



**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**

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The National Orphaned/Abandoned Mines Initiative

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FINAL REPORT

**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**

SUBMITTED

TO THE

**GUIDELINES FOR LEGISLATIVE REVIEW TASK GROUP
NATIONAL ORPHANED/ABANDONED MINES INITIATIVE
(NOAMI)**

SUBMITTED BY

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TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY.....	8
II.	SOMMAIRE	10
III.	INTRODUCTION	12
IV.	BACKGROUND UPDATE: THE PROBLEM OF ORPHANED/ABANDONED MINES.....	13
V.	CONSTITUTIONAL AUTHORITY - CONTROL OF MINING ACTIVITY IN CANADA	14
VI.	SUMMARY REVIEW OF EXISTING AND PROSPECTIVE LEGISLATIVE, REGULATORY, AND POLICY AUTHORITY IN CANADA	15
A.	FEDERAL	15
1.	<i>Federal Laws Applicable Canada-Wide.....</i>	<i>15</i>
a.	Environmental Laws	15
i.	Canadian Environmental Protection Act, 1999	15
ii.	Fisheries Act	18
iii.	Bankruptcy and Insolvency Act	21
iv.	Companies' Creditors Arrangement Act.....	22
b.	Resource Management or Mining Laws	23
i.	Nuclear Safety and Control Act	23
2.	<i>Federal Laws Applicable, With Some Exceptions, Across Canada</i>	<i>25</i>
a.	Environmental Laws	25

⁺ Disclaimer: The purpose of this document is to provide the reader with an understanding of the legislative, regulatory and policy framework respecting collaboration, liability, and funding measures in relation to orphaned/abandoned, contaminated, and operating mines in Canada. The information provided is based on the opinions of the author, and should not be construed as endorsement in whole or in part by the various reviewers or by the partners in the National Orphaned/Abandoned Mines Initiative (the Government of Canada, Provincial and Territorial Governments, the Mining Association of Canada, contributing mining companies and mining associations, the Assembly of First Nations and participating non-governmental organizations). The reader of this report should assume full responsibility for any action taken as a result of the information contained in this document. The author, the members of the Orphaned/Abandoned Mines Advisory Committee and Task Forces, and Natural Resources Canada (through the Orphaned/Abandoned Mines Initiative) make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise arising from use of this publication.

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i.	Canadian Environmental Assessment Act.....	25
3.	<i>Federal Laws Applicable in Northern Canada Only</i>	29
a.	Resource Management and Mining Laws.....	29
i.	Territorial Lands Act.....	29
ii.	Northwest Territories Waters Act.....	31
iii.	Nunavut Waters and Nunavut Surface Rights Tribunal Act.....	34
iv.	Nunavut Land Claims Agreement Act.....	36
v.	Mackenzie Valley Resource Management Act.....	36
vi.	Yukon Surface Rights Board Act.....	39
b.	Environmental Laws.....	39
i.	Yukon Environmental and Socio-Economic Assessment Act.....	39
4.	<i>Federal Laws Applicable to Federally Regulated Facilities</i>	40
a.	Workplace Safety Laws.....	40
i.	Canada Labour Code.....	40
5.	<i>Policies, Programs, or Related Initiatives</i>	41
6.	<i>Findings and Summary</i>	47
(A)	Licence/Permit.....	47
(B)	Assessment.....	48
(C)	Monitoring.....	49
(D)	Liability.....	49
(E)	Emergency Response.....	50
(F)	Financial Instruments.....	50
(G)	Application/Exemption.....	51
(H)	Designation of Orphaned/Abandoned Sites.....	51
(I)	Community Involvement.....	52
B.	PROVINCIAL.....	53
1.	<i>Common Law</i>	55
2.	<i>Civil Law</i>	57
3.	<i>British Columbia</i>	58
a.	Mining Laws.....	58
ii.	Mines Act.....	58
b.	Environmental Laws.....	61
i.	Environmental Management Act.....	61
ii.	Environmental Assessment Act.....	68
c.	Policies, Programs, or Related Initiatives.....	70
d.	Findings and Summary.....	73
(A)	Licence/Permit.....	74
(B)	Assessment.....	74
(C)	Monitoring.....	74
(D)	Liability.....	75
(E)	Emergency Response.....	75
(F)	Financial Instruments.....	75
(G)	Application/Exemption.....	76
(H)	Designation of Orphaned/Abandoned Sites.....	76
(I)	Community Involvement.....	77
4.	<i>Alberta</i>	78
a.	Mining or Natural Resource Management Laws.....	78
i.	Coal Conservation Act.....	78
ii.	Oil Sands Conservation Act.....	80
iii.	Energy Resources Conservation Act.....	81
iv.	Mines and Minerals Act.....	81
v.	Public Lands Act.....	83
vi.	Natural Resources Conservation Board Act.....	83
b.	Environmental Laws.....	84
i.	Environmental Protection and Enhancement Act.....	84
c.	Workplace Safety Laws.....	90
i.	Occupational Health and Safety Act.....	90
d.	Planning Laws.....	90
i.	Municipal Government Act.....	90
e.	Policies, Programs, or Related Initiatives.....	90
f.	Findings and Summary.....	92
(A)	Licence/Permit.....	93

(B)	Assessment	93
(C)	Monitoring	93
(D)	Liability	94
(E)	Emergency Response	94
(F)	Financial Instruments	94
(G)	Application/Exemption	94
(H)	Designation of Orphaned/Abandoned Sites	95
(I)	Community Involvement	95
5.	<i>Saskatchewan</i>	96
a.	Mining Laws	96
i.	Crown Minerals Act	96
b.	Environmental Laws	97
i.	Environmental Management and Protection Act	97
ii.	Environmental Assessment Act	101
c.	Workplace Safety Laws	103
i.	Occupational Health and Safety Act, 1993	103
d.	Planning Laws	103
i.	Planning and Development Act, 1983	103
e.	Policies, Programs, or Related Initiatives	104
f.	Findings and Summary	105
(A)	Licence/Permit	106
(B)	Assessment	106
(C)	Monitoring	106
(D)	Liability	106
(E)	Emergency Response	107
(F)	Financial Instruments	107
(G)	Application/Exemption	107
(H)	Designation of Orphaned/Abandoned Sites	108
(I)	Community Involvement	108
6.	<i>Manitoba</i>	109
a.	Mining Laws	109
i.	Mines and Minerals Act	109
b.	Environmental Laws	113
i.	Environment Act	113
ii.	Contaminated Sites Remediation Act	115
iii.	Water Protection Act	117
c.	Workplace Safety Laws	118
i.	Workplace Safety and Health Act	118
d.	Planning Laws	118
i.	Planning Act	118
e.	Policies, Programs, or Related Initiatives	118
f.	Findings and Summary	120
(A)	Licence/Permit	120
(B)	Assessment	120
(C)	Monitoring	120
(D)	Liability	120
(E)	Emergency Response	121
(F)	Financial Instruments	121
(G)	Application/Exemption	121
(H)	Designation of Orphaned/Abandoned Sites	121
(I)	Community Involvement	122
7.	<i>Ontario</i>	123
a.	Mining Laws	123
i.	Mining Act	123
b.	Environmental Laws	126
i.	Environmental Protection Act	126
ii.	Ontario Water Resources Act	130
iii.	Environmental Assessment Act	131
iv.	Environmental Bill of Rights, 1993	134
v.	Clean Water Act, 2005 (Bill 43)	135
c.	Workplace Safety Laws	136
i.	Occupational Health and Safety Act	136

d.	Planning Laws	136
i.	Planning Act.....	136
e.	Policies, Programs, or Related Initiatives	137
f.	Findings and Summary	138
	(A) Licence/Permit.....	139
	(B) Assessment	139
	(C) Monitoring	140
	(D) Liability	140
	(E) Emergency Response.....	140
	(F) Financial Instruments.....	141
	(G) Application/Exemption.....	141
	(H) Designation of Orphaned/Abandoned Sites	141
	(I) Community Involvement.....	142
8.	<i>Quebec (EN)</i>	143
8.	<i>Quebec (FR) – See Appendix D</i>	143
a.	Mining Laws.....	143
i.	Mining Act.....	143
b.	Environmental Laws	146
i.	Environmental Quality Act	146
c.	Workplace Safety Laws	150
i.	Occupational Health and Safety Act	150
d.	Planning Laws	150
i.	Land Use Planning and Development Act	150
e.	Policies, Programs, or Related Initiatives	150
f.	Findings and Summary	151
	(A) Licence/Permit.....	152
	(B) Assessment	152
	(C) Monitoring	152
	(D) Liability	152
	(E) Emergency Response.....	152
	(F) Financial Instruments.....	152
	(G) Application/Exemption.....	153
	(H) Designation of Orphaned/Abandoned Sites	153
	(I) Community Involvement.....	153
9.	<i>New Brunswick</i>	154
a.	Mining Laws.....	154
i.	Mining Act.....	154
b.	Environmental Laws	156
i.	Clean Environment Act.....	156
ii.	Clean Water Act.....	159
c.	Workplace Safety Laws	160
i.	Occupational Health and Safety Act	160
d.	Planning Laws	160
i.	Community Planning Act.....	160
e.	Policies, Programs, or Related Initiatives	160
f.	Findings and Summary	160
	(A) Licence/Permit.....	161
	(B) Assessment	161
	(C) Monitoring	162
	(D) Liability	162
	(E) Emergency Response.....	162
	(F) Financial Instruments.....	162
	(G) Application/Exemption.....	163
	(H) Designation of Orphaned/Abandoned Sites	163
	(I) Community Involvement.....	163
10.	<i>Nova Scotia</i>	164
a.	Mining Laws.....	164
i.	Mineral Resources Act.....	164
b.	Environmental Laws	166
i.	Environment Act.....	166
c.	Workplace Safety Laws	169
i.	Occupational Health and Safety Act	169

d.	Planning Laws	170
i.	Municipal Government Act.....	170
e.	Policies, Programs, or Related Initiatives	170
f.	Findings and Summary	172
(A)	Licence/Permit.....	173
(B)	Assessment	173
(C)	Monitoring	173
(D)	Liability	174
(E)	Emergency Response.....	174
(F)	Financial Instruments.....	174
(G)	Application/Exemption.....	175
(H)	Designation of Orphaned/Abandoned Sites	175
(I)	Community Involvement.....	175
11.	<i>Newfoundland and Labrador</i>	176
a.	Mining Laws.....	176
i.	Mineral Act	176
ii.	Mining Act.....	177
b.	Environmental Laws	179
i.	Environmental Protection Act	179
c.	Workplace Safety Laws	183
i.	Occupational Health and Safety Act	183
d.	Planning Laws	183
i.	Urban and Rural Planning Act	183
e.	Policies, Programs, or Related Initiatives	183
f.	Findings and Summary	184
(A)	Licence/Permit.....	185
(B)	Assessment	185
(C)	Monitoring.....	185
(D)	Liability	186
(E)	Emergency Response.....	186
(F)	Financial Instruments.....	186
(G)	Application/Exemption.....	187
(H)	Designation of Orphaned/Abandoned Sites	187
(I)	Community Involvement.....	187
C.	TERRITORIAL.....	188
1.	<i>Yukon</i>	188
a.	Mining or Resource Management Laws	188
i.	Placer Mining Act	188
ii.	Quartz Mining Act	190
iii.	Territorial Lands (Yukon) Act	192
b.	Environmental Laws	194
i.	Waters Act	194
ii.	Environment Act.....	197
iii.	Environmental Assessment Act.....	198
c.	Workplace Safety Laws	199
i.	Occupational Health and Safety Act	199
d.	Policies, Programs, or Related Initiatives	199
e.	Findings and Summary	200
(A)	Licence/Permit.....	201
(B)	Assessment	201
(C)	Monitoring.....	201
(D)	Liability	202
(E)	Emergency Response.....	202
(F)	Financial Instruments.....	202
(G)	Application/Exemption.....	203
(H)	Designation of Orphaned/Abandoned Sites	203
(I)	Community Involvement.....	203
2.	<i>Northwest Territories and Nunavut</i>	204
a.	Environmental Laws	204
i.	Environmental Protection Act	204
ii.	Environmental Rights Act.....	205
b.	Workplace Safety Laws	206

i.	Mine Health and Safety Act	206
c.	Policies, Programs, or Related Initiatives	206
d.	Findings and Summary	207
(A)	Licence/Permit	207
(B)	Assessment	207
(C)	Monitoring	208
(D)	Liability	208
(E)	Emergency Response	208
(F)	Financial Instruments	208
(G)	Application/Exemption	208
(H)	Designation of Orphaned/Abandoned Sites	208
(I)	Community Involvement	208
VII.	OVERALL FINDINGS ON COLLABORATION, LIABILITY, AND FUNDING FOR OPERATING, CONTAMINATED, AND ORPHANED/ABANDONED MINES IN CANADA	209
A.	COLLABORATION	210
B.	LIABILITY	212
C.	FUNDING	213
VIII.	RECOMMENDATIONS.....	215
IX.	APPENDIX A - LEGISLATION/POLICY/PROGRAM MATRIX TABLES	226
X.	APPENDIX B - DESCRIPTION OF PROVISION CATEGORIES.....	240
XI.	APPENDIX C - GOVERNMENT REPRESENTATIVES	243
XII.	APPENDIX D – QUEBEC (FR).....	245
8.	<i>Québec</i>	245
a.	Législation minière	245
i.	Loi sur les mines	245
b.	Législation environnementale	248
i.	Loi sur la qualité de l’environnement	248
c.	Législation sur la sécurité au travail	253
i.	Loi sur la santé et la sécurité du travail	253
d.	Législation en matière de planification	253
i.	Loi sur l’aménagement et l’urbanisme	253
e.	Politiques, programmes et initiatives connexes	254
f.	Sommaire	254
(A)	Licences/permis	255
(B)	Évaluation	255
(C)	Surveillance	256
(D)	Responsabilité	256
(E)	Intervention d’urgence	256
(F)	Instruments financiers	256
(G)	Application/exemption	257
(H)	Définition de l’expression « sites orphelins/abandonnés »	257
(I)	Participation des collectivités	257

I. EXECUTIVE SUMMARY

In Canada, the mining industry, governments, and local communities recognize that orphaned or abandoned mines for which the owner cannot be found, or for which the owner is financially unable to carry out cleanup, pose environmental, health, safety, and economic problems. This report reviews the legislative, regulatory and policy framework respecting collaboration, liability and funding at the federal, provincial, and territorial levels in Canada in relation to orphaned/abandoned, contaminated and operating mines. The legal and policy framework in relation to contaminated and operating mines is included in the review to address concerns that current mining activities not add to the legacy of orphaned/abandoned mines in future. The report relies on guidelines for the review prepared by the National Orphaned/Abandoned Mines Initiative.

Part IV of the report provides a brief background to the orphaned/abandoned mines problem. The review notes that orphaned or abandoned mines generally are defined as un-rehabilitated closed mines where ownership has reverted to the Crown, either because the owner has gone out of business, or because no owner can be found. The report summarizes the impacts of such sites on the environment and notes that the problem requires both financial and legal solutions.

Part V briefly reviews constitutional authority for control of mining activity in Canada noting that the division of powers under the Canadian Constitution divides authority between Parliament and provincial legislatures with respect to enacting laws in relation to mining activity. In general, north of the 60th parallel federal constitutional authority to legislate predominates because of federal ownership of natural resources. South of the 60th parallel provincial constitutional authority to legislate predominates (except with respect to uranium mining) due to provincial ownership of public lands, natural resources, and authority with respect to property and civil rights.

Part VI summarizes existing and prospective legislative, regulatory, and policy authority for controlling mining activity at the federal, provincial, and territorial levels in Canada. Mining, environmental, land use planning, and workplace safety legislative and regulatory requirements are considered in most jurisdictions examined. Mining and environmental legislation considered is scrutinized to determine how many of nine categories of provisions identified in the NOAMI guidelines are addressed by such laws. These nine categories are: (1) licence/permit, (2) assessment, (3) monitoring, (4) liability, (5) emergency response, (6) financial instruments, (7) application/exemption, (8) designation of orphaned/abandoned sites, and (9) community involvement. Because certain categories, such as designation of orphaned/abandoned sites, largely are not addressed in mining or environmental laws, the report also examines policies, programs and related initiatives that do address these matters.

Part VII provides overall findings respecting collaboration, liability, and funding measures in relation to orphaned/abandoned, contaminated, and operating mines in Canada. Overall, the report finds that the primary gap in mining and environmental laws is with respect to the orphaned/abandoned mine problem. Current laws operate on the assumption of a responsible person being available upon whom regulators may impose obligations (e.g. permits, licences, assessment, monitoring) and, if necessary, liability. Implicitly under these laws an orphaned/abandoned mine, which by definition has no responsible person upon whom regulators may impose obligations, is presumed not to occur. Accordingly, these laws largely do not have application to, and have not developed mechanisms for when there are, orphaned/abandoned mines (other than emergency response by government using public funds to remedy the problem).

Overall, the application of funding measures, such as financial security requirements, also has proven to be a weak link in existing legislation. In several cases noted in the report, predictions of the quantum of financial security needed from applicants to ensure proper closure and rehabilitation have not been accurate. In these cases, when mining companies became insolvent or disappeared actual funding that

became necessary to avoid major shortfalls in cleanup costs had to be provided by government using public funds with little expectation of cost recovery.

Finally, ad hoc non-statutory collaborative attempts to deal with the orphaned/abandoned mine problem, while of importance from a practical and precedent standpoint, do not appear to be the most effective way to deal with the overall problem if they are expected to be a primary response to it. Given the potential magnitude, scope and cost of the orphaned/abandoned mine problem a systematic approach that would result in collaborations involving many sites would or should be occurring. However, this review was able to point to relatively few site collaborations across the country.

Part VIII provides two types of recommendations. The first type expands on recommendations made in earlier reports respecting the need for, and the particulars with respect to, laws that (1) facilitate volunteers in the rehabilitation of orphaned/abandoned mines, and (2) establish permanent funding arrangements for addressing the orphaned/abandoned mine problem that are not reliant entirely on public funds. The second type provides recommendations under each of the nine categories referred to above: (1) licence/permit, (2) assessment, (3) monitoring, (4) liability, (5) emergency response, (6) financial instruments, (7) application/exemption, (8) designation of orphaned/abandoned sites, and (9) community involvement. This second type of recommendation addresses orphaned/abandoned, contaminated, and operating mines.

Part IX (Appendix A) presents legislation/policy/program matrices, based on the full text and summaries contained within the report, that allow comparison by jurisdiction with respect to each of the nine categories reviewed throughout the report. Review of the matrices confirms at a glance the report findings on the overall strengths and weaknesses of the legal, regulatory, and policy framework in Canada with respect to orphaned/abandoned, contaminated, and operating mines.

II. SOMMAIRE

Au Canada, l'industrie minière, les gouvernements et les collectivités situées près des mines orphelines ou abandonnées reconnaissent que ces mines, dont les propriétaires sont introuvables ou financièrement incapables d'en nettoyer les sites, posent des problèmes dans les domaines de l'environnement, de la santé, de la sécurité et de l'économie. Dans ce rapport, l'on examine le cadre législatif, réglementaire et stratégique de la collaboration, de la responsabilité financière et du financement aux niveaux fédéral, provincial et territorial au Canada, par rapport aux mines orphelines ou abandonnées, contaminées et en production. Le cadre juridique et stratégique pour les mines contaminées et en production est inclus dans l'examen afin que l'activité minière actuelle ne se traduise pas dans l'avenir par des mines orphelines ou abandonnées. Le rapport est basé sur les lignes directrices établies pour l'examen par l'Initiative nationale pour les mines orphelines ou abandonnées (INMOA).

La partie IV du rapport décrit brièvement le problème des mines orphelines ou abandonnées. Il est noté dans l'examen que les mines orphelines ou abandonnées sont généralement définies comme étant des mines fermées dont le site n'a pas été restauré et dont l'État a repris possession parce que le propriétaire n'est plus en affaires ou parce qu'il est impossible de déterminer qui est le propriétaire. Le rapport contient un résumé des impacts de tels sites sur l'environnement et précise que le problème nécessite des solutions financières et juridiques.

À la partie V, l'on examine brièvement l'autorité constitutionnelle en matière de contrôle de l'activité minière au Canada et l'on note qu'en vertu de la constitution canadienne, les compétences sont partagées entre le Parlement et les assemblées législatives provinciales pour ce qui concerne la promulgation des lois touchant l'activité minière. En général, l'autorité constitutionnelle fédérale de légiférer prédomine au nord du 60^e parallèle parce que les ressources naturelles qui s'y trouvent appartiennent au gouvernement fédéral. L'autorité constitutionnelle provinciale de légiférer prédomine au sud du 60^e parallèle (sauf pour l'exploitation minière de l'uranium) parce que les gouvernements provinciaux y possèdent les terres publiques et les ressources naturelles et y détiennent les pouvoirs relatifs aux droits de propriété et aux droits civils.

La partie VI constitue un résumé de l'autorité existante et éventuelle en matière de législation, de réglementation et de politique qui permettent de contrôler l'activité minière aux niveaux fédéral, provincial et territorial au Canada. Les besoins en lois et en règlements pour l'exploitation minière, l'environnement, la planification des terres et la sécurité au travail sont pris en compte dans la plupart des administrations examinées. La législation minière et environnementale est examinée en détail afin de déterminer combien de catégories elle vise parmi les neuf catégories de dispositions identifiées dans les lignes directrices de l'INMOA. Ces neuf catégories sont les suivantes : 1) licence/permis, 2) évaluation, 3) suivi, 4) responsabilité financière, 5) intervention en cas d'urgence, 6) instruments financiers, 7) application/exemption, 8) identification des sites orphelins ou abandonnés et 9) participation de la collectivité. Certaines catégories, notamment l'identification des sites orphelins ou abandonnés, ne sont que très peu couvertes par les lois minières ou environnementales. Par conséquent, le rapport examine aussi les politiques, les programmes et les initiatives connexes qui visent ces catégories.

À la partie VII, l'on énumère les constatations générales sur la collaboration, la responsabilité financière et les mesures de financement par rapport aux mines situées au Canada qui sont orphelines ou abandonnées, contaminées et en production. Dans l'ensemble, la principale lacune des lois minières et environnementales se situe au niveau du problème des mines orphelines ou abandonnées. La législation actuelle repose sur l'hypothèse qu'il existe une personne responsable à laquelle les autorités de réglementation peuvent imposer des obligations (p. ex. permis, licences, évaluation, suivi) et, au besoin, une responsabilité financière. La législation actuelle présume implicitement qu'il n'existe pas de mine orpheline ou abandonnée car, par définition, une telle mine ne peut être reliée à une personne responsable.

à laquelle les autorités de réglementation peuvent imposer des obligations. Par conséquent, la législation actuelle ne s'applique généralement pas aux mines orphelines ou abandonnées et, dans les cas où elle s'applique à ces mines, elle ne prévoit aucune mesure d'application (exception faite d'une intervention gouvernementale d'urgence qui puise dans les fonds publics pour remédier au problème).

Dans l'ensemble, l'application de mesures de financement, comme l'obligation de verser une garantie financière, s'est avérée être un maillon faible dans la législation actuelle. Dans plusieurs cas notés dans le rapport, la prévision du montant de garantie financière que le demandeur devait déposer pour que la mine soit fermée, et son site restauré, dans les règles était erronée. En pareil cas, si la compagnie minière est devenue insolvable ou a été dissoute, les fonds nécessaires pour éviter qu'une grande partie du coût du nettoyage ne soit pas couverte ont dû être fournis par le gouvernement, qui a pour ce faire puisé dans les fonds publics en sachant très bien qu'il avait peu de chance de pouvoir récupérer ces coûts.

Enfin, les initiatives de collaboration ponctuelles, non prévues par la loi, qui sont mises en œuvre pour régler le problème des mines orphelines ou abandonnées ne semblent pas être la façon la plus efficace de s'attaquer au problème dans son ensemble lorsqu'elles sont considérées comme étant l'un des principaux remèdes, même si elles revêtent une certaine importance sur le plan pratique et en matière de précédent. Étant donné l'envergure, la portée et le coût éventuels du problème des mines orphelines ou abandonnées, une approche systématique qui résulte en des initiatives de collaboration englobant de nombreux sites est le type d'approche qui sera, ou devrait être, retenu. Cependant, à l'échelle du pays, les responsables de cet examen ont découvert relativement peu d'initiatives de collaboration visant plusieurs sites.

La partie VIII renferme deux types de recommandations. Le premier type met à profit les recommandations faites dans les rapports d'INMOA précédents au sujet de la nécessité d'avoir des lois qui, de par leurs caractéristiques, 1) facilitent le travail bénévole dans le cadre de la restauration des sites miniers orphelins ou abandonnés et 2) établissent des modalités de financement permanentes qui ne reposent pas entièrement sur les fonds publics, en vue de régler le problème des mines orphelines ou abandonnées. Le second type consiste en des recommandations pour chacune des neuf catégories mentionnées ci-dessus, soit 1) licence/permis, 2) évaluation, 3) suivi, 4) responsabilité financière, 5) intervention en cas d'urgence, 6) instruments financiers, 7) application/exemption, 8) identification des sites orphelins ou abandonnés et 9) participation de la collectivité. Ce second type de recommandations vise les mines orphelines ou abandonnées, contaminées et en production.

La partie IX (annexe A) contient des matrices de la législation, de la politique et du programme qui reposent sur le texte intégral du rapport, notamment les résumés, et qui permettent la comparaison par juridiction pour chacune des neuf catégories examinées dans le rapport. En examinant les matrices, l'on se rend compte rapidement qu'elles confirment les constatations signalées dans le rapport au sujet des points forts et des points faibles du cadre juridique, réglementaire et stratégique du Canada, pour ce qui concerne les mines orphelines ou abandonnées, contaminées et en production.

III. INTRODUCTION

In Canada, the mining industry, governments, and local communities recognize that orphaned or abandoned mines for which the owner cannot be found, or for which the owner is financially unable to carry out cleanup, pose environmental, health, safety, and economic problems.

In June 2001, a multi-stakeholder workshop was held in Winnipeg to review the issue of orphaned/abandoned mine sites in Canada and identify approaches for cleaning up these sites. Recommendations and guiding principles from that workshop presented at a September 2001 Mines Ministers Conference resulted in an Action Plan that received the support of the Mines Ministers. A national multi-stakeholder Advisory Committee on Orphaned/Abandoned Mines was subsequently established in 2002 and charged with undertaking the Action Plan.

The National Orphaned/Abandoned Mines Initiative (“NOAMI”) is a co-operative Canadian program, guided by the Advisory Committee, consisting of the mining industry, federal/provincial/territorial governments, environmental non-government organizations, and First Nations. The Advisory Committee has created several Task Groups designed to address different aspects of the orphaned/abandoned mine problem. These include Task Groups on: (1) information gathering; (2) community involvement; (3) legal and regulatory barriers to voluntary collaboration in undertaking cleanup measures; (4) funding models and approaches; and (5) guidelines for legislative review.

The responsibilities of the NOAMI Guidelines for Legislative Review Task Group (“GLRTG”), given to it in 2003 by the Mines Ministers, included developing a series of guidelines to facilitate a focused review of the legislative/regulatory/policy framework as it applies to collaboration, liability, and funding in relation to orphaned/abandoned mines across Canada. In particular, the guidelines, completed in 2004, were designed to facilitate completion of a review of legislation (Acts, regulations, and instruments such as permits, licences, approvals) and related policies, programs, and practices that relate to orphaned/abandoned mine sites as well as contaminated and operating sites where there is demonstrated relevance to legacy issues. The ultimate goal is to ensure that approaches across jurisdictions are themselves consistent, certain, transparent, coordinated, and efficient.

This report was prepared to apply the guidelines and complete the review as it relates to collaboration, liability and funding for each jurisdiction considered in the report (federal, nine provinces excepting Prince Edward Island, and territorial) in relation to orphaned/abandoned, contaminated, and operating mines in Canada.

In this regard, Part IV of the report provides a brief background to the orphaned/abandoned mines problem. Part V briefly reviews constitutional authority for control of mining activity in Canada. Part VI summarizes existing and prospective legislative, regulatory, and policy authority for controlling mining activity at the federal/provincial/territorial level. Part VII provides overall findings respecting collaboration, liability, and funding measures in relation to orphaned/abandoned, contaminated, and operating mines in Canada. Part VIII provides recommendations. Part IX (Appendix A) presents legislation/policy/program matrices that allow comparison by jurisdiction. Part X (Appendix B) contains background guidance from the GLRTG. Part XI (Appendix C) lists federal/provincial/territorial department and ministry representatives that received/reviewed earlier versions of the report for comment.

IV. BACKGROUND UPDATE: THE PROBLEM OF ORPHANED/ABANDONED MINES

Orphaned or abandoned mine sites generally are defined as closed mines whose ownership has reverted to the Crown, either because the owner has gone out of business, or as is the case with some historic properties, because no owner can be found. They also are described as mine sites where the owner has ceased or indefinitely suspended advanced exploration, mining, or mine production without rehabilitating the site.¹

In the mid-1990s, a House of Commons Standing Committee on Natural Resources reported that:

“The main issue raised by old mining sites, unlike current and future mines, is the issue of liability for funding site reclamation. The onus today is on the governments concerned and on the mining industry to assume joint or several liability for activities that were conducted at those sites, in some cases a long time ago...”²

According to a June 2001 United Nations Environment Programme ("UNEP") sponsored report the impact of abandoned mines can include:

- Altered landscape; unused pits and shafts; land no longer useable due to loss of soil, pH, slope of land; abandoned tailings dumps; changes in groundwater regime; contaminated soils and aquatic sediments; subsidence; and vegetation changes.

The report notes further that the results of such impacts can cause:

- Loss of productive land; loss or degradation of groundwater; pollution of surface water by sediment or salts; fish affected by contaminated sediments; changes in river regimes; air pollution from dust or toxic gases; risks of falls into shafts and pits; and landslides.

Accordingly, the report observes that:

"In addition to the obvious problems for [a] community, most of these situations represent a considerable cost to public authorities which are often expected to make the sites secure and prevent ongoing pollution. The public is increasingly demanding action and this visible legacy of the past is producing growing community opposition to current mining activities. The orphan sites problem therefore continues to cast a shadow over all mining at a time when major operators are improving their operations and are trying to improve the image of their sites and their company."³

For UNEP, the orphaned/abandoned mine problem requires both legal and financial solutions.⁴

A 2002 report by Canada to the World Summit on Sustainable Development recognized that:

“Over the last decade, the Canadian mining industry has been at the centre of intense public debate on key sustainable development issues in Canada...debate to which the industry began to respond proactively in the 1990s. Some of the issues that have driven this debate include:

....

- the legacy of abandoned mines across Canada, and the threats to environmental and human health and safety that these raise, according to site-specific circumstances.

¹ Mining Association of Canada, *Orphaned/Abandoned Mines in Canada: Fact Sheet* (Ottawa: MAC, 2001) at 1.

