421
Require demonstration of self-sustaining re-vegetation for set time period before release of security 422
Secure compensation for property owner by way of bond 422
Require baseline survey to quantify landowner compensation for loss and damage 423
Clearly define landowner losses and damages to be compensated 423
Establish clear timelines for landowner compensation 424

Conclusion **425**

Introduction

"[S]ecurity now being taken under the Mines Act is inadequate to remediate the known mines sites in BC where contamination exists.

– BC Auditor-General (2003) [1]

Overall, total pollution abatement and control expenditure (i.e. public and private, investment and current) reaches 1.1% GDP [in Canada], on the lower side among G7 countries. ... Concerning the polluter pays principle, to which Canada subscribes, further progress could be made in internalising pollution externalities and reducing government financial assistance to pollution abatement and control, thereby increasing the cost-effectiveness of environmental policies and contributing to an environmental "level playing field.[2]

- *OECD (2004)*

Security is a type of guarantee intended to ensure that there are sufficient assets available to cover the costs associated with any outstanding reclamation or decommissioning work should a mining company default on its obligations.[3]

TERMINOLOGY: Different jurisdictions have adopted different terminology to describe security. This terminology includes "bonds", "rehabilitation bonds", "guarantees", "assurance", "financial assurance", "financial warrantees", "reclamation insurance" and "surety."

The extensive environmental disturbance caused by mining activities, coupled with the fluctuating nature of mineral markets makes it imperative that adequate funds be secured in advance to cover any outstanding mine reclamation and decommissioning costs. Cost estimates must be accurate to ensure that sufficient funds are available at end of mine life should site clean-up become a government responsibility; otherwise, these costs will become a burden on the public purse.[4] Canada's taxpayers

[1] Auditor General of British Columbia, "2002/2003 Report 5: Managing Contaminated Sites on Provincial Lands"; (Victoria: Office of the Auditor General of British Columbia, 2003) at 43.
[2] Organisation for Economic Co-operation and Development (OECD), "OECD Environmental Performance Reviews – Canada", Paris, 2004 at 17.
[3] *Mines Act*, RSBC 1996, c 293 s 12(3).
[4] World Bank and International Finance Corporation, "It's Not Over When It's Over: Mine Closure Around the World" (Washington DC: International Finance Corporation, 2002) at 5, online at <http://siteresources.worldbank.org/INTOGMC/Resources/notoverwhenover.pdf>: The World Bank estimates closure costs typically range in the tens of millions of dollars, with medium-size open pit and underground mines operating in the past 10 to

will pay an estimated $1 billion to remediate the Giant Mine near Yellowknife,[5] and an estimated $700 million to clean-up the Faro Mine in the Yukon.[6] In BC, over $70 million taxpayer dollars have already been spent to remediate the Britannia Mine; that mine, which began operations before BC had enacted security provisions in its mining legislation, required extensive remediation to address the toxic drainage that destroyed surrounding ecosystems. Further, although high, these costs are likely an underestimate. For example, at the Britannia Mine the long-term water treatment costs are only covered for the next 20 years; after this time, additional taxpayer dollars will be needed to assess and likely carry out continued treatment.[7] At the Mt. Washington copper mine on Vancouver Island, the more than $6 million spent on rehabilitation did not include the independent contributions made by numerous individuals, the annual $2 million loss from the destroyed Tsolum River salmon runs, or the possible long-term water treatment costs.[8]

Despite advancements, gaps remain in BC's regulation of mine securities. Most notably, under the law, the Chief Inspector is granted significant discretion in setting the form and amount of security.[9] Notably, a review of securities required in the US revealed that the lowest estimated reclamation costs (which are used in calculating required securities) occurred in those states where laws were general and limited in scope and where the regulators, like BC's Chief Inspector, were granted substantial discretion with respect to the interpretation and application of the laws.[10] Similar problems exist in BC, as noted in a 2002 report by the Auditor General: "*security now being taken under the Mines Act is inadequate to remediate the known mine sites in British Columbia where contamination exists*."[11] Although security provisions have been included in provincial law since the 1970's, unsecured reclamation liabilities continued to pose deficit problems, as evidenced by the bankruptcies of the Cassia Asbestos Corporation and Westmar Mining Limited in BC in the 1990's.[12]

Legal provisions adopted in other jurisdictions uphold the polluter-pays principle in a more comprehensive and effective manner than under BC mining legislation.

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15 years costing $5-15 million to close, while closure of open pit mines operating for over 35 years, with large waste and tailings facilities, can cost over $50 million.

[5] Bob Weber, "Giant Mine's high cleanup bill shakes up policy on toxic sites", *The Globe and Mail,* (1 April, 2013) online: http://www.theglobeandmail.com/news/national/giant-mines-high-cleanup-bill-shakes-up-policy-on-toxic-sites/article10659731/.

[6] Faro Mine Remediation Project, Frequently Asked Questions, online: http://www.faromine.ca/reference/faq.html (accessed Feb 15, 2013).

[7] Maya Stano, "The Raven Mine: A Regulatory & Fiscal Black Hole?" (Victoria: Environmental Law Centre Clinic, University of Victoria, 2011) at 22.

[8] Maya Stano, "The Raven Mine: A Regulatory & Fiscal Black Hole?" (Victoria: Environmental Law Centre Clinic, University of Victoria, 2011) at 22.

[9] *Mines Act,* RSBC 1996, s 10 (4),(5).

[10] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States" (Boulder: National Wildlife Federation, 2000) at 2.

[11] Auditor General of British Columbia, "December 2002 Report 5: Managing Contaminated Sites on Provincial Lands"; (Victoria: Office of the Auditor General of British Columbia, December, 2002) at 43.

[12] British Columbia Ministry of Energy, Mines and Petroleum Resources, "Mine Reclamation Security Policy in British Columbia: A Paper for Discussion" (Victoria: British Columbia Ministry of Energy, Mines and Petroleum Resources, 1995) at 5.

Overview of BC Law

Under the *Mines Act*, the Chief Inspector is empowered to require that the mining company deposit security "in the amount and form satisfactory to the chief inspector".[13] The purpose of the security is to cover costs for government to complete outstanding reclamation work if the company defaults on its obligations.[14] Mine securities *may* be required for the following purposes:

- mine reclamation;[15]
- protection of, and mitigation of damage to, watercourses affected by the mine;[16]
- protection of, and mitigation of damage to, cultural heritage resources affected by the mine;[17]
- carrying out mine permit conditions, orders and directions relating to above matters;[18] and
- covering regulatory requirements of legislation, permits and approvals of other provincial agencies.[19]

The actual amount of security is negotiated between the provincial government and the miner, using the reclamation cost estimate (that the miner is required to submit in the mine permit application) as a basis for the negotiations. This method for determining the appropriate amount of security seeks to resolve the risk to the public purse in the event that the mine operator defaults on its obligations, with the need to ensure the amount is not so high that it prohibits or restricts the miner from funding progressive reclamation activities during mine operations.[20] (For a discussion of progressive reclamation, refer to **Chapter 9, Mine Closure and Post Closure**).

BC law states that the reclamation cost estimate must include the costs of long-term monitoring and maintenance.[21] According to provincial policy, these costs refer primarily to remediation costs associated with acid rock drainage (ARD).[22] They may also include: dam inspections; maintenance of

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[13] *Mines Act*, RSBC 1996, c 293, s 10.
[14] BCMEMPR, *Mine Reclamation Security Policy in British Columbia: A Paper for Discussion* (Victoria: BCMEMPR, 1995) at 3.
[15] *Mines Act*, RSBC 1996, c 293, s 10(4)(a).
[16] *Mines Act*, RSBC 1996, c 293, s 10(4)(b).
Note: "Financial assurance for mine reclamation is only as strong as the definition of mine reclamation": Jim Kuipers, *Putting a Price on Pollution: Financial Assurance for Mine Reclamation and Closure* (Mineral Policy Centre, 2003) at 25.
[17] *Mines Act,* RSBC, 1996, c 293, s 10(4)(b): This section of the provision was added by *Energy And Mines Statutes Amendment Act, 2003* (2003-1-8) effective June 20, 2003 (BC Reg 234/2003). Hansard does not provide reasons for this amendment; *Mineral Tenure Act*, RSBC 1996, c 292, s 1: Cultural Heritage resources: "*an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people*".
[18] *Mines Act*, RSBC, 1996, c 293, s 10(5).
[19] BCMEMPR, *Mine Reclamation Security Policy in British Columbia: A Paper for Discussion* (Victoria: BCMEMPR, 1995) at 17.
[20] C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 14.
[21] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.1.4(8), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.
[22] BC Ministry of Energy, Mines and Petroleum Resources, *Mine Reclamation Costing and Spreadsheet* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006, Version 3.5.1), online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/AnnualReclamationReports/Documents/costing_manual.pdf> at 9.

water diversion structures; waste material monitoring; water quality monitoring; and vegetation sampling.[23] The policy also states that full (i.e., 100%) hard security will be required to cover outstanding liability and ongoing management where long-term drainage treatment of ARD is at issue (regardless of the financial strength of the company).[24] Provincial policy adds that "reclamation cost projections must normally include, but are not necessarily limited to:[25]

- site preparation (re-sloping, re-contouring, scarification, soil/overburden replacement);
- re-vegetation and fertilization;
- disposal of structures and equipment;
- construction of spillways, diversions and other water management structures;
- removal of culverts;
- sealing of underground workings;
- disposal of fuel, contaminated soils, and toxic materials;
- long-term maintenance and monitoring programs;
- collection and treatment facilities;
- environmental impact mitigation systems;
- sealing of waste rock dumps;
  mobilization and demobilization;
- engineering re-design costs; and
- contingencies."

The provincial government has developed spreadsheets to help miners calculate the reclamation cost estimates.[26] These spreadsheets cover both indirect and direct costs such as equipment, materials and labour.[27] Specific spreadsheets are available for:[28]

- re-sloping of waste dump faces;
- lump sums for items not related directly to an area of disturbance;
- post-closure costs for costs extending more than five years beyond closure;
- costs to neutralise ARD; and

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[23] BC Ministry of Energy and Mines, *Performance Bonds Policy* at II(2).
[24] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources , 2009) at 17.
[25] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 80.
[26] Online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/Costing-Security/Pages/default.aspx>.
[27] BC Ministry of Energy, Mines and Petroleum Resources, Mine Reclamation Costing and Spreadsheet (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006, Version 3.5.1), online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/AnnualReclamationReports/Documents/costing_manual.pdf> at 9.
[28] BC Ministry of Energy, Mines and Petroleum Resources, Mine Reclamation Costing and Spreadsheet (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006, Version 3.5.1), online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/AnnualReclamationReports/Documents/costing_manual.pdf> at 11-16.

- ARD operating system costs, including costs to operate and monitor the ARD treatment system and plant.

Some additional guidance is provided in BC government policy. For example, according to policy, the practice for new mines is to set "the reclamation security annually at a level which reflects all outstanding decommissioning and closure obligations existing at that time".[29] Provincial policy also provides that security may be required to cover requirements under other laws and in permits and approvals issued by other provincial agencies.[30] As such the BC Ministry of Energy and Mines will collect and hold security on behalf of both the Ministry of Forest and the Ministry of Environment.[31] In addition, as mentioned above, provincial policy recommends that 100% security be deposited for sites needing long-term ARD treatment.[32] This is of particular importance in BC where high-sulphur content ores are found throughout the province. However, as policy, these requirements carry little legal weight. Furthermore, provincial policy explicitly states that the mine security does not cover *off-site* clean-up costs.[33] This unsecured liability may include a wide range of costly damages, including harm to buildings from blasting, ARD from access and haul roads, and health and environment impacts from mine truck traffic.

Finally, over two dozen licences may be required to operate a mine in BC. Additional securities may be required as a condition of licences issued under the *Park Act*,[34] *Water Act*,[35] *Environmental Management Act*[36] and *Forest Act.*[37]

The following section delves into specific issues associated with mine securities: types of security instruments; requirement to post security; adequate amount of security; public participation; regular

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[29] *Mines Act,* RSBC, 1996, c 293, Application Requirements for a Permit Approving the Mine Plan and Reclamation Program, online: < http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/PermitApplicationRequirements/Pages/default.aspx#application_for_a_mines_act_permit> at 3.9.

[30] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17.

[31] BC Ministry of Energy, Mines and Petroleum Resources, "Mine Reclamation Security Policy in British Columbia: A Paper for Discussion" (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 1995) at 3.

[32] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17.

[33] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17.

[34] *Park, Conservancy and Recreation Area Regulation*, BC Reg 180/90, ss 3(4)-(7) ; *Park Act*, RSBC 1996, c 344, s 22: Restoration deposit may be required: "Before issuing a park use permit or resource use permit, the minister or the minister's authorized agent may require the person to whom it is intended to issue the permit to pay to the government a sum that the minister or that agent considers sufficient to defray the cost of the restoration or repair of the park, conservancy or recreation area concerned necessitated by the use authorized by the permit".

[35] *Water Act*, RSBC 1996, c 483, s 12(1)(e): "…the comptroller or the regional water manager may … (e) require the applicant to give security for the purposes and in the amount and form the comptroller or the regional water manager considers in the public interest".

[36] *Environmental Management Act*, SBC 2003, c 53, s 14(1)(b).

[37] *Provincial Forest Use Regulation*, BC Reg 176/95, s 9(2)(c).

reviews and updates of securities; government access to, and use of, security funds; and return of security. The recommended solutions proposed below promote a more comprehensive approach to the 'polluter pays' principle than what currently exists under BC law.

Types of Security Instruments

The availability of funds to carry out sire remediation is heavily dependent on the type of security instrument used. The preferred type is an AA (double "A") security instrument, which includes bonds, assurances, warrantees, insurance and sureties. High-risk instruments, such as self-bonding and corporate guarantees, generally require diligent management and contingency procedures in case of bankruptcy and should therefore be avoided.[38] Some basic requirements to ensure the effectiveness of security instruments include:[39]

- security instruments should not contain defences or exclusions that might hamper the government's ability to collect obligations;
- security instruments should not be easily withdrawn in the event that large environmental costs develop; and
- any cancellation clauses should require notification before cancellation.

Current legal requirements in BC, along with Recommended Solutions from other jurisdictions are discussed in the following sections.

Overview of BC Law

The selection of an appropriate security instrument should be based on the level of assurance it provides that the miner will take all necessary and reasonable measures to protect the environment, balanced with the need to minimize tying up capital required for progressive reclamation.[40] A combination of different types of instruments is commonly used to achieve this goal.[41] For example, in BC combinations of hard security and performance bonds have been accepted as security.[42] Provincial policy defines hard security as including cash, irrevocable letters of credit, fully registered marketable bonds issued and/or guaranteed by the Canadian or provincial governments, treasury bills, guaranteed

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[38] Marta Miranda, David Chambers, & Catherine Coumans, "Framework for Responsible Mining: A Guide to Evolving Standards", (World Wildlife Fund & Center for Science in Public Participation, 2005) at 42.

[39] Elizabeth Bastida, Thomas Walde and Janeth Warden-Fernandez, eds, "International and Comparative Mineral Law and Policy: Trends and Prospects" (The Hague: Kluwer Law International, 2005) at 736.

[40] C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 4.

[41] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure" (Washington DC: Lewis Publishers, 2000) at 332.

[42] BC Ministry of Energy and Mines, *Performance Bonds Policy* at II(2), (4), III;, Hard security includes cash, irrevocable letters of credit, fully registered marketable bonds issued and/or guaranteed by the Government of Canada or the provincial government, treasury bills, guaranteed investment certificates, and term deposits with up to three-year terms; Canada Savings Bonds and surety bonds are not accepted; BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 18.

investment certificates and term deposits with up to three-year terms.[43] According to provincial policy, the amount of hard security is determined using a net present value calculation with a discount rate of 3.5% (the discount rate is subject to change).[44] Provincial policy also states that sufficient hard security must be posted to cover the following costs for the upcoming 5-year period:[45]

- expected post closure costs;
- periodic capital replacement costs related to the operation of a water collection and treatment facility and for the management and disposal of associated secondary wastes; and/or
- expected post closure site monitoring and maintenance costs.

According to provincial policy, the outstanding liability may then be covered by a performance bond provided by an approved bonding company (where total security exceeds $100,000).[46]

Regardless of the above-mentioned policies, the ultimate decision on what constitutes an acceptable instrument is left to the discretion of the Chief Inspector.[47] This level of discretion is much greater than many other jurisdictions and increases the likelihood that high-risk forms of security will be accepted. For example, the provincial government has accepted charges on equipment and buildings as security; a practice the BC Auditor-General described as "questionable".[48] Equipment and buildings are not appropriate as security instruments because they depreciate over time and may be subject to competing claims from other creditors, including employees (unpaid salaries) or the federal government (for income taxes owed).[49]

In contrast, as described in the following Recommended Solutions, lower-risk securities are legally required in other jurisdictions.

Issue

BC law does not provide adequate guidance to the regulatory authority regarding the selection of appropriate security instruments or how accessible the security deposit must be.

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[43] BC Ministry of Energy and Mines, *Performance Bonds Policy* at III.
[44] BC Ministry of Energy and Mines, *Performance Bonds Policy* at II(3).
[45] BC Ministry of Energy and Mines, *Performance Bonds Policy* at II(2).
[46] BC Ministry of Energy and Mines, *Performance Bonds Policy* at II(1), (4), IV: "A performance bond must be provided by an insurance company licensed to write surety insurance in Canada or the Province of British Columbia. Such an insurance company must be approved by the Ministry of Finance (Risk Management Branch) and maintain an A.M. Best rating of A (Excellent) or better."
[47] *Mines Act*, RSBC 1996, c 293, s 10(4).
[48] Auditor General of British Columbia, "2002/2003 Report 5: Managing Contaminated Sites on Provincial Lands" (Victoria: Office of the Auditor General of British Columbia, 2003) at 43.
[49] BC Ministry of Energy, Mines and Petroleum Resources, "Mine Reclamation Security Policy in British Columbia: A Paper for Discussion" (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 1995) at 16.