² Canada, Parliament, Standing Committee on Natural Resources, “Lifting Canadian Mining Off the Rocks” (Ottawa: Queen’s Printer, 1994) at 35.

³ United Nations Environment Programme, *Abandoned Mines - Problems, Issues and Policy Challenges for Decision Makers: Summary Report* (2001) at 16.

⁴ *Ibid.* at 11.

....

The legacy of abandoned mines – un-reclaimed sites with no known owner – remains a complex challenge in Canada for governments, the mining industry and communities.”⁵

The current report follows up on work previously undertaken for NOAMI on removing barriers to collaboration and developing funding approaches respecting cleanup of orphaned/abandoned mines and expands the review to examining regimes in place for controlling contaminated and operating mines as well.

V. CONSTITUTIONAL AUTHORITY - CONTROL OF MINING ACTIVITY IN CANADA

The division of powers under the Canadian Constitution divides authority between Parliament and provincial legislatures with respect to enacting laws in relation to mining activity. Federal legislative jurisdiction over mining and related activity derives from the *Constitution Act, 1867* (U.K.), 30 & 31 Vict., c. 3, ss. 91(1A) (public property), 91(3) (taxation), 91(12) (seacoast and inland fisheries), 91(24) (Indian lands), 91(27) (criminal law) reprinted in R.S.C. 1985, App. II, No. 5. Sections 92(10)(c) respecting works wholly within a province declared by the Parliament of Canada to be for the general advantage of Canada (the declaratory power) and section 91(preamble respecting peace, order, and good government) have been used to justify federal legislation relating to all aspects of the uranium industry.

Provincial legislative authority also arises from several heads of power under the Constitution. These include: ss. 92(2) (direct taxation within the province), 92(5) (management and sale of public lands belonging to the province), 92(13) (property and civil rights in the province), 92A (non-renewable natural resources), and 109 (in Ontario, Quebec, Nova Scotia, and New Brunswick all lands, mines and minerals belonging to those provinces at the time of Confederation).⁶

In general, north of the 60th parallel federal constitutional authority to legislate predominates because of federal ownership of natural resources. South of the 60th parallel provincial constitutional authority to legislate predominates (except with respect to uranium mining) due to provincial ownership of public lands, natural resources, and authority with respect to property and civil rights.⁷

⁵ Government of Canada, *Sustainable Development: A Canadian Perspective* (Ottawa: Gov't of Canada, 2002) at 72-73, 78 (national assessment report prepared for World Summit in Johannesburg, South Africa).

⁶ For a fuller review of constitutional authority to regulate mining activity in Canada, see J.F. Castrilli, “Environmental Regulation of the Mining Industry in Canada: An Update of Legal and Regulatory Requirements” (2000) 34 U.B.C. L. Rev. 91 at 97-101.

⁷ Government of Canada, *Sustainable Development: A Canadian Perspective* (Ottawa: Gov't of Canada, 2002) at 72 (national assessment report prepared for World Summit in Johannesburg, South Africa). This report notes that: “Canada's federal, provincial and territorial governments play complementary roles in the mining sector. The federal government regulates all uranium mining in Canada, as well as all mining activities on public lands in Yukon, the Northwest Territories and Nunavut. The provincial governments own the natural resources within their jurisdiction, and are responsible for policies and regulations covering exploration, development and extraction of mineral resources as well as the construction, management, reclamation and close-out of mine-sites in their jurisdiction. Both levels of government have responsibility for the environmental regulation of the mining industry in their own areas of jurisdiction.” *Ibid.*

VI. SUMMARY REVIEW OF EXISTING AND PROSPECTIVE LEGISLATIVE, REGULATORY, AND POLICY AUTHORITY IN CANADA

A. Federal

There are four broad areas of federal law applicable to operating, contaminated, and orphaned/abandoned mine lands and their abatement, remediation, and reclamation. First, there is federal environmental and resource management legislation applicable throughout the country. Second, there is environmental management legislation applicable across Canada, but not north of the 60th parallel. Third, there is environmental and natural resource management legislation applicable predominantly to northern Canada (north of the 60th parallel). Fourth, there is federal workplace safety legislation that can apply to management of mine operations at federally regulated facilities. These four categories of legislation are reviewed in more detail below.

There also may be policies, programs, or related initiatives that are not explicitly set out or authorized in federal legislation but apply to the issue of operating, contaminated, and orphaned/abandoned mine lands and their abatement, remediation, and reclamation. These also are reviewed in the more detailed examination undertaken below.

1. FEDERAL LAWS APPLICABLE CANADA-WIDE

a. Environmental Laws

There are two primary federal environmental regulatory laws in Canada applicable to mining: (1) the *Canadian Environmental Protection Act, 1999* (“CEPA, 1999”),⁸ and (2) the *Fisheries Act*.⁹ With some exceptions noted below, both laws apply to operating, contaminated, and orphaned/abandoned mine sites. A third federal law, the *Bankruptcy and Insolvency Act*, and a related statute exempt certain persons from environmental liability in certain circumstances that may constitute a precedent for future legislation assisting voluntary abandoned mine land clean-ups.

i. Canadian Environmental Protection Act, 1999

The *Canadian Environmental Protection Act, 1999* (“CEPA, 1999”), administered by the Departments of Environment (“Environment Canada” or “DOE”) and Health (“Health Canada” or “DOH”), authorizes the federal government to determine whether substances used in commerce and industry are toxic and to restrict or prohibit their introduction, use, and release to the environment primarily through regulations promulgated on a substance-by-substance basis.¹⁰

The Act defines several terms including ecosystem,¹¹ environment,¹² environmental quality,¹³ pollution

⁸ S.C. 1999, c. 33.

⁹ R.S.C. 1985, c. F-14.

¹⁰ S.C. 1999, c. 33, Part 5 (controlling toxic substances).

¹¹ *Ibid.*, s. 3 (complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit).

¹² *Ibid.* (air, land, water; organic and inorganic matter and living organisms; interacting natural systems).

¹³ *Ibid.* (health of ecosystems).

prevention,¹⁴ release,¹⁵ substance,¹⁶ sustainable development,¹⁷ and toxic substance.¹⁸

CEPA, 1999 does not establish a licensing, permitting, or **approval** regime in relation to control of toxic substances. However, a number of substances important to the mining industry have been placed in a schedule of toxic substances under the Act (Schedule 1) and been made subject to regulation on an industry sector specific basis with respect to air emissions. These include air emissions of lead from secondary lead smelter operations¹⁹ and air emissions of asbestos from asbestos mines and mills.²⁰

Other substances of importance to the mining industry (e.g. arsenic, cadmium, and nickel) also have been placed in the toxic substance schedule to the Act but have yet to be subject to regulations controlling or restricting releases (either on an industry sector specific basis or generally).²¹

However, the Act also authorizes the Minister of the Environment to issue a notice to persons described in the notice requiring them to prepare and implement a pollution prevention plan in respect of toxic substances listed in Schedule 1 to the Act. The notice may specify such matters as the:

- substance(s) in relation to which the plan must be prepared;
- commercial, manufacturing, processing, or other activity in relation to which the plan is to be prepared;
- factors to be considered in preparing the plan;
- period within which the plan is to be prepared; and
- period within which the plan is to be implemented.²²

Where a person has prepared or implemented a pollution prevention plan on a voluntary basis or for another government or under another federal law that meets all or some of the above notice requirements, the person may use this other plan for the purpose of meeting *CEPA, 1999*.²³ As noted above, there are several substances identified in Schedule 1 of *CEPA, 1999* (e.g. arsenic, cadmium, and nickel) with the potential to be released to the environment from mine land areas. These substances have not, to date, otherwise been made subject to release regulations under the Act. However, these substances have been identified as candidates for the development of pollution prevention plans in respect of base metal smelters.²⁴

¹⁴ *Ibid.* (use of processes, practices, materials, products, substances or energy that avoid or minimize creation of pollutants and waste and reduce the overall risk to the environment or human health).

¹⁵ *Ibid.* (discharge, abandon, deposit, spill, leak, seep, pour, emit, dump, etc.).

¹⁶ *Ibid.* (organic or inorganic matter capable of being dispersed in the environment).

¹⁷ *Ibid.* (development that meets the needs of the present without compromising the ability of future generations to meet their own needs).

¹⁸ *Ibid.*, s. 64 (substance that enters environment that may: have harmful effect on environment; constitute danger to environment, human life or health).

¹⁹ *Secondary Lead Smelter Release Regulations*, S.O.R./91-155 (releases to air of lead).

²⁰ *Asbestos Mines and Mills Release Regulations*, S.O.R./90-341 (releases to air of asbestos fibres).

²¹ S.C. 1999, c. 33, Schedule 1, items 28 (arsenic), 31 (cadmium), and 42 (nickel).

²² *Ibid.*, s. 56. Substances in Canada that are a source of international air or water pollution, or that violate international agreements binding on Canada, also may be the subject of pollution prevention plans, even if they are not listed in Schedule 1. *Ibid.*, ss. 56, 166(1), 176(1).

²³ *Ibid.*, s. 57.

²⁴ Environment Canada, Proposed Notice Requiring the Preparation and Implementation of Pollution Prevention Plans in Respect of Specified Toxic Substances Released From Base Metal Smelters and Refineries and Zinc Plants, C. Gaz. 2004 I Vol. 138, No. 39 (defining base metal as including copper, zinc, lead, nickel, or cobalt; notice also including inorganic arsenic and cadmium compounds; and identifying mining and smelting companies across Canada as responsible for preparation of pollution prevention plans).

In terms of **assessment** activity under the Act, *CEPA, 1999* imposes information obligations on those persons emitting substances that are subject to (1) regulation as toxic substances,²⁵ (2) pollution prevention plans,²⁶ or (3) notices where the Minister is assessing whether a substance is toxic or capable of becoming toxic.²⁷

CEPA, 1999 imposes **monitoring** requirements in a variety of contexts.²⁸ *CEPA, 1999* also authorizes inspection activity to ensure compliance with the Act's requirements.²⁹

Violations of the Act, regulations, or orders may attract quasi-criminal,³⁰ administrative,³¹ or civil³² **liability**. Liability associated with environmental emergencies is joint and several.³³

In terms of **emergency response** activity, *CEPA, 1999* authorizes the government to make regulations and take other measures to prevent, prepare for, respond to, and recover from, environmental emergencies. The government can require industry to prepare environmental emergency plans for substances listed in Schedule 1 to the Act. Such plans have been required for over 170 substances listed in the regulations, some of which may be substances important to the mining industry.³⁴

²⁵ S.C. 1999, c. 33, s. 93 (regulations with respect to toxic substances may impose requirements on the: quantity or concentration of the substance that may be released to the environment from any source; places or areas where the substance may be released; manufacturing or processing activity in the course of which the substance may be released; manner of release; and submission of information relating to the substance).

²⁶ *Ibid.*, s. 56. See also Environment Canada, *Pollution Prevention P2 Plans* (Ottawa: DOE, 2005) online: <<http://www.ec.gc.ca/CEPARRegistry/plans/P2/>> (last updated: 11 April 2005) (content of P2 plans may include risk management objectives for plan; schedule for meeting objectives; review of significant aspects of substance management including processing, producing, treating, disposing, releasing substance; options; plan for measuring, tracking, evaluating success of options selected and for implementing corrective and preventive measures, etc.).

²⁷ S.C. 1999, c. 33, s. 71 (notices may require information on (1) toxicology, quantity, composition, use, and distribution of substance, and; (2) works, plans, undertakings, activities, plans, specifications, studies, etc.).

²⁸ *Ibid.*, ss. 93 (authority to require monitoring of regulated toxic substance and submission of results to minister), 71(2) (authority to require submission of available monitoring for purposes of assessing whether substance is capable of becoming toxic or, if substance already in Schedule 1, for purposes of determining control methods). See also Environment Canada, *Pollution Prevention P2 Plans* (Ottawa: DOE, 2005) online:

<<http://www.ec.gc.ca/CEPARRegistry/plans/P2/>> (last updated: 11 April 2005) (P2 plans under section 56 may be required to contain plans for measuring or tracking success of selected corrective or preventive measures).

²⁹ S.C. 1999, c. 33, s. 218 (enforcement officers granted broad inspection powers to ensure compliance with Act and regulations).

³⁰ *Ibid.*, ss. 272-276. Officers, directors, or agents of a corporation may be liable for offences committed under the Act. *Ibid.*, s. 280.

³¹ *Ibid.*, ss. 94 (interim orders), 99 (remedial measures), 234 (environmental protection compliance orders), 295-309 (environmental protection alternative measures).

³² *Ibid.*, ss. 22-38 (environmental protection action in court of competent jurisdiction against person who committed offence under Act and caused significant harm to environment; action for declaration or injunction, but not damages, may be brought by any person who applied for investigation under Act, and only if minister failed to conduct investigation, or responded unreasonably to investigation), 39 (injunction by any person suffering loss or damage as a result of conduct violating Act), 40 (civil action for damages by any person suffering loss or damage as a result of conduct violating Act), 205 (person who owns or has charge, management, or control of a substance before an environmental emergency event is liable for costs and expenses incurred by minister or other government departments in respect of measures taken to prevent, repair, remedy, or minimize environmental emergency, and for any loss or damage), 311 (application for injunction by minister).

³³ *Ibid.*, s. 203(3).

³⁴ *Ibid.*, Part 8, ss. 193-205 (environmental emergencies). See also *Environmental Emergency Regulations*, SOR/2003-307. Schedules to the regulations list such substances as mercury and arsenic trichloride).

In terms of **financial** instruments or measures, *CEPA, 1999* authorizes (1) cost recovery by the government in responding to environmental emergencies and related incidents,³⁵ and (2) promulgation of regulations prescribing fees.³⁶

In terms of the **application** of *CEPA, 1999*, the Act applies to substances that are, or may become, toxic as defined in the statute and to activities associated with such substances. In this regard, certain substances associated with mining activities such as lead, asbestos, arsenic, cadmium, and nickel have been made subject to the Act by way of regulations, pollution prevention, or environmental emergency plans.

CEPA, 1999 does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, as part of the authority of the Minister of the Environment to conduct research pursuant to *CEPA, 1999*, DOE has conducted research studies on metal contamination of the environment from abandoned mines in Ontario, Manitoba, and Nova Scotia.³⁷

In terms of **community involvement**, *CEPA, 1999* authorizes (1) public involvement in the regulation-making process (notice and comment) facilitated through the establishment of a registry of information respecting matters under the Act,³⁸ (2) participation on advisory committees with respect to regulation or potential regulation of substances as toxic,³⁹ and (3) opportunities to request investigations of, and initiate civil (environmental protection) actions with respect to, loss or damage to the environment caused by the release of substances in violation of the Act.⁴⁰ Mining activities that release substances addressed by the Act are subject to these various public participation provisions.

ii. Fisheries Act

The *Fisheries Act* (“FA”),⁴¹ administered by DOE and the Department of Fisheries and Oceans (“DFO”), is the other primary federal environmental regulatory law in Canada applicable to mining activity.

The *FA* defines several terms including deleterious substance,⁴² deposit,⁴³ fish habitat,⁴⁴ and water frequented by fish.⁴⁵ New regulations promulgated under the Act that came into force in December 2002

³⁵ S.C. 1999, c. 33, ss. 203 (environmental emergencies), 291(1)(k)(3) (costs of Minister taking remedial or preventive measures arising out of offence constitute debt due Crown recoverable in court of competent jurisdiction).

³⁶ *Ibid.*, s. 328.

³⁷ Environment Canada, *CEPA, 1999 Annual Report: 2000-2001* (Ottawa: Department of Environment, 2002) online: http://www.ec.gc.ca/CEPARegistry/gene_info/annual_reports/ar00_01/chap3.cfm (date accessed: 9 August 2005) (national water research institute evaluating mechanisms for control and attenuation of metals and arsenic at four mine sites in Ontario and Manitoba; active and abandoned mines largest point source of metal releases to environment). See also Environment Canada, *CEPA, 1999 Annual Report: 2001-2002* (Ottawa: Department of Environment, 2003) online: http://www.ec.gc.ca/CEPARegistry/gene_info/annual_reports/ar01_02/part3.cfm (date accessed: 9 August 2005) (national water research institute assessing impact of metals, such as cadmium, lead, mercury, from abandoned mine sites in Nova Scotia; remediation programs in progress).

³⁸ S.C. 1999, c. 33, 12.

³⁹ *Ibid.*, ss. 6 (national advisory committee including federal, provincial, and aboriginal government representation), 7 (ministerial advisory committees).

⁴⁰ *Ibid.*, ss. 17-38.

⁴¹ R.S.C. 1985, c. F-14.

⁴² *Ibid.*, s. 34(1) (any substance added to water that would degrade water quality so as to render it deleterious to fish or fish habitat or the use thereof by humans).

⁴³ *Ibid.* (discharge, release, spill, leak, seep, pour, emit, dump, place, etc.).

⁴⁴ *Ibid.* (spawning grounds, food supply and migration areas on which fish dependent for life).

⁴⁵ *Ibid.* (Canadian fisheries waters).

specific to metal mines define additional terms including commercial operation,⁴⁶ effluent,⁴⁷ milling,⁴⁸ milling facility effluent,⁴⁹ mine,⁵⁰ mine under development,⁵¹ mine water effluent,⁵² new mine,⁵³ operations area,⁵⁴ operator,⁵⁵ placer mining,⁵⁶ recognized closed mine,⁵⁷ reopened mine,⁵⁸ surface drainage,⁵⁹ and tailings impoundment area.⁶⁰

The *FA* does not establish a licensing, permitting, or **approval** regime in relation to control of substances deleterious to waters frequented by fish. However, a number of substances important to the metal mining industry have been placed in a schedule to the regulations and been made subject to control in the context of metal mining effluent from mining and milling facilities.⁶¹ In addition, the Act grants discretionary power to DFO to issue an authorization attaching conditions to activity that may alter, disrupt, or destroy fish habitat.⁶² Such authorizations are applicable to mining activity in appropriate circumstances.

In terms of **assessment** activity, the *FA* or the regulations impose certain information requirements on the mining industry with respect to (1) deleterious substances in metal mining effluents,⁶³ and (2) alteration of fish habitat.⁶⁴

⁴⁶ *Metal Mining Effluent Regulations*, S.O.R./2002-222, s. 1(1) (with respect to a mine means average rate of production equal to or greater than 25% of design rated capacity of mine over a period of 90 consecutive days).

⁴⁷ *Ibid.* (mine water effluent, milling facility effluent, tailings impoundment effluent, treatment pond effluent, seepage and surface drainage that contains a deleterious substance).

⁴⁸ *Ibid.* (crushing or grinding ore for purpose of producing metal).

⁴⁹ *Ibid.* (tailings slurries, heap leaching effluent, etc.).

⁵⁰ *Ibid.* (mining or milling facilities designed to produce a metal, including smelters).

⁵¹ *Ibid.* (mine where construction of an open pit or underground mine has started).

⁵² *Ibid.* (water pumped from or that flows out of open pit or underground mining works).

⁵³ *Ibid.* (mine that began commercial operation on or after regulations came into force).

⁵⁴ *Ibid.* (land and works used in conjunction with mining or milling activity including open pits underground mines, buildings, ore storage or waste rock dumps; tailings impoundment and related areas; and cleared or disturbed areas adjacent to land and works).

⁵⁵ *Ibid.* (person who operates, has control or custody of or is in charge of a mine or recognized closed mine).

⁵⁶ *Ibid.* (mining operation that extracts minerals or metals from stream sediments).

⁵⁷ *Ibid.* and s. 32(1) (a mine for which the owner or operator has: (1) provided written notice of the intention to close the mine to an authorized officer in a province; (2) maintained the mine's rate of production at less than 25% of its design rated capacity for a continuous period of three years starting on the day that the written notice is received by the authorized officer; and (3) conducted a biological monitoring study during the three-year period according to requirements set out elsewhere in the regulations).

⁵⁸ *Ibid.* s. 1(1) (mine that resumes commercial operation after date regulations came into force).

⁵⁹ *Ibid.* (surface run-off contaminated by deleterious substance as a result of flowing over, through or out of operations area).

⁶⁰ *Ibid.* (body of water or place set out in Schedule 2 of regulations; or disposal area confined by structures, but not a disposal area that is part of a natural water body frequented by fish).

⁶¹ *Metal Mining Effluent Regulations*, S.O.R./2002-222, Schedule 3 (arsenic, copper, cyanide, lead, nickel, zinc, radium 226).

⁶² R.S.C. 1985, c. F-14, s. 35(2).

⁶³ *Metal Mining Effluent Regulations*, S.O.R./2002-222, ss. 4-5 (authority to deposit deleterious substances in water frequented by fish or in tailings impoundment areas as long as standards set out in regulations met), 9-10 (identification and reporting of final discharge points).

⁶⁴ R.S.C. 1985, c. F-14, s. 37(1)(2) (minister may require plans, specifications, studies or other information relating to the work or undertaking before issuance of section 35 authorization). See also Department of Fisheries and Oceans, *Policy for Management of Fish Habitat* (Ottawa: Minister of Supply and Services Canada, 1986). In addition, any project that requires federal authorization to alter fish habitat or that requires modifications following the submission of plans and specifications in connection therewith, also subjects the project to environmental assessment requirements under the *Canadian Environmental Assessment Act* ("CEAA"). See *CEAA - Law List Regulations*, S.O.R./94-636, Schedule 1, Part 1 listing ss. 35(2) and 37(2) of the *FA* respecting authorizations of, and requiring modifications, plans and specifications in respect to, fish habitat alteration. *CEAA* requirements are discussed below.

The *FA* or regulations impose **monitoring** requirements in connection with (1) metal mining effluents,⁶⁵ and (2) fish habitat alteration.⁶⁶ The *FA* also authorizes inspection activity to ensure compliance with the pollution prevention and fish habitat protection provisions of the Act.⁶⁷

The *FA* imposes quasi-criminal,⁶⁸ administrative,⁶⁹ and civil⁷⁰ **liability** for violation of the Act or regulations. Liability is joint and several under this Act.⁷¹

The *FA* authorizes **emergency response** activity in a number of contexts.⁷²

In terms of **financial** instruments or measures, the *FA* is silent regarding the imposition of financial security to cover potential cleanup costs under the Act. However, the Act does treat as a debt due the Crown and recoverable in a court of competent jurisdiction the costs and expenses incurred by the federal government (or a province) in taking measures to prevent, mitigate, or remedy a deposit of deleterious substances into fish frequented waters.⁷³

In general, cost recovery provisions can be effective against a mine owner or operator with other assets in Canada, or against a valuable, if closed or abandoned mine property. However, such authority would not be effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left Canada and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

In terms of the **application** of the *FA* to mining activity, in general such activity is subject to the Act arising from the (1) prohibition under the statute on carrying out any work or undertaking without an authorization (or contrary to an authorization) that results in the harmful alteration, disruption, or destruction of fish habitat,⁷⁴ (2) prohibition on the deposit of deleterious substances into water frequented by fish,⁷⁵ and (3) regulations promulgated under the Act respecting metal mining effluents.⁷⁶

The first and second aspects of the *FA* identified above also could apply to abandoned mines or to abatement, remediation, and reclamation activities at such facilities. With respect to the third aspect,

⁶⁵ *Metal Mining Effluent Regulations*, S.O.R./2002-222, ss. 7-28 (obligation to conduct, and setting out particulars of, environmental effects monitoring).

⁶⁶ Department of Fisheries and Oceans, *Policy for Management of Fish Habitat* (Ottawa: Minister of Supply and Services Canada, 1986), chapter 4.8 (habitat monitoring).

⁶⁷ R.S.C. 1985, c. F-14, s. 38(1)-(3.5).

⁶⁸ *Ibid.*, ss. 35(1) (prohibition on altering fish habitat), 36(3) (prohibition on deposit of deleterious substances in waters frequented by fish except in accordance with regulations), 40 (offences and penalties), 78.2 (liability of officer, director, or agent of corporation committing offence).

⁶⁹ *Ibid.*, s. 38(5)(6) (inspector satisfied on reasonable grounds that there is a deposit of a deleterious substance in fish frequented water out of the normal course of events, may direct that immediate remedial measures be taken).

⁷⁰ *Ibid.*, ss. 41(4) (injunction by Attorney General of Canada), 42(1) (joint and several civil liability to Crown for costs of cleanup of deleterious substances in water frequented by fish), 42(3) (joint and several civil liability to fishermen suffering loss of income as a result of deposit of deleterious substances in water frequented by fish).

⁷¹ *Ibid.*, ss. 42(1), 80.

⁷² *Ibid.*, s. 38(6) (in circumstances set out in section 38(5)(6) inspector may take immediate remedial measures himself or herself). See also *Metal Mining Effluent Regulations*, S.O.R./2002-222, ss. 29-31 (obligation on owner or operator to create and update annually emergency response plan to prevent or mitigate deposits of deleterious substances into waters frequented by fish that are out of the normal course of events).

⁷³ R.S.C. 1985, c. F-14, s. 42(1)(2), 72.2(d), 79.4(1).

⁷⁴ *Ibid.*, s. 35(1)(2).

⁷⁵ *Ibid.*, s. 36(3).

⁷⁶ *Metal Mining Effluent Regulations*, S.O.R./2002-222.

however, it is unlikely that the new regulations would apply to an abandoned mine,⁷⁷ unless it were to re-open. The new regulations state that they apply to mines and recognized closed mines as defined above.⁷⁸ These definitions do not include an orphaned or abandoned mine situation. The new regulations note further that:

1. any deposit from a recognized closed mine is subject to the *FA* prohibition on depositing deleterious substances into waters frequented by fish;
2. the authorized officer must be notified in writing without delay if the recognized closed mine reopens; and
3. the authorized officer must be provided with the name and address of both the owner and operator of the recognized closed mine, their parent company, and any change in ownership.⁷⁹

However, the new regulations do not apply in respect of mines that stopped commercial operation before the promulgation of the new regulations, unless they are reopened after the promulgation of the regulations.⁸⁰

Accordingly, the regime contemplated under the new regulations applies to new, existing, recognized closed mines as well as to mines that re-open after the coming into force of the regulations. If the mine is a "recognized closed mine" depositing deleterious substances in waters frequented by fish, it could be in violation of the Act's deleterious substance prohibition and be subject to prosecution in that regard. The new regulations also can apply directly to mines that stopped commercial operations before the coming into force of the new regulations, if they resume operations after the new regulations came into effect. Even if a project designed to abate, remediate, or reclaim an abandoned mine could escape application of the new regulations during the abatement, remediation, or reclamation stages, the resulting reopened mine would be subject to the requirements of the new regulations.

The *FA* or regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *FA* is silent on public involvement in its process. However, regulation-making activity under the Act would be subject to notice and comment.

iii. Bankruptcy and Insolvency Act

The *Bankruptcy and Insolvency Act* ("BIA")⁸¹ permits trustees in bankruptcy to be appointed by courts to administer the estates of bankrupt persons. Property owned by the bankrupt becomes the responsibility of the trustee for the purposes of selling assets and distributing the sale proceeds to creditors. If the bankrupt's property is contaminated, a trustee confronts the same **liability** problems faced by other

⁷⁷ The federal government has stated that the former regulations, the *Metal Mining Liquid Effluent Regulations*, applied to active mines but not to abandoned mines. However, deposits of deleterious substances identified in the regulations from an abandoned mine would be a violation of s. 36(3) of the *Fisheries Act*. Government of Canada, *Response to a Submission on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation SEM-98-004 by the Sierra Club of British Columbia, the Environmental Mining Council of British Columbia, and the Taku Wilderness Association* (8 September 1999) at 15-16.

⁷⁸ *Metal Mining Effluent Regulations*, S.O.R./2002-222, s. 2(1) (regulations apply to mines and recognized closed mines that exceed certain effluent flow rates, and deposit a deleterious substance in waters frequented by fish).

⁷⁹ *Ibid.*, ss. 32(2)(3), 33.

⁸⁰ *Ibid.*, s. 2(2).

⁸¹ R.S.C. 1985, c. B-3.

persons responsible for creating or exacerbating an environmental problem. Similarly, receivers are appointed by creditors pursuant to a court order to take possession and control of the property of bankrupt or insolvent persons. Receiver-managers have the further responsibility of carrying on the business of the debtor. Receivers and receiver-managers also can attract environmental liability where such properties are contaminated and made the subject of clean-up orders under environmental legislation.

Parliament has long recognized the need in society for trustees, receivers, and receiver-managers to take up the responsibilities of winding up insolvent estates. However, because of the likelihood that in the absence of appropriate statutory protection from potential environmental liability few would take up these responsibilities, Parliament enacted in the 1990s two sets of amendments to the *BIA*. In 1992, amendments to the Act exempted a trustee in bankruptcy from personal liability under environmental legislation if the harm occurred before the trustee's appointment, or after the appointment, unless the damage occurred as a result of the trustee's failure to exercise due diligence.⁸² In 1997, further amendments to the *BIA* also exempted receivers and receiver-managers from environmental liability, as well as changed the standard of care during administration of the bankrupt's estate for trustees (and receivers and receiver-managers) from due diligence to gross negligence or willful misconduct.⁸³

In addition, if an order is made under federal or provincial law requiring the receiver to remedy an environmental condition, the receiver may comply with the order, abandon the property, contest the order, or apply for a stay of the order. The purpose of the application for a stay of the order is to allow the receiver the opportunity to assess the economic viability of complying with the order.⁸⁴ If the receiver abandons any interest in the real property (e.g. if the costs of remedying environmental damage exceed the value of the property), the costs to remedy the damage do not rank as a cost of administration but are only an unsecured claim.⁸⁵ However, any federal or provincial government claim for the costs of remedying environmental damage affecting real property of the debtor is a secured claim and ranks in priority to all other claims.⁸⁶

The categories of persons provided with environmental liability protection under the *BIA* are probably too narrow to include those who voluntarily propose to undertake abandoned mine land abatement, remediation, or reclamation activities. However, the principle of exemption from, or limitation of, liability contained in this type of legislation could be considered a precedent for application to voluntary abatement, remediation, or reclamation of orphaned/abandoned mine sites.

iv. Companies' Creditors Arrangement Act

Comparable provisions to the *BIA* exist under federal corporate laws designed to protect from environmental **liability** court-appointed monitors of the business and financial affairs of bankrupt or insolvent companies,⁸⁷ but not liquidators of such companies.⁸⁸

⁸² S.C. 1992, c. 27, s. 9(1) (amending s. 14.06).

⁸³ S.C. 1997, c. 12, s. 15(1) (amending s. 14.06).

⁸⁴ *Ibid.*, s. 14.06(5).

⁸⁵ *Ibid.*, s. 14.06(6).

⁸⁶ *Ibid.*, s. 14.06(7).

⁸⁷ *Companies' Creditors Arrangement Act*, R.S.C. 1985, c. C-36, s. 11.8 (protection of court-appointed monitors from environmental liability on same basis as trustees, etc. under *BIA*).