Recommended Solutions

Specific factors must be considered when selecting appropriate security instruments, including miner's past performance
[Tags: Bonds; Assurance; Surety; Company Performance; Security; Calculating Assurance]

Some jurisdictions have imposed legal limits on the regulatory authority's discretion in accepting different types of security instruments by specifying factors that must be taken into account in choosing an acceptable security instrument. For example, in South Dakota, the regulatory authority must consider the following factors when determining whether the proposed form of security is acceptable:[50]

- operator's financial status;
- operator's existing assets within the jurisdictions;
- facilities available to carry out the planned work; and
- operator's past performance on contractual agreements.

Require security instrument to be quickly and easily convertible into cash
[Tags: Security; Bonds; Assurance; Surety; Convert; Cash]

Environmental conditions at mine sites can deteriorate quickly causing a sudden increase in reclamation costs. It is therefore imperative that securities can easily and quickly be converted into cash. This is recognized in Colorado where legal provisions provide that any proposed form of security can be rejected if it is not convertible to cash within 180 days.[51]

Requirement to Post Security

Overview of BC Law

Securities have been required of most of the mines currently operating in BC. However, under provincial mining legislation, there is no mandatory legal requirement to post security**.** Instead, the Chief Inspector has the discretion to require security as a condition of the mine permit.[52] Stronger legal requirements mandating the posting of mine securities are provided in other jurisdictions.

Issue

Reliance on unfettered discretion over clear legal requirements leaves the security and bonding process vulnerable to miscalculation and omissions.

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[50] S Dak CL c 45 § 6B-22, online: <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=45-6B-22>.
[51] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 § 32-117 (3)(c)(II)(2011).
[52] *Mines Act*, RSBC 1996, c 293, s 10(4).

Recommended Solutions

Require posting of security for all mines
[Tags: Security; Bonds; Assurance; Surety; Permit Application]

In other jurisdictions, legal provisions mandate that miners must always post security. Several Canadian jurisdictions have enacted laws that require mandatory posting of mine securities, including Saskatchewan[53] and Yukon.[54] Several American jurisdictions have also adopted this approach. At the federal level, the US Bureau of Land Management has decided not to exempt any mining operations from the requirement to post security for closure obligations on any federally managed lands.[55] In Colorado, all mine permit applications, regardless of size, have a legislated requirement to post security in the amount determined pursuant to the Act.[56] Similar requirements are in place in California,[57] Washington,[58] and New Mexico.[59] Several jurisdictions outside North America also require mandatory posting of securities, including Papua New Guinea[60] and Sweden.[61] Similarly, South African legislation clearly mandates the posting of security as part of the miner's environmental management plan.[62]

At minimum, if the regulatory authority is to retain the discretion on whether or not to require security, that discretion must be limited and well-defined. For example, in New Brunswick the regulatory authority must consider the following factors in deciding whether or not to require that security be posted:[63]

- type and amount of planned work;
- nature and severity of potential damage to the environment;
- nature and current use being made of the affected property; and
- nature of a program, and the anticipated cost that would protect, reclaim and rehabilitate the environment.

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[53] RRS c E-10.2, Reg 7, s 12(c).
[54] *Quartz Mining Act*, SY 2003, c 14, s 16(1). http://www.gov.yk.ca/legislation/acts/qumi.pdf
[55] Matthew Hawkins, "Rest Assured? A Critical Assessment of Ontario's Mine Closure Financial Assurance Scheme" (2008) 26:4 Journal of Energy & Natural Resources Law 499.
[56] Colorado Revised Statutes – Title 34: Mineral Resources, s.34-32-117(1).
[57] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 2770(a),(d), 2773.1(a).
[58] Wash Rev Code tit 7879 § 44.087(1)(2011).
[59] *Surface Mining Act,* N Mex Stat tit 69 c 25A § 13(A)(2011).
[60] *Papua New Guinea Mining Act* 1992, s 150(1).
[61] Minerallagen SFS 1991:45 (*Minerals Act*, Sweden), C 4, s 6. Unofficial translation found online: http://www.sgu.se/dokument/service_sgu_publ/SGU-rapport_2007-26_minerals-act_ordinance.pdf. *Minerals Act*, Sweden, C 4, s 6.
[62] *Mineral and Petroleum Resources Development Act*, (S Afr), No 28 of 2002, s 41(1).
[63] *Mining Act*, SNB 1985, c M-14.1, s 109(3.1) and (3.2).

In the Yukon, both the *Quartz Mining Act* and the *Kaska Mining Regulations* mandate that an applicant's past environmental performance be considered in determining whether or not security must be posted.[64] An operator's past performance can be assessed on the basis of various factors, including:[65]

- management of other operating and closed sites;
- frequency of spills and unforeseen events;
- record of compliance with mining regulations;
- existence of an environmental management system;
- environmental certifications;
- public disclosure of environmental performance records; and
- regular environmental audits by independent experts.

In Queensland (Australia), where financial assurance is required for mining activities under the *Environmental Protection Act 1994* (Qld), the relevant Government authority administering the act must take into consideration "the degree of risk that environmental harm will be caused; the likelihood that action will be required to rehabilitate or restore or protect the environment; and the environmental record of the holder" of the mining lease.[66]

Although these types of factors help ensure that security is collected when required, it is still preferable to require security at all mines.

<u>Require mandatory posting of security for mineral exploration activities</u>
[Tags: Security; Bonds; Assurance; Surety; Mineral Exploration; Mine Permit Requirements]

A mine permit may not always be required for mineral exploration activities in BC.[67] Where a mine permit is not required, security will generally not be required either (as this is usually attached as a condition to the mine permit). Although exploration activities are generally less intrusive than activities at an operating mine, they can still impact the environment, and require costly remediation.

Unlike BC, security is required for mineral exploration activities in other jurisdictions. For example, in Brunei (a wealthy nation), the government will not issue a prospecting licence until the miner has deposited security of at least $100,000 BND ($80k CDN).[68]

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[64] *Kaska Mining Regulation*, OIC 2004/24, s 6; *Quartz Mining Act*, SY 2003, c 14, s 139(2).
[65] C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 20.
[66] Queensland Government Mining Guideline, 'Calculating Financial Assurance for Mining Projects' (22 August 2012), p. 2. Available at: http://www.ehp.qld.gov.au/land/mining/pdf/financial-assurance-mining-em585.pdf. Also see s364 of the *Environmental Protection Act 1994* (Qld).
[67] See Recommendations for Modernizing BC Mining Law, Chapter 5, Prospecting and Exploration.
[68] James Otto and John Cordes, *The Regulation of Mineral Enterprises: A Global Perspective on Economics, Law and Policy* (Westminster, Colorado: Rocky Mountain Mineral Law Foundation, 2002) at 3-33; *Laws of Brunei, Chapter 42: Mining,* s 7(1).

Legislate mandatory timelines for posting security and impose consequences for failing to meet these timelines
[Tags: Security; Timeline; Permit]

Under BC law, no work can commence in, on or about a mine until a miner holds a mine permit (unless the Chief Inspector grants an exemption to the permit requirement).[69] Where a miner fails to comply with the conditions of the permit, including posting security as a condition of the mine permit, the Chief Inspector may order that the mine stop operation, apply the security to reclamation work,close the mine, or cancel the permit.[70] However, BC legislation has no explicit, legally enforceable timelines by which the miner must post security nor any mandatory consequences associated with a failure to post security in a timely manner. As such, a mine in BC could be completely unsecured even if it is in advanced stage of operation.

In contrast, Montana legislation specifically provides that where a miner fails to post the required security within specified deadlines, the permit is suspended and the miner must immediately cease mining activities until the required security is both posted and approved by the regulatory authority.[71] This provides greater assurance of prompt posting of securities.

Adequate Amount of Security

> *The volumes of material, metals and chemicals handled in the mining sector, and the long time period over which they can create contamination, suggest to us that adequate financial assurances are important to maintain and must be examined periodically.*
>
> – BC Auditor General (2002)[72]

Overview of BC Law

In BC, the amount of security required is determined on a case-by-case basis, based on the miner's reclamation estimate and negotiations carried out between the miner and the lead government agency. In addition, BC policy outlines various permissive (as opposed to mandatory) purposes for which security may be required. As described in the following Recommended Solutions, other jurisdictions have enacted legislation that provide greater certainty that adequate securities will be collected to cover all necessary costs.

Issue

BC's law on setting security amounts does not ensure that adequate funds are secured to cover remediation costs.

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[69] *Mines Act*, RSBC 1996, c 293, s 10(1).
[70] *Mines Act*, RSBC 1996, c 293, ss 10(4), 10(8).
[71] Montana Code Annotated Title 82 c 4 § 338(3)(c336(2) (2011).
[72] Auditor General of British Columbia, "2002/2003 Report 5: Managing Contaminated Sites on Provincial Lands" (Victoria: Office of the Auditor General of British Columbia, 2003) at 43.

Recommended Solutions

Set minimum mine securities applicable to all mines
[Tags: Minimum; Bonds; Assurance; Surety; Security]

BC law does not specify a minimum amount of security. This differs from other jurisdictions where minimum securities have been set.[73] For example, in Montana the legislation mandates that a minimum security of $200/acre is required.[74] In New Mexico, a minimum security of $10,000 is legally required.[75] In India, different minimum securities are required for different categories of mines: larger securities are required for mines that require heavy machinery to perform operations such as deep-hole drilling, excavation, loading and transport.[76] In Western Australia, as of January 1st 2012, tailings facilities were bonded at a minimum rate of A$18,000 per hectare, and waste rock piles are bonded at a rate of A$15,000 per hectare. [77]

Require preliminary site inspection before setting security
[Tags: Bonds; Assurance; Surety; Security; Site Inspection; Mine Permit]

There is no requirement under BC law that the Chief Inspector conduct a site visit or perform an inspection to assess pre-disturbance environmental conditions before setting the amount of mine security. In contrast, in South Dakota, the regulatory authority must complete an inspection of the proposed mine site before issuing a mine permit. This inspection is used as a basis to set an appropriate amount of security for the environmental conditions pre-site disturbance.[78] Similar legal requirements are in place for exploration activities in Oregon.[79]

Consider site-specific conditions and probability of successful reclamation when setting security amount
[Tags: Security; Bonds; Assurance; Surety; Site-Specific Conditions; Reclamation; Site Rehabilitation]

Site-specific conditions can have a significant impact on the success of remediation efforts. Although this is implicitly recognized in the Health, Safety and Reclamation Code for Mines in British Columbia (HSR

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[73] Quebec Bill 79: An Act to amend the Mining Act, s 54.
[74] Mont Code Ann tit 82 c 4 § 338 (2011), online: <http://data.opi.mt.gov/bills/mca/82/4/82-4-338.htm>.
[75] *Surface Mining Act,* N Mex Stat tit 69 § 25A-13(A)(2010).
[76] *Mineral Conservation and Development Rules*, India, Rule 23F(1): Financial assurance is required to be furnished by a leaseholder at a per-Ha rate of Rs. 25,000/ $454 CDN for category 'A' mines and Rs 15,000/$272 CDN for category 'B' mines, per hectare of the mining lease area used for mining and allied activities, subject to a minimum of Rs. 200,000/ $3600 CDN and Rs. 100,000/$1800CDN for category A and category B mines respectively. Rule 42(1) of the [Indian] Mineral Conservation and Development Rules, 1988 defines mines as 'category A' if the number of average employees exceeds 150 in all or 75 working below ground or a mine where any of the mining operations like deep hole drilling, excavation, loading and transport is carried out with the help of heavy machinery. All other mines are categorized as 'category B' mines:
C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 63.
[77] Western Australia Department of DoIR Mines and Petroleum "Australia"; DMP Bond Policy (Effective 3 December 2010), online: <http://www.dmp.wa.gov.au/documents/bond_policy.pdf >.
[78] S Dak CL, §45-6B-20, online : <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=45-6B-20>.
[79] Or Rev Stat vol 12 c 517 § 735(1)(2011).

Code),[80] other jurisdictions have adopted legal provisions that explicitly recognize these potential challenges.

For example, in Alberta, the amount of security must be sufficient to ensure completion of reclamation based on various factors, including the probable difficulty of conservation and reclamation considering the local topography, soils, geology, hydrology and re-vegetation.[81] Similarly, in Nova Scotia, the amount of security must be sufficient to ensure complete site rehabilitation based on the probable difficulty of rehabilitation considering various environmental factors.[82]

Reduce security only where a miner's past performance warrants reduction
[Tags: Bonds; Assurance; Surety; Reduced Security; Company Performance]

A miner needs ready access to funds to conduct progressive reclamation activities. Therefore, taking into account a miner's performance record in setting the amount of security can serve as a strong incentive to adopt strong environmental practices throughout mine life. In BC, provincial policy states that less than full security may be acceptable where the miner's wealth greatly exceeds the liability of the mine site, and the company is considered a low risk to default. No mention, however, is made of the company's past environmental or regulatory compliance track-record.[83] Provincial policy also indicates that a risk premium may be required to provide for unexpected costs where there is a high risk that a miner may default on its obligations or there are highly uncertain cost predictions.[84] However, the provincial government's risk assessments to gauge the financial capacity of the companies and the risk of the project have been criticized as being inadequate.[85] In addition, in light of the significant discretion granted to the Chief Inspector under BC mining law, these policy requirements carry little legal weight.[86]

Laws in many other jurisdictions require that a miner's past performance be taken into account when the amount of security is set. In the Yukon, for example, the legislation lists factors that the regulatory authority must take into account when setting the amount of security. These include the ability of the miner to pay remediation costs and the miner's past performance in respect of other licences.[87] Similarly, in Washington the regulatory authority must consider the miner's compliance history and the

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[80] *Health, Safety and Reclamation Code for Mines in British Columbia* (2008), s 10.7.29, online: http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf.
[81] *Conservation and Reclamation Regulation,* Alta Reg 115/1993, s 18(1)(c).
[82] *Approvals Procedure Regulations,* NS Reg 48/95, s 14(1)(c).
[83] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17.
[84] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17.
[85] Karen Campbell, Lisa Sumi, Alan Young, "Undermining the Law: Addressing the crisis in compliance with environmental mining laws in BC" (Vancouver: West Coast Environmental Law and Environmental Mining Council of BC, 2001) at 25.
[86] BC Ministry of Energy and Mines, *Performance Bonds Policy*, online: < http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/Pages/PerformanceBondsPolicy.aspx>.
[87] *Water Regulation,* YOIC 2003/58, ss 11(2)(a)(b).

state of that miner's existing surface mines before approving a blanket performance security.[88] In Queensland (Australia) a discount in security is permitted based on previous environmental performance.[89] Similarly, in South Dakota the regulatory authority must consider the financial and technical capability of the operator to respond to accidental releases when determining the amount of security to be posted.[90] Washington State allows the deposit of a blanket security bond in lieu of individual bonds for miners with two or more mines based on the track-record of the miner.[91]

Queensland (Australia) takes it one step further: where financial assurance is required for mining activities under the *Environmental Protection Act 1994*, the regulatory authority must take into consideration "the degree of risk that environmental harm will be caused; the likelihood that action will be required to rehabilitate or restore or protect the environment; and the environmental record of the holder" of the mining lease.[92]

Reduce security for reduced site 'footprint'
[Tags: Bonds; Assurance; Surety; Reduced Security; Footprint; Reclamation; Progressive Reclamation]

Security can also be used as a tool to promote reduced land disturbance and ongoing reclamation. For example, in Colorado, the mining legislation encourages concurrent reclamation by setting lower amounts of security (for limited-impact operations) if less land is disturbed at any one time.[93]

Apportion security relative to the degree of disturbance of lands across the mine site
[Tags: Security; Bonds; Assurance; Surety; Apportionment; Remediation; Levels of Contamination]

Specific areas of a mine site may be exposed to different levels of contamination. As recognized by BC policy, in the event of a miner's default, the remediation of different parts of a mine site will be prioritized differently.[94] It is therefore important that a broad reclamation costing strategy not be imposed across the entire site, but rather that specific costing be completed for areas of the site with higher environmental risks and associated reclamation costs. This approach is adopted in Alberta where the legislation states that the Director may designate separate portions of the disturbed lands and

[88] Wash Rev Code tit 78 §44.350(2)(a)(4)(2011).
[89] C.Queensland Government Mining Guideline, 'Calculating Financial Assurance for Mining Projects' (22 August 2012), p. 2. Available at: http://www.ehp.qld.gov.au/land/mining/pdf/financial-assurance-mining-em585.pdf. Also see s364 of the *Environmental Protection Act 1994* (Qld).
[90] S Dak CL, tit 45 § 6B-20.1, online: <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=45-6B-20.1>.
[91] Wash Rev Code §78.44.350(2)(a).
[92] Queensland Government Mining Guideline, 'Calculating Financial Assurance for Mining Projects' (22 August 2012), p. 2. OnlineAvailable: <http://www.ehp.qld.gov.au/land/mining/pdf/financial-assurance-mining-em585.pdf>.. Also see s364 of the *Environmental Protection Act 1994* (Qld).
[93] *Colorado Mined Land Reclamation Act*, Colo Rev Stat tit 34 §32-110 (2011).
[94] BC Ministry of Energy, Mines and Petroleum Resources, "Mine Reclamation Costing and Spreadsheet User Manual" (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006, Version 3.5.1), online: <http://www.empr.gov.bc.ca/MINING/PERMITTING-RECLAMATION/ANNUALRECLAMATIONREPORTS/Pages/default.aspx> at 9.