⁸⁸ *Winding-up and Restructuring Act*, R.S.C. 1985, c. W-11, s. 76(2) (liquidator not liable to any person whose claim not been sent in at time of distribution of assets). This provision was held by an Alberta court not to afford liquidators protection from environmental liability under federal or provincial laws because the provision is not like those in *BIA* or *CCAA* that "expressly protect the representative of creditors from environmental claims." *Canadian Deposit Insurance Corporation v. Canadian Commercial Bank* (2000), 34 C.E.L.R. (N.S.) 127 (Alta. Q.B.).

b. Resource Management or Mining Laws

There is one federal resource management or mining statute, the *Nuclear Safety and Control Act*, that has nation-wide applicability albeit to only one category of mining activity; uranium or thorium mining and milling.

i. Nuclear Safety and Control Act

The purpose of the *Nuclear Safety and Control Act* (“NSCA”),⁸⁹ administered by the Canadian Nuclear Safety Commission (“CNSC”) and the overall responsibility of Natural Resources Canada (“NRCan”), includes protecting the health and safety of persons and the environment from the development, production and use of nuclear energy and substances.⁹⁰

The *NSCA* defines several terms including nuclear facility⁹¹ and nuclear substance.⁹² Regulations promulgated pursuant to the Act define several additional terms including concentrate,⁹³ excavation site,⁹⁴ mill,⁹⁵ mine,⁹⁶ ore,⁹⁷ removal site,⁹⁸ waste management system,⁹⁹ and work place.¹⁰⁰

The Act authorizes the CNSC to establish classes of **licences**.¹⁰¹ The regulations set out the classes of licence applicable to mining and milling activity.¹⁰² The regulations relating to uranium mines and mills are designed to regulate the life-cycle of modern, operating mines. In addition to these regulations, historic uranium mine sites are treated as contaminated lands under other regulations and issued waste management licences rather than mining licences.¹⁰³ Where these idle mines do not contain tailings, they are exempt from the requirement to have a licence for the possession, management, and storage of nuclear substances related to previous mining operations.¹⁰⁴

⁸⁹ S.C. 1997, c. 9.

⁹⁰ *Ibid.*, s. 3(a). The Act imposes comparable objects on the CNSC. *Ibid.*, s. 9 (regulate production, possession and use of nuclear substances to prevent unreasonable risk to environment and human health and safety).

⁹¹ *Ibid.*, s. 2 (includes uranium or thorium mine or mill).

⁹² *Ibid.* (uranium or thorium).

⁹³ *Uranium Mines and Mills Regulations*, S.O.R./2000-206, s. 1 (extracted product containing uranium arising from physical or chemical separation of uranium from ore).

⁹⁴ *Ibid.* (place where uranium is moved by means of underground activities for purpose of evaluating orebody).

⁹⁵ *Ibid.* (facility where ore is processed and treated for recovery of uranium concentrate, including tailings-handling and water treatment system associated with facility).

⁹⁶ *Ibid.* (excavation and removal sites).

⁹⁷ *Ibid.* (mineral or chemical aggregate containing uranium in a quantity and quality that makes mining and extracting uranium economically viable).

⁹⁸ *Ibid.* (place where uranium is removed from natural deposit by means of surface activities for purpose of evaluating potential orebody).

⁹⁹ *Ibid.* (system for collecting, transporting, receiving, treating, processing, storing, or disposing of wastes produced from licensed uranium mine or mill).

¹⁰⁰ *Ibid.* (any place within uranium mine or mill where worker performing work).

¹⁰¹ *Ibid.*, s. 24(1). Licences cannot be issued unless the CNSC is of opinion that person carrying out activity will protect environment and human health and safety. *Ibid.*, s. 24(4). Licences are not transferable. *Ibid.*, s. 24(8).

¹⁰² *Uranium Mines and Mills Regulations*, S.O.R./2000-206, ss. 5 (licence to prepare site and construct mine or mill), 6 (licence to operate mine or mill), 7 (licence to decommission mine or mill), 8 (licence to abandon mine or mill).

¹⁰³ General Nuclear Safety and Control Regulations, S.O.R./2000-202, ss. 4 (licence to abandon a nuclear facility). See also Class I Nuclear Facilities Regulations, S.O.R./2000-204 and Nuclear Substances and Radiation Devices Regulations, S.O.R./2000-207.

¹⁰⁴ Canadian Nuclear Safety Commission, Status Report and Staff Recommendations on Site Conditions and Progress of the Licensing Process for Unlicensed Uranium Tailings Management Sites: CMD 04-M47 (Ottawa: CNSC, 17 November 2004). See also Canadian Nuclear Safety Commission, Minutes of Meeting and Decision (Ottawa: CNSC, 17 November 2004).

In terms of **assessment** activity, regulations under the *NSCA* set out general information requirements applicable to a licence to undertake uranium mining and milling activity,¹⁰⁵ as well as additional information required for licences for site preparation and construction,¹⁰⁶ operation,¹⁰⁷ decommissioning,¹⁰⁸ and abandonment¹⁰⁹ of such facilities. In general, uranium mining and milling also would be subject to environmental assessment requirements under the *Canadian Environmental Assessment Act*,¹¹⁰ discussed more fully below.

Regulations under the *NSCA* impose **monitoring** obligations on applicants for a variety of licences.¹¹¹ The *NSCA* also authorizes inspections to ensure compliance with the Act, regulations, or instruments (e.g. licences, orders) issued under the Act.¹¹²

The *NSCA* imposes quasi-criminal,¹¹³ administrative,¹¹⁴ and civil¹¹⁵ **liability** for non-compliance with the Act, regulations, licences, or orders issued thereunder.

The *NSCA* also authorizes **emergency response** measures in a variety of contexts.¹¹⁶

2004) (exemption from licensing for possession, management and storage of nuclear substances where idle mines lack uranium tailings) at 104-105.

¹⁰⁵ *Uranium Mines and Mills Regulations*, S.O.R./2000-206, s. 3 (general information requirements include in relation to environment and waste management, health and safety, and sabotage at a uranium mine or mill). See also *General Nuclear Safety and Control Regulations*, S.O.R./2000-202, s. 3 (also requiring information on the environment and health and safety of persons in connection with application for licence).

¹⁰⁶ *Uranium Mines and Mills Regulations*, S.O.R./2000-206, s. 5 (includes plans and measures for waste management and controlling water movement during mine and mill site preparation and construction).

¹⁰⁷ *Ibid.*, s. 6 (includes information on waste management system).

¹⁰⁸ *Ibid.*, s. 7 (includes land, buildings, structures, systems, equipment, and substances to be decommissioned).

¹⁰⁹ *Ibid.*, s. 8. See also *General Nuclear Safety and Control Regulations*, S.O.R./2000-202, s. 4 (location of land, etc. to be abandoned; method of abandonment; effects on environment and human health and safety that may result from abandonment, and measures to be taken to prevent or mitigate such effects).

¹¹⁰ See e.g. Canadian Nuclear Safety Commission, *Environmental Assessment: Deloro Mine Site Remediation* (Ottawa: CNSC, 2004), online: Canadian Nuclear Safety Commission

http://www.nuclearsafety.gc.ca/eng/assessments/EA_36265.cfm (last updated: 16 November 2004) (noting notice of intent from Ontario Ministry of Environment ("MOE") to apply for licence to implement remediation plans for abandoned Deloro mine site to provide long-term containment for contaminated soils and low-level radioactive wastes; noting further that before CNSC can issue licence, MOE must comply with *CEAA* and identify possible environmental effects of proposal, and determine if effects can be mitigated). Aspects of this project and its treatment under *CEAA* and Ontario law are discussed further below.

¹¹¹ *Uranium Mines and Mills Regulations*, S.O.R./2000-206, ss. 3(c)(vi) (general licence application requirements for mine or mill include obligation to include information on proposed effluent and environmental monitoring programs), 5(1)(f), (2)(f) (application for licence for mine and mill site preparation and construction must include measures to monitor construction and operation), 6-7 (similar monitoring obligation for mine and mill operation and decommissioning licences), 8 (application for licence for mine and mill abandonment must include information on results of environmental monitoring programs).

¹¹² S.C. 1997, c. 9, ss. 30-32.

¹¹³ *Ibid.*, ss. 48-51.1 (offences and punishment).

¹¹⁴ *Ibid.*, ss. 35 (order of inspector requiring licensee to take measures inspector considers necessary to protect environment or human health and safety), 40-41, 43, 46 (CNSC can, on appeal and following hearing, affirm, vary or rescind order, including issue orders to land owners or persons in charge, or occupation of land imposing measures to reduce contamination of land from nuclear substances).

¹¹⁵ *Ibid.*, s. 42 (absolute liability for costs of measures required pursuant to order issued by CNSC or inspector). The Act also states that liability under this Act does not affect the liability of an operator under the *Nuclear Liability Act*. *Ibid.*, s. 42(3). This would appear to mean that an operator also could be liable under the *Nuclear Liability Act* but only up to the maximum upset limit set out in that statute of \$75 million.

¹¹⁶ S.C. 1997, c. 9, s. 47 (in emergency CNSC can issue any order it considers necessary to protect environment or human health and safety). See also *Uranium Mines and Mills Regulations*, S.O.R./2000-206, s. 3(c)(x) (obligation on licence

The *NCSA* authorizes the imposition of a **financial** guarantee in a form acceptable to the CNSC as condition of licence issuance.¹¹⁷ In this regard, the CNSC requires all uranium mine licensees to post a financial guarantee for the ongoing care and maintenance of their sites, including historic closed mines.¹¹⁸

In terms of the **application** of the *NCSA* and regulations to mining activity, the Act applies to uranium mines and mills, but not to uranium prospecting or surface exploration activities.¹¹⁹

The *NCSA* and regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, regulations under the *NCSA* require applicants for a licence to abandon a uranium mine or mill to include in their application, information respecting their proposed program to 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.¹²⁰

2. FEDERAL LAWS APPLICABLE, WITH SOME EXCEPTIONS, ACROSS CANADA

Certain federal laws applicable directly or indirectly to mining activity in Canada do not necessarily apply to all parts of the country. The *Canadian Environmental Assessment Act* is one such piece of federal legislation in that it does not apply to all portions of Canada north of the 60th parallel.

a. Environmental Laws

Federal environmental management measures are reflected in environmental impact assessment law. In certain circumstances, this type of law may have application to operating, contaminated, and orphaned/abandoned mine sites.

i. Canadian Environmental Assessment Act

The *Canadian Environmental Assessment Act* (“*CEAA*”),¹²¹ the overall responsibility of DOE, is administered by the Canadian Environmental Assessment Agency (“Agency”). *CEAA* requires the federal public sector and, in certain circumstances, the private sector to undertake environmental impact assessment procedures set out in the Act. In general, environmental impact assessment is regarded as a planning tool that requires early identification and evaluation of all potential environmental consequences of a proposed project and its alternatives, combined with a decision-making process that attempts to reconcile any approval of the proposal under other federal laws with environmental protection and preservation.¹²²

applicant to provide information on proposed measures to respond to accidental releases to environment of nuclear substances).

¹¹⁷ S.C. 1997, c. 9, s. 24(5).

¹¹⁸ Canadian Nuclear Safety Commission, *Financial Guarantees for the Decommissioning of Licensed Activities: Regulatory Guide G-206* (Ottawa: CNSC, 2000) at 5 (acceptable financial guarantees include cash funds, letters of credit, bonds, insurance, and expressed commitments from the federal or a provincial government).

¹¹⁹ Uranium Mines and Mills Regulations, S.O.R./2000-206, s. 2(1)(2).

¹²⁰ *Ibid.*, s. 8(a).

¹²¹ S.C. 1992, c. 37, as amended by S.C. 2003, c. 9.

¹²² *Friends of the Oldman River v. Canada*, [1992] 1 S.C.R. 3, 71. This decision interpreted the former federal *Environmental Assessment and Review Process Guidelines Order* (“*EARPGO*”) that pre-dated the enactment and coming into force of *CEAA* in 1995. *CEAA* now uses the term “environmental assessment” (“*EA*”) to mean an assessment of the

The purposes of *CEAA* are to: (1) ensure that projects are considered in a careful and precautionary manner before federal authorities, called responsible authorities under the law, take action in connection with those projects, so as to ensure that such projects do not cause significant adverse environmental effects, (2) encourage responsible authorities to take actions that promote sustainable development and consequently achieve or maintain a healthy environment and economy, (3) ensure that responsible authorities carry out their responsibilities with a view to eliminating unnecessary duplication in the environmental assessment (“EA”) process, (4) ensure that projects that are carried out in Canada or on federal lands do not cause significant adverse environmental effects outside the jurisdictions in which the projects are carried out, and (5) ensure that there is an opportunity for timely and meaningful public participation throughout the EA process.¹²³

CEAA defines a number of terms including environment,¹²⁴ environmental effect,¹²⁵ mitigation,¹²⁶ project,¹²⁷ proponent,¹²⁸ responsible authority,¹²⁹ and sustainable development.¹³⁰

CEAA does not authorize the Agency or DOE to issue a **licence** under the Act before a project may proceed.

However, where the Act does apply (discussed below), it requires that an environmental **assessment** be conducted by a responsible authority who determines the scope of the EA and is responsible for the early stages of the process. This includes responsibility for the (1) comprehensive study process for major projects likely to have significant adverse environmental effects, and (2) screening process for those projects likely to have routine or low impacts.¹³¹ If, after screening, more investigation is necessary or if public concern warrants a public review, the responsible authority must refer the project to the federal minister of the environment who then refers the project to mediation, or a review and hearing by an expert panel. Referrals, where necessary, also can be made to a joint federal-provincial expert panel.¹³² Under *CEAA* the responsible authority, or ultimately the federal cabinet, may still approve under other federal

environmental effects of a project conducted in accordance with the requirements of the Act and regulations. S.C. 1992, c. 37, s. 2(1), as am.

¹²³ S.C. 1992, c. 37, s. 4, as am.

¹²⁴ S.C. 1992, c. 37, s. 2(1) (air, land, water; organic and inorganic matter and living organisms; interacting natural systems).

¹²⁵ *Ibid.* (environmental change, including health and socio-economic impacts, caused by project).

¹²⁶ *Ibid.* (elimination, reduction, or control of adverse environmental effects of project).

¹²⁷ *Ibid.* (means physical work including decommissioning and abandonment, and physical activity as defined in the regulations).

¹²⁸ *Ibid.* (person, body, or federal authority that proposes project).

¹²⁹ *Ibid.* (federal authority required to ensure EA of project conducted).

¹³⁰ *Ibid.* (development that meets the needs of present generation without compromising ability of future generations to meet their own needs).

¹³¹ *Ibid.*, ss. 15-20 (factors that must be considered in a screening level assessment, comprehensive study, mediation, or assessment by a review panel of a project include environmental, including cumulative environmental, effects; significance of those effects; public comments; mitigation measures). *Ibid.*, s. 16(1)(a)-(d). Factors that must be considered in a comprehensive study include in addition to the above the purpose of the project, alternative means of carrying out the project, need for follow-up monitoring, impact of project on capacity of renewable resources to meet needs of present and future generations. *Ibid.*, s. 16(2). Matters that may be considered in a screening or comprehensive study include need for the project, and technically and economically feasible alternatives to the project. *Ibid.*, s. 16(1)(e). But see *Friends of the West Country Association v. Canada (Minister of Fisheries and Oceans)* (1997), 25 C.E.L.R. (N.S.) 145 (Fed. T.D.), *aff’d* (1997), 25 C.E.L.R. (N.S.) 230 (Fed. C.A.) (screening EA reports essential statutory preliminary steps required by *CEAA* prior to issuance of approvals under other federal laws, and deficiencies in such reports may be subject to judicial review).

¹³² S.C. 1992, c. 37, s. 29 (enabling referral of matter by minister to a mediator or review panel), 40 (authorizing joint review panels). See also *Alberta Wilderness Association v. Canada (Minister of Fisheries and Oceans)*, [1999] 1 F.C. 483 (Fed. C.A.) (review panel report is essential statutory preliminary step required by *CEAA* prior to issuance of approvals under other federal laws, and deficiencies in such reports may be subject to judicial review).

law any project found under the *CEAA* EA process likely to have “significant adverse environmental effects which can be justified in the circumstances.”¹³³

CEAA authorizes **monitoring** in the form of a follow-up program for any project that, following the completion of the EA process, is approved under other federal law.¹³⁴

The Act imposes administrative¹³⁵ and civil¹³⁶ **liability** for non-compliance with the Act or regulations. In terms of **emergency response** authority, *CEAA* exempts proponents from having to conduct an EA where the project is to be carried out in response to an emergency and carrying out the project forthwith is in the interest of preventing damage to property, environment, public health or safety.¹³⁷

CEAA is silent on **financial** instruments or measures.

In terms of the **application** of the Act, *CEAA* requires that an EA be conducted where a responsible authority under the statute: (1) acts as the proponent of a project, (2) pays for the project or provides financial assistance, (3) disposes of federal land by sale, lease, or other means to enable the project to proceed, or (4) exercises a prescribed regulatory duty such as issuing a permit, licence, or approval for the project under another law.¹³⁸ As noted above, projects are defined under *CEAA* as “physical works” or “physical activities.”¹³⁹ Physical works are subject to *CEAA* unless exempted.¹⁴⁰ Physical activities are not subject to *CEAA* unless they are designated.¹⁴¹ *Comprehensive Study List Regulations* under *CEAA* determine which types of mining projects will be subject to maximum EA requirements.¹⁴² Finally, *Law*

¹³³ S.C. 1992, c. 37, s. 37. But see *Alberta Wilderness Association v. Canada (Minister of Fisheries and Oceans)*, [1999] 1 F.C. 483 (Fed. C.A.) (responsible authority constrained by panel report in that only authorized to make final decision whether environmental effects of Cheviot coal mine project significant and, if significant, whether justifiable in circumstances, once report meets *CEAA* assessment requirements). See also *Alberta Wilderness Association v. Cardinal River Coals Ltd.* (1999), 30 C.E.L.R. (N.S.) 177 (F.C.T.D.) (responsible authority approval to construct open pit mine quashed on basis that joint federal-provincial review panel breached duty to obtain all available information about likely forestry and mining in vicinity of project, to consider this information with respect to cumulative effects, to reach conclusions and make recommendations about this factor, or to consider environmental effects of alternative means of carrying out project; furthermore permanent dumping of huge volumes of waste rock on migratory bird habitat that would have been permitted by federal authorizations issued under *Fisheries Act* by responsible authority for project, violated migratory bird regulations, as millions of tonnes of waste rock deposited into creek beds constituted threat to preservation of migratory birds that nest in area). But see further *Pembina Institute for Appropriate Development v. Canada (Minister of Fisheries and Oceans)*, [2005] F.C.J. No. 1379 (F.C.) (application for judicial review of responsible authority authorization under *Fisheries Act* of modified and reduced scale version of Cheviot mine project dismissed in part on basis that no duty to redo, reopen, or prepare new EA under *CEAA* before issuance of authorization where modification – a haul road on top of a causeway – not materially different from causeway that was subject to original EA).

¹³⁴ S.C. 1992, c. 37, s. 38(1) (discretionary where decision made under s. 20(1(a) of *CEAA*), 38(2) (mandatory where decision made under s. 37(1(a) of *CEAA*).

¹³⁵ *Ibid.*, s. 50 (ministerial orders).

¹³⁶ *Ibid.*, s. 51 (injunctions for non-compliance with section 50 orders).

¹³⁷ *Ibid.*, s. 7(1)(c).

¹³⁸ *Ibid.*, s. 5.

¹³⁹ *Ibid.*, s. 2(1).

¹⁴⁰ *Ibid.*, ss. 5, 7. A physical work includes any proposed construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work. *Ibid.*, s. 2(1). A physical work may be exempted from the application of *CEAA* by the *Exclusion List Regulations*, S.O.R./94-639, or if the project is to be carried out in response to an emergency. Otherwise, the physical work is a project subject to *CEAA*.

¹⁴¹ S.C. 1992, c. 37, s. 59(b). A physical activity includes any activity that does not relate to a prescribed physical work designated under s. 59(b). Physical activities designated by the *Inclusion List Regulations*, S.O.R./94-637, are projects under *CEAA*.

¹⁴² *Comprehensive Study List Regulations*. S.O.R./94-638. These regulations designate projects by category that are likely to have significant adverse environmental effects and for which the most rigorous environmental study will be required. Several types of major mining and mineral processing projects are identified under these regulations. *Ibid.*, ss. 16-18. The

List Regulations, contain provisions from numerous federal statutes that will trigger a requirement to perform an EA.¹⁴³ Several provisions of the *FA* and the *NSCA*, for example, are listed in these regulations. Thus, any project that requires federal authorization to alter fish habitat or that requires modifications following the submission of plans and specifications in connection therewith under the *FA*, or that requires a licence under the *NSCA*, subjects the project to EA requirements under *CEAA*.¹⁴⁴ Accordingly, these triggers can and often do result in the application of *CEAA* to operating, contaminated, or abandoned mine sites. (In practice, this may be unlikely in the case of the *FA* for abandoned sites because fish habitat at mining sites may have ceased to exist by the time cleanup might be due to occur. Indeed, if fish habitat had existed at a site, prior authorizations under the *FA* likely would have allowed its destruction to accommodate the mining activity). Finally, transitional authority under *CEAA* from the old *EARPGO* may in certain circumstances, have the effect of exempting some mining activities from the requirements of *CEAA*.¹⁴⁵

CEAA and regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, *CEAA* authorizes public involvement in the EA process pursuant to a variety of purposes,¹⁴⁶ stages,¹⁴⁷ and methods.¹⁴⁸

provisions apply to the proposed establishment, expansion, construction, decommissioning, or abandonment of metal, gold, potash, and other categories of mines, as well as metal mills. In addition, uranium mines and mills are subject to this regulation. *Ibid.*, s. 19.

¹⁴³ *Law List Regulations*, S.O.R./94-636. See also Canadian Nuclear Safety Commission, *Environmental Assessment: Deloro Mine Site Remediation* (Ottawa: CNSC, 2004), online: Canadian Nuclear Safety Commission http://www.nuclearsafety.gc.ca/eng/assessments/EA_36265.cfm (last updated: 16 November 2004) (noting that abandoned mine clean-up project made subject to *CEAA* as a result of law list designation of *NSCA*).

¹⁴⁴ *Ibid.*, s. 6 (*FA* – ss. 35(2), 37(2)), 12.1 (*NSCA* – s. 24).

¹⁴⁵ S.C. 1992, c. 37, s. 74 (continuing authority of *EARPGO* for projects commenced before coming into force of *CEAA* and consequent non-application of *CEAA* to such projects). See *Inter-Church Uranium Committee Educational Co-Operative v. Canada (Atomic Energy Control Board)* (2004), 7 C.E.L.R. (3d) 161 (Fed. C.A.) (purpose and effect of section 74 to avoid duplication of EA process for uranium mining tailings management project).

¹⁴⁶ S.C. 1992, c. 37, ss. 4(1)(b.3), (d) (purposes include promoting communication and cooperation between responsible authorities and aboriginal peoples with respect to EA, and ensuring opportunities for timely and meaningful public participation throughout EA process).

¹⁴⁷ *Ibid.*, 16(1), 18-20 (screening stage - responsible authority must consider public comments received; discretion of responsible authority on whether to include public participation in screening of project now shared with new federal EA coordinator), 21 (comprehensive study stage – responsible authority must ensure public consultation occurs with respect to EA scope and must report to environment minister on public concerns identified with project) 34 (stage where project referred to review panel for hearing – panel must hold hearings in manner that offers public opportunity to participate). See also Canadian Nuclear Safety Commission, *Decision on Environmental Assessment Guidelines for Ontario Ministry of the Environment's Deloro Mine Site Cleanup Project* (Ottawa: CNSC, 2003), online: Canadian Nuclear Safety Commission

< http://www.nuclearsafety.gc.ca/eng/media/news/news_release.cfm?news_release_id=83 > (last updated: 19 March 2004) (noting role of public in screening level EA on abandoned mine site cleanup project).

¹⁴⁸ *Ibid.*, ss. 55 (establishment of public registry accessible by internet to ensure access to information on particular EAs), 58(1.1) (funding to facilitate public participation in mediation and review panel proceedings).

3. FEDERAL LAWS APPLICABLE IN NORTHERN CANADA ONLY

a. *Resource Management and Mining Laws*

There are numerous federal laws applicable to natural resource management and mining activity in northern Canada (north of the 60th parallel). The existence of several pieces of legislation may give the appearance of either fragmentation of authority or opportunity for innovation in different geographic areas of northern Canada. The area also is in transition in that devolution of legal authority between the federal and Yukon governments came into effect in 2003, and similar arrangements are under discussion between the federal and Northwest Territories governments. However, in practice federal legislation in northern Canada is the overall responsibility of one federal department (Department of Indian Affairs and Northern Development “DIAND”) and frequently the legislation is drafted with very similar provisions regardless of whether the law relates to Nunavut, the MacKenzie Valley, the Yukon, or the Northwest Territories. Federal natural resource management statutes applicable to northern Canada include the:

- *Territorial Lands Act*,¹⁴⁹
- *Northwest Territories Waters Act*,¹⁵⁰
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act*,¹⁵¹
- *Nunavut Land Claims Agreement Act*,¹⁵²
- *MacKenzie Valley Resource Management Act*,¹⁵³ and
- *Yukon Surface Rights Board Act*.¹⁵⁴

There are a number of provisions contained in more than one of the above identified laws that may apply to operating, contaminated, and abandoned mine sites. A more detailed examination of the above federal laws follows.

i. **Territorial Lands Act**

The *Territorial Lands Act* (“TLA”),¹⁵⁵ administered by DIAND, governs the administration, and management of land use and the distribution of, and royalties with respect to, mineral rights in the Northwest Territories and Nunavut.

The Act defines land as including mines and minerals.¹⁵⁶ Regulations promulgated under the *TLA* in

¹⁴⁹ R.S.C. 1985, c. T-7. The Act authorizes the federal cabinet to “make regulations respecting the protection, control and use of the surface of territorial lands.” *Ibid.*, s. 23(j). Under this statutory enabling authority, the federal government has promulgated the *Territorial Land Use Regulations*, C.R.C., c. 1254, which require applicants for permits under the Act to develop and obtain approval for land use plans. These plans could be vehicles for volunteers seeking to abate, remediate, or reclaim abandoned mine lands.

¹⁵⁰ S.C. 1992, c. 39.

¹⁵¹ S.C. 2002, c. 10.

¹⁵² S.C. 1993, c. 29.

¹⁵³ S.C. 1998, c. 25.

¹⁵⁴ S.C. 1994, c. 43.

¹⁵⁵ R.S.C. 1985, c. T-7.

¹⁵⁶ *Ibid.*, s. 2.

respect of mining¹⁵⁷ define several additional terms including mine,¹⁵⁸ mineral,¹⁵⁹ owner,¹⁶⁰ processing,¹⁶¹ and qualifying environmental trust.¹⁶²

TLA mining regulations authorize the issuance of **licences**, permits, claims, and leases to facilitate prospecting and mining activity. However, the holder of a recorded claim cannot mine, mill, or create a tailings or waste disposal area until granted a surface lease or grant.¹⁶³ *TLA* land use regulations also impose **permit** requirements on a variety of earth disturbing activity that would appear to include mining activity.¹⁶⁴

In terms of **assessment** activity, *TLA* land use regulations require a federal mines engineer before issuing a permit, to order an inspection of the subject lands and require the permit applicant to provide such information and data concerning the proposed land use as will enable the engineer to evaluate quantitative and qualitative effects of the proposed land use operation.¹⁶⁵ Such information may result in the engineer imposing a variety of terms and conditions to the permit's issuance.¹⁶⁶ *TLA* mining regulations authorize the Minister to require the holder of a recorded claim, the owner, operator, lessee, or mine manager who discharges from a mining operation any substance that the Minister is of the opinion is or is likely to be harmful to humans, animals, or vegetation to treat, limit, or cease the discharge, and otherwise comply

¹⁵⁷ *Canada Mining Regulations*, C.R.C., c. 1516. These regulations govern the administration and disposition of mineral rights in the Northwest Territories and Nunavut. "Housekeeping" amendments to these regulations are under development. Department of Indian Affairs and Northern Development, *Listing of Planned Regulatory Initiatives – Indian and Northern Affairs Canada: Fiscal Year 2005-2006* (Ottawa: DIAND, 2005), online: Department of Indian Affairs and Northern Development < http://www.ainc-inac.gc.ca/pr/leg/reg/plnreg_e.html > (last updated: 12 August 2005).

¹⁵⁸ *Canada Mining Regulations*, C.R.C., c. 1516, s. 2(1) (work or undertaking in which minerals are removed from the earth below or above ground). Proposed amendments would change "removed" to "extracted and processed." See Department of Indian Affairs and Northern Development, *Canada Mining Regulations (Amendments) – Draft* (Ottawa: DIAND, May 2005).

¹⁵⁹ *Canada Mining Regulations*, C.R.C., c. 1516, s. 2(1) (precious and base metals that can be mined but not coal, petroleum, sand, gravel, shale, stone, etc.). Proposed amendments would refer simply to any naturally occurring inorganic substance found on or under ground but not stone, shale, sand, gravel, etc.). See Department of Indian Affairs and Northern Development, *Canada Mining Regulations (Amendments) – Draft* (Ottawa: DIAND, May 2005). There also currently are *Territorial Coal Regulations*, C.R.C., c. 1522, as am. It is not clear whether they will continue to be necessary after the mining regulations are amended.

¹⁶⁰ *Canada Mining Regulations*, C.R.C., c. 1516, s. 2(1) (in respect of a claim, lease, mine, mining property, or abandoned mining work or person with a beneficial interest therein). Proposed amendments would remove the reference to "abandoned mining work." See Department of Indian Affairs and Northern Development, *Canada Mining Regulations (Amendments) – Draft* (Ottawa: DIAND, May 2005).

¹⁶¹ *Canada Mining Regulations*, C.R.C., c. 1516, s. 2(1) (crushing, grinding, concentrating, milling, smelting, leaching, refining, etc. performed to recover minerals from ore).

¹⁶² *Canada Mining Regulations*, C.R.C., c. 1516, s. 2(1) (as defined in section 248(1) of *Income Tax Act*). Qualifying environmental trust is defined in the *Income Tax Act* to mean a trust maintained for the sole purpose of funding mine site reclamation or related tasks, where the trust may become required under the terms of a contract or as a matter of law. *Income Tax Act*, R.S.C. 1985, c. 1 (5th Supp.), s. 248(1). Proposed amendments would repeal this definition. However, the concept of a mine reclamation trust would be maintained through other amendments to the regulations. See Department of Indian Affairs and Northern Development, *Canada Mining Regulations (Amendments) – Draft* (Ottawa: DIAND, May 2005).

¹⁶³ *Canada Mining Regulations*, C.R.C., c. 1516, s. 27.

¹⁶⁴ *Territorial Land Use Regulations*, C.R.C., c. 1524, ss. 8 (class A permit), 9 (class B permit). The differentiation in classes of permit is based on the degree of earth disturbance.