attribute separate security to different designated areas.[95] Nova Scotia has also enacted legislation that provides for apportionment.[96]

Require security for reclamation of tailings impoundments
[TAGS: Security; Bonds; Assurance; Surety; Environmental Assessment; Resource Policy]

Tailings impoundments often require special attention during mine closure, and it is therefore beneficial to separate the financial security requirements for this work from other more general reclamation requirements. This is recognized in Idaho, where legal provisions require financial security to be filed specifically for tailings impoundments.[97]

Require calculation of security based on independent contractor rates and/or government rates
[Tags: Security Amount; Bonds; Assurance; Surety; Contractor Rates; Government Costs]

To ensure a realistic reclamation estimate, reclamation costs should be calculated based on independent contractor rates or government rates, including travel costs and machinery transport costs associated with remote or difficult to access mine sites. This is imperative because it is independent contractors or government employees that will be completing the remediation work if the owner defaults on obligations and leaves the mine site in need of restoration. It has been estimated that where government, rather than the mine operator, must complete the clean-up, the overall cost increase ranges from 50% to more than 500%.[98]

BC mining policy states that "liability costs are generally based on government's cost to do the work",[99] and where the government undertakes reclamation work, unit equipment rates set out in the "Province of British Columbia B.C. Hydro and Power Authority and B.C. Rail Ltd. Equipment Rental Rate Guide" apply.[100] These 'in-house' requirements allow no room for third-party estimation or assessment outside government and leave open the possibility of inflated reclamation forecasts and cost-overruns.

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[95] *Conservation and Reclamation Regulation,* Alta Reg 115/1993, s 19.
[96] *Approvals Procedure Regulations,* NS Reg 48/95, s 15.
[97] Idaho Administrative Code IDAPA 37.03.05, *Mines Tailings Impoundment Structures Rules*, s 040.
[98] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States" (Boulder: National Wildlife Federation, 2000) at 2, online: <http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf>.
[99] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 17, online: <http://www.coalwatch.ca/sites/default/files/Guide-to-Processing-A-Mine-Project-Application-Under-The-British-Columbia-Mines-Act.pdf>.
[100] BC Ministry of Energy, Mines and Petroleum Resources, "Mine Reclamation Costing and Spreadsheet" (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2006) at 8, online: <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/AnnualReclamationReports/Documents/costing_manual.pdf>.

Conversely, under EU law, the security calculation for waste facilities must be calculated based on independent and suitably qualified third party rates.[101] US federal law[102] and mining laws in Nevada[103] and Ontario[104] also require that security be based on independent contractor rates.

In Montana,[105] Oregon,[106] Colorado[107] and the Yukon,[108] legal provisions mandate that security be based on costs as if the regulatory authority were to complete the work. In California, the legislation provides that securities are to be calculated based on either the regulatory authority or third party costs.[109]

Require professional certification of reclamation cost estimate
[Tags: Security; Bonds; Assurance; Surety; Remediation; Professional; Cost Estimate]

To increase the certainty that the reclamation cost estimate has been carefully and adequately prepared, professional approval should be legally required. This approach is adopted in Manitoba where the estimated rehabilitation costs that are submitted along with the closure plan must be certified by both an officer or director of the mining company, as well as either a professional engineer, geologist, or accountant.[110]

Adjust amount of security annually to compensate for inflation
[Tags: Inflation; Bonds; Assurance; Surety; Security]

Inflation costs arise from a change in dollar value from the time of the original estimate and the time when reclamation activities are ultimately undertaken.[111] As such, securities should be automatically adjusted on an annual basis to account for inflation. BC law does not set any clear legal requirements for inflation to be taken into account in securities. Other jurisdictions, such as the State of Florida, legislate that surety bonds be adjusted annually for inflation to allow for the reality of price and currency fluctuations.[112]

Include additional amount in security to cover administrative costs
[Tags: Security; Bonds; Assurance; Surety; Administrative Cost]

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[101] EC, Commission Directive 2006/21/EC of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, Article 14(2) [2006] OJ, L 102/15.
[102] *Surface Mining Control and Reclamation Act*, USC tit 30 § 1259(a); C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 5 and 35.
[103] Nev Adm Code c 517(A) § 360(2)(2011); C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 5 and 35.
[104] *Mine Development and Closure*, O Reg 240/00, s 12(2)(c); George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 5 and 35.
[105] Mont Code Ann tit 82 c 4 § 123(2011).
[106] Or Rev Stat vol 12 c 517 § 810(2011).
[107] Colo Rev Stat tit 34 § 32-117(4)(b)(I)(2011).
[108] *Security Regulation*, YOIC 2007/77, s 3(c).
[109] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3804(a)(2)(2007).
[110] *Mine Closure Regulation*, Man Reg 67/99, s 18(1)(2).
[111] David M Chambers, "Alaska Large Mine Reclamation Bonding 2005" (Paper delivered at the 2006 Billings Land Reclamation Symposium, Billings, MT June 5-8 2006), (Lexington: BLRS and ASMR, 2005) at 2, online: <http://www.csp2.org/reports/Alaska%20Reclamation%20Bonding%20-%20Sep05.pdf>.
[112] Fla Stat tit 28 c 378 §§ 208(1)(b)(c).

Administrative costs can place a significant burden on the public purse. This is recognized in several jurisdictions, where an amount must be added to the security to cover government administrative costs. For example, in Colorado the security must include an additional 5% to cover the cost of administration.[113] Mining legislation in California also provides for administrative costs and expenses associated with the security to be included in the security amount.[114]

Require security for unexpected occurrences
[Tags: Unexpected Occurrences; Disaster; Bonds; Assurance; Surety; Security]

BC mining policy broadly lists various costs that may be included in the calculation of security, including costs for contingencies.[115] However, other jurisdictions have enacted legal provisions that explicitly include costs associated with unexpected occurrences. For example:

- The *Canada Oil and Gas Operations Act*: requires proof of financial responsibility to be sufficient to also face liability in the event of an oil spill or other discharge.[116]
- In New Zealand, security may be required to address "adverse effects on the environment that become apparent during or after the expiry" of the mining permit.[117]
- In Oregon, the security must be determined based on the reclamation estimate and the use a credible accident analysis.[118]
- In California, a contingency amount of up to 10% of the reclamation costs is to be included in the security.[119]

Notably, the need for security to cover unanticipated adverse impacts has been recognized for some environmental assessments in BC.[120]

Require security to cover costs for alternate water supplies
[Tags: Watershed; Water Supply; Bonds; Assurance; Surety; Security]

Closely associated to the issue of unexpected occurrences is the potential need for alternate water supplies where contamination from mining activities impact groundwater or surface water sources used for drinking water or agricultural purposes. This is recognized in Ontario where the legislation explicitly empowers the regulatory authority to impose a security amount to provide alternate water supplies if

[113] *Mined Land Reclamation Act,* Colo Rev Stat tit 34 § 32-117(4)(b)(I).
[114] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3802(b)(2007).
[115] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 80.
[116] *Canadian Oil and Gas Operations Act,* RSC 1985 c 07 ss 5.03,27.
[117] *Resource Management Act 1991*, (NZ). 1991/69 s 108A(2).
[118] Or Rev Stat vol12 § 517.987(1)(2011).
[119] *California Surface Mining and Reclamation Act of 1975*, 2 Cal §3804(a)(4)(2007).
[120] Elmar Plate, Malcolm Foy and Rick Krehbiel, *Solutions for First Nation Involvement in Environmental Assessment Reviews of Development Projects in British Columbia* (West Vancouver: New Relationship Trust, 2009) at xii (Solution #65).

there are reasonable and probable grounds to believe that the primary water supplies are likely to be contaminated.[121]

Legislate additional security for mines using cyanide and toxic chemicals
[Tags: Toxic Chemicals; Bonds; Assurance; Surety; Cyanide Leaching; Security]

Some jurisdictions have adopted progressive requirements for additional security at mines that use cyanide leaching or other toxic chemicals. For example, in Oregon additional security is required for operations that employ toxic chemicals.[122] In South Dakota, additional security ranging from $25,000 to $500,000 is required for mines that employ toxic chemicals.[123] In Idaho, specific security provisions are outlined for cyanide operations.[124]

Public Participation

Overview of BC Law

As the people most severely affected by poorly or inadequately reclaimed mine sites, local communities and First Nations need a voice in determining an appropriate and adequate security amount. They are also often in the best position to factor in local conditions. Under BC mining legislation, there are no specific legal requirements mandating public participation in this process. Conversely, meaningful participation of local communities in setting mine securities is mandated in other jurisdictions, as shown in the following Recommended Solutions.

Issue

The lack of public disclosure and participation are barriers to adequate reclamation costing.