¹⁶⁵ *Ibid.*, s. 23.

¹⁶⁶ *Ibid.*, s. 31 (e.g. control of use, storage, handling, and disposal of chemical or toxic material to be used in land use operation; protection of wildlife and fisheries habitat, or other areas of ecological value; other measures necessary to protect biological or physical characteristics of land management zone).

with all other applicable legislation, regulations, or DIAND mine engineer terms and conditions of approval.¹⁶⁷

The *TLA* and regulations are silent on **monitoring**. However, the land use regulations authorize the submission of reports on the progress of the land use operation.¹⁶⁸ That authority could be interpreted as a basis for imposing some type of monitoring obligation. The regulations also authorize inspection activity to ensure compliance with the Act, regulations, and permits.¹⁶⁹

The *TLA* and regulations impose quasi-criminal,¹⁷⁰ administrative,¹⁷¹ and civil¹⁷² **liability** for non-compliance.

The Act and regulations are silent on **emergency response** authority available to DIAND. However, the authority for federal mines engineers to undertake remedial measures when there is non-compliance with a permit term or condition¹⁷³ arguably is capable of being invoked in circumstances of an emergency.

In terms of **financial** instruments or measures, *TLA* land use regulations authorize a federal mines engineer to impose a security deposit, not to exceed \$100,000, as a permit condition.¹⁷⁴ The regulations also set out the form, return, default, and cost recovery provisions in respect of the security.¹⁷⁵

In terms of **application** of the *TLA*, the Act and regulations apply to mining activity in the Northwest Territories and Nunavut.¹⁷⁶

TLA and regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *TLA* authorizes opportunities for notice and comment on orders setting out territorial lands as land management zones and on draft regulations.¹⁷⁷

ii. Northwest Territories Waters Act

The *Northwest Territories Waters Act* (“*NTWA*”),¹⁷⁸ administered by DIAND, controls water use and waste disposal into water in the Northwest Territories.

¹⁶⁷ *Canada Mining Regulations*, C.R.C., c. 1516, s. 73(1)(2).

¹⁶⁸ *Territorial Land Use Regulations*, C.R.C., c. 1524, s. 32.

¹⁶⁹ *Ibid.*, ss. 38-40. See also *Canada Mining Regulations*, C.R.C., c. 1516, s. 47 (inspection by mines engineer).

¹⁷⁰ R.S.C. 1985, c. T-7, s. 30(1).

¹⁷¹ *Territorial Land Use Regulations*, C.R.C., c. 1524, ss. 41 (suspension of land use operation by inspector), 42 (cancellation of permit by federal engineer).

¹⁷² *Ibid.*, ss. 36(7) (ministerial costs of restoring lands to former condition where security insufficient constitute debt due Crown), 41(5) (costs of any action taken by engineer to correct failure of permittee to comply with permit terms and conditions constitute debt due Crown).

¹⁷³ *Ibid.*, s. 41.

¹⁷⁴ *Ibid.*, s. 36(1). The regulations also impose obligations on a permit holder to restore an area to its pre-land use operation condition after work is completed. *Ibid.*, s. 18.

¹⁷⁵ *Ibid.*, ss. 36(3) (form - promissory note, certified cheque, bearer bonds guaranteed by Government of Canada, or combination thereof), 36(4), 37 (return when conditions satisfied), 36(5) (default – where land use operation results in damage to lands), 36(7) (cost recovery by Minister where security insufficient to cover costs of restoring lands to former condition).

¹⁷⁶ R.S.C. 1985, c. T-7, s. 3.

¹⁷⁷ *Ibid.*, s. 24.

¹⁷⁸ S.C. 1992, c. 39.

The Act defines several terms including use,¹⁷⁹ waste,¹⁸⁰ and waters.¹⁸¹

In general, deposits of wastes into certain northern waters require a **licence** from the Northwest Territories Water Board ("NTWB") established under the *NTWA*.¹⁸² The NTWB cannot include conditions in a licence relating to the deposit of waste in waters that would violate regulations under the Act.¹⁸³ In addition, the NTWB cannot issue a licence with conditions that are less stringent than the requirements contained in regulations under the *Canada Water Act* or the *Fisheries Act* that also may be applicable to those waters.¹⁸⁴ The effect of these provisions in the context of mining activity is to incorporate requirements of the new *Metal Mining Effluent Regulations*¹⁸⁵ under the *Fisheries Act* into licences issued under the *NTWA* as well as several other of the above noted natural resource laws.¹⁸⁶ These requirements also could capture voluntary abandoned mine land abatement, remediation, and reclamation projects.

There also is authority under the *NTWA* to exempt the deposit of waste from requiring a licence if the waste deposited:

1. has no potential for significant adverse environmental effects;
2. would not interfere with existing rights of other water users or waste depositors; and
3. satisfies criteria set out in the regulations in respect of a mining and milling undertaking.¹⁸⁷

It is unsettled law whether a voluntary abandoned mine land abatement, remediation, or reclamation project can be characterized as a "mining or milling undertaking" in the absence of specific statutory or regulatory definitions clarifying the matter. Given the broad generality of the language contained in the Act, it is arguable that the jurisdiction exists to apply its licensing requirements to such projects, or to exempt them from the requirements if they meet the exemption criteria. However, even if the language were interpreted narrowly, and such projects were exempt from licensing requirements under the *NTWA*, the provisions of laws such as the *Fisheries Act* and possibly its regulations could still apply directly to such activities.

In terms of **assessment** activity under this Act, the *NTWA* requires licence applicants to provide the NTWB with such information and studies concerning the use of waters or deposit of waste proposed by

¹⁷⁹ *Ibid.*, s. 2 (direct and indirect use, including diversion, obstruction, alteration of water flow or river bank or bed alteration).

¹⁸⁰ *Ibid.* (any substance that may degrade or alter water making it detrimental to use by humans, animals, fish, or plants, including quantities or concentrations of substances identified in the regulations).

¹⁸¹ *Ibid.* (inland water, whether liquid or frozen, on or below land surface).

¹⁸² *Ibid.*, s. 9 (prohibiting deposit of waste in certain waters except in accordance with licence issued by Northwest Territories Water Board).

¹⁸³ *Ibid.*, s. 15(4).

¹⁸⁴ *Ibid.*, ss. 15(3)(5).

¹⁸⁵ S.O.R./2002-222.

¹⁸⁶ See e.g. *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10, s. 73 (to same effect). See also *Mackenzie Valley Resource Management Act*, S.C. 1998, c. 25, s. 60 (a board established for a settlement area has jurisdiction in respect of all uses of water and deposits of waste in the settlement area for which a licence is required under the *Northwest Territories Waters Act*).

¹⁸⁷ *Northwest Territories Waters Regulations*, S.O.R./93-303, s. 5(1)(a)-(c) and Schedule V (licensing criteria for mining and milling undertakings).

the applicant as will enable the NTWB to evaluate any qualitative and quantitative effects on waters.¹⁸⁸ The regulations also set out additional information requirements.¹⁸⁹

The *NTWA* authorizes **monitoring** activity as a condition of licence approval.¹⁹⁰ The Act authorizes the Minister to appoint inspectors to ensure compliance with the Act, regulations, or a licence.¹⁹¹

The *NTWA* imposes quasi-criminal,¹⁹² administrative,¹⁹³ and civil¹⁹⁴ **liability** for non-compliance with the Act, regulations, or licences.

The *NTWA* is not explicit about **emergency response** authority available under the Act. However, the authority for inspectors or the Minister to undertake remedial measures when there is non-compliance with a licence condition or regulatory provision¹⁹⁵ arguably is capable of being invoked in circumstances of an emergency.

In terms of **financial** instruments or measures, the Act authorizes the NTWB to require an applicant for a licence to furnish and maintain security with the Minister.¹⁹⁶ The regulations set out (1) how the amount of the security is to be determined, and (2) acceptable forms of security.¹⁹⁷

In terms of the **application** of the *NTWA* to mining activity, the Act applies to mining and milling undertakings that will require the use of water or that will deposit waste.¹⁹⁸

¹⁸⁸ S.C. 1992, c. 39, s. 16(2).

¹⁸⁹ *Northwest Territories Waters Regulations*, S.O.R./93-303, s. 6 (where water to be used for mining and milling undertaking, description of undertaking and all wastes produced and chemicals used in operation; where undertaking involves deposit of waste location, rate, timing, frequency, and duration of deposit, constituents of deposit and concentration, treatment, assessment of effects on waters where deposit to occur), Schedule III (quantity of water involved, waste deposited, persons affected, predicted environmental impacts of undertaking and proposed mitigation, studies undertaken to date).

¹⁹⁰ S.C. 1992, c. 39, s. 15(1)(d) (NTWB may include as condition of licence issuance, monitoring programs to be undertaken by licence holder).

¹⁹¹ *Ibid.*, ss. 35-36.

¹⁹² *Ibid.*, ss. 40-41.

¹⁹³ *Ibid.*, s. 37 (inspector may direct licensee violating licence condition or person violating regulations to take remedial measures).

¹⁹⁴ *Ibid.*, ss. 30 (any person adversely affected by issuance of licence or use of water or deposit of waste authorized by the regulations entitled to be compensated by licensee and may sue to recover such compensation in court of competent jurisdiction), 37(3)(4), 39(1)(2) (costs of remedial measures undertaken by inspector, or by Minister in context of improperly closed or abandoned work beyond amount, if any, available as security constituting debt due Crown), 43 (injunction by Attorney General of Canada for conduct constituting violation of Act).

¹⁹⁵ *Ibid.*, ss. 37(3), 39(1).

¹⁹⁶ *Ibid.*, s. 17(1). The security may be used to (1) compensate persons adversely affected by the issuance of a licence or the use of water or deposit of waste authorized by the regulations, or (2) reimburse in whole or in part the minister for costs incurred with respect to directing or undertaking remedial measures. *Ibid.*, s. 17(2). A licence applicant also must satisfy the NTWB that the financial responsibility of the applicant is adequate, taking into account past performance, to ensure satisfactory maintenance and restoration of site in event of future closing or abandonment of undertaking. *Ibid.*, s. 14(4)(d).

¹⁹⁷ *Northwest Territories Waters Regulations*, S.O.R./93-303, s. 12(1)(2) (in setting financial security NTWB must require that costs of abandonment, site restoration, and on-going post-abandonment measures be covered; factors NTWB must consider include ability of licence applicant to pay such costs, and past performance of applicant in respect of other licences), 12(3) (promissory note guaranteed by Canadian bank, certified cheque, performance bond, irrevocable letter of credit, cash).

¹⁹⁸ *Ibid.*, ss. 2, 6(2)(e)(f)(h) and Schedule II (classifying mining and milling undertakings as defined under the *Canada Mining Regulations* or the *Territorial Coal Regulations* of the *Territorial Lands Act*).

Although the *NTWA* and regulations recognize the likelihood of eventual closing or abandonment of mining and milling undertakings, they do not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, in addition to opportunities for notice and comment on draft regulations, the Act authorizes optional or mandatory public hearings by the NTWB before issuing, amending, or canceling certain categories of licence.¹⁹⁹

iii. Nunavut Waters and Nunavut Surface Rights Tribunal Act

The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (“*NWNSRTA*”),²⁰⁰ administered by DIAND, controls water use and deposit of waste into waters as well land access in Nunavut.

The Act defines a number of terms including mineral right,²⁰¹ minerals,²⁰² and waste.²⁰³

The *NWNSRTA* requires that persons seeking to deposit waste in Nunavut waters first obtain a **licence** from the Nunavut Water Board (“NWB”) established under the Act.²⁰⁴ The licensing regime is reliant, in part, on the requirements of regulations promulgated under the *NTWA*²⁰⁵ discussed above.

In terms of **assessment** activity, the *NWNSRTA* authorizes the NWB to develop guidelines setting out the information an applicant must submit in support of an application for a water licence.²⁰⁶

The NWB may impose (1) obligations on applicants to submit information on proposed **monitoring**, and (2) monitoring obligations as conditions of issuing a licence.²⁰⁷ The Act also authorizes inspection activity to ensure compliance with the Act, regulations, or licence conditions.²⁰⁸

The Act imposes quasi-criminal,²⁰⁹ administrative,²¹⁰ and civil²¹¹ **liability** for non-compliance with the Act, regulations, or licences.

¹⁹⁹ S.C. 1992, c. 39, ss. 21(1) (optional hearing), 21(2) (mandatory hearing). An otherwise mandatory hearing can be dispensed with where no person expresses an intention to appear and make representations at the hearing. *Ibid.*, s. 21(3).

²⁰⁰ S.C. 2002, c. 10.

²⁰¹ *Ibid.*, s. 2(1) (right to explore for, develop, produce, or transport minerals other than specified substances such as sand, gravel, or stone).

²⁰² *Ibid.* (precious and base metals and coal but not water).

²⁰³ *Ibid.*, s. 4 (essentially same definition as that contained in section 2 of *NTWA*).

²⁰⁴ *Ibid.*, ss. 14 (establishment of NWB), 42-57 (licensing regime).

²⁰⁵ *Ibid.*, 42(3) (NWB may not refuse to issue licence merely because regulations authorize deposit of waste without licence), 57 (NWB may not issue licence unless applicant satisfies NWB that any waste produced will be treated and disposed in manner that meets regulations), 72 (licence conditions on deposit of waste must be at least as stringent as effluent standards prescribed for those waters by regulations, if any), 173 (regulations under *NTWA* are binding on NWB and to be applied by board until regulations are promulgated under the *NWNSRTA*). Currently, there are no regulations promulgated under the *NWNSRTA*, though they are under development. See Department of Indian Affairs and Northern Development, *Listing of Planned Regulatory Initiatives – Indian and Northern Affairs Canada: Fiscal Year 2005-2006* (Ottawa: DIAND, 2005), online: Department of Indian Affairs and Northern Development < http://www.ainc-inac.gc.ca/pr/leg/reg/plnreg_e.html > (last updated: 12 August 2005).

²⁰⁶ S.C. 2002, c. 10, s. 48 (e.g. anticipated qualitative and quantitative effects of waste deposit on drainage basin and other users, mitigation and compensation measures, etc.). See also Department of Indian Affairs and Northern Development, *Guidebook on Exploration and Mining on Crown Lands in Nunavut* (Ottawa: DIAND, 2005), at 82 (information in support of water licence).

²⁰⁷ S.C. 2002, c. 10, ss. 48(3)(e) (information on program licence applicant proposes to undertake to monitor impact on waters of water use or deposit of waste), 70(1)(c) (discretionary authority to NWB to require monitoring programs to be undertaken as condition of licence issuance).

²⁰⁸ *Ibid.*, ss. 85-86.

The *NWNSRTA* authorizes **emergency response** activity in a number of contexts.²¹²

In terms of **financial** instruments or measures, the *NWNSRTA* authorizes the NWB to impose financial security obligations as a condition of licence issuance “in the form, of the nature, subject to such terms and conditions and in an amount prescribed by, or determined in accordance with, the regulations or that is satisfactory to the Minister.”²¹³ The Act treats as a debt due the Crown and recoverable in a court of competent jurisdiction the costs incurred by the federal government in taking measures to prevent or remedy adverse effects of waste deposits in contravention of the Act, regulations, or a licence, including where the amount held in security by the Minister is inadequate for these purposes.²¹⁴

In terms of the **application** of the *NWNSRTA* to mining activity, because the Act is reliant on regulations promulgated under the *NTWA*, it also applies to mining and milling undertakings that will require the use of water or that will deposit waste.²¹⁵

Although the *NWNSRTA*²¹⁶ and regulations (under the *NTWA*) recognize the likelihood of eventual closing or abandonment of mining and milling undertakings, they do not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *NWNSRTA* authorizes the NWB to conduct public hearings before issuing a licence under the Act and, at such proceedings to grant “full standing” to, and take into account the representations of, certain Indian Bands or other aboriginal organizations identified specifically in the statute.²¹⁷ However, the Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

²⁰⁹ *Ibid.*, ss. 90-91.

²¹⁰ *Ibid.*, s. 87 (inspector may direct person to undertake remedial measures where waste deposited without licence – where one is required – or in contravention of licence).

²¹¹ *Ibid.*, ss. 87(4)(5) (costs incurred by Crown in respect of remedial measures undertaken that are not recoverable from financial security constitute debt due Crown), 89(1)(2) (costs incurred by Crown in respect of preventive or remedial measures undertaken in respect of closure or abandonment of works in contravention of licence in relation to use of waters or deposit of waste, which are not recoverable from financial security, constitute debt due Crown).

²¹² *Ibid.*, ss. 87(1)(b) (inspector may undertake remedial measures where deposit of waste are causing or may cause danger to persons, property or environment), 89(1)(a)(b) (minister may undertake preventive or remedial measures where current or past operation, closure, or abandonment of works in respect of deposit of waste may cause danger to persons, property or environment).

²¹³ *Ibid.*, s. 76(1). See also *Canzinc Ltd. v. Canada (Minister of Indian Affairs and Northern Development)*, [2005] 1 F.C. 454 (F.C.) (NWB, not Minister, has responsibility under section 76(1) to fix amount of security; therefore, security amount of \$17.6 million fixed by NWB as condition of licence to mining company not subject to further review, consideration, or negotiation by Minister with licensee particularly once Minister approves licence).

²¹⁴ S.C. 2002, c. 10, ss. 87(4)(5), 89(1)(2).

²¹⁵ *Northwest Territories Waters Regulations*, S.O.R./93-303, ss. 2, 6(2)(e)(f)(h) and Schedule II (classifying mining and milling undertakings as defined under the *Canada Mining Regulations* or the *Territorial Coal Regulations* of the *Territorial Lands Act*).

²¹⁶ S.C. 2002, c. 10, s. 89 (closed or abandoned works).

²¹⁷ *Ibid.*, s. 50.

iv. Nunavut Land Claims Agreement Act

The *Nunavut Land Claims Agreement Act* (“*NLCAA*”),²¹⁸ administered by DIAND, implements the 1993 agreement between the Inuit of the Nunavut Settlement Area (“NSA”) and the Government of Canada (“*NLCA*”). Mining projects in this area may be subject to the EA requirements of both the *NLCA* and *CEAA*. The Nunavut Impact Review Board (“NIRB”) is responsible for conducting EAs for the majority of projects in the NSA in accordance with the *NLCA*. Operationally, the NIRB and responsible federal government departments harmonize their activities to ensure one process and one decision under both *NLCA* and *CEAA*. In general, the information-gathering and decision-making process is similar to that described for *CEAA* above.²¹⁹

v. Mackenzie Valley Resource Management Act

The *Mackenzie Valley Resource Management Act* (“*MVRMA*”),²²⁰ the overall responsibility of DIAND, is administered by several boards established under the Act for this portion of the Northwest Territories. These boards govern land use planning, land and water regulation, and EA reviews in the Mackenzie Valley claims area as part of an integrated co-management regime for lands and waters in the Mackenzie Valley. The Act arises from and implements obligations under comprehensive land claims agreements between the Government of Canada and the Gwich’in and the Sahtu Dene and Metis, respectively,²²¹ and the comprehensive land claim and self-government agreement between the Government of Canada, the Government of the Northwest Territories, and the Tlicho.²²²

Regulations promulgated under the Act define several terms including land use operation,²²³ and minerals.²²⁴

MVRMA authorizes the Mackenzie Valley Land and Water Board (“MVLWB”) to issue land use **permits** and water **licences** on land in unsettled land claims areas of the Mackenzie Valley.²²⁵

²¹⁸ S.C. 1993, c. 29.

²¹⁹ Department of Indian Affairs and Northern Development, *Guidebook on Exploration and Mining on Crown Lands in Nunavut* (Ottawa: DIAND, 2005), at 73-76 (EA process under *NLCA* when NIRB receives project proposal referred by wither Nunavut Planning Commission or another authority responsible for issuing permits; at screening stage, NIRB issues report to responsible minister and company setting out findings and recommendations; if project does not need to go further in the EA process then NIRB issues project certificate; if project goes onto to review panel stage, panel forwards report and recommendations to Minister of Environment and other responsible minister(s), with the latter making the final decision at which time NIRB issues project certificate).

²²⁰ S.C. 1998, c. 25, as am.

²²¹ *Ibid.* (summary).

²²² *Tlicho Land Claims and Self Government Act*, S.C. 2005, c. 1 (bringing into force the agreement of August 25, 2003).

²²³ *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, s. 1 (any use of land requiring a permit).

²²⁴ *Ibid.* (precious and base metals and coal).

²²⁵ S.C. 1998, c. 25, s. 102(1) (MVLWB has jurisdiction in respect of all uses of land or waters or deposits of waste in the Mackenzie Valley for which a permit is required under the Act or a licence is required under the *NTWA*). See also *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, ss. 4 (prohibition on carrying out certain activities without Type A permit), 5 (prohibition on carrying out certain activities without Type B permit), 18 (eligibility for permit). The MVLWB also has regional panels (Gwich’in, Sahtu, and Wekeezhii Boards).

In terms of **assessment** activity, the Act or regulations impose information obligations in the context of (1) land use permits,²²⁶ (2) water licences,²²⁷ and (3) environmental impact reviews.²²⁸

The *MVRMA* imposes **monitoring** obligations in the context of (1) land use permits,²²⁹ (2) water licences,²³⁰ (3) environmental impact reviews,²³¹ and (4) cumulative impacts.²³² The Act also imposes inspection authority to ensure compliance with the Act, regulations, and legal instruments (e.g. permits, licences, orders) issued thereunder.²³³

The *MVRMA* imposes quasi-criminal,²³⁴ administrative,²³⁵ and civil²³⁶ **liability** for non-compliance.

The Act is not explicit regarding the **emergency response** authority of government. However, the authority for inspectors to undertake preventive or remedial measures when there is non-compliance with a permit or licence condition²³⁷ arguably is capable of being invoked in circumstances of an emergency. In addition, *MVRMA* exempts a proposed development from the EA requirements of the Act when the development is to be carried out in response to an emergency in the interest of protecting property, the

²²⁶ *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, ss. 19, 21 (preliminary plan setting out existing lands, buildings, and other features; information board may require to evaluate quantitative and qualitative effects of proposed use). See also Mackenzie Valley Land and Water Board, *Guide to Completing Land Use Permit Applications* (Yellowknife: MVLWB, 2003) (noting need to describe environment and resource impacts on groundwater, surface water, land, vegetation, fauna; environmental management systems; socio-economic impacts; restoration plans; etc.).

²²⁷ S.C. 1998, c. 25, s. 102(1) (adoption of requirements in *NTWA*). See also Mackenzie Valley Land and Water Board, *Guide to Completing Water Licence Applications* (Yellowknife: MVLWB, 2003) (noting need to describe water use, waste disposal and treatment of substances to be released; environment and resource impacts on groundwater, surface water, land, vegetation, fauna; environmental management systems; etc.).

²²⁸ S.C. 1998, c. 25, Part 5, s. 116 (with some exceptions, exempts application of *CEAA* to Mackenzie Valley). Part 5, section 117 administered by Mackenzie Valley Environmental Impact Review Board ("MVEIRB") - established by section 112(1) of Act - imposes similar information-gathering obligations on proposals for development to that contained in *CEAA*. The Act also authorizes the MVEIRB to develop guidelines setting out greater particulars for information-generation. *Ibid.*, s. 120. See also Mackenzie Valley Environmental Impact Review Board, *Environmental Impact Assessment Guidelines* (Yellowknife: MVEIRB, 2004). The application of *MVRMA* Part 5 EA requirements to mining activities that pre-date the coming into force of the Act has been the subject of recent litigation. See *North American Tungsten Corporation v. Mackenzie Valley Land and Water Board*, [2003] 10 W.W.R. 257 (N.W.T.C.A.) (court of appeal quashing lower court ruling that had upheld board decision to apply EA requirements to mining operation where company seeking renewal of water licence first issued before *MVRMA* came into force).

²²⁹ *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, ss. 26 (general authority to require information as a licence condition for the purpose of protecting the biological and physical characteristics of lands), 28 (authority to require reporting for purpose of ascertaining progress of land use operation). See also Mackenzie Valley Land and Water Board, *Guide to Completing Land Use Permit Applications* (Yellowknife: MVLWB, 2003) at 4 (requirement as part of permit application to describe monitoring programs for all significant impacts).

²³⁰ S.C. 1998, c. 25, s. 102(1) (incorporating by reference *NTWA*, S.C. 1992, c. 39, [including s. 15(1)(d) – authority to include as condition of licence issuance, monitoring programs to be undertaken by licence holder]). See also Mackenzie Valley Land and Water Board, *Guide to Completing Water Licence Applications* (Yellowknife: MVLWB, 2003) at 4 (requirement as part of licence application to describe monitoring programs for all significant impacts).

²³¹ S.C. 1998, c. 25, ss. 111, 117(3) (environmental impact review must include consideration of need for follow-up program – defined as soundness of EA of development proposal and effectiveness of mitigation or remedial measures imposed as conditions of approval).

²³² S.C. 1998, c. 25, s. 146 (obligation on responsible federal government authority to monitor cumulative impact on environment of concurrent and sequential uses of land and water and deposits of waste in Mackenzie Valley).

²³³ S.C. 1998, c. 25, ss. 84-85.

²³⁴ *Ibid.*, ss. 92-93.

²³⁵ *Ibid.*, s. 86 (inspector's order to prevent, remedy, or mitigate adverse effects of permitted use of land).

²³⁶ *Ibid.*, 86(4) (reasonable costs incurred by Crown in taking preventive, mitigative, or remedial measures not taken by person subject to inspector's order constitute debt due Crown recoverable in court of competent jurisdiction).

²³⁷ *Ibid.*, s. 86(3).

environment or public welfare, health or safety.²³⁸ This exemption from the provisions of the Act could be used to accelerate emergency rehabilitation measures at orphaned/abandoned mines in appropriate circumstances, as has been done under Ontario EA law, discussed below.

In terms of **financial** instruments or measures, the *MVRMA* imposes security requirements as a condition of permit issuance. The security must be “in a form prescribed by the regulations or a form satisfactory to the Minister and in an amount specified in, or determined in accordance with, the regulations.”²³⁹ The Act treats as a debt due the Crown and recoverable in a court of competent jurisdiction the costs incurred by the federal government in taking measures to prevent or remedy adverse effects of land use in contravention of the Act, regulations, or a permit, including where the amount held in security by the Minister is inadequate for these purposes.²⁴⁰

In terms of the **application** of the *MVRMA*, the Act and regulations apply to all uses of land in the Mackenzie Valley including mining activity except prospecting, staking, or locating a mineral claim unless it requires the use of certain equipment or material (e.g. explosives, machinery, land disturbance activity, etc. above a certain quantity, weight, extent, etc.).²⁴¹ The Act also applies to mining and milling activity for which a licence is required under the *NTWA*.²⁴²

Although the *MVRMA* and regulations recognize the potential abandonment of land use, including mining, activity they do not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The Act and guidelines developed by the MVLWB and the MVEIRB recognize and require **community involvement** in the process of land use planning and permitting, water management and licensing, EA, and cumulative impact monitoring.²⁴³ However, the Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

²³⁸ *Ibid.*, s. 119(b).

²³⁹ *Ibid.*, s. 71(1). See also *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, ss. 32(1) (MVLWB, or other First Nation boards established by the Act, may require posting of security in amount not exceeding costs of abandonment of land use operation, restoration of land use operation site, and measures necessary post-abandonment), 32(2) (boards may consider applicant ability to pay costs, past performance of applicant, prior costing of security by applicant, and probability or significance of environmental damage), 32(4) (form of security must be promissory note or letter of credit, certified cheque, bearer bonds guaranteed by Government of Canada, cash, or other combination acceptable to Minister).

²⁴⁰ S.C. 1998, c. 25, ss. 71(4) (liability of permittee for damage to land not limited to amount of posted security), 86(4) (costs incurred in taking preventive or remedial measures constitute debt due Crown recoverable in court of competent jurisdiction).

²⁴¹ *Mackenzie Valley Land Use Regulations*, S.O.R./98-429, s. 2.

²⁴² S.C. 1998, c. 25, s. 102(1).

²⁴³ *Ibid.*, ss. 3 (consultation defined as giving notice, reasonable opportunity to prepare and present views, and fully and impartially considering views presented), 62 (MVLWB may not issue permit or licence for development unless requirements of Part 5 complied with), 114(c) (purpose of Part 5 includes ensuring concerns of aboriginal people and general public taken into account in EA process), 134(1)(c)(e) (environmental impact review of a development by panel of MVEIRB must include public notice and consultations or hearings in communities that will be affected by development), 147 (consultation with first nations with respect to cumulative impact monitoring undertaken pursuant to section 146). See also Mackenzie Valley Land and Water Board, *Public Involvement Guidelines for Development Applications* (Yellowknife: MVLWB, 2003) (noting purposes of community involvement prior to application include discussing project with community; incorporating concerns; identifying impacts and their mitigation). See further Mackenzie Valley Environmental Impact Review Board, *Environmental Impact Assessment Guidelines* (Yellowknife: MVEIRB, 2004).

vi. Yukon Surface Rights Board Act

The purpose of the *Yukon Surface Rights Board Act* (“YSRBA”),²⁴⁴ overall responsibility for which rests with DIAND and the Yukon Surface Rights Board, is to resolve access disputes between those owning or having an interest in land (surface rights holders) and others with access rights to land. The Act’s dispute resolution authority includes addressing the rights of access to land of persons with mineral rights. Access orders issued by the Board can include terms and conditions with respect to (1) financial security, and (2) abandonment and restoration.²⁴⁵

b. Environmental Laws

i. Yukon Environmental and Socio-Economic Assessment Act

The purposes of the *Yukon Environmental and Socio-economic Assessment Act* (“YESAA”),²⁴⁶ administered by DIAND, include (1) requiring consideration of environmental and socio-economic effects of projects before they are undertaken, (2) protecting and maintaining environmental quality and heritage resources, (3) protecting well-being of Yukon Indians and their societies, (4) ensuring projects are undertaken in accordance with principles that foster change without undermining ecological or social systems on which communities depend, (5) recognizing and enhancing traditional economy of Yukon Indians and their special relationship with the wilderness environment, (6) guaranteeing opportunities for participation by Yukon Indians in the assessment process, (7) providing opportunities for public participation in assessment process, (8) ensuring process is timely and provides certainty with respect to procedural and related matters.²⁴⁷

YESAA is designed to fulfill a major obligation from the 1995 Yukon First Nations’ Umbrella Agreement land claim settlement by creating a development assessment process for the Yukon. With some limited exceptions, *YESAA* will replace *CEAA* for purposes of EA review in the Yukon.²⁴⁸

YESAA does not establish a **licence** regime, but works much the way *CEAA* does by providing an information-gathering and reporting regime upon which the appropriate federal, territorial, or First Nation decision-making authority under other laws may make decisions about projects.

In terms of **assessment** activity, *YESAA* imposes a variety of information obligations on project proponents²⁴⁹ that are similar but not identical to information required under *CEAA*.

²⁴⁴ S.C. 1994, c. 43.

²⁴⁵ *Ibid.*, ss. 43(1)(vi) (security may take the form of letter of credit, guarantee, indemnity bond, or insurance), 43(1)(ix) (abandonment and restoration work).

²⁴⁶ S.C. 2003, c. 7.

²⁴⁷ *Ibid.*, s. 5(2).

²⁴⁸ Department of Indian Affairs and Northern Development, News Release “*Yukon Environmental and Socio-economic Assessment Act* Receives Royal Assent” (13 May 2003). See also S.C. 2003, c. 7, ss. 5(1) (Act gives effect to Umbrella Final Agreement respecting assessment of environmental and socio-economic effects), 6(1) (sections 5-60 of *CEAA* do not apply in Yukon except in limited circumstances set out therein).

²⁴⁹ S.C. 2003, c. 7, s. 42(1) (e.g. purpose of project or existing project; significance of any environmental or socio-economic effects of project or existing project in or outside of Yukon; significance of any adverse cumulative environmental or socio-economic effects of project with other projects or existing activities; alternatives to project or existing project, or alternative ways of undertaking or operating that would avoid or minimize significant adverse environmental or socio-economic effects; mitigation and compensation measures for significant effects; need to protect rights of Yukon Indians, their special relationship to wilderness environment, and their health and well-being).

YESAA requires the Yukon Environmental and Socio-Economic Assessment Board, established under the Act, to consider the need for effects **monitoring** as part of the EA for the project.²⁵⁰

In terms of the **application** of *YESAA*, regulations that would list assessable activities are in the process of development.²⁵¹ However, it is clear that the Act will apply to a variety of mining activities.²⁵²

In terms of **community involvement**, *YESAA* authorizes involvement in the EA process including hearings for interested persons and the public.²⁵³ The authority in *YESAA* to establish a panel with respect to a proposed abandonment could result in public involvement in proposed abandonment of mining projects.

YESAA does not otherwise address **liability**,²⁵⁴ **emergency response**, **financial instruments**, or designation of **orphaned/abandoned** mines.

4. FEDERAL LAWS APPLICABLE TO FEDERALLY REGULATED FACILITIES

a. Workplace Safety Laws

As noted above, federal workplace safety legislation can apply to management of mine operations at federally regulated facilities. In this regard, one federal statute is reviewed below.

i. Canada Labour Code

The *Canada Labour Code* (“CLC”),²⁵⁵ administered by the Minister of Labour and the Department of Human Resources and Skills Development, covers persons employed by the federal government, federal Crown corporations, as well as those employed in mining and uranium processing.

The CLC requires every employer of employees employed in a coal mine to provide plans and procedures to the Coal Mining Safety Commission (“CMSC”),²⁵⁶ established under the CLC.²⁵⁷ The CMSC is authorized to approve the plans and procedures submitted to it as is or as amended.²⁵⁸ Regulations under

²⁵⁰ *Ibid.*, s. 42(2)(a). See also ss. 110-111 (authority to include effects monitoring as recommendation to decision-making body). The Act defines effects monitoring as monitoring of environmental and socio-economic effects of project and effectiveness of mitigation measures. *Ibid.*, s. 2.

²⁵¹ *Ibid.*, s. 47 (proposed activities to be subject to EA to be listed by regulation). See also Department of Indian Affairs and Northern Development, *Listing of Planned Regulatory Initiatives – Indian and Northern Affairs Canada: Fiscal Year 2005-2006* (Ottawa: DIAND, 2005), online: Department of Indian Affairs and Northern Development <http://www.aicn-inac.gc.ca/pr/leg/reg/plnreg_e.html> (last updated: 12 August 2005) (regulations that will describe activities subject to EA in Yukon currently under development).

²⁵² S.C. 2003, c. 7, ss. 2(2) (mines and minerals as defined in Umbrella Final Agreement has same meaning under *YESAA*), 84(3) (setting out decision-making process in respect of projects involving mines and minerals), 95-96, 100 (existing projects, including proposed abandonment, decommissioning, or temporary shutdown may be made subject to *YESAA*).

²⁵³ *Ibid.*, ss. 2 (interested persons include certain First Nation organizations or bodies listed therein), 46 (authority for interested persons and public to participate in EA conducted by board), 70 (hearings on reviews of projects by panels).

²⁵⁴ *Ibid.* s. 114 (board may, however, recommend to a decision body that a hearing be held to determine if there has been a violation of a decision document).

²⁵⁵ R.S.C. 1985, c. L-2.

²⁵⁶ *Ibid.*, s. 125.3.

²⁵⁷ *Ibid.*, s. 137.1 (establishing coal mining safety commission).

²⁵⁸ *Ibid.*, s. 137.2.

the *CLC* set out the particulars of requirements for such plans and procedures including (1) pre-development requirements,²⁵⁹ (2) strata control systems,²⁶⁰ (3) mine survey plans,²⁶¹ and (4) mine closure notices.²⁶²

Other *CLC* regulations exempt uranium mining in Ontario and Saskatchewan from compliance with the *CLC* because workplace safety requirements will be met pursuant to the *NSCA* in those provinces.²⁶³

5. POLICIES, PROGRAMS, OR RELATED INITIATIVES

In addition to federal regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by the federal government directed explicitly at orphaned/abandoned mines.

Four categories of federal initiatives considered below include a: (1) overall policy on mine reclamation at current, past, and future sites; (2) northern contaminated sites program; (3) mine site reclamation policy for the Northwest Territories and Nunavut; and (4) federal-Ontario agreement on uranium mine and mill tailings.

Given the division of powers granted to the Parliament of Canada under the Canadian Constitution, reviewed above,²⁶⁴ the primary legislative jurisdiction of the federal government for mining activity and its aftermath, with the exception of uranium mining, which is national in scope, resides in the northern territories.²⁶⁵ With respect to the first initiative noted above, the Government of Canada has long had an overall policy on mine reclamation that states in part:²⁶⁶

“The federal government...has direct responsibilities in [the area of mine reclamation] in the Yukon and Northwest Territories, and in relation to uranium...”

...the Government has a role in ensuring the reclamation of currently operating and future mine sites. Consequently, it will ensure that:

- post-production mine decommissioning and land reclamation are an integral part of the mine development process;
- financial provision for the costs incurred in mine closure are accorded a level of priority similar to that given to start-up investment costs; and

²⁵⁹ *Coal Mines Occupational Safety and Health Regulations*, S.O.R./90-97, s. 158 (employer to submit to CMSC for approval notice in the form of drawings, plans, and specifications of activities such as (1) development, construction, or alteration of a portion of a coal mine, (2) construction of tailings dam, water storage reservoir, or above ground structure for explosives).

²⁶⁰ *Ibid.*, s. 159 (employer to prepare strata control plan for proposed underground coal mine workings designed to prevent collapse of workings).

²⁶¹ *Ibid.*, s. 160 (mine surveyor to provide coal mine plan identifying such matters as coal mine boundaries, pillars, and faults).

²⁶² *Ibid.*, s. 161 (employer to provide CMSC with updated version of mine survey plan 60 days before mine closure).

²⁶³ Uranium Mines (Ontario) Employment Exclusion Order, S.O.R./87-181. See also Saskatchewan Uranium Mines and Mills Exclusion Regulations, S.O.R./2001-115.

²⁶⁴ See Part V, above.

²⁶⁵ As of April 1, 2003 federal jurisdiction in the Yukon devolved to the Yukon Government. However, under the devolution arrangement, the federal government retained financial responsibility for abandoned mines in the Yukon. Accordingly, with some exceptions for mines on non-federal lands, the federal government retains financial responsibility for abandoned mines throughout the north - Yukon, Northwest Territories, and Nunavut.

²⁶⁶ Natural Resources Canada, *The Minerals and Metals Policy of the Government of Canada: Partnerships for Sustainable Development* (Ottawa: Minister of Public Works and Government Services Canada, 1996) at 14.

- governments and industry work together to ensure that efficient mechanisms are developed to finance responsible closure practices.

...

The Government will ensure that, as a condition for mine development on federal lands, comprehensive plans for reclamation of disturbed areas are developed, including the provision of satisfactory financial assurances to cover the costs of reclamation and, where necessary, long-term maintenance.

In addition to the need to address issues related to present and future mine sites, the Government must also deal with problems associated with past practices that are no longer permitted. Such practices have led to numerous abandoned and orphaned mine sites,²⁶⁷ some of which pose a risk to the environment, human health, or public safety....

The Government is aware of the need for action to clean up those abandoned and orphaned mine sites within federal jurisdiction that represent an unacceptable risk to the environment or human health and safety. It also recognizes the need for the owner of the site, where one can be identified, to pay for the clean-up costs....

[The policy also addresses the approach of the federal government to the issue of reclamation of uranium mine and mill tailings].²⁶⁸

This overall federal government policy on mine reclamation is reflected further in three policies, programs, or initiatives summarized below.

With respect to the second initiative noted above, DIAND is the custodian of most federal lands in northern Canada. As a result, the department through its Northern Contaminated Sites Program manages a number of contaminated properties that are no longer maintained by their original owners. These northern properties include contaminated sites from private sector mining activities dating back over half a century, long before the advent of modern environmental regulation.²⁶⁹

DIAND has developed a general policy on management of contaminated sites for sites that are located on reserve lands, on federal lands north of the 60th parallel, and on other lands under its responsibility. The policy applies to orphaned/abandoned mines and defines them as:

"a site where the person or corporation that created the contaminated site is unknown or out of business and the site is on federal Crown land or Canada lands (e.g. reserve land)."²⁷⁰

In 2001-2002, DIAND estimated that of thirty abandoned mine sites in the north, action was required and considered high priority at 17 sites, action was likely required at 8 sites, and action might be required at

²⁶⁷ *Ibid.* (defining abandoned sites as those sites where an owner/operator can be identified but who no longer actively manages the property, and the rights have not yet reverted to the Crown. In some cases, the owner is insolvent or otherwise unable to pay for reclamation. In other cases, the owner/operator may be able to pay but has neglected to institute the proper reclamation activity for other reasons; and defining orphaned sites as those sites where an owner/operator of the mine site can no longer be identified and where the mineral rights have reverted to the Crown).

²⁶⁸ *Ibid.*

²⁶⁹ Department of Indian Affairs and Northern Development, *Northern Contaminated Sites Program* (Ottawa: DIAND, 2004) at 1, online: Department of Indian Affairs and Northern Development <http://www.ainc-inac.gc.ca/ps/nap/consit/index_e.html> (last updated: 30 August 2004). See also Department of Indian Affairs and Northern Development, *Northern Contaminated Sites Program: Performance Report 2003-2004* (Ottawa: DIAND, 2005), online: Department of Indian Affairs and Northern Development http://www.ainc-inac.gc.ca/ps/nap/consit/csrep0304/index_e.html (last updated: 28 October 2005) (report covers mining and non-mining contaminated sites).

²⁷⁰ Department of Indian Affairs and Northern Development, *Contaminated Sites Management Policy* (Ottawa: DIAND, 2002). The policy includes objectives and guiding principles, including application of the polluter pays principle.

the remaining 5 sites.²⁷¹ DIAND currently spends millions of dollars annually to stop contaminants escaping from these sites. In 2002 alone, the department budgeted \$26 million to prevent water contamination and otherwise protect human health and the environment in the vicinity of abandoned mine sites. However, DIAND also estimated that the cleanup and closure of these sites will cost at least \$555 million from public funds.²⁷²

DIAND has staff dedicated to responding to the problems posed by these sites, but not enough resources to match the size of the problem.²⁷³ As a result, the department currently is working with central agencies in the federal government to secure long-term funding to address the problem of abandoned mines and to prioritize cleanups.²⁷⁴

In this regard, the 2003 federal budget raised the issue of contaminated sites, specifically identifying northern abandoned mines as part of the problem to be addressed as follows:

"Federal contaminated sites are an unfortunate legacy of past practices, with unanticipated environmental consequences and contamination inherited from others, such as abandoned mines in northern Canada. Current legislation and policies strive to prevent the creation of new contamination from federal sources and obtain financial security for mining projects to cover the costs of any eventual clean-up.

In order to address existing contamination, the Government will commit funding of \$175 million over two years. This will establish a centrally managed fund making ongoing resources available to address the highest-risk federal sites. ..."²⁷⁵

Although northern abandoned mines are specifically referred to in the 2003 Budget as a rationale for addressing federal contaminated sites, it is unclear how much of the \$175 million two-year commitment is earmarked for abandoned mine cleanups. In addition to a chapter on northern abandoned mines, the 2002 report of the Commissioner of the Environment and Sustainable Development ("CESD") to Parliament also contained a chapter addressing the legacy of federal contaminated sites, of which northern abandoned mines were identified as part of a larger problem confronting the federal government.²⁷⁶ As part of the 2004 Budget, the federal government committed approximately \$150 million to clean up contaminated sites under federal responsibility during 2005-2006. Roughly half of this funding was slated to go to DIAND, though not necessarily all of this DIAND funding appeared to be dedicated to abandoned mines.²⁷⁷

²⁷¹ Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 24.

²⁷² *Ibid.* at 1. More recent estimates place DIAND cleanup expenditures to mid-2003 at \$90 million, and total cost estimates as at least \$700 million. See J.F. Castrilli and C.N. Watson and Associates, *Potential Funding Approaches for Orphaned/Abandoned Mines in Canada: Final Report*, Submitted to Funding Models Task Group, National Orphaned/Abandoned Mines Initiative (Ottawa: NOAMI, 2003) at footnote 69.

²⁷³ Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 11-12.

²⁷⁴ *Ibid.* at 19.

²⁷⁵ Finance Canada, *Budget 2003 - Budget Plan* (Ottawa: FC, 2003) chapter 5, at 26, 28, online: Finance Canada <<http://www.fin.gc.ca/budget03/bp/bpc5e.htm>> (date accessed 5 April 2003).

²⁷⁶ Commissioner of the Environment and Sustainable Development, *The Legacy of Federal Contaminated Sites: Report to the House of Commons* (Ottawa: CESD, 2002) at 5 (noting that thousands of sites on federal properties have been contaminated by the federal government, tenants on its lands, and others as a result of decades of misuse relative to recent standards. Such sites include abandoned mines in the north, airports, government laboratories, harbours and ports, landfills, lighthouse stations, military bases and training facilities, and reserve lands. Cleanup of these sites represents billions of dollars in costs to the Canadian taxpayer).

²⁷⁷ Environment Canada, News Release, "Concrete Measures to Remediate 97 Contaminated Federal Sites – The Government of Canada Will Invest More Than \$150 million in 2005-2006" (2 August 2005), online: Environment Canada

The 2002 report from the CESD on the problem of abandoned mines in the north raised the following points regarding the DIAND program:

- In recent years, the department has made progress toward establishing a comprehensive program to deal with abandoned mines;²⁷⁸
- However, DIAND policy on contaminated site management provides insufficient guidance on abandoned mines, even though they represent the major portion of the Department's contaminated site problems;²⁷⁹
- The financial burden of dealing with the legacy of northern abandoned mines is huge, and the federal government has not yet come to grips with it. There are no funding strategies in place to support the department's recent efforts. Without sufficient funding to implement long-term solutions, DIAND currently is covering only basic care and maintenance;²⁸⁰
- The current care and maintenance approach employed by the department is not an optimal use of public funds and constitutes a band-aid approach that does little to solve the problem and is not sustainable in the long term. Existing containment structures are deteriorating and reaching their capacity. Decisions are required on whether to do a major retrofit of these structures or cleanup the accumulating toxic chemicals. Long-term, stable funding and solutions are needed;²⁸¹
- The DIAND estimate that long-term solutions will cost Canadian taxpayers at least \$555 million is regarded as conservative.²⁸²

With respect to the 2002 CESD audit on abandoned mines in the north, DIAND itself noted that the CESD reported:

“...there were inadequate resources to address the significant risk associated with these sites. These audits [respecting federal contaminated sites generally and abandoned mines in the north in particular] focused attention on [DIAND's] contaminated sites management and resulted in a number of recommendations. [DIAND] concurred with most of the audit findings and will be implementing measures to address them.”²⁸³

http://www.ec.gc.ca/press/2005/050802_n_e.htm (last updated: 4 August 2005) (approximately 30 DIAND sites slated to receive approximately \$77 million for 2005-2006 covering mines and non-mining activities such as tankfarms, bridge spurs, etc.).

²⁷⁸ Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 1.

²⁷⁹ *Ibid.* at 12.

²⁸⁰ *Ibid.* at 18.

²⁸¹ *Ibid.* at 1, 18-19.

²⁸² R. Arseneault, Office of the Auditor General of Canada, "Abandoned Mines in the North: 2002 Report - Chapter 3" (Workshop on Legal and Institutional Barriers to Collaboration Relating to Orphaned/Abandoned Mines, Ottawa, 24 February 2003) at slide 7.

²⁸³ Department of Indian Affairs and Northern Development, *Northern Affairs Program: Contaminated Sites Program – Performance Report 2002-2003* (Ottawa: DIAND, 2003) at 6, online: Department of Indian Affairs and Northern Development < http://www.ainc-inac.gc.ca/ps/nap/consit/csrep0203_e.html > (last updated: 7 February 2005)

The 2003 and 2004 federal budget commitments of monies for federal contaminated sites may partially address the issue of funding for northern abandoned mines. However, the extent to which the federal government is prepared, or able, to fund abandoned mine cleanups entirely from the treasury is unclear.²⁸⁴

With respect to the third initiative noted above, in 2002 DIAND also developed mine site reclamation policies for the Northwest Territories and Nunavut that set out what will happen when the operators of existing mines become insolvent and when DIAND will enter into transactions with purchasers of such abandoned mines.²⁸⁵ The policies state that the department will not assume environmental liability to facilitate a sale of a mine for the benefit of creditors. However, the policies set out a different approach when a mine operator is insolvent and a receiver, interim receiver, or trustee in bankruptcy abandons a mine because the unsecured environmental liabilities exceed the economic value of the mine. In that event, the department will consider entering into a transaction with a purchaser for the mine in the following circumstances:

- The sale would generate the maximum benefit to the Crown in terms of reducing the net liability remaining with the Crown;
- Any significant consideration related to the transaction would be paid into a trust fund for the remediation of the existing environmental liabilities at the site;
- A purchaser would have its liability for the existing environmental condition of the property limited;
- A portion of the economic value of the production from the mine would go to a fund for the remediation of the existing liabilities at the site; and
- The purchaser would remain fully liable for the remediation costs of any environmental impact resulting from its operations at the site.

The policy notes further that whether DIAND enters into such a transaction would depend on the extent of the benefits or potential benefits to the Crown in reducing the environmental impacts and ultimate cost to Canadian taxpayers of environmental remediation at the mine site.²⁸⁶

In 1999, DIAND entered into one such arrangement with new owners of the Giant mine in the Northwest Territories. The Crown agreed to limit the liability of the new owners in respect of existing environmental conditions at the mine. In return the company agreed to fund ongoing environmental compliance at the mine by making contributions to a trust set up to ensure reclamation at the mine based on a share of the profits from mining ore at Giant. In late 2001, this arrangement was amended to require DIAND to also make a contribution to ongoing environmental compliance costs at the mine.²⁸⁷

²⁸⁴ *Ibid.* at 1-2 (noting that DIAND continues to work towards securing stable funding to support the contaminated sites program; that many of the contaminated properties in NWT, Yukon, and Nunavut are a result of private sector mining, oil and gas activities, and former government military activities; and that in particular in the NWT, the major sites include mines and military sites, in the Yukon, the focus is on mining properties, and in Nunavut, the focus is on military sites). It is still not clear from the 2002-2003 and 2003-2004 performance reports how many northern abandoned sites are mines and what is the total quantum of federal liability for environmental cleanup at these facilities.

²⁸⁵ Department of Indian Affairs and Northern Development, *A Mine Site Reclamation Policy for the Northwest Territories* (Ottawa: DIAND, 2002). See also Department of Indian Affairs and Northern Development, *A Mine Site Reclamation Policy for Nunavut* (Ottawa: DIAND, 2002).

²⁸⁶ Department of Indian Affairs and Northern Development, *A Mine Site Reclamation Policy for the Northwest Territories* (Ottawa: DIAND, 2002) at 13-14.

²⁸⁷ R. Lauer, Department of Indian Affairs and Northern Development, "Experiences from the North" (Workshop on Legal and Institutional Barriers to Collaboration Relating to Orphaned/Abandoned Mines, Ottawa, 24 February 2003). See also Department of Indian Affairs and Northern Development, *Giant Mine Remediation Project* (Ottawa: DIAND, 2004).

The DIAND approach can be said to blend indeterminate levels of mining company contributions with public funds to attempt to solve the orphaned/abandoned mine problem on a site-by-site basis. The Giant mine example is a case in point. In its 2002 report to Parliament on northern abandoned mines, the CESD considered the DIAND policy in the context of the Giant mine arrangement discussed above noting:

"In December 1999, soon after the Department inherited this mine, it sold it for \$10 to a private company. The deal was such that the company could operate the mine and extract gold but was required to pay for keeping the mine in full compliance with environmental requirements. The Department was to retain the responsibility for site cleanup, including the arsenic trioxide dust problem. This agreement kept 50 jobs at the site. After renegotiating the agreement with this company, since January 2002 the Department has been reimbursing the company 69 percent of the cost of environmental care and maintenance, amounting to \$300,000 each month."²⁸⁸

Accordingly, while DIAND regards its policy of finding private owners as a creative solution to the problem of northern abandoned mines,²⁸⁹ the CESD regards the policy as only a partial and short-term solution.²⁹⁰

With respect to the fourth initiative noted above, approximately 225 million tonnes of uranium mine and mill tailings have accumulated in Ontario, Saskatchewan, and the Northwest Territories since uranium mining began in Canada in the 1930s. Generally, uranium mine and mill tailings are disposed of in tailings ponds or mined-out pits.²⁹¹ In the normal course, final decommissioning of uranium mine and mill tailings and the associated costs are the responsibility of the uranium mining companies under federal law.²⁹²

Problems may arise, however, where companies are not able to cover these costs. In recognition of this concern, in 1996 the federal and Ontario governments entered into a memorandum of agreement on the decommissioning and long-term maintenance of uranium mine and mill tailings. The agreement recognizes that present and past producers of uranium are responsible for all financial aspects of the decommissioning and long-term care of uranium mine sites, including uranium tailings. However, in the case of abandoned tailings where a producer or owner is unable to pay for cleanup, the agreement outlines how the two parties will share these costs.²⁹³ As of 2003, the provisions respecting abandoned uranium

at 1, online: Department of Indian Affairs and Northern Development <http://nwt-tno.ainc-inac.gc.ca/giant/index_e.html> (last updated: 16 December 2004) (noting that in 1999 the owner of the mine went into receivership and the courts assigned the site to DIAND; the department sold the mine to new owners to ensure the maximum number of jobs would continue at the mine and that a knowledgeable, experienced operator would oversee care and maintenance of the site; the sale did not include the pre-existing environmental conditions at the mine, including 237,000 tonnes of arsenic trioxide stored underground at the site, which is now subject to a long-term remediation plan administered by DIAND).

²⁸⁸ Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 14.

²⁸⁹ R. Lauer, Department of Indian Affairs and Northern Development, "Experiences from the North" (Workshop on Legal and Institutional Barriers to Collaboration Relating to Orphaned/Abandoned Mines, Ottawa, 24 February 2003).

²⁹⁰ Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 14.

²⁹¹ Natural Resources Canada, Background 96/79a, "Radioactive Wastes in Canada" (24 January 1996), online: Natural Resources Canada <http://www.nrcan.gc.ca/media/newsreleases/1996/199679a_e.htm> (last updated: 13 December 2002).

²⁹² Uranium Mines and Mills Regulations, S.O.R./2000-206 (under the Nuclear Safety and Control Act, S.C. 1997, c. 9).

²⁹³ Her Majesty the Queen in Right of Canada (represented by the Minister of Natural Resources) and Her Majesty the Queen in Right of Ontario (represented by the Minister of Northern Development and Mines), *Memorandum of Agreement* (Ottawa & Toronto: NRC/ONDM, 23 January 1996) art. 4.1 (declaring that, subject to certain exceptions noted in the agreement, where the owner or operator of a uranium mine or mill site is bankrupt or insolvent, defaults on its perpetual care obligations, or in emergency circumstances agreed upon by the parties, Canada and Ontario will each pay 50% of the perpetual care costs). See also Natural Resources Canada, News Release 96/02, "Canada-Ontario Cost-Sharing

mine waste had not been invoked by the parties to the agreement because there has always been a responsible party available to cover uranium mine waste cleanup costs. However, as discussed below, Saskatchewan recently has raised concerns about abandoned uranium mines in that province and expressed the view that the federal government should be part of the solution to the problem.

6. FINDINGS AND SUMMARY

There are several aspects of federal law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under federal law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. Comparatively recent amendments to federal bankruptcy and insolvency and related laws that provide liability protection in certain circumstances from environmental orders for secured creditors, receivers, and trustees in bankruptcy are arguably not broad enough without further amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.
3. The absence of statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the federal government, mining industry and others, has resulted in important, but ad hoc, cleanup programs primarily in northern Canada, based on statutory emergency clean-up authority, paid for with federal public funds. Under these programs, the federal government has expended at least \$90 million in the last few years to cleanup such sites. In addition, non-statutory generic and site-specific government-industry arrangements may have contributed in the recent past, and may contribute in future, to further cleanups in certain instances, the financial quantum and adequacy of which is difficult to determine at this time. The magnitude and potential cost of the orphaned/abandoned mine problem that is the responsibility of the federal government in northern Canada alone is, conservatively, \$555 million. Moreover, this quantum of federal liability does not include potential additional liability, at least in part, for orphaned/abandoned uranium mines in provinces such as Ontario and Saskatchewan. In these circumstances, it is difficult to evaluate the adequacy of these ad hoc arrangements as a substitute for legislative reform.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

Neither *CEPA, 1999* nor the *FA* establish licensing, permitting, or approval regimes in relation to control of toxic substances, or substances deleterious to waters frequented by fish, respectively. However, a number of substances important to the mining industry have, in the case of *CEPA, 1999*, been placed in a schedule of toxic substances under the Act and been made subject to regulations or pollution prevention

plans by industry sector. In the case of the *FA*, a number of substances important to the metal mining industry have been placed in a schedule to the regulations and been made subject to control in the context of metal mining effluent. The *FA* also grants discretionary power to DFO to issue an authorization attaching conditions to activity, including mining activity, which may alter, disrupt, or destroy fish habitat.

The *NSCA* authorizes the CNSC to establish classes of licences, and regulations under the Act set out the classes of licence applicable to uranium mining and milling activity.

CEAA does not authorize the Agency or DOE to issue a licence before a project may proceed.

TLA mining regulations authorize the issuance of licences, permits, claims, and leases to facilitate prospecting and mining activity. The holder of a recorded claim cannot mine, mill, or create a tailings or waste disposal area until granted a surface lease or grant. *TLA* land use regulations also impose permit requirements on a variety of earth disturbing activity that would appear to include mining activity.

Deposits of wastes into certain northern waters require licences under the *NTWA*, *NWNSRTA*, and *MVRMA*. The *MVRMA* also requires land use permits.

YESAA does not establish a licence regime.

(B) Assessment

CEPA, 1999 imposes information obligations on mining companies emitting substances that are subject to (1) regulation as toxic substances, (2) pollution prevention plans, or (3) notices where the Minister is assessing whether a substance is toxic or capable of becoming toxic.

The *FA* or the regulations impose certain information requirements on the mining industry with respect to (1) deleterious substances in metal mining effluents, and (2) alteration of fish habitat.

Regulations under the *NSCA* set out general information requirements applicable to a licence to undertake uranium mining and milling activity, as well as additional information required for licences for site preparation and construction, operation, decommissioning, and abandonment of such facilities.

CEAA requires that an environmental assessment be conducted by a responsible authority who determines the scope of the EA (subject to minimum screening level requirements set out in the Act). If the project becomes subject to (or by regulation automatically is caught by) comprehensive study requirements, as are some designated categories of mining activity, then the maximum information obligations set out under the Act must be met. If a project becomes subject to panel review still further information obligations may be imposed.

TLA land use regulations require a federal mines engineer before issuing a permit, to order an inspection of the subject lands and require the permit applicant to provide such information and data concerning the proposed land use as will enable the engineer to evaluate quantitative and qualitative effects of the proposed land use operation. *TLA* mining regulations authorize the Minister to impose further information obligations on a discretionary basis.

The *NTWA* requires licence applicants to provide the NTWB with such information and studies concerning the use of waters or deposit of waste proposed by the applicant as will enable the NTWB to evaluate any qualitative and quantitative effects on waters. The regulations set out additional information requirements.

The *NWNSRTA* authorizes the NWB to develop guidelines setting out the information an applicant must submit in support of an application for a water licence. This Act also relies on regulations promulgated under the *NTWA* for additional information requirements.

The *NLCAA*, which incorporates the NLCA, imposes EA information obligations similar to *CEAA*.

MVRMA or regulations impose information obligations in the context of (1) land use permits, (2) water licences, and (3) environmental impact (EA) reviews.

YESAA imposes a variety of information obligations on project proponents that are similar but not identical to information required under *CEAA*.

The *CLC* and regulations set out the particulars of requirements for plans and procedures to be filed with the CMSC including (1) pre-development requirements, (2) strata control systems, (3) mine survey plans, and (4) mine closure notices.

(C) Monitoring

CEPA, 1999, FA, NSCA, CEAA (follow-up program), *NTWA, NWNSRTA, MVRMA*, and *YESAA* authorize the imposition of monitoring requirements in a variety of regulatory, licensing, or permitting contexts. The *TLA* and mining regulations are silent on monitoring, though *TLA* land use regulations authorize the submission of reports on the progress of land use operations that could be interpreted as a basis for imposing some type of monitoring obligation.

CEPA, 1999, FA, NSCA, TLA, NTWA, NWNSRTA, MVRMA authorize inspection activity to ensure compliance with the requirements of those laws. *CEAA* and *YESAA* are silent on inspection authority.

(D) Liability

The *CEPA, 1999, FA, NSCA, TLA, NTWA, NWNSRTA, MVRMA* all contain authority to impose administrative, quasi-criminal, and civil liability on mining owners and operators for non-compliance with these laws, regulations promulgated under them, approvals, orders or related instruments as the case may be.

CEAA contains authority to impose administrative and civil liability. *YESAA* is silent on authority to impose liability.

In the case of *CEPA, 1999* (environmental emergencies only) and the *FA*, liability is joint and several.

The *BIA* and *CCAA* provide protection from liability in certain circumstances from environmental orders for trustees in bankruptcy, receivers, and receiver-managers. The liability protections afforded are from administrative enforcement (i.e. environmental orders). These laws do not provide protection from civil or quasi-criminal liability. Though arguably not broad enough in their current form to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines, these protections provide a precedent for future law reforms to this end.