Recommended Solutions

Mandate public disclosure of reclamation cost estimate on which security determinations are based
[Tags: Public Consultation; Bonds; Assurance; Surety; Security Deposits; Disclosure; Calculation]

In BC, miners can (and often do) request that the reclamation cost estimate submitted as part of the mine permit application be kept confidential.[125] Consequently, the public is unable to evaluate whether the cost estimate is reasonable or adequate to cover all necessary site remediation activities. Several jurisdictions provide a more transparent process. For example, in Montana the regulatory authority must publish notice of the proposed security determination in a newspaper of general circulation in the

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[121] *Environmental Protection Act,* RSO 1990, c E 19, ss132(1)(b), 132(1.1).
[122] Or Rev Stat vol 12 c 517 §§ 840(2), 950(2)(a)(2011).
[123] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States" (Boulder: National Wildlife Federation, 2000) at 1,2, online: <http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf>.
[124] Idaho Stat tit 47 § 1513(f)(2)(2012).
[125] British Columbia, Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: Ministry of Energy, Mines and Petroleum Resources, 2008) s 10.1.4(8), online: <http://www.empr.gov.bc.ca/Mining/HealthandSafety/Documents/HSRC2008.pdf>.

county in which the operation is located.[126] In Oregon, the reclamation plan, minus proprietary information, is a public document.[127]

Set security based on issues identified in consultation with local community
[Tags: Community Consultation; Security; Bonds; Assurance; Surety; Sensitive Areas; Reclamation]

Local communities, especially First Nations communities who have inhabited their traditional territories for millennia, generally have local knowledge on specific sensitive areas or local needs that require extra reclamation efforts or pose unique reclamation challenges. They may be able to provide important input on costs that need to be covered and should therefore be consulted in the process of setting mine securities. This is recognized in Victoria (Australia) where the regulatory authority is legally required to consult with the local municipal government and the landowner before determining the amount of mine security for developments that occur on private land. [128]

Regular Reviews and Updates of Securities

> *The volumes of material, metals and chemicals handled in the mining sector, and the long time period over which they can create contamination, suggest to us that adequate financial assurances are important to maintain and must be examined periodically.*
> – BC Auditor General, 2002[129]

Environmental conditions at mine sites are continuously changing, including when new deposits are developed, mining activities are expanded, or new extractive technologies are introduced. It is therefore important that securities are frequently updated to reflect changing conditions. The process of adjustment should be well understood and agreed to in advance.[130] Mining policy experts have recommended that securities be reviewed when:[131]

- successful exploration expands the mine life;
- significant changes occur to product prices;
- new technologies or management approaches that minimize pollution are adopted (this helps encourage industry to be more proactive);
- innovations in modelling and prediction indicate that significant environmental problems are not included in the initial plan;

[126] Mont Code Ann tit 82 c 4 § 338(3)(a)(2011).
[127] Or Rev Stat vol 12 c 517 § 915(2)(2011).
[128] *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 80(2).
[129] Auditor General of British Columbia, "2002/2003 Report 5: Managing Contaminated Sites on Provincial Lands" (Victoria, 2003) at 43.
[130] C. George Miller, "Financial Assurance for Mine Closure and Reclamation", (Ottawa: International Council on Mining & Metals, 2005) at 4.
[131] A. Warhurst and L. Noronha, "Environmental Policy in Mining: Corporate Strategy and Planning for Closure", (Washington DC: CRC Press LLC, 2000) at 291.

- valuable historic, ecological or cultural resources are discovered at the mine;
- the miner's cooperative behaviour and/or compliance changes; and
- the miner's financial status changes.

In the following section, the current BC law on the review of securities is described, and Recommended Solutions are identified from other jurisdictions.

Overview of BC Law

Under BC legislation, the Chief Inspector has broad powers to amend a security whenever they consider it necessary.[132] Provincial policy recommends a review of securities every five years or whenever significant changes occur at the mine.[133] In addition, when there is a proposed change of mine ownership, the new miner must submit an application to amend the permit in their name.[134] In such cases, the Chief Inspector may withhold approval of the transfer until he is satisfied that the new owner has sufficient security in place to cover outstanding liabilities.[135] However, security reviews are not always consistently carried out as evidenced by a recent review of coal mine permits in BC that revealed lapses of 10 to 20 years between mine security increases.[136] In contrast, stronger legal requirements for regular reviews of securities are provided in other jurisdictions as described in the following Recommended Solutions.

Issue

Review of security without clear legislation opens the process to inconsistencies and shortfalls.

Recommended Solutions

Legislate frequent reviews of securities

[Tags: Security; Bonds; Assurance; Surety; Time-lines; Trigger; Review Process; Annual]

Several jurisdictions require frequent reviews of mine securities. For example:

- In Montana, the regulatory authority must conduct an overview of the amount of each bond annually and a comprehensive bond review at least every five years;[137]
- In Washington, the security must be reviewed at minimum every two years;[138]
- In Nova Scotia, the security *may* be reviewed and adjusted every two years;[139]

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[132] *Mines Act*, RSBC 1996, c 293, s 10(7).
[133] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources , 2009) at 17.
[134] *Mines Act*, RSBC 1996, s 11.1(b).
[135] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources , 2009) at 17-18.
[136] Maya Stano, "The Raven Mine: A Regulatory & Fiscal Black Hole?" (Victoria: Environmental Law Centre Clinic, University of Victoria, 2011) at 27.
[137] Mont Code Ann, tit 82 c 4 § 338 (3)(a).
[138] Wash Rev Code, tit 78 56.110(4).

- In Saskatchewan, the security must be reviewed at least every five years;[140]
- In California and Minnesota, securities must be reviewed annually; and[141]
- In Oregon, the regulatory authority must assess the overall cost of reclamation of chemical process mines on an annual basis.[142]

Broaden legal powers to review and re-calculate security – especially where site inspections indicate deviations from closure plan
[Tags: Security; Bonds; Assurance; Surety; Review; Calculate; Site Inspections]

Other jurisdictions have enacted legislation that clearly outlines the conditions in which a regulatory authority may review and adjust securities. For example, in Montana the regulatory authority is empowered to conduct additional comprehensive bond reviews "if, after modification of a reclamation or operation plan, an annual overview, or an inspection of the permit area, the department determines that an increase of the bond level may be necessary."[143]

Mandate fee to cover administrative costs of security review
[Tags: Security; Bonds; Assurance; Surety; Fee; Service Charge; Administrative Cost; Review]

As with the initial security calculation, significant administrative costs may be incurred by the regulatory authority in reviewing proposed mine securities. Without adequate legal support for funding, the regulatory authority may not have sufficient capacity to conduct thorough reviews. This concern has been addressed in Idaho, where the law provides that a security review fee may be imposed and may even include a reasonable cost associated with employing a qualified independent party to verify the accuracy of the cost estimate.[144]

Require public notice and public review when miner requests security reductions
[Tags: Security; Bonds; Assurance; Surety; Public Consultation; Reduce Security; Notice]

Local communities are generally well aware of local environmental conditions, including conditions around local mines. As the most directly impacted by adverse environmental impacts, they should be notified whenever a miner submits an application to reduce the amount of security. This is recognized in Oregon, where the regulatory authority must publish a notice announcing the receipt of a request to reduce security at chemical process mines. The request must be distributed to all members of the public who participated in the initial consolidated application process and to any persons who request notification.[145] Additionally, 60 days after notice of receipt of the request has been published, the

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[139] *Mineral Resource Regulations,* NS Reg 100/2005, s 77(3).
[140] *Mineral Industry Environmental Protection Regulations*, 1996, RRS c E-10.2, Reg 7, s 16(1)(a).
[141] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 2773.1(a)(3)(2007);
Minn Stat § 93.49: "The commissioner shall review annually the extent of each operator's financial assurance under this section".
[142] Or Rev Stat vol 12 c 517 § 987(3)(2011).
[143] Mont Code Ann tit 82 c 4 § 338(3)(a)(2011).
[144] Idaho Stat, tit 47 § 1506(g).
[145] Or Rev Stat vol 12 c 517 § 987(6)(b)(2011).

regulatory authority must conduct an informal public hearing to determine whether to approve the request for reduced security.[146]

Government Access to, and Use of, Security Funds

Overview of BC Law

In BC, the Chief Inspector may, after giving notice to remedy a failure to complete the reclamation program or to comply with permit conditions, apply all or part of the security toward payment of the cost of the work required.[147]

Although these are relatively strong legal requirements, they remain largely dependent on the Chief Inspector's discretion**,** without any oversight. Other jurisdictions set more specific rules on the circumstances in which the regulatory authority should apply the security to complete work.

Issue

Legal provisions do not adequately ensure that the government will have access to the necessary mine security funds or will utilize them as required.

Recommended Solutions

Mandate forfeiture of security where mine reclamation is not completed within set time limits
[Tags: Security; Bonds; Assurance; Surety; Reclamation; Time Limit; Release]

In Montana, legal provisions provide that the security may be forfeited where reclamation is not begun in accordance with the reclamation plan within 30 days of notification.[148] Forfeiture will also occur if reclamation is not completed within two years of abandonment or completion.[149] Similarly, in Oregon, legislation provides that the security will be forfeited to the government if the miner fails to comply with a government notice or to complete approved reclamation within three years of the operation's termination.[150] These clear requirements help promote prompt site reclamation.

Allow government to access security where a miner fails to comply with government-issued orders
[Tags: Security; Bonds; Assurance; Surety; Forfeiture; Release; Non-compliance; Pollution]

As indicated above, security for mines in BC can be used by the government where a program for reclamation is not being completed or permit conditions are not being met. However, under BC legislation there are no clear legal requirements providing that security can be used where a miner fails

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[146] Or Rev Stat vol 12 c 517 § 987(6)(c)(2011).
[147] *Mines Act*, RSBC 1996, c 293 s 10(8)(b).
[148] Mont Code Ann tit 82 c 4 § 341(4)(a)(2011).
[149] James R. Kuipers & Cathy Carlson, "Hardrock Reclamation Bonding Practices in the Western United States" (Boulder, Colorado: National Wildlife Federation, 2000) at 2, online: <http://www.csp2.org/REPORTS/Hardrock%20Bonding%20Report%20Executive%20Summary.pdf>; Mont Code Ann tit 82 c 4 § 341(4)(b)(2011).
[150] Or Rev Stat vol 12 c 517 §§ 860(2)(a)(b)(2011).

to comply with a specific order. Instead, an inspector is limited to applying to the Supreme Court for an order directing the miner to comply.[151] In contrast, in Alberta the law permits the regulatory authority to access and use security funds where a miner fails to comply with environmental protection order, emergency environmental protection orders or enforcement orders.[152]

Make miner liable for government clean-up costs that exceed the available security
[Tags: Security; Bonds; Assurance; Surety; Liability; Responsible; Government Costs]

Due to the uncertainty surrounding mine clean-up costs, it is important not to limit a miner's liability to the security posted for the mine.

Under BC legislation, if an inspector deems that work may be necessary in, on or about a closed mine to avoid danger to persons or property, or to abate pollution of the land and watercourses affected by the mine, the inspector may carry out work to remove or alleviate the danger or remedy the pollution.[153] The costs to complete this work are paid from the consolidated revenue fund. The amount spent plus interest becomes a debt due to the government, and forms a lien and charge on the mine or mineral title in favour of the government.[154] No transfer of title or other dealing with the mine may take place until the debt is paid and the notice cancelled. However, the minister retains broad discretion to cancel this notice with or without payment.[155] As such, these legal provisions do not ensure that public funds expended for clean-up costs that exceed the available security will be recovered. In contrast:

- In Victoria (Australia), the regulatory authority is legally empowered to recover as a debt due to the Crown any amount by which clean-up costs exceed the amount of the security,[156] thereby ensuring that the public purse is not burdened by incomplete mine closure and clean-up costs where inadequate security has been posted;
- In New Zealand, clean-up costs incurred by the regulatory authority that exceed the security are deemed a debt due to the regulatory authority by the miner;[157] and
- In Alberta, legal provisions provide that if the security proves insufficient, the government may recover from the miner any additional costs that the regulatory authority incurs to complete the required reclamation.[158] The Alberta legislation works under the "joint and several liability" system, where joint venture partners are each 100% responsible for the costs, rather than being responsible for their proportionate share.[159]

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[151] *Mines Act*, RSBC 1996, c 293, s 35(2).
[152] *Conservation and Reclamation Regulation,* Alta Reg 115/93, s 24.
[153] *Mines Act*, RSBC 1996, c 293, s 17(1).
[154] *Mines Act*, RSBC 1996, c 293, ss 17(2)(3).
[155] *Mines Act*, RSBC 1996, c 293, ss 17(4)(5).
[156] *Mineral Resources (Sustainable Development) Act 1990*, (Vic). s 83(4).
[157] *Resource Management Act*, (NZ). 1991/69, ss 108A(2), 109(5).
[158] *Alberta Environmental Protection and Enhancement Act,* s 245(1).
[159] *Alberta Environmental Protection and Enhancement Act*, s 240(1).

Return of Security

As security is a mine permit condition in BC, the release of security occurs concurrently with the final release of all mine permit obligations. However, other jurisdictions have adopted stronger legal provisions to ensure that securities are not returned until all closure and reclamation costs have been recovered.

Overview of BC Law

When mining activities end, BC legislation requires miners to submit a written request to the Chief Inspector for the return of security and termination of their mine permit. This request must detail the reclamation activities that have been completed in accordance with requirements of the legislation and the approved reclamation plan.[160] Where all legal conditions under the legislation and mine permit have been fulfilled to the satisfaction of the Chief Inspector and there are no on-going inspection, monitoring, mitigation or maintenance requirements, the miner will be released from all further obligations under the legislation and all remaining security and accrued interest will be returned to the miner.[161] Although these are relatively strong provisions, mine securities in other jurisdictions are not released until the miner has gone through more comprehensive checks and balances.

Issue

The burden of reclamation may fall on taxpayers due to inadequate legal provisions on the release of mine securities.

Recommended Solutions

Require public involvement before security is released
[Tags: Security; Bonds; Assurance; Surety; Public Notice; Public Consultation; Release]

BC legislation and policy contain no explicit opportunities for public involvement before the security is released. In contrast:

- In Montana, securities cannot be released until the public has been provided with an opportunity for a hearing and a hearing has been held if so requested. To ensure the public is aware of the hearing, the regulatory authority must provide reasonable state-wide and local notice of the opportunity for a hearing.[162]
- In New Mexico, legal provisions provide that any aggrieved persons may object to the release of a bond. Where such an objection is filed, the regulatory authority must hold a hearing before releasing the security.[163]

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[160] *Mines Code,* RSBC 1996, c 293, s 10.6.15.
[161] *Mines Code*, RSBC 1996, c 293, s 10.7.31.
[162] Mont Code Ann tit 82 c 4 § 338(5)(2011).
[163] N Mex Stat Ann § 69-36-7.R(2).

- In Oregon, the regulatory authority must publish a notice of receipt of a request for release of security for chemical process mines[164] and the regulatory authority must conduct an informal public hearing to determine whether to approve release.[165]
- Under US federal law, the miner is responsible for publishing notice of a request for release of security and for sending notification letters to key persons and organizations.[166]
- In Colorado, a miner must publish notice of its request for return of security in a newspaper of general circulation.[167]
- In Victoria (Australia), the regulatory authority must carry out prior consultation with landowners and the municipal district before releasing security for mining activities carried out on private lands. [168]

Require site inspection before security is released
[Tags: Security; Bonds; Assurance; Surety; Site Inspection; Compliance; Release]

In BC, the provincial code states that a site inspection will be carried out upon receipt of a request for return of security.[169] As with most other provisions in BC's mining law, this provision is also subject to the Chief Inspector's discretion.

In contrast, other jurisdictions, including the US federal government,[170] California[171] and Colorado,[172] clearly mandate (without any discretion granted on this issue) that site inspections be completed to determine if the miner has complied with all applicable requirements before security will be returned.

Stagger release of security – retain a percentage of the security for a minimum of 5 years after completion of reclamation to ensure successful reclamation
[Tags: Security; Bonds; Assurance; Surety; Retained; Release; Additional Period]

Even where all legal requirements have been met, environmental conditions may degrade after mine closure. This is demonstrated by the events that occurred at the Clinton Creek Mine in the Yukon, where the territorial government had to undertake significant remediation efforts five years after the federal

[164] Or Rev Stat vol 12 c 517 § 987(6)(b)(2011): The requests must be distributed to any members of the public who participated in the initial consolidated application and to any person who requests notification.
[165] Or Rev Stat vol 12 c 517 § 987(6)(c)(2011).
[166] *Surface Mining Control and Reclamation Act*, USC, tit 30 c 25 §1269(a).
[167] Colo Reg, Minerals Program Rules and Regulations, §7.2.10.
[168] *Mineral Resources (Sustainable Development) Act 1990,* (Vic). s 82.2: "If the land is private land the Minister must not return the bond or bonds to the holder or former holder of a mining licence or the holder or former holder of an extractive industry work authority until after the owner of the land and the council in whose municipal district the land is situated have been consulted".
[169] BC Ministry of Energy, Mines and Petroleum Resources, "Guide to Processing A Mine Project Application Under The British Columbia Mines Act" (Victoria: Mining and Minerals Division, BC Ministry of Energy, Mines and Petroleum Resources, 2009) at 25.
[170] *Surface Mining Control and Reclamation Act*, USC, tit 30 c 25 §1269(b), online: < http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc30.wais&start=1962811&SIZE=8418&TYPE=TEXT>.
[171] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3805.5(a)(1)(2007).
[172] *Mined Land Reclamation Act*, Colo Rev Stat tit 34 § 32-117(5)(a)(2011).

government recommended that the security be returned to the miner.[173] Various jurisdictions have enacted specific provisions to account for this possibility. For example, in Wyoming the legislation requires that up to 75% of the security be released upon completion of reclamation, with the remaining portion (which must exceed $10,000) held for at least five more years to assure proper re-vegetation and groundwater restoration.[174] Similar legal requirements for staggered release of security are provided under US federal law[175] and under legislation enacted in West Virginia.[176]