There have been a number of generic and site-specific federal government-industry, and federal-provincial, policies developed and arrangements entered into with respect to orphaned/abandoned mines. These arrangements are not authorized explicitly by statute as part of a larger legislative orphaned/abandoned mine program. However, in the case of the government-industry arrangements they

may allow companies to undertake mining activity at such sites in return for a nominal company contribution to environmental clean-up and a limitation in liability as long as the company does not worsen conditions at the site. In the case of federal-provincial arrangements, they may authorize joint cost-sharing for clean-up of such sites.

(E) *Emergency Response*

CEPA, 1999 authorizes the government to make regulations and take other measures to prevent, prepare for, respond to, and recover from, environmental emergencies. The government can require industry to prepare environmental emergency plans for substances listed in Schedule 1 to the Act. Such plans have been required for over 170 substances listed in the regulations, some of which may be substances important to the mining industry.

The *FA*, *NSCA*, *NWNSRTA* authorize emergency response activity in a number of contexts.

CEAA and *MVRMA* exempt proponents from having to conduct an EA where the project is to be carried out in response to an emergency and carrying out the project forthwith is in the interest of preventing damage to property, environment, public health or safety. This exemption authority could be used to accelerate emergency rehabilitation measures at orphaned/abandoned mines in appropriate circumstances, as has been done under some provincial EA laws (e.g. Ontario).

The *TLA*, *NTWA*, *MVRMA* are silent on emergency response authority available to government. However, the authority for federal mines engineers, or inspectors to undertake remedial measures when there is non-compliance with a permit or licence term or condition arguably is capable of being invoked in circumstances of an emergency.

YESAA is silent on emergency response authority.

(F) *Financial Instruments*

NTWA, *NWNSRTA*, *MVRMA* require an applicant for a licence to furnish and maintain security with the Minister. The Acts or regulations set out (1) how the amount of the security is to be determined, and (2) acceptable forms of security.

TLA land use regulations authorize a federal mines engineer to impose a security deposit, not to exceed \$100,000, as a permit condition. The regulations also set out the form, return, default, and cost recovery provisions in respect of the security.

The *NSCA* and regulatory guides issued thereunder authorize the imposition of a financial guarantee in a form acceptable to the CNSC as a condition of licence, including uranium mine license, issuance.

CEPA, 1999, *FA*, *CEAA*, and *YESAA* are silent on financial instruments or measures.

Many of these laws (e.g. *CEPA, 1999*, *FA*, *TLA*, *NTWA*, *NWNSRTA*, *MVRMA*) do treat as a debt due the Crown and recoverable in a court of competent jurisdiction the costs and expenses incurred by the federal government in taking preventive or remedial measures. Cost recovery provisions can be effective against a mine owner or operator with other assets in Canada, or against a valuable, if closed or abandoned mine property. However, such authority would not be effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left Canada and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

Some of these laws authorize promulgation of regulations prescribing fees (e.g. *CEPA, 1999*).

(G) *Application/Exemption*

CEPA, 1999 applies to substances that are, or may become, toxic as defined in the statute and to activities associated with such substances. In this regard, certain substances associated with mining activities such as lead, asbestos, arsenic, cadmium, and nickel have been made subject to the Act by way of regulations, pollution prevention, or environmental emergency, plans.

Mining activity is subject to the *FA* arising from the (1) prohibition under the statute on carrying out any work or undertaking without an authorization (or contrary to an authorization) that results in the harmful alteration, disruption, or destruction of fish habitat, (2) prohibition on the deposit of deleterious substances into water frequented by fish, and (3) regulations promulgated under the Act respecting metal mining effluents from mines and recognized closed mines as defined therein. However, the regulations do not apply in respect of mines that stopped commercial operation before the promulgation of the regulations, unless they are reopened after the promulgation of the regulations.

The *NSCA* and regulations apply to uranium mines and mills, but not to uranium prospecting or surface exploration activities.

Comprehensive Study List Regulations under *CEAA* determine which types of mining projects will be subject to maximum EA requirements. *Law List Regulations* under *CEAA* contain provisions from the *FA* and the *NSCA* that will trigger a requirement to perform an EA. Thus, any project that requires federal authorization to alter fish habitat or that requires modifications following the submission of plans and specifications in connection therewith under the *FA*, or that requires a licence under the *NSCA*, subjects the project to EA requirements under *CEAA*.

The *TLA* and regulations apply to mining activity in the Northwest Territories and Nunavut.

The *NTWA* and *NWNSRTA* apply to mining and milling undertakings that will require the use of water or that will deposit waste.

MVRMA and regulations apply to all uses of land in the Mackenzie Valley including mining activity except prospecting, staking, or locating a mineral claim unless it requires the use of certain equipment or material (e.g. explosives, machinery, land disturbance activity, etc. above a certain quantity, weight, extent, etc.). The Act also applies to mining and milling activity for which a licence is required under the *NTWA*.

Regulations that would list assessable activities under *YESAA* are in the process of development. However, it is clear from the statute itself that the regime will apply to a variety of mining activities.

(H) *Designation of Orphaned/Abandoned Sites*

CEPA, 1999, *FA*, *NSCA*, *CEAA*, *TLA*, *NTWA*, *NWNSRTA*, *MVRMA*, and *YESAA* do not define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

As part of the authority of the Minister of the Environment to conduct research pursuant to *CEPA, 1999*, DOE has conducted research studies on metal contamination of the environment from abandoned mines in Ontario, Manitoba, and Nova Scotia.

However, the federal government has a northern contaminated sites program under which it is in the process of identifying, assessing, spending or planning to spend hundreds of millions of dollars addressing cleanup of orphaned/abandoned mines north of the 60th parallel.

(I) Community Involvement

CEPA, 1999 authorizes (1) public involvement in the regulation-making process (notice and comment) facilitated through the establishment of a registry of information respecting matters under the Act, (2) participation on advisory committees with respect to regulation or potential regulation of substances as toxic, and (3) opportunities to request investigations of, and initiate civil (environmental protection) actions with respect to, loss or damage to the environment caused by the release of substances in violation of the Act. Mining activities that release substances addressed by the Act are subject to these various public participation provisions.

The *FA* is silent on public involvement in its process. However, regulation-making activity under the Act would be subject to notice and comment.

Regulations under the *NCSA* require applicants for a licence to abandon a uranium mine or mill to include in their application, information respecting their proposed program to 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.

CEAA authorizes public involvement in the EA process pursuant to a variety of purposes, stages, and methods.

The *TLA* authorizes opportunities for notice and comment on orders setting out territorial lands as land management zones and on draft regulations.

In addition to opportunities for notice and comment on draft regulations, the *NTWA* authorizes optional or mandatory public hearings by the NTWB before issuing, amending, or canceling certain categories of licence.

The *NWNSRTA* authorizes the NWB to conduct public hearings before issuing a licence under the Act and, at such proceedings to grant “full standing” to, and take into account the representations of, certain Indian Bands or other aboriginal organizations identified specifically in the statute.

MVRMA and guidelines developed by the MVLWB and the MVEIRB recognize and require community involvement in the process of land use planning and permitting, water management and licensing, EA, and cumulative impact monitoring.

YESAA authorizes involvement in the EA process including hearings for interested persons and the public. The authority in *YESAA* to establish a panel with respect to a proposed abandonment could result in public involvement in proposed rehabilitation surrounding abandonment of mining projects.

In general, all of the above laws are otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

B. Provincial

There are six broad categories of provincial law that are applicable potentially to the issue of operating, contaminated, and orphaned/abandoned mine lands and their abatement, remediation, and reclamation. First, there is the common law or judge-made law that exists in each of the nine common law provinces of Canada. Second, there is the civil law of Quebec. Both of these categories are reviewed briefly under their respective headings below. Third, there are laws enacted by provincial legislatures that are designed to facilitate mining exploration, development, and closure. Fourth, there is pollution control or environmental, including environmental assessment, legislation enacted by provincial legislatures that is designed to address emissions to air, discharges to water, or contamination of, and disturbance to, land from mining activities. Fifth, there is workplace safety legislation that can apply to mine operations. Sixth, there is planning legislation that, in some jurisdictions, may serve to reinforce mining and environmental law requirements in the context of provincial land use policies. An overview of provincial legislation follows immediately, with more detailed province-by-province examination under the heading of each province below.

There also may be policies, programs, or related initiatives that are not explicitly set out or authorized in provincial legislation but apply to the issue of operating, contaminated, and orphaned/abandoned mine lands and their abatement, remediation, and reclamation. These also are reviewed in the more detailed province-by-province examination undertaken below.

Historically, provincial mining laws have shared many of the same characteristics because they are based on Crown ownership and exploitation of mineral resources. Most provincial mining laws set out the manner in which the Crown may dispose of its minerals and others may obtain rights to them. As environmental concerns with respect to mining activities have increased in recent years, they largely have been addressed by environmental legislative reforms. However, certain stages of mining operations, including exploration, reclamation, and rehabilitation also have seemed particularly well suited to be regulated under mining laws. However, with some exceptions, mining laws generally have not addressed the issue of long-abandoned mine sites and what special measures may be necessary to facilitate their abatement, remediation, or reclamation. In part, this may be a function of the perception that, to the extent such matters are to be addressed as a matter of law, it should be done under environmental legislation. The points addressed below consider some of these issues in regard to mining laws.

The environmental legislation of each province contains many of the same regulatory elements. In general, these elements include:

1. general prohibitions on pollution;²⁹⁴
2. application procedure and permit, approval, or licensing authority for discharges (that constitute an exception to the general pollution prohibitions);²⁹⁵
3. authority, as part of, or in conjunction with, the above application procedure, to require preparation of environmental assessment of proposed activity;²⁹⁶
4. authority for a variety of environmental remediation and clean-up orders;²⁹⁷

²⁹⁴ See e.g. *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, s. 32 (a person that discharges, causes, or permits a discharge of any material of any kind into or in any waters or on any shore or bank thereof or in any place that may impair the quality of the water is guilty of an offence).

²⁹⁵ See e.g. *Alberta Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12, ss. 66 (procedure on applications for approval), 68 (issuance of approval by director).

²⁹⁶ See e.g. *Environmental Assessment Act*, R.S.O. 1990, c. E.18.

²⁹⁷ See e.g. *Environmental Protection Act*, R.S.O. 1990, c. E.19, ss. 7 (control orders), 8 (stop orders), 17 (remedial orders), 43 (waste removal orders), 97 (restoration orders).

5. exemption or variance authority from approvals and orders;²⁹⁸
6. an appeal regime in respect of approvals and orders;²⁹⁹
7. a complex regime of quasi-criminal and administrative offences and penalties (including provisions creating environmental liability for officers and directors of corporations);³⁰⁰
8. special regimes of obligation and liability in relation to spills of pollutants into the environment;³⁰¹
9. complex regimes of management requirements and liability in relation to hazardous wastes and, in some provinces, contaminated lands;³⁰² and
10. regulation-making authority.³⁰³

In the absence of statutory provisions to the contrary, many of these standard elements of most provincial environmental legislation could be expected to apply to abandoned mine land abatement, remediation, and reclamation activities.

A number of aspects of provincial environmental law, policy, or practice merit special attention because of their (1) potential significance to, or direct impact on, abandoned mine land abatement, remediation, and reclamation activities, or (2) potential precedential value in how to address such activities.

Most provinces have legislation designed to avoid risks to worker and general public safety and health in the workplace including in the operation of mines.

Most provinces also have legislation authorizing the creation of local (municipal) governments as well as legislation that delegates to municipalities specific planning and regulatory powers over land uses. In exercising such powers, municipalities can play key roles with respect to environmental protection, including that arising from mining activity. The review below will examine briefly (1) matters of provincial interest that municipal authorities and others must have regard to in exercising their responsibilities under planning legislation and (2) powers delegated to municipal governments under such legislation.

Each of the above categories of law present both potential opportunities for, and obstacles to, facilitation of abatement, remediation, and reclamation of operating, contaminated, and orphaned/abandoned mines. The following review will summarize the legislation of nine provinces (excluding Prince Edward Island) that may be applicable to such activities.

²⁹⁸ See *e.g. Alberta Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12, s. 77 (any person engaged in an activity governed by the regulations may apply to the Minister for a certificate of variance to vary a term or condition of an approval or requirement of the regulations).

²⁹⁹ See *e.g. Environmental Protection Act*, R.S.O. 1990, E.19, ss. 139-140 (refusals to issue approvals, licences, permits, the imposition of terms and conditions on such instruments, or the issuance of orders entitles person to appeal such decisions to an administrative appeal tribunal established under the Act).

³⁰⁰ *Ibid.*, ss. 186-193 (general offence and penalty provisions for violation of the Act), 194 (duties, offences, and liability of directors and officers of corporations).

³⁰¹ *Ibid.*, Part X (duties and liabilities of owners and persons having control of pollutants that are spilled into the environment).

³⁰² See *e.g. Environmental Management Act*, S.B.C. 2003, c. 53, Part 4 (contaminated site remediation).

³⁰³ See *e.g. Environmental Protection Act*, S.N.L. 2002, c. E-14.2, s. 111 (regulation-making authority).

1. COMMON LAW

In the common law provinces of Canada there are a variety of causes of action that are available to individuals harmed by the actions of others. These various causes of action include:

1. negligence³⁰⁴ (including regulatory negligence);³⁰⁵
2. trespass to land;³⁰⁶
3. private nuisance;³⁰⁷
4. riparian rights;³⁰⁸
5. strict liability;³⁰⁹
6. public nuisance;³¹⁰
7. trespass to the person in the form of battery.³¹¹

Where a defendant is found liable in one or more of these torts (civil wrongs), the judge has a variety of remedies available, including awarding monetary compensation (damages), injunction, declaration, or other remedy.

³⁰⁴ Negligence is conduct that breaches a standard of care owed to a person who is harmed by that conduct. The elements to be proved by the plaintiff include the following. First, the plaintiff is within a class of persons to whom the defendant owed a duty of care. Second, the defendant's conduct fell below the standard required of a reasonable person engaged in the particular activity. Third, foreseeable damage (i.e. damage that is not too remote and that is caused in fact by the conduct) resulted from the breach of duty.

³⁰⁵ Negligence also is available against public authorities where harmful conduct is approved or where agency officials fail to take steps to prevent harm where they knew or ought to have known that harm would result. A public authority is not liable where conduct that results in harm is the result of a policy decision. However, liability in negligence may result if the conduct that results in harm arises from the operation of the policy, such as an inadequate or faulty system of inspection implemented pursuant to the policy.

³⁰⁶ Trespass is the physical invasion of property by people or objects however minute the invasion, without the consent of the owner or occupant. Liability in trespass does not depend on proof of damages. To deposit a foreign substance such as water or waste on the property of another, and in so doing disturb that person's possession of property, however slight the disturbance, constitutes trespass, regardless of whether the substance is toxic or non-toxic.

³⁰⁷ Private nuisance is the unreasonable interference with the owner's or occupier's use and enjoyment of land. Liability in private nuisance does not depend on physical invasion of land, as does trespass, or on interference with exclusive possession, but rather on interference with an owner's or occupier's interest in the beneficial use of land.

³⁰⁸ Riparian rights refers to the use and enjoyment of water in a stream, river, or lake arising from possession of land bordering on the water. An interest in the land gives a person the right to the continued flow of the water in its natural quantity and quality in an undiminished and unpolluted state. Actual damage need not be shown, just a deterioration in the quality of water flowing past the riparian owner's land.

³⁰⁹ Strict liability arises from the act of a person bringing onto his or her land something which is "not naturally" there, and which is likely to cause harm if it escapes. If it does escape, the person may be required to compensate another for injury or damages, although the loss was neither intentionally nor negligently inflicted.

³¹⁰ Public nuisance is an unreasonable interference with a right common to all members of the public. However, a private citizen may only bring an action in public nuisance upon suffering harm different from the harm suffered by the public (sometimes referred to as special damages). Where a plaintiff's injury is common to all and is no greater than that of other members of the public, only the attorney general of a province may sue in public nuisance to vindicate the right. Recent statutory reforms in Ontario now permit any person to bring an action who has suffered or may suffer a direct economic loss or direct personal injury because of a public nuisance causing environmental harm. The consent of the attorney general to bring the action is not necessary, nor is it relevant whether other persons have been similarly injured. *Environmental Bill of Rights*, 1993, S.O. 1993, c. 28, s. 103.

³¹¹ Battery is based on the deliberate application of force by one person to another that results in harmful or offensive contact. Such intention is difficult to prove in environmental cases. However, intention includes the doctrine of substantial certainty, which means that the courts will regard an act as intentional in law if the defendant can be said to (1) desire consequences that flow from the act; or (2) be substantially certain such consequences would occur.

There are a number of defences available to these causes of action including:

1. standing to sue;³¹²
2. statutory authority;³¹³
3. prescription;³¹⁴
4. acquiescence;³¹⁵
5. act of God;³¹⁶
6. deliberate act of a third person;³¹⁷
7. default of the plaintiff (person alleging harm).³¹⁸

Also some mining legislation of certain common-law provinces may provide mining companies with certain rights or easements on neighbouring lands to conduct mining activities. These provisions may limit the remedies available to persons alleging harm (e.g. availability of only monetary damages).³¹⁹ It is not clear whether an abandoned mine abatement, remediation, or reclamation project would be afforded such protection.

The above causes of action in the absence of a defence, such as statutory authority for undertaking a mine project, would provide persons alleging harm with a wide variety of claims to raise in a civil lawsuit against the source of such harm.

³¹² Lack of standing to sue arises primarily in the context of a public nuisance action. Unless the plaintiff can demonstrate special damage beyond that suffered by the public, only the attorney general may sue in public nuisance to vindicate the right.

³¹³ If a public authority has acted in conformity with its legislative mandate in approving or regulating an activity with potential environmental consequences, or if a member of the regulated community has complied with the terms and conditions of any permits issued to it, then these entities may not be liable for harm caused to persons or property. The courts have traditionally "read down," or narrowly interpreted, statutory provisions authorizing particular activities so as to minimize interference with the personal and property rights of individuals harmed by such activities.

³¹⁴ Prescription refers to the right to pollute a neighbour's lands that is acquired by one who has caused a private nuisance continuously for 20 years with the neighbour's knowledge and acquiescence. Where a court finds that a prescriptive right has been acquired, the court will not uphold the plaintiff's claim. However, prescription is not a defence to an action in public nuisance.

³¹⁵ Acquiescence refers to conduct by a plaintiff in expressly consenting or actively encouraging the offending activity of the defendant. Where the court finds acquiescent conduct by a plaintiff, the action will be barred. However, merely standing by will not constitute acquiescence by a plaintiff.

³¹⁶ An "act of God" refers to an unforeseeable and unavoidable natural phenomenon such as a flood, tornado, or earthquake.

³¹⁷ An act of a third person refers to an act of sabotage or related action by a person outside the control of the defendant.

³¹⁸ A plaintiff's consent to, or default in connection with, the conduct of the defendant (e.g. such as contributory negligence by the plaintiff) may be available as a defence to an action brought by the plaintiff.

³¹⁹ *Mining Act*, R.S.O. 1990, c. M.14, s. 175.

2. CIVIL LAW

The Civil Code of Quebec contains concepts of "abuse of rights" that are analogous to those found in the common law.³²⁰ These rights, in the absence of statutory authority for undertaking a mine project, would provide persons alleging harm from such activity with a wide variety of claims against the source of any harm.³²¹

³²⁰ See e.g. *Civil Code of Quebec*, S.Q. 1991, c. 64, arts. 7 (no right may be exercised with the intent of injuring another or in an excessive and unreasonable manner which is contrary to the requirements of good faith), 1457 (every person has a duty to abide by the rules of conduct which lie upon him so as not to cause injury and where such person, endowed with reason, fails in this duty, he is responsible for any injury caused). The *Civil Code of Quebec* also recognizes concepts of neighbourhood annoyances and riparian rights. *Ibid.*, arts. 976 (neighbours shall suffer the normal neighbourhood annoyances that are not beyond the limit of tolerance they owe each other, according to the nature or location of their land or local customs), 981 (a riparian owner may, for his needs, make use of a lake, the headwaters of a watercourse or any other watercourse bordering or crossing his land; as the water leaves his land, he shall direct it, not substantially changed in quality or quantity, into its regular course; no riparian owner may by his use of the water prevent other riparian owners from exercising the same right), 982 (unless it is contrary to the general interest, a person having a right to use a spring, lake, sheet of water, underground stream or any running water may, to prevent the water from being polluted or used up, require the destruction or modification of any works by which the water is being polluted or dried up).

³²¹ See generally L. Giroux and P. Halley, "Environmental Law in Quebec," in E.L. Hughes, A.R. Lucas, & W.A. Tilleman, eds., *Environmental Law and Policy*, 3d ed. (Toronto: Emond Montgomery, 2003) 133-146 (noting that 1999 judgment of Quebec Court of Appeal in *Gestion Serge LaFreniere v. Calve*, [1999] R.J.Q. 1313, addressed circumstances under which articles 976, 981-982 would take precedence over certificates of authorization issued under the province's *Environmental Quality Act*; court of appeal noting that an absolute position that articles under the *Quebec Civil Code* would always do so would deprive the holder of such certificate of any legal protection with respect to effluents covered by the authorization and would be unwarranted; whereas an activity likely to have an impact on environmental quality that was authorized without any specific contaminant discharge limits established by law, regulation, or in a certificate of authorization, could be trumped by the private law rules established under the *Quebec Civil Code*). *Ibid.* at 145-146.

3. BRITISH COLUMBIA

a. Mining Laws

ii. Mines Act

The *Mines Act*, administered by the Ministry of Energy, Mines and Petroleum Resources (“MEMPR”), is the primary mining law regulating mining activity in British Columbia.³²²

The Act defines a number of terms including abandoned mine,³²³ chief inspector,³²⁴ closed mine,³²⁵ code,³²⁶ detrimental environmental impact,³²⁷ manager,³²⁸ mine,³²⁹ mining activity,³³⁰ and owner.³³¹

The *Mines Act* establishes a **permit** regime for regulating mines, including their environmental impact. With some exceptions, an owner must obtain from the chief inspector a permit before commencing any work on the mine, and file a plan of the proposed work and a program for the protection and reclamation of the land and watercourses affected by the mine.³³² The reclamation code recognizes two permit application types: (1) exploration activity, and (2) proposed development or expansion of an operating mine.³³³

³²² R.S.B.C. 1996, c. 293. Other British Columbia mining laws, such as the *Mineral Tenure Act* R.S.B.C. 1996, c. 292, and the *Coal Act* R.S.B.C. 1996, c. 51, relate primarily to establishing the tenure, lease, or claim rights and obligations of the holders of such entitlements. One of the obligations of holders is to comply with the requirements of the *Mines Act* or risk losing these entitlements. See, e.g. Bill 28, *Coal Act, 2004*, 5th Legis. Sess., 37th Parl. (third reading, 27 April 2004), s. 25 (non-compliance with *Mines Act* or permit issued under it may lead to suspension or cancellation of entitlement under *Coal Act*).

³²³ R.S.B.C. 1996, c. 293, s. 1 (a mine for which all permit obligations under Act have been satisfied and in respect of which the mineral claims have reverted to the provincial government). This definition appears too narrow or inappropriate in the context of long abandoned/orphaned mine sites where permit obligations often have not been satisfied even if mineral claims have reverted to the Crown.

³²⁴ *Ibid.* (chief inspector of mines appointed by Minister).

³²⁵ *Ibid.* (mine at which all mining activities have ceased but in respect of which the owner, agent, manager, or permittee remains responsible for compliance with Act, regulations, reclamation code, and permit for that mine). This definition would not appear to capture orphaned mines where there may no longer be a person available or in existence upon whom compliance responsibility may be placed.

³²⁶ *Ibid.* (health, safety and reclamation code established under Act).

³²⁷ *Ibid.* (where quality of air, land or water substantially reduces usefulness of environment or its capacity to support life). A similar definition appears in the *Environmental Management Act*, S.B.C. 2003, c. 53, 1(2).

³²⁸ *Ibid.* (person appointed by owner who will be responsible for conducting operation of mine in accordance with Act, regulations, and code). See also s. 21.

³²⁹ *Ibid.*, s.1 (place where mechanical disturbance of ground or excavation made to explore for or produce coal, mineral bearing substances, placer minerals, rock, limestone, earth, clay, sand or gravel; all cleared areas, machinery and equipment for use in servicing mine or for use in connection with mine or buildings; exploratory drilling, excavation, processing, concentrating, waste disposal and site reclamation; closed and abandoned mines; and place designated as a mine by chief inspector).

³³⁰ *Ibid.* (exploration and development, or production of a mineral).

³³¹ *Ibid.* (person who is immediate holder, proprietor, lessee, occupier, or permittee of mine, but not a person who receives royalty, or owner of surface rights but who is not immediate holder).

³³² *Ibid.*, s. 10(1). The chief inspector may attach and revise conditions to the permit on the inspector’s own initiative or at the request of the owner. *Ibid.*, ss. 10(3)(6)(7). The chief inspector may exempt owners from the permit requirement if satisfied that, because of nature of proposed work, a permit is not necessary. *Ibid.*, s. 10(2). Where a person acquires a mine, before that person may engage in mining activity, he or she must apply to the chief inspector to obtain a permit, or amend an existing permit to identify that person as the permit holder. *Ibid.*, s. 11.1.

³³³ British Columbia Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: MEMPR, 2003), part 9 (mineral exploration), part 10 (reclamation and closure).

In terms of **assessment** activity required under the *Mines Act*, the code, which owners and managers must comply with,³³⁴ obligates owners or managers to submit an application containing the following information³³⁵ (1) regional and map(s), (2) present land use and watercourses and their conditions,³³⁶ (3) mine plan, (4) program for environmental protection of land and watercourse during construction and mining operations,³³⁷ (5) annual report, (6) 5-year operational reclamation plan, (7) conceptual final reclamation plan for closure or abandonment of mining operation,³³⁸ (8) cost estimate for reclamation.³³⁹ A manager, appointed under the Act to be responsible for the management or operation of a mine, may request a variance of a provision of the regulations or Code established under the Act. The chief inspector for mines may approve the variance if he or she believes the provision to be varied does not operate in the best interest of, or is not necessary to, health and safety in an individual mine.³⁴⁰

The code imposes **monitoring** obligations on mining owners or managers to demonstrate that they are achieving reclamation and environmental protection objectives including those pertaining to land use, productivity, water quality, and structural stability.³⁴¹ The Act authorizes the appointment of mining inspectors with authority to inspect, at any time, a (1) mine, or (2) site considered by the inspector to be a mining site operating without a permit.³⁴²

³³⁴ R.S.B.C. 1996, c. 293, s. 24.

³³⁵ British Columbia Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: MEMPR, 2003), part 10.1.2 (for proposed coal and mineral mines, major modifications to existing mines, and major exploration and development).

³³⁶ *Ibid.*, part 10.1.4 (2) (essentially a description of the existing natural and human environment).

³³⁷ *Ibid.*, part 10.1.4 (4) (prevention, mitigation, and monitoring measures to ensure code standards on dam safety, waste and water management, and metal leaching and acid rock drainage are met). British Columbia has both a policy and guidelines on metal leaching and acid rock drainage at mine sites. See e.g. British Columbia Ministry of Energy and Mines, *Guidelines for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia*, by W.A. Price and J.C. Errington (Victoria: MEM, 1998) (noting that there are numerous examples throughout the world where elevated concentrations of metals in mine drainage have adverse effects on aquatic resources and prevent reclamation of mined land; once initiated metal leaching may persist for hundreds of years; acid rock drainage liability associated with existing Canadian tailings and waste rock is estimated to be between \$2-5 billion; due to poor historical practices, large remediation costs, technical uncertainty, and the potential for negative environmental impacts, metal leaching and acid rock drainage are major issues of public policy and regulatory concern) at 4.

³³⁸ *Ibid.*, part 10.1.4 (7) (plan for long term post-closure maintenance of facilities, and proposed use and capability objectives for land and watercourses). The code also sets out standards for mine closure (part 10.6), and reclamation (part 10.7).

³³⁹ *Ibid.*, part 10.1.4 (8) (estimate of total expected costs of outstanding reclamation obligations over planned life of mine, including long term monitoring and maintenance costs). The province also has provided guidance on cost estimates. See British Columbia Ministry of Energy, Mines and Petroleum Resources, *Mine Reclamation: Costing and Spreadsheet: Version 3.5.1* (Victoria: MEMPR, 2004) (noting that estimating cost of mine reclamation in British Columbia is made more challenging by mountainous terrain and natural environment complexity) at 5.

³⁴⁰ R.S.B.C. 1996, c. 293, s. 13. This variance authority would appear to be too narrow to apply with respect to voluntary environmental abatement, remediation, or reclamation activity at abandoned mines because the provision appears (1) limited to health and safety matters and not environmental matters, and (2) to be directed primarily to the stage when the mine is being developed or is operating.

³⁴¹ British Columbia Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: MEMPR, 2003), part 10.7.30 (monitoring).

³⁴² R.S.B.C. 1996, c. 293, s. 15(1).

Non-compliance by a mine owner or manager with the Act, regulations, the code, or a permit may attract quasi-criminal,³⁴³ administrative,³⁴⁴ or civil³⁴⁵ **liability**.

In terms of **emergency response** action, the *Mines Act* authorizes provincial inspectors to undertake work in connection with a closed or abandoned mine in order to avoid danger to persons, to property, or to abate pollution of the land and watercourses affected by the mine.³⁴⁶

In terms of **financial** measures, the chief inspector may impose as a condition of permit issuance that the owner, manager, or permittee provide security in the amount and form specified by the chief inspector (1) for mine reclamation, and (2) to provide for protection of, and mitigation of damage to, watercourses affected by the mine.³⁴⁷ The Act authorizes establishment of a Mine Reclamation Fund where securities are credited for each owner individually.³⁴⁸ The MEMPR has established a reclamation security performance bond policy that requires that “hard” security must be in the form of (1) cash, (2) irrevocable letter or credit, or (3) a variety of guaranteed financial instruments. In addition, a performance bond provided by an insurance company is necessary such that the performance bond together with the other forms of security will fully secure outstanding liabilities related to protection and reclamation of lands and watercourses affected by a mine.³⁴⁹

With respect to recovery of public funds, the Act requires that the costs of work to abate a danger at closed or abandoned mines are to be paid from the provincial consolidated revenue fund, and they become a debt due to the government, and form a lien and charge on the mine or mineral title in favour of the government. The Act requires further that no transfer of title or other dealing with the mine may take place until the debt is paid and notice of debt, registered on title, is cancelled. The Act further permits the Minister, with or without payment and on such conditions as the Minister may impose, to cancel the notice and allow the mine to be transferred or otherwise dealt with.³⁵⁰ As drafted, this authority may either frustrate or encourage voluntary abandoned mine land abatement, remediation, or reclamation.

In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for MEMPR to abate a danger at closed or abandoned mines and expend public funds in

³⁴³ *Ibid.*, s. 37.

³⁴⁴ See e.g. ss. 10(8) (chief inspector may order cessation of mining operation, apply all or part of security toward cost of remedial work, close mine, or cancel permit where reclamation program or permit condition not being complied with), 15(4.1)(5) (inspector may order owner, manager, permittee, or person in charge to take immediate remedial action, suspend work, or close all or part of mine where inspector has reasonable grounds for believing contravention of Act, regulation, code, or permit having detrimental environmental impact or dangerous to persons or property), 35(1) (inspector may order compliance by owner, manager, permittee, or person in charge with section 15 order, Act, regulation, code, or permit).

³⁴⁵ *Ibid.*, s. 35(2) (where section 35(1) order not complied with, inspector may apply to Supreme Court of British Columbia for an order [injunction] directing person to comply).

³⁴⁶ *Ibid.*, s. 17(1).

³⁴⁷ *Ibid.*, s. 10(4). The chief inspector may on an annual basis, or as necessary, increase or decrease the amount of the security. *Ibid.*, s. 10(5)(7).

³⁴⁸ *Ibid.*, s. 12. See also *Mine Reclamation Fund Regulation*, B.C. Reg. 287/94, s. 1 (establishing Fund authorized by Act).

³⁴⁹ British Columbia Ministry of Energy, Mines and Petroleum Resources, *Reclamation Security Policy Performance Bonds* (Victoria: MEMPR, 2002) (hard security refers to an amount that will fully cover the next five-year period). Guaranteed financial instruments include fully registered marketable bonds, treasury bills, guaranteed investment certificates, or term deposits. *Ibid.*

³⁵⁰ R.S.B.C. 1996, c. 293, s. 17(2)-(5).

doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

In terms of the **application** of the Act, the regime applies to all mines during exploration, development, construction, production, closure, reclamation and abandonment.³⁵¹

As noted above, the *Mines Act* defines both “closed” and “abandoned mines.” However, the definition for closed mine (mining ceased but owner still responsible for compliance) would not appear to capture orphaned mines where there may no longer be a person available or in existence upon whom compliance responsibility may be placed. Similarly, the definition for abandoned mine (mine where permit obligations satisfied and mineral claims reverted to government) appears too narrow or inappropriate in the context of long abandoned/orphaned mine sites where permit obligations often have not been satisfied even if mineral claims have reverted to the Crown. The Act does not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

With respect to the issue of **community involvement**, the code states that when required by an inspector, an applicant for a permit under the *Mines Act* must publish a notice in the *British Columbia Gazette* and in local newspapers announcing the filing of the application. Persons affected by, or interested in, the application then have 30 days to view the application and make written representations to the chief inspector.³⁵²

b. Environmental Laws

i. Environmental Management Act

The *Environmental Management Act* (“EMA”),³⁵³ administered by the Ministry of the Environment (“MOE”), contains the typical elements of provincial environmental legislation noted above that also can apply generally to mining activity.

The Act defines a number of terms including detrimental environmental impact,³⁵⁴ effluent,³⁵⁵ environment,³⁵⁶ introduce into the environment,³⁵⁷ land,³⁵⁸ pollution,³⁵⁹ remediation,³⁶⁰ waste,³⁶¹ water,³⁶² and works.³⁶³

³⁵¹ *Ibid.*, s. 2.

³⁵² British Columbia Ministry of Energy, Mines and Petroleum Resources, *Health, Safety and Reclamation Code for Mines in British Columbia* (Victoria: MEMPR, 2003), part 10.2.1 – 10.2.2.

³⁵³ S.B.C. 2003, c. 53. This Act repealed and replaced the former *Waste Management Act* in 2004 (R.S.B.C. 1996, c. 482). At the same time, the current *EMA* repealed and replaced an earlier statute of the same name.

³⁵⁴ *Ibid.*, s. 1(2) (change in quality of air, land, water that substantially reduces usefulness of environment or its capacity to support life). A similar definition appears in the *Mines Act*, R.S.B.C. 1996, c. 293, s. 1.

³⁵⁵ *Ibid.*, s. 1(1) (substance introduced into water or land that injures health or safety of persons, property, or life forms; interferes with visibility, or normal conduct of business; causes material discomfort to persons, or damages environment; or is capable of doing any of the above).

³⁵⁶ *Ibid.* (air, land, water and all external conditions under which humans, animals, or plants live or develop).

³⁵⁷ *Ibid.* (in relation to waste includes discharge, emit, dump, abandon, spill, release, or allow to escape).

³⁵⁸ *Ibid.* (solid part of earth’s surface including foreshore and land covered by water).

³⁵⁹ *Ibid.* (presence in environment of substances or contaminants that substantially alter or impair usefulness of environment).

³⁶⁰ *Ibid.* (eliminate, limit, correct, counteract, mitigate, or remove contaminant or adverse effects on environment or human health of contaminant).

³⁶¹ *Ibid.* (air contaminants, effluent, or substances prescribed by provincial cabinet).

³⁶² *Ibid.* (surface water and groundwater).

³⁶³ *Ibid.* (machinery, equipment, devices that are used to monitor or cleanup waste or pollution).

The *EMA* establishes a **permit** regime for prescribed industries, trades, businesses, operations, and activities.³⁶⁴ Regulations under the Act prescribe the mining and coal mining industry.³⁶⁵

The Act establishes certain information requirements necessary for **assessment** of permit applications. For example, the director may require a permittee to conduct studies specified by the director.³⁶⁶ The Act also authorizes the Minister to require that a person provide an environmental impact assessment (“EIA”) if the Minister considers that (a) something the person proposes to do will have a detrimental environmental impact, and (b) the Minister cannot assess the environmental impact from information available.³⁶⁷ The Act does not link specifically the obligation to undertake an EIA with the obligation to obtain a permit. However, the generality of the EIA requirement would appear to include the possibility of its application in the context of the permit regime.

The *EMA* also establishes the regulatory framework and rules for assessment and remediation of contaminated sites.³⁶⁸ A director may order an owner or operator of a site, at their own expense, to undertake a preliminary site investigation and to prepare a report if the director reasonably suspects, based on a site profile, that the site may be a contaminated site, or contains substances that may threaten or cause adverse effects on human health.³⁶⁹ The determination of whether a site is contaminated is made on the basis of standards and criteria set out in the regulations with respect to such matters as soils, sediments, surface water, and groundwater.³⁷⁰ In general, the contaminated site assessment requirements would appear to apply to mining activity in the province.

³⁶⁴ *Ibid.*, ss. 6 (prohibiting disposition of waste by prescribed industry without valid and subsisting permit), 14 (authorizing issuance of permits by director), 16 (authorizing amendment of permits by director), 17 (authorizing permit transfer with consent of director). However, section 6(5)(m) of the *EMA* exempts mineral or coal exploration if the activity also has been exempted from the *Mines Act* permit requirements by section 10(2) of the latter statute.

³⁶⁵ *Waste Discharge Regulation*, B.C. Reg. 320/2004, s. 2(1), Schedule 1, and Table to Schedule 1 – mining and coal mining industry). The regulation states that this industrial category includes establishments engaged in mining metals, non-metals, coal, or industrial mineral ores but not exploration site activity defined under section 65 of the *EMA*; the discharge of coarse coal refuse, waste rock, or overburden if the discharge is managed in accordance with a permit issued under section 10 of the *Mines Act*; or gravel, sand, crushed rock, or stone quarry activity. *Ibid.*, Schedule 1.

³⁶⁶ S.B.C. 2003, c. 53, s. 14(1)(d). Given the adverse effects that mining activity can have on water quality arising from metal leaching and acid rock drainage, assessment activity under the *EMA* prior to issuance of a permit likely would include consideration of the policy and guidelines developed by the province’s environment and mining ministries on this issue. See British Columbia Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, *Policy for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia* (Victoria: MEM, 1998); and British Columbia Ministry of Energy and Mines, *Guidelines for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia*, by W.A. Price and J.C. Errington (Victoria: MEM, 1998).

³⁶⁷ *Ibid.*, s. 78. See also *Environmental Impact Assessment Regulation*, B.C. 330/81, as am., ss. 2 (assessment to contain information on detrimental and beneficial environmental impact on water and air quality, land and water use, aquatic and terrestrial ecology), 3 (assessment also must contain description of proposal and timetable for implementation; description of existing state of environment in vicinity of location of proposal, and; identification of all anticipated environmental impacts attributable to proposal and measures to be implemented to avoid adverse environmental impacts and maximize environmental benefits).

³⁶⁸ S.B.C. 2003, c. 53, Part 4 (contaminated site remediation). The Act defines a “contaminated site” as an area of land in which the soil, groundwater, surface water, or sediments contain hazardous waste, or another prescribed substance in quantities or concentrations exceeding prescribed risk based or numerical criteria, standards, or conditions. *Ibid.*, s. 39(1). See also *Contaminated Sites Regulation*, B.C. 375/96, as am.

³⁶⁹ S.B.C. 2003, c. 53, s. 41. The Act defines an “owner” as a person who is in possession, has the right of control, or who occupies or controls the use of real property. The Act defines an “operator” as a person who is or was in control of, or responsible for, any operation at a contaminated site. *Ibid.*, s. 39(1).

³⁷⁰ *Contaminated Sites Regulation*, B.C. 375/96, as am., Part 5 (contaminated site definition and determination), Part 14 (site investigations), and Schedules.

The *EMA* authorizes a director to impose **monitoring** obligations on permittees as a condition of obtaining a permit.³⁷¹ The Act also authorizes conservation officers to inspect activities or facilities that may discharge waste.³⁷² Furthermore, the Act authorizes a director to inspect and monitor contaminated site remediation activities to ensure compliance with the regulations.³⁷³

The Act imposes administrative,³⁷⁴ quasi-criminal,³⁷⁵ and civil³⁷⁶ **liability** on persons found responsible for pollution generally, or contaminated sites, in particular. With respect to contaminated sites, the *EMA* normally imposes liability that is absolute, retroactive, joint, and separate,³⁷⁷ on the following categories of "responsible persons:"

1. a current owner or operator of the site;
2. a previous owner or operator of the site;
3. a person who
 - produced a substance, and
 - by contract, agreement or otherwise cause the substance to be disposed of, handled or treated in a manner that, in whole or in part, caused the site to become a contaminated site;
4. a person who
 - transported or arranged for transfer of a substance, and
 - by contract, agreement or otherwise caused the substance to be disposed of, handled or treated in a manner that, in whole or in part, caused the site to become a contaminated site;
5. a person who is in a class designated in the regulations as responsible for remediation.³⁷⁸

However, the *EMA*, apart from the special mine site provisions noted below, also provides companies with other opportunities to determine, manage, and limit their liability through such measures as:

1. entering into voluntary remediation agreements;³⁷⁹
2. seeking an opinion from an allocation panel regarding appropriate share of liability;³⁸⁰
3. undertaking onsite risk management activities, and obtaining certificates of compliance, that provide assurance to lenders and constitute a statutory defence in private cost recovery lawsuits;³⁸¹ and
4. obtaining a minor contributor status ruling if the company has contributed only a small portion of a site's contamination.³⁸²

³⁷¹ S.B.C. 2003, c. 53, s. 14(1)(c)(e).

³⁷² *Ibid.*, ss. 107-109.

³⁷³ *Ibid.*, s. 54(3)(a).

³⁷⁴ *Ibid.*, ss. 48 (contaminated site remediation orders), 79-80 (spill prevention, reporting, and response actions), 81 (pollution prevention orders), 83 (pollution abatement orders), 85 (environmental protection orders).

³⁷⁵ *Ibid.*, Part 10, ss. 120-122 (offence for individuals or corporations to violate Act, regulations, permits, orders).

³⁷⁶ *Ibid.*, s. 59 (authority for government cost recovery if it carries out remediation on orphaned site; government can clean-up site and costs thereof become debt due government recoverable in Supreme Court; debt also treated as a lien against real property of debtor and takes priority against all other creditors other than a lien for wages).

³⁷⁷ *Ibid.*, s. 47(1).

³⁷⁸ *Ibid.*, s. 45.

³⁷⁹ *Ibid.*, s. 51.

³⁸⁰ *Ibid.*, s. 49.

³⁸¹ *Ibid.*, s. 53.

³⁸² *Ibid.*, s. 50. Minor contributors are not jointly and severally liable for all remediation costs, but only are responsible for the portion of the remediation costs that the government determines is attributable to the minor contributor. *Ibid.*

In addition, although secured creditors are responsible persons under the *EMA* and, in the normal course, if they assume ownership or exercise control over the operation of a contaminated site would face potential liability for the site's remediation,³⁸³ they are exempt from liability if they act primarily to protect their security interest when they:

1. participate only in purely financial matters related to the site;
2. have the capacity or ability to influence the operation of the site in a way that would have the effect of causing or increasing contamination, but do not exercise that capacity or ability;
3. impose requirements on any person but the requirements do not have a reasonable probability of causing or increasing contamination at the site; or
4. appoint a person to inspect and investigate a contaminated site to determine future steps or actions that the secured creditor might take.³⁸⁴

The effect of this exemption is to encourage potential clean-ups of contaminated properties by persons who did not cause the original contamination. A provision of this type could be viewed as a precedent for extension to voluntary abandoned mine abatement, remediation, and reclamation activities.

Furthermore, the province has established a new regime concerning "historic mine site" contamination that will work in conjunction with the province's existing contaminated sites regime.³⁸⁵ The amendments define an "historic mine site" as an area:

1. where mechanical disturbance of the ground or any excavation has been made to produce coal or mineral bearing substances, including a site used for processing, concentrating, or waste disposal; and
2. for which a *Mines Act* permit does not exist and no identifiable owner or operator is taking responsibility for contamination at the site.³⁸⁶

The amendments create two exemptions from remediation liability at historic mine sites. A person is not responsible for remediation at a historic mine site if:

1. indemnification has been provided to the person for that site under the *Financial Administration Act*; or
2. the person has acquired the mineral or coal rights at the site for the purpose of undertaking mineral or coal exploration activities and the exploration activities have not exacerbated any contamination that existed at the time the person acquired these mineral or coal rights.³⁸⁷

These amendments arose out of recommendations made to the provincial government in 2001 that included development of "good samaritan" type legislative reforms.³⁸⁸ However, the reforms actually

³⁸³ *Ibid.*, s. 45(3)(a)(b).

³⁸⁴ *Ibid.*, s. 45(4)(a)-(d).

³⁸⁵ Bill 32, *Waste Management Amendment Act, 2002*, 3rd Sess., 37th Parl., B.C., 2002 (assented to 10 May 2002). The amendments created a new Part 4.1 (remediation of mineral exploration sites and mines). See now S.B.C. 2003, c. 53, Part 5.

³⁸⁶ S.B.C. 2003, c. 53, s. 65(1).

³⁸⁷ *Ibid.*, s. 69 (exempting such persons from section 45 of *EMA*).

³⁸⁸ British Columbia Ministry of Energy and Mines & Ministry of Environment, Lands, and Parks, *External Review of Mine Reclamation and Environmental Protection Under the Mines Act and Waste Management Act*, by P. Houlihan & J. Titerle (Victoria, B.C.: MEM & MELP, 2001) at 77 (noting that mining company representatives advised the authors that, in certain situations, mining companies would be willing to carry out remediation work voluntarily at historic mine sites in the vicinity of their operations if such work did not lead to liability for the companies. However, companies are reluctant to carry out volunteer work because they will thereby become a "responsible person" in respect of the site), 78, 90 (recommending exempting a mining company from being a "responsible person" under the contaminated sites provisions).

implemented by the province appear to focus on facilitating "remining" activity and not necessarily voluntary remediation of historic mine sites.

To apparent similar effect are other amendments that define (1) exploration sites,³⁸⁹ (2) advanced exploration sites,³⁹⁰ and (3) producing or past producing mine sites³⁹¹ and exempt each from certain types of liability under the *EMA*. The provisions for exempting certain mining categories from liability (and also exempting them from the obligation to provide security under the *EMA*, discussed below) have been criticized by a non-governmental organization as having the potential to lead to (1) "more abandoned contaminated mine sites," and (2) "public liability replacing private liability for mine site clean up."³⁹²

The *EMA* appears to recognize two types of situations that would justify **emergency response** action by government: (1) environmental emergencies,³⁹³ and (2) high risk orphan sites.³⁹⁴

in respect of a contaminated site as a result of carrying out "good samaritan" remediation if (1) prior to commencing the remediation, the mining company was not a "responsible person" in respect of the site; and (2) MEM and MELP approve of the work. The exemption would not apply, however, to the extent the contamination is caused or exacerbated by work carried out negligently by the mining company).

³⁸⁹ S.B.C. 2003, c. 53, ss. 65(1) (means area with valid mineral title under *Mineral Tenure Act*, Crown granted claim under *Land Act*, or location under *Coal Act* where mineral or coal exploration activities have been undertaken if bulk samples not taken, and bedrock not excavated for underground development), 66 (current and previous owner or operator including those with valid bond under *Mines Act* not responsible for exploration site remediation under section 45, or subject to section 48 remediation order, section 81 pollution prevention order, section 83 pollution abatement order, or required to post security, or pay fees except with respect to remediation of spills of substances).

³⁹⁰ *Ibid.*, s. 65(1) (means area with valid mineral title under *Mineral Tenure Act*, Crown granted claim under *Land Act*, or location under *Coal Act* where mineral or coal exploration activities have been undertaken if bedrock excavated and, for example, less than 1000 tonnes removed as bulk samples), 67 (previous owner or operator that obtains transfer agreement excluding liability for contaminated site, or has been indemnified for site under *Financial Administration Act* not responsible for exploration site remediation under section 45; current or previous owner or operator of a core area [e.g. area where waste rock or mine tailings placed] not subject to section 48 remediation order; director may not require or accept security under *EMA* for remediation of such a site; and director cannot require fees for contaminated site remediation except for remediation of spills of substances, or a section 48 remediation order in relation to a non-core-area).

³⁹¹ *Ibid.*, s. 65(1) (means area with mineral title under *Mineral Tenure Act*, Crown granted claim under *Land Act*, or location under *Coal Act*, where there is a valid permit under *Mines Act*, and that is currently producing or has produced minerals or coal, with bedrock excavated and more than 1000 tonnes of bulk samples removed, or 50,000 tonnes of coal removed, or 200,000 tonnes of total material including coal disturbed), 68 (owner or operator that obtains transfer agreement excluding liability for contaminated site, or has been indemnified for site under *Financial Administration Act* not responsible for exploration site remediation under section 45; director may not issue section 48 remediation order in relation to remediation of core area of a producing or past producing mine unless chief inspector under *Mines Act* makes request, this was agreed to as part of dispute resolution process, or land and water use at the site formally changed from those approved in *Mines Act* permit; with above exceptions, director may not request security; and fees payable only with respect to remediation of spills of substances, transfer agreement involving core area, section 48 remediation order for non-core area remediation, or formal change in land or water from those uses approved in *Mines Act* permit).

³⁹² West Coast Environmental Law Association, *Background: Bill 32 – Waste Management Amendment Act, 2002, Proposed Part 4.1 (Contaminated Site Regime)* (Vancouver: WCEL, 2002) (suggesting that pre-exemption liability provisions important factor leading to agreement on Britannia mine that saw mining companies contribute \$30 million as part of clean up agreement).

³⁹³ *Ibid.*, ss. 87-88 (environmental emergency defined as including "a spill or leakage of oil or of a poisonous or dangerous substance"; minister must declare in writing as existing and immediate action necessary to prevent, lessen or control hazard presented by emergency before authorizing expenditure of public funds).

³⁹⁴ *Contaminated Sites Regulation*, B.C. 375/96, as am., ss. 61 (orphan site defined as a contaminated site for which: (1) a responsible person cannot be found or is not willing or financially able to carry out remediation in a time frame specified by director, or (2) a government body has become the owner subsequent to the failure of the former owner to comply with a requirement to carry out remediation at the site), 62 (determination that orphan site is a high risk orphan site to be made in accordance with a classification in director's protocol). S.B.C. 2003, c. 53, s. 58 (where director makes determination that orphan site is high risk, minister may declare in writing that it is necessary for protection of human health or the environment that government undertake remediation).

Financial measures authorized by the *EMA* that may be applicable to mining activity include the authority for a director under the *EMA* to (1) require a permittee to give security in the amount and form and subject to conditions the director specifies;³⁹⁵ and (2) impose security obligations on persons generally responsible for remediation of contaminated sites³⁹⁶ but not for remediation of exploration, advanced exploration, or producing or past producing mine sites.³⁹⁷ As noted above, exemptions for certain mining categories from having to provide security under the *EMA* also have been criticized by one non-government organization as leaving in place what this group describes as an “inadequate” reclamation bonding process under the *Mines Act* with respect to such matters as tailings dam failures, contaminated sites, and spills.³⁹⁸ MEMPR disputes this view though the ministry acknowledges that it does not require insurance policies against tailings dam failures and spills under the *Mines Act*. MEMPR indicates that it does require very detailed design and construction level supervision by qualified professional engineers at every stage of mine development to reduce the risk of catastrophic failures to a very low level. MEMPR could think of no examples of such failures in British Columbia, nor could the ministry see how the security provisions of the *EMA* could anticipate the costs of remediating such occurrences. The concern of the non-government organization appears to be that the impact of exemption from (1) liability, and (2) the obligation to provide security for certain mining categories under the *EMA* heightens the potential for the creation of more abandoned mine sites and public expenditures with respect thereto in future. However, assuming MEMPR is correct that anticipating the costs of remediation in advance for tailings dam failures and spills is difficult for the purposes of posting financial security requirements, then this may underscore the need for some type of orphaned/abandoned mine fund.

Funds expended by the government to address environmental emergencies and undertake high risk orphan site remediation are a debt due the government that is recoverable in an action in the Supreme Court of British Columbia.³⁹⁹ In the case of contaminated site remediation by the government the minister also may register a lien against the property that is payable in priority over all other liens except a lien for wages due workers.⁴⁰⁰

Furthermore, regulations under the *EMA* establish (1) annual fees payable for waste discharges subject to the Act (e.g. mining and coal mining industry),⁴⁰¹ and (2) fees payable in connection with contaminated site remediation.⁴⁰² Because of the extent to which certain types of mining activity are exempt from the liability provisions of the contaminated site regime established under the Act, it is not clear the extent to which the fee obligations would apply to mining activity.

In terms of the scope of the **application** of the *EMA*, the regime applies mainly to (1) prescribed industries, trades, businesses, operations, and activities (e.g. mining and coal mining industry) for purposes of requiring permits, and (2) responsible persons for purposes of contaminated site remediation. However, authorities under the Act, noted above, exempt several mine site categories (exploration, advanced exploration, producing and past producing, and historic) from certain types of liability, financial security, and fee obligations under the Act.

³⁹⁵ S.B.C. 2003, c. 53, s. 14(1)(b).

³⁹⁶ *Contaminated Sites Regulation*, B.C. 375/96, as am., ss. 48, 50.

³⁹⁷ S.B.C. 2003, c. 53, ss. 66-68.

³⁹⁸ West Coast Environmental Law Association, Background: Bill 32 – Waste Management Amendment Act, 2002, Proposed Part 4.1 (Contaminated Site Regime) (Vancouver: WCEL, 2002).

³⁹⁹ *Ibid.*, ss. 88 (cost recovery by government in responding to environmental emergency), 59 (cost recovery where government carries out contaminated site remediation).

⁴⁰⁰ *Ibid.*, s. 59(4)(5).

⁴⁰¹ *Waste Discharge Regulation*, B.C. Reg. 320/2004, s. 9 and Schedules.

⁴⁰² *Contaminated Sites Regulation*, B.C. 375/96, as am., s. 9 and Schedule 3.

The *EMA* does not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, as noted above, the regulations define an “orphan site” as a contaminated site for which: (1) a responsible person cannot be found or is not willing or financially able to carry out remediation in a time frame specified by the director, or where (2) a government body has become the owner subsequent to the failure of the former owner to comply with a requirement to carry out remediation at the site.⁴⁰³ The regulations also authorize a determination that an orphan site is a “high risk orphan site” based on a classification to be developed in a director’s protocol,⁴⁰⁴ and which is a precondition for emergency response action by the Minister.⁴⁰⁵

Furthermore, and as noted above, the Act defines an “historic mine site” as an area (1) where mechanical disturbance of the ground or any excavation has been made to produce coal or mineral bearing substances, including a site used for processing, concentrating, or waste disposal; and (2) for which a *Mines Act* permit does not exist and no identifiable owner or operator is taking responsibility for contamination at the site.⁴⁰⁶ Accordingly, the definitions for “orphan site” and “historic mine site” largely dovetail such that many historic mine sites also will be orphan sites. In this regard, the Act’s definitions for these two types of sites are relevant to the production of an inventory of historic mine sites (though not by the Ministry of the Environment or under the authority of the *EMA*) discussed below. The high risk orphan site provision also may be of assistance in prioritizing abandoned mine lands that should be the focus of voluntary, or governmental, abatement, remediation, and reclamation activity.

Finally, the *EMA* contaminated site regime also requires the Minister to establish a registry of sites. The Act authorizes the compilation in the registry of information on each site’s status, any orders, approvals, voluntary remediation agreements, or other pertinent information applicable to the site.⁴⁰⁷ The existence of such a registry is a further precedent for statutory authority to define orphaned/ abandoned mines, set criteria for identifying these facilities, and authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *EMA* sets out public consultation obligations in the context of (1) permit applications,⁴⁰⁸ and (2) contaminated site remediation.⁴⁰⁹

⁴⁰³ *Ibid.*, s. 61. In this regard, the provincial legislature enacted amendments to the Act in 2004 that would grant discretion to the Minister to establish a Land Remediation Fund that has as one of its objects “funding for the purposes of government programs in relation to...orphan site remediation.” The other objects of the Fund are (1) brownfield development, and (2) domestic and commercial underground tank remediation. *Environmental Management Amendment Act, 2004*, S.B.C. 2004, c. 18, s. 12 [creating a section 61.1 in the Act]. It is not clear whether the source of monies for the Fund will come solely from the provincial government nor the extent to which, if at all, the Fund will apply to orphaned/abandoned mines. As of September 2006, the provision was not in force.

⁴⁰⁴ *Contaminated Sites Regulation*, B.C. 375/96, as am., s. 62.

⁴⁰⁵ S.B.C. 2003, c. 53, s. 58.

⁴⁰⁶ *Ibid.*, s. 65(1).

⁴⁰⁷ *Ibid.*, s. 43. See also *Contaminated Sites Regulation*, B.C. 375/96, as am., s. 8.

⁴⁰⁸ *Public Notification Regulation*, B.C. 202/94, as am., ss. 2-8 and Schedule A (at minimum permit applicant must give notice to public in *British Columbia Gazette* and local newspaper; persons who may be adversely affected by granting of permit have 30 days to submit written comments to director who may take into consideration such information received; applicant must, if required by director, meet with affected persons to explain application and effects of any discharges on environment; and director must give notice of decision to those submitting written comments).

⁴⁰⁹ S.B.C. 2003, c. 53, s. 52 (director may order responsible person to provide for public consultation on proposed remediation or public review of remediation activities; director may take into account variety of factors [e.g. potential environmental and human health effects] before deciding to issue public consultation order). See also *Contaminated Sites Regulation*, B.C. 375/96, as am., s. 55 (particulars of director’s powers to order responsible person to engage in public consultation include requiring posting of notice of proposed remediation in publicly visible location on site; publishing information in newspaper, or personally serving adversely affected persons, with respect to site investigations, remediation alternatives and plans; holding public information meetings or providing public access to reports).

ii. Environmental Assessment Act

The province's first *Environmental Assessment Act* ("EAA") came into force in 1995.⁴¹⁰ In December 2002, the provincial legislature repealed and replaced the 1995 law with a new statute by the same name.⁴¹¹ As of mid-2005 the Ministry of Environment administers the Act.

The *EAA* defines certain terms including project,⁴¹² proponent,⁴¹³ responsible minister,⁴¹⁴ and reviewable project.⁴¹⁵

The *EAA* requires that certain large-scale project proposals undergo an environmental assessment ("EA") and obtain a **permit** (called an environmental assessment certificate – hereinafter "EA certificate") before they can proceed.⁴¹⁶ The regulations define the types and sizes of projects that may be subject to the Act (called reviewable projects). Mine projects, such as coal and mineral mines, as defined in the regulation are included.⁴¹⁷ However, the threshold production level at which new and existing coal and mineral mines would qualify as reviewable projects that must be assessed has increased from what it was in the late 1990s.⁴¹⁸ In addition, some non-governmental organizations regard the reviewable projects regulation under the new *EAA* not as an automatic trigger for obtaining an EA certificate and undertaking an EA – as

⁴¹⁰ For a description of the 1995 Act in the context of mining projects see J.F. Castrilli, "Environmental Regulation of the Mining Industry in Canada: An Update of Legal and Regulatory Requirements" (2000) 34 U.B.C.L.R. 91 at 124-126.

⁴¹¹ S.B.C. 2002, c. 43 (repealing and replacing R.S.B.C. 1996, c. 119).

⁴¹² *Ibid.*, s. 1 (any activity that has or may have adverse effects, or construction, operation, modification, dismantling, or abandonment of a physical work).

⁴¹³ *Ibid.* (person or organization that proposes to undertake a reviewable project including all levels of government or a first nation).

⁴¹⁴ *Ibid.* (minister designated by provincial cabinet as the minister responsible for a reviewable project).

⁴¹⁵ *Ibid.* (project prescribed by the Act or regulations and includes on-site and off-site facilities, and activities related to the project).

⁴¹⁶ *Ibid.*, ss. 5 (projects that are reviewable established by regulation), 6 (minister also may designate project as reviewable if not meet requirements of regulation), 7 (executive director of Environmental Assessment Office – "EAO" – established under Act also may designate projects as reviewable), 8 (reviewable projects may not proceed without EA certificate), 9 (ministers may not issue permit, etc. under other laws until EA certificate for reviewable project issued or determined not to required for project under *EAA*), 10 (executive director also may determine that a reviewable project will not have significant adverse environmental, social, economic, heritage, or health effects with mitigation in which case an EA certificate is not required and project may proceed without an assessment), 16 (proponent of reviewable project for which EA certificate required must apply to executive director).

⁴¹⁷ *Ibid.*, s. 5. *Reviewable Projects Regulation*, B.C. Reg. 370/2002, Part 3 – Mine Projects, ss. 7-8 and Table 6. A new coal mine project is a reviewable project if during operation it will have a production capacity of at least 250,000 tonnes per year of clean coal or raw coal, or a combination thereof. *Ibid.*, Table 6. A modified existing coal mine project is a reviewable project if it meets the same requirements as a new coal mine project and if the modification will result in a disturbance of at least 750 new hectares of land, or if the new area of disturbance is at least 50% of that created by the existing facility. *Ibid.*, s. 8(1), and Table 6. The regulation defines "clean coal" as coal that requires processing in a coal preparation plant before transport from the mine site. The regulation defines "raw coal" as coal that does not require such processing before transport from the mine site. *Ibid.*, s. 7. A new mineral mine project is a reviewable project if during operation it will have a production capacity of at least 75,000 tonnes per year of mineral ore. *Ibid.*, Table 6. A modified existing mineral mine project is a reviewable project if it meets the same requirements as for a modified coal mine project. *Ibid.*, s. 8(1), and Table 6. The regulation defines a mineral mine as a mine where a mineral, as defined in the *Mineral Tenure Act*, could be mined but not substances such as sand, gravel, stone. *Ibid.*, s. 7. The *Mineral Tenure Act* defines a mineral as including metal ores. R.S.B.C. 1996, c. 292, s. 1.

⁴¹⁸ Until late 1990s, new coal mines had to be assessed if production capacity was over 100,000 tonnes per year (now may be assessed if production capacity at least 250,000 tonnes per year). Until late 1990s, new mineral mines had to be assessed if production capacity was over 25,000 tonnes per year (now may be assessed if production capacity at least 75,000 tonnes per year). Until the late 1990s, modifications to existing coal and mineral mines had to be assessed if the area of new disturbance was 250 hectares or over 35% of original mine area (now may be assessed if new area of disturbance is 750 hectares or over 50% of original mine area). See J.F. Castrilli, "Environmental Regulation of the Mining Industry in Canada: An Update of Legal and Regulatory Requirements" (2000) 34 U.B.C.L.R. 91 at 124, 126.

was the case under the 1995 Act – but merely a trigger for considering whether an EA certificate and EA are necessary.⁴¹⁹

The scope, procedures, and methods of **assessment** that reviewable projects must undergo prior to the issuance of an EA certificate are determined by regulation and by the executive director of the Environmental Assessment Office (“EAO”), established under the *EAA*,⁴²⁰ or the minister,⁴²¹ in conjunction with guidelines that have been developed by the EAO to assist in that determination.⁴²²

Although the *EAA* does not explicitly authorize the imposition of **monitoring** obligations as a condition of issuing an EA certificate, the Act requires the minister to attach conditions to an EA certificate.⁴²³ Such conditions could include monitoring requirements. The Act authorizes inspections by persons designated by the Minister in relation to reviewable projects.⁴²⁴

The *EAA* imposes quasi-criminal,⁴²⁵ administrative,⁴²⁶ and civil⁴²⁷ **liability** for non-compliance with the Act, regulations, EA certificates, or orders issued under the Act.

The *EAA* addresses **emergency response** matters in two contexts. First, the Act recognizes that the Minister may make an order to suspend or cancel an EA certificate on an emergency basis, where immediate action is warranted, without notice to the certificate holder.⁴²⁸ Second, the Act permits the assessment process to be varied in an emergency.⁴²⁹ This latter authority is similar to authority invoked in Ontario by regulation under that province’s EA regime in order to streamline the undertaking of remediation measures, discussed below.

In terms of **financial** measures, the *EAA* is silent on the imposition of performance bonds or other measures of security to ensure compliance. However, the Act authorizes the province to (1) recover the costs of the assessment process from a proponent,⁴³⁰ and (2) prescribes regulation-making power for the imposition of fees associated with the EA process.⁴³¹

⁴¹⁹ West Coast Environmental Law Association, *Backgrounder: Bill 38- The Environmental Assessment Act* (Vancouver: WCEL, 2004) (referring to S.B.C. 2003, c. 53, s. 10(1)(b)(i)(ii)).

⁴²⁰ S.B.C. 2002, c. 43, ss. 1 (assessment refers to examination of reviewable project’s potential effects), 2 (EAO established), 11 (executive director of EAO determines assessment scope, procedures, methods), 13 (executive director may vary assessment scope, procedures, methods). Provincial guidance documents suggest that in general an environmental assessment will contain technical studies of the relevant environmental, social, economic, heritage, and health effects of projects. British Columbia Environmental Assessment Office, *A Brief Description of the British Columbia Environmental Assessment Process* (Victoria: EAO, 2003) at 1.

⁴²¹ *Ibid.*, ss. 14 (where executive director under section 11 refers reviewable project to minister, the latter determines assessment scope, procedures, methods), 15 (minister may vary assessment scope, procedures, methods).

⁴²² British Columbia Environmental Assessment Office, *Guidelines for Environmental Assessment Process* (Victoria: EAO, 2003).

⁴²³ S.B.C. 2002, c. 43, s. 17(3).

⁴²⁴ *Ibid.*, s. 33.

⁴²⁵ *Ibid.*, ss. 41 (offences), 43 (penalties). If an EA certificate holder enters into, and complies with, a voluntary compliance agreement with the Minister then the holder is exempt from liability under section 41. *Ibid.*, s. 42.

⁴²⁶ *Ibid.*, ss. 34 (minister may order holder of EA certificate to cease or modify conduct that is not in compliance with certificate), 36 (minister may enter into compliance agreement with holder to achieve compliance), 37 (minister may amend, suspend, or cancel EA certificate where holder in default of certificate or order, or convicted for committing offence under Act).

⁴²⁷ *Ibid.*, s. 35 (minister may apply to British Columbia Supreme Court for order directing compliance with administrative order issued under Act, or restraining person from violating such order).

⁴²⁸ *Ibid.*, ss. 37-38.

⁴²⁹ *Ibid.*, s. 31.

⁴³⁰ *Ibid.*, s. 32.

⁴³¹ *Ibid.*, s. 50(2)(b).

In terms of **application** of the Act, and as noted above, the *EAA* applies to reviewable projects, such as new or existing coal and mineral mines depending on expected level of production capacity or extent of new disturbance area as set out in the regulations. However, even the threshold levels established by regulation are not a guarantee that a reviewable project will be required to obtain an EA certificate or conduct an assessment with respect thereto because of the discretion to exempt from these requirements granted to the EAO executive director under the Act.⁴³²

The *EAA* does not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *EAA* grants discretion to the executive director of the EAO to determine by order (1) information to be obtained from persons other than the proponent respecting potential effects of the reviewable project, (2) persons and organizations, including but not limited to the public and first nations, to be consulted by the proponent or the EAO during the assessment, and the means by which they are to be provided with notice of, and access to, information during the assessment, and (3) opportunities for comment by such persons and organizations.⁴³³

c. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority focused primarily on the operation and closure of mines, there are a number of non-regulatory policies, programs, or initiatives in British Columbia directly or indirectly related to orphaned/abandoned mines. The three categories of initiatives include: (1) development of an historic mine site database; (2) a Crown Contaminated Sites Program; and (3) a government-industry collaborative arrangement for a major contaminated mine site.

The provincial government (MEMPR) recently funded an inventory of historic mine sites in British Columbia. The definition of the term “historic mine site” used for the inventory essentially is the same as that contained in the *EMA*, set out above. The province chose the term “historic mine site” for the following reasons:

⁴³² *Ibid.*, s. 10(1)(b)(i)(ii).

⁴³³ *Ibid.*, s. 11(2)(e)-(g). See also *Public Consultation Policy* Regulation, B.C. Reg. 373/2002, ss. 1-4 (setting out general policies that the executive director must take into account when determining the consultation requirements for an environmental assessment; generally each assessment process to include public notice, access to information, public consultation, public comment periods, and consideration of, and reporting on, public issues). Provincial guidance documents also state that public participation contributes “to the gathering and sharing of all relevant information related to the potential effects of a proposed project.” British Columbia Environmental Assessment Office, *Summary Guide to the British Columbia Environmental Assessment Process* (Victoria: EAO, 2003) at 7. Despite the discretionary nature of the authority granted to the executive director in the *EAA* with respect to first nation consultation, the same guidance documents states that: “The province must consider aboriginal interests in relation to an [EA].” *Ibid.* This statement likely is based on various decisions of the Supreme Court of Canada respecting the process for recognizing and protecting aboriginal rights under section 35 of the *Constitution Act, 1982*. See e.g. *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, [2004] S.C.J. No. 69 (S.C.C.) (Crown’s duty to consult and accommodate aboriginal peoples met by process engaged in by province under 1995 version of *EAA* with respect to reopening of mine even though province and first nation not agree on outcome; duty to consult not constituting duty to reach agreement). However, some non-governmental organizations regard the provisions for consultation with first nations in the current *EAA* as less than what existed under the 1995 version of the Act. West Coast Environmental Law Association, *Background: Bill 38- The Environmental Assessment Act* (Vancouver: WCEL, 2004) (removal of provision from *EAA* for establishment of inter-ministerial committee with first nation membership for each project subject to EA requirements)

“Many terms have been used to refer to old mines including abandoned, derelict and orphaned. There is no standard definition for classifying old mines in British Columbia that are dormant, may or may not have an owner, and have not been reclaimed.

The Code defines an abandoned mine as: ‘a mine for which all permit obligations under the Act [*Mines Act*] have been satisfied and in respect of which the mineral claims have reverted to the government.’

This definition makes sense in the context of its application under the *Mines Act*, in that it applies to mines that have been permitted under this legislation. It is not, however, a definition that most people would use to characterize an ‘abandoned/orphaned’ mine site.

Mine sites without a valid *Mines Act* permit are considered, for the purpose of addressing ‘abandoned/orphaned’ sites in British Columbia, ‘historic’ because they are not being regulated by a permit under current mining legislation. Based on this rationale, the use of the term ‘abandoned’ has been avoided and ‘historic’ has been adopted to refer to these sites.

The term ‘mine site’ is used as it encompasses all infrastructure related to a mine, including, but not limited to tailings facilities, waste rock dumps, buildings and mills.”⁴³⁴

Of the total number of 1,887 historic mine sites identified, 1,171 were classified as mineral deposits known to have geo-environmental characteristics with the potential for generating acid and leaching metals. Of the 3 per cent of historic mine sites inspected to date (62 sites), 6.5 per cent are estimated to pose potential environmental contamination concerns.⁴³⁵

The inventory report recommended a number of options for the province to consider:

- continue working with the mining industry to explore further partnerships related to remediation of historic mine sites including:
 - work-in-kind, expert advice and cost sharing;
 - investigate development of ‘Good Samaritan’ legislation with provision for release of liability for individuals or companies undertaking remedial works at historic mine sites; and
 - consideration of tax relief for reclamation of historic mine sites.
- develop programs to encourage re-mining of historic sites.⁴³⁶

The second provincial non-regulatory program, at least partially related to “orphaned/abandoned” mine sites, is the Crown Contaminated Sites Program (“CCSP”), administered by the Ministry of Agriculture and Lands (“MAL”). The CCSP was developed in response to a 2002 report issued by the provincial Auditor General on the status of management of contaminated sites on provincial lands⁴³⁷ that in part also looked at orphaned/abandoned mine sites.⁴³⁸ The CCSP program, created in 2003, includes establishment of objectives, a provincial committee (that includes MEMPR), and database (created in 2004 and

⁴³⁴ British Columbia Ministry of Energy and Mines, *Historic Mine Sites in British Columbia*, by L.N. Barazzuol & G.G. Stewart (Victoria: BCMEM, 2003) at 9 (historic mine sites defined as those lacking mining permits under *Mines Act* and where mining has occurred in the past). *Ibid.* at iii.

⁴³⁵ *Ibid.* at iii.

⁴³⁶ *Ibid.*

⁴³⁷ Auditor General of British Columbia, *2002/2003 Report # 5: Managing Contaminated Sites on Provincial Lands* (Victoria: AGBC, 2002) (findings included that province does not have adequate program in place for managing contaminated sites and not adequately accounting for its performance; significant improvements necessary in terms of clear direction from government, need to develop management plans, close significant information gaps, and coordinate activities so as to account on progress in dealing with risks and liabilities posed by contaminated sites).

⁴³⁸ *Ibid.* at 12-13 (defined as sites for which responsible parties cannot be found because they have gone bankrupt, left the jurisdiction, or are unwilling to accept responsibility and therefore, the government may have to assume the cleanup costs).

expected to have over 800 sites listed by 2006) to aid in MAL's management of contaminated sites on provincial lands. The CCSP objectives include:

- province-wide approach to identifying, assessing and remediating provincially owned contaminated sites that pose the greatest potential risk to human health and environment;
- identifying the government's financial liability for high risk contaminated sites;
- maintaining database of provincially owned contaminated sites;
- reporting to public on program's progress;
- increasing economic and social benefits that may accrue from remediation of contaminated sites and their future use; and
- promoting approaches that reduce risk of contamination of provincially owned lands.⁴³⁹

The third initiative in British Columbia relates to the government-industry collaboration that has developed with respect to the Britannia Mine site, which was a copper mine that operated in the province from 1902 until 1974 when operations ceased at the site.⁴⁴⁰ The provincial auditor general has described the acid rock drainage from the mine as one of the worst point sources of metal pollution to the environment in North America.⁴⁴¹ The British Columbia Court of Appeal has stated that the lands are reputed to be the most contaminated lands in the province as a result of many years of operation of the copper mine at the site.⁴⁴²

Since 1995, the federal and British Columbia governments have cooperated in trying to understand the acid rock drainage problem and the necessary work and associated costs for remediation and treatment at the site. In 2001, the province provided indemnification for environmental liabilities to the successor companies of the mine operators in exchange for \$30 million. Using this money, the provincial government has taken on the task of remediation at the mine site as part of the CCSP.⁴⁴³ The current estimated total cost for remediation and treatment at the site is \$75 million, of which the province is contributing \$45 million.⁴⁴⁴

⁴³⁹ British Columbia Ministry of Agriculture and Lands, *Crown Contaminated Sites Branch* (Victoria: MAL, 2006), online: British Columbia Ministry of Agriculture and Lands <<http://www.agf.gov.bc.ca/clad/ccs/summary.html>> (date accessed: 22 April 2006).

⁴⁴⁰ British Columbia Ministry of Water, Land and Air Protection, *Britannia Mine Reclamation Project* (Victoria: BCMWLAP, 2002), online: British Columbia Ministry of Water, Land and Air Protection <<http://wlapwww.gov.bc.ca/srv/p2/britannia/index.html>> (last updated: 15 November 2002).

⁴⁴¹ Auditor General of British Columbia, *2002/2003 Report # 5: Managing Contaminated Sites on Provincial Lands* (Victoria: AGBC, 2002) at 59.

⁴⁴² *400091 British Columbia Limited v. Britannia Mines and Reclamation Corporation*, [2003] BCCA 602 (CanLii) (property consists of large tract of land and several Crown granted mineral claims) at para. 2

⁴⁴³ British Columbia Ministry of Water, Land and Air Protection, *Britannia Mine Reclamation Project: Reclamation* (Victoria: BCMWLAP, 2002), online: British Columbia Ministry of Water, Land and Air Protection <<http://www.britanniamine.info/reclamation.htm>> (last updated: 15 November 2002). See also British Columbia Ministry of Agriculture and Lands, *Crown Contaminated Sites Program: Britannia Mine* (Victoria: MAL, 2006), online: British Columbia Ministry of Agriculture and Lands <<http://www.agf.gov.bc.ca/clad/ccs/britannia/index.html>> (date accessed: 22 April 2006).

⁴⁴⁴ Auditor General of British Columbia, *2002/2003 Report # 5: Managing Contaminated Sites on Provincial Lands* (Victoria: AGBC, 2002) at 15, 59. A similar arrangement has been in place in Ontario since 1999 between the Ontario Government and the Kinross Gold Corporation. In the Kinross example, the company, as part of the negotiations to purchase former mining properties owned by Royal Oak Mines, which were the subject of receivership proceedings, entered into an agreement with the province to address public safety and environmental protection issues. Certain obligations under the agreement were designated entirely as the responsibility of the company (e.g. progressive rehabilitation and tailings stabilization). Other obligations were identified as shared responsibilities between the company and the province (e.g. subsidence). The agreement allocated financial obligations for the shared responsibilities as follows:

Although there are conflicting views as to whether the Britannia Mine is "abandoned" the arrangement entered into between the province and the successor companies specifies a fixed level of mining company contribution (i.e. \$30 million) and blends with that industry contribution, an indeterminate level of public funds (\$45 million to date) to attempt to solve the "orphaned/abandoned" mine problem on that particular site. Overtime, and depending on the particulars of the Britannia Mine arrangement, if the commitment of public funds were to grow while the company contribution remained fixed, the arrangement could become more problematic from a public policy perspective.

d. Findings and Summary

There are several aspects of British Columbia law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under British Columbia mining law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. Certain types of environmental orders and/or security obligations that could otherwise apply to contaminated mining sites under British Columbia environmental law, are exempted from so applying if they are historic, exploration, advanced exploration, or producing or past producing mine sites. While the objective of such exemptions may be to encourage voluntary remediation or commercial re-mining activity as a means of solving some of the environmental problems at such sites, there is concern that the approach could in future increase the number of, and public liability for, orphaned/abandoned mine sites.
3. British Columbia environmental laws that provide liability protection in certain circumstances from contaminated site remediation and other orders for secured creditors and related fiduciaries, while of precedential value, are arguably not broad enough without amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.
4. The absence of statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others, has resulted in important, but ad hoc, inventory and cleanup programs in British Columbia based on statutory emergency clean-up authority paid for with provincial public funds. In addition, a non-statutory government-industry collaborative arrangement also is contributing to cleanup at one major site as a result of a \$30 million contribution by the mining companies involved in exchange for indemnification from environmental liability. However, the ultimate public financial contribution to remediation at this site (currently \$45 million) is unknown at this time. As the overall magnitude and potential cleanup cost of the orphaned/abandoned mine problem in British Columbia

(1) the first \$5 million were to be shared equally; (2) the next \$10 million was solely the province's responsibility; and (3) any amounts beyond this were solely the responsibility of Kinross. See Ontario Government and Kinross Gold Corporation, *Agreement Between Kinross Gold Corporation and Her Majesty the Queen in Right of the Province of Ontario (as Represented by the Ministry of Northern Development and Mines)* (16 December 1999).

is still unknown, it is difficult to evaluate the adequacy of the ad hoc arrangements as substitutes for legislative reform.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *Mines Act*, *EMA*, and *EAA* all establish permit-type regimes for new, or expansion of existing, mining operations though the regime associated with the *EAA* has the potential to be the most discretionary.

The *Mines Act* establishes a permit regime for regulating mines, including their environmental impact. With some exceptions, an owner must obtain from the chief inspector a permit before commencing any work on the mine, and file a plan of the proposed work and a program for the protection and reclamation of the land and watercourses affected by the mine.

The *EMA* establishes a permit regime for prescribed industries that includes the coal and mineral mine industry.

The *EAA* requires that certain large-scale project proposals undergo an EA and obtain a permit (EA certificate) before they can proceed.

None of the three laws addresses explicitly licensing to facilitate rehabilitation of orphaned/abandoned mines.

(B) Assessment

The *Mines Act* requires the provision of assessment information in relation to the (1) environmental protection program to be undertaken during construction and operation of the mine, and (2) the plan for reclamation post-mining.

The director under the *EMA* has the discretion to require a permittee to conduct studies specified by the director to obtain information necessary for assessment of permit applications. A key information requirement in the mining context is the environmental effect from metal leaching and acid rock drainage. The *EMA* also establishes the rules for assessment of contaminated sites such as through a preliminary site investigation. The determination of whether a site is contaminated is based on standards and criteria set out in the regulations with respect to matters such as soils, sediments, surface water, and groundwater. In principle, the assessment requirements are applicable to mine sites, subject to the exemptions for liability, financial security, and related matters set out below.

The scope, procedures, and methods of assessment that reviewable projects must undergo prior to the issuance of an EA certificate under the *EAA* are determined by regulation and by the EAO executive director, or the minister, in conjunction with guidelines that have been developed to assist in that determination.

(C) Monitoring

The code under the *Mines Act* imposes monitoring obligations on mining owners or managers to demonstrate that they are achieving reclamation and environmental protection objectives including those pertaining to land use, productivity, water quality, and structural stability. The Act authorizes the

appointment of mining inspectors with authority to inspect, at any time, a (1) mine, or (2) site considered by the inspector to be a mining site operating without a permit.

The *EMA* authorizes (1) a director to impose monitoring obligations on permittees as a condition of obtaining a permit, and (2) conservation officers to inspect activities or facilities that may discharge waste. Furthermore, the Act authorizes a director to inspect and monitor contaminated site remediation activities to ensure compliance with the regulations.

The *EAA* does not explicitly authorize the imposition of monitoring obligations as a condition of issuing an EA certificate. However, the Act requires the minister to attach conditions to an EA certificate and these conditions could include monitoring requirements. The Act also authorizes inspections by persons designated by the Minister in relation to reviewable projects.

(D) *Liability*

The *Mines Act* and the *EAA* impose quasi-criminal, administrative, and civil liability for non-compliance with these laws, their regulations, the code (in the case of the *Mines Act*), EA certificates (in the case of the *EAA*), or orders issued under these laws.

The *EMA* imposes administrative, quasi-criminal, and civil liability on persons found responsible for pollution generally, or contaminated sites, in particular. With respect to contaminated sites, the *EMA* normally imposes liability that is absolute, retroactive, joint, and separate, on responsible persons. However, the Act exempts historic, exploration, advanced exploration, and producing and past producing mines from certain types of liability under the Act.

(E) *Emergency Response*

The *Mines Act* authorizes provincial inspectors to undertake work in connection with a closed or abandoned mine in order to avoid danger to persons, to property, or to abate pollution of the land and watercourses affected by the mine.

The *EMA* appears to recognize two types of situations that would justify emergency response action by government: (1) environmental emergencies, and (2) high risk orphan sites. The latter may, or may not, be orphan mine sites.

The *EAA* recognizes that the Minister may make an order to suspend or cancel an EA certificate on an emergency basis where immediate action is warranted, without notice to the certificate holder. The Act also permits the assessment process to be varied in an emergency. This latter authority is similar to authority invoked in Ontario by regulation under that province's EA regime in order to streamline the undertaking of remediation measures.

(F) *Financial Instruments*

The *Mines Act* allows the chief inspector to impose as a condition of permit issuance that the owner, manager, or permittee provide financial security in the amount and form specified by the chief inspector (1) for mine reclamation, and (2) to provide for protection of, and mitigation of damage to, watercourses affected by the mine. The *EMA* exempts certain mining categories, such as exploration, advanced exploration, and producing and past producing mines, from having to provide security. The *EAA* is silent on the imposition of performance bonds or other measures of security to ensure compliance.

With respect to recovery of public funds, the *Mines Act* requires that the costs of work to abate a danger at closed or abandoned mines are to be paid from the provincial consolidated revenue fund, and they become a debt due to the government, and form a lien and charge on the mine or mineral title in favour of the government. The Act requires further that no transfer of title or other dealing with the mine may take place until the debt is paid and notice of debt, registered on title, is cancelled. Comparable cost recovery provisions exist in the *EMA* and *EAA*.

In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the province to address emergencies and expend public funds in doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

Regulations under the *EMA* establish (1) annual fees payable for waste discharges subject to the Act (e.g. mining and coal mining industry), and (2) fees payable in connection with contaminated site remediation. Exploration, advanced exploration, and producing and past producing mine sites are exempt from some of the fee obligations that otherwise would apply to mining activity.

(G) Application/Exemption

The *Mines Act* applies to all mines during exploration, development, construction, production, closure, reclamation and abandonment.

The *EMA* applies mainly to (1) prescribed industries, trades, businesses, operations, and activities (e.g. mining and coal mining industry) for purposes of requiring permits, and (2) responsible persons for purposes of contaminated site remediation. However, authorities under the Act exempt several mine site categories (exploration, advanced exploration, producing and past producing, and historic) from certain types of liability, financial security, and fee obligations.

The *EAA* applies to reviewable projects, such as new or existing coal and mineral mines depending on expected level of production capacity or extent of new disturbance area as set out in the regulations. However, the EAO executive director has the discretion to exempt proponents of reviewable projects meeting threshold requirements from the obligation to obtain an EA certificate or conduct an EA.

(H) Designation of Orphaned/Abandoned Sites

The *Mines Act*, *EMA*, and *EAA* do not otherwise define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *Mines Act* defines both “closed” and “abandoned mines.” However, the definition for closed mine (mining ceased but owner still responsible for compliance) would not appear to capture orphaned mines where there may no longer be a person available or in existence upon whom compliance responsibility may be placed. Similarly, the definition for abandoned mine (mine where permit obligations satisfied and mineral claims reverted to government) appears too narrow or inappropriate in the context of long abandoned/orphaned mine sites where permit obligations often have not been satisfied even if mineral claims have reverted to the Crown.

The *EMA* does define both an “orphan site” and “historic mine site.” Both definitions largely dovetail such that many historic mine sites also will be orphan sites. In this regard, the Act’s definitions for these two types of sites are relevant to the recent production by MEMPR of an inventory of historic mine sites, though this inventory was not co-authored by the MOE or under the authority of the *EMA*. The *EMA* and its definitions also appear relevant to a non-regulatory program administered by MAL that is establishing a database of contaminated sites on Crown land.

(I) Community Involvement

The code states that when required by an inspector, an applicant for a permit under the *Mines Act* must publish a notice in the *British Columbia Gazette* and in local newspapers announcing the filing of the application. Persons affected by, or interested in, the application then have 30 days to view the application and make written representations to the chief inspector.

The *EMA* sets out public consultation obligations in the context of (1) permit applications, and (2) contaminated site remediation.

The *EAA* grants discretion to the EAO executive director to determine by order (1) information to be obtained from persons other than the proponent respecting potential effects of a reviewable project, (2) persons and organizations, including but not limited to the public and first nations, to be consulted by the proponent or the EAO during the assessment, and the means by which they are to be provided with notice of, and access to, information during the assessment, and (3) opportunities for comment by such persons and organizations.

4. ALBERTA

a. Mining or Natural Resource Management Laws

i. Coal Conservation Act

The purposes of the *Coal Conservation Act* (“CCA”), administered by the Alberta Ministry of Energy (“MEN”), include assisting the government in controlling pollution and ensuring environmental conservation in the development of coal resources in the province.⁴⁴⁵

The Act defines a number of terms including coal,⁴⁴⁶ coal processing plant,⁴⁴⁷ manager,⁴⁴⁸ mine,⁴⁴⁹ mine site,⁴⁵⁰ open pit mine,⁴⁵¹ owner,⁴⁵² strip mine,⁴⁵³ and underground mine.⁴⁵⁴

The CCA requires that persons obtain from the Alberta Energy and Utilities Board (“EUB”) a (1) **permit** before exploration and development of a mine, (2) **licence** before mining at a site at which mining operations have not previously been undertaken, before mining operations at an abandoned mine, or before resuming mining at a site where operations have been suspended for more than a year, and (3) **approval** before constructing a new, or resuming operations at an abandoned, coal processing plant.⁴⁵⁵ The Act also requires that licensees not suspend or abandon a mine or plant without prior EUB permission.⁴⁵⁶ The Act also recognizes changes in ownership and the authority of the EUB to either amend or cancel the legal instrument pertaining to the site.⁴⁵⁷

In terms of **assessment** information, the CCA requires that an application for (1) a permit to develop a new strip or open pit mine, or (2) licence to resume operations at a previously abandoned strip or open pit mine, must be accompanied with a proposed scheme for reclamation of all land that may be disturbed.⁴⁵⁸ The Act also requires that a person seeking approval to commence a new, or resume operations at an abandoned, coal processing, plant must provide an outline of what steps are proposed for controlling pollution from the plant.⁴⁵⁹ In general, regulations under the CCA also require that the mine operator⁴⁶⁰ must carry out a program of environmental management within a mine site (defined as both mines and coal processing plants) for which the operator holds a permit. This must include pollution control and

⁴⁴⁵ R.S.A. 2000, c. C-17, s. 4(e).

⁴⁴⁶ *Ibid.*, s. 1(1)(d) (includes manufactured product useful as an energy source).

⁴⁴⁷ *Ibid.*, s. 1(1)(e) (includes installation for upgrading coal quality, producing solid fuel, and coal storage area).

⁴⁴⁸ *Ibid.*, s. 1(1)(g) (chief officer having control and daily supervision of a mine or mine site).

⁴⁴⁹ *Ibid.*, s. 1(1)(h) (area from which coal is extracted for commercial or other purposes).

⁴⁵⁰ *Ibid.*, s. 1(1)(i) (location where facility for extracting coal by underground, strip, or open pit operation exists and includes coal processing plant and related facilities, and access roads).

⁴⁵¹ *Ibid.*, s. 1(1)(l) (mine worked by removal of overlying strata and subsequent excavation of exposed coal in terrain that is not flat).

⁴⁵² *Ibid.*, s. 1(1)(m) (person who is immediate proprietor, lessee, or occupier of mine, and contractor engaged by owner to operate mine, but not a person who merely receives royalties or rent from mine), or merely owns the soil but does not have an interest in the mine or in the coal).

⁴⁵³ *Ibid.*, s. 1(1)(p) (mine worked by removal of overlying strata and subsequent excavation of exposed coal in flat terrain).

⁴⁵⁴ *Ibid.*, s. 1(1)(q) (any mine other than a strip or open pit mine).

⁴⁵⁵ *Ibid.*, ss. 10(1) (permit), 11 (licence), 23(1) (approval). Plants capable of treating more than 45,000 tonnes per year of coal require Cabinet approval. *Ibid.*, s. 24.

⁴⁵⁶ *Ibid.*, s. 16 (mine), 27 (plant).

⁴⁵⁷ *Ibid.*, ss. 15 (mine permits), 26 (plant approvals).

⁴⁵⁸ *Ibid.*, s. 12.

⁴⁵⁹ *Ibid.*, ss. 23(1)(b), 23(2)(b).

⁴⁶⁰ *Coal Conservation Regulations*, Alta. Reg. 270/81, as consolidated up to Alta. Reg. 63/2003, s. 1(1)(g) (defined as holder of permit, licence, approval, permission, or consent).

surface abandonment and reclamation, in a manner satisfactory to the EUB.⁴⁶¹ To assist in compliance with this obligation, the regulations set out detailed information requirements for applicants for permits,⁴⁶² licences,⁴⁶³ approvals,⁴⁶⁴ and consents.⁴⁶⁵

The regulations impose explicit **monitoring** obligations on applicants for certain legal instruments under the *CCA* regime.⁴⁶⁶ The Act authorizes EUB personnel to inspect mine sites, mines, coal processing plants, roads, or other works connected therewith.⁴⁶⁷

The Act imposes quasi-criminal,⁴⁶⁸ administrative,⁴⁶⁹ and civil⁴⁷⁰ **liability** for non-compliance with the Act, regulations, permits, licences, approvals, consents, orders or directions made pursuant to the Act.

⁴⁶¹ *Ibid.*, s. 26.

⁴⁶² *Ibid.*, ss. 3 (exploration permit – location of aquifers, watercourses, operating, suspended, or abandoned mines; potential environmental impact of exploration activity; proposed environmental remediation and pollution control; plans for excavation, abandonment, and reclamation) 4-5 (commercial mine development or re-opening of abandoned mine site – similar to exploration permit but greater detail including plans for removing and disposing of mine waters, addressing ground stability and related matters).

⁴⁶³ *Ibid.*, ss. 8-10 (commercial operations at underground, surface, or abandoned mines – location of disposal areas; mining methods; pit wall or ground stability; detailed plan and schedule for surface abandonment and reclamation; diversionary or dewatering systems; groundwater conditions; mine conditions at time of abandonment, including with respect