Require demonstration of self-sustaining re-vegetation for set time period before release of security
[Tags: Security; Bonds; Assurance; Surety; Reclamation; Successful; Proof; Release]

Several jurisdictions have enacted legislation mandating that site reclamation proceed in a self-sustaining manner for a set period of time before security is released. For example:

- In California, the miner must demonstrate that vegetation has been self-sustaining without irrigation for a minimum of two years before security is released;[177]
- In Washington, the regulatory authority is empowered to deny the release of security until it deems that effective re-vegetation has commenced;[178]
- In New Mexico, legal provisions require the regulatory authority to retain the amount of security necessary for a third party to re-establish vegetation for a period of twelve years after the last year of augmented seeding, fertilizing, irrigation or other work, unless a post-mining land use is achieved that is inconsistent with the further need for re-vegetation;[179] and
- In Victoria (Australia), when deciding whether to return the security to the miner, the regulatory authority must take into account the possibility that some of the damage caused to the land by the mining activities may not become evident for some time.[180]

Secure compensation for property owner by way of bond
[Tags: Security; Bonds; Assurance; Surety; Free, Prior and Informed Consent; Compensation]

In BC, government policy recognizes that the mineral title (claim) holder *may be required* to provide a reasonable security (bond) as part of the negotiated compensation agreement with the property owner. If the two parties are unable to agree on an amount, the Chief Gold Commissioner may offer guidance.[181] In Idaho "the owners or rightful occupants of the surface ground may demand satisfactory

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[173] Online: <http://www.emr.gov.yk.ca/aam/pdf/cc_timeline_july2010.pdf >.
[174] *Environmental Quality Act*, Wyo Stat tit 35 § 11-417(e).
[175] *Surface Mining Control and Reclamation Act*, USC tit 30 c 25 § 1269(c).
[176] *Surface Coal Mining and Reclamation Act,* W Va tit 22 § 3-23, online: <http://www.dep.wv.gov/dmr/codes/Documents/2009%20Mining%20Code.pdf>.
[177] *California Surface Mining and Reclamation Act of 1975*, 2 Cal § 3705(j)(2007).
[178] Wash Rev Code tit 78 § 44.141(7)(f)(2011).
[179] *Surface Mining Act*, N Mex Stat tit 69 § 36-7(R)(1)(2011).
[180] *Mineral Resources (Sustainable Development) Act 1990* (Vic). ss 83(5)(6).
[181] Ministry of Energy, Mines and Petroleum Resources, *A Guide to Surface and Subsurface Rights and Responsibilities in British Columbia* (Victoria: BC Ministry of Energy, Mines and Petroleum Resources, 2010) at 7;
Mineral Tenure Act, RSBC 1996, c 292, s 19(3).

security from the miners".[182] Where such security is refused or not provided, the surface owners or occupants "may enjoin such miners from working such ground until such security is given".[183] Rather than having the Chief Gold Commissioner offer advice on the amount, it may be preferable to follow Idaho's lead where, "the court granting the writ of injunction shall fix the amount and nature of the security".[184] In the Philippines, to guarantee compensation, the miner must post a bond with a regional director prior to commencing operations. The amount of the bond is to be determined based on the type of property affected and the prevailing property prices in the area of the mining operation, with surety or sureties satisfactory to the regional director.[185] Similarly, in Finland, if the landowner so demands, the miner must post security for any damage that may occur before exploration can begin.[186]

Require baseline survey to quantify landowner compensation for loss and damage
[Tags: Security; Bonds; Assurance; Surety; Free, Prior and Informed Consent; Compensation]

Difficulties in accurately establishing adequate compensation will arise if pre-disturbance information is not available or is inadequate. This is recognized in Ghana where miners must, in the presence of both owner or lawful occupier and an officer of the regulatory authority responsible for land valuation, carry out a "survey of the crops and produce a crop identification map for the compensation in the event that mining activities are extended to the areas".[187] This legal provision should be drafted and applied with care as practical experience in Ghana suggests that compensation under this provision has failed to adequately take into account potentially higher future value of young crops, and has failed to distinguish between higher and lower value crops.[188] Such records of baseline conditions will help support the compensation valuation process.

Clearly define landowner losses and damages to be compensated
[Tags: Security; Bonds; Assurance; Surety; Free, Prior and Informed Consent; Compensation]

As indicated above, BC legislation broadly mandates compensation for "loss or damage" caused by mining activities. However, this broad definition may result in disputes between the recorded holder and the surface land owner as to the scope of the harm. In Ghana, compensation principles are clearly defined in legislation, which lists specific items that compensation may be required for, including deprivation of particular uses and loss of crop earnings and expected income.[189]

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[182] Idaho Code § 47-609.
[183] Idaho Code § 47-609.
[184] Idaho Code § 47-609.
[185] *Philippines Mining Act of 1995,* (Rep Act No 7942), s 76.
[186] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 220, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[187] *Minerals and Mining Act, 2006*, (Republic of Ghana Act 703), s 72(5).
[188] Human Rights Clinic of the University of Texas School of Law, *The Cost of Gold: Communities affected by mining in the Tarkwa Region of Ghana* (Austin: University of Texas School of Law, 2010) at 3.
[189] *Minerals and Mining Act, 2006*, (Republic of Ghana Act 703), s 74(1); Human Rights Clinic of the University of Texas School of Law, *The Cost of Gold: Communities affected by mining in the Tarkwa Region of Ghana* (Austin: University of Texas School of Law, 2010) at 2.

In Victoria (Australia), clearly defined losses and damages that are payable to the owner or occupier of private lands are also specified in the mining legislation, including:[190]

- damage to any improvements on the land;
- loss of amenity, *including* recreation and conservation values;
- loss of opportunity to make any planned improvement on the land; and
- any decrease in the market value of the owner or occupier's interest in the land.

In addition, the amount of compensation may also include reasonable incidental expenses incurred in moving (if it is so necessary), and may be increased by up to 10% "to compensate the owner or occupier for intangible and non-pecuniary disadvantages that are not otherwise compensable".[191] In Papua New Guinea, specific losses and damages for which compensation must be paid are also outlined in the mining legislation. These include compensation for being deprived of the possession or use of the natural surface of the land and social disruption.[192] In addition, landholders of any land or improvements, adjoining or in the vicinity of the land covered by the mining activity that is injured or that depreciates in value as a result of the mining activity are also entitled to compensation.[193]

Establish clear timelines for landowner compensation
[Tags: Free, Prior and Informed Consent, Compensation; Security; Bonds; Assurance; Surety]

Under BC legislation, there are no legal requirements pertaining to when compensation must be provided to property owners. Conversely, in Ghana, both the Constitution and the mining legislation mandate that "prompt payment of fair and adequate compensation" be made. This provides greater certainty to those whose surface interests have been impacted and who require compensation.[194]

In Papua New Guinea, a strict approach to compensation payment has been adopted whereby the recorded holder may not enter the land *until* compensation has been paid or a compensation agreement has been registered.[195] In Sweden no mining activities may begin until security has been posted to compensate landowners for any damages or encroachment that occurs as a consequence of future exploration work.[196] Similarly, in Finland, no exploration work may commence until compensation has been paid to the landowner.[197]

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[190] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 85(1).
[191] *Mineral Resources (Sustainable Development) Act 1990* (Vic), s 85(2).
[192] *Mining Act 1992* (Papua New Guinea, No 20 of 1992), s 154(2).
[193] *Mining Act 1992* (Papua New Guinea, No 20 of 1992), s 154(6).
[194] *Minerals and Mining Act, 2006*, (Republic of Ghana Act 703), s 74(2).
[195] *Mining Act 1992* (Papua New Guinea, No 20 of 1992), s 155.
[196] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 73, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.
[197] Eva Liedholm Johnson, *Mineral Rights: Legal Systems Regulatory Exploration and Exploitation* (DCL Thesis, 2010: Royal Institute of Technology, Stockholm) at 220, [unpublished] online: <http://kth.diva-portal.org/smash/get/diva2:300248/FULLTEXT01>.

Conclusion

In the short-term, mining provides benefits to BC's economy; in the long-term, however, this industry carries extensive risks with large potential costs. Foremost, are those costs associated with site clean-up; where mining companies go bankrupt or default on their obligations, these costs fall on the provincial government and place a heavy burden on taxpayer dollars.

Currently, the provincial government and the taxpayers of the province are, in theory, protected from these costs by laws and policy. However, many of these safeguards only occur at the discretion of the Chief Inspector. For example, the Chief Inspector has discretion to choose whether or not to require a mine to provide security, decide what type of security to accept and amend security amounts. Additionally, there is inadequate legal guidance concerning when government should access security and when security should be released.

By implementing the Recommended Solutions proposed above, BC can strengthen its laws on mine securities, thereby protecting the public purse from costly mine reclamation.

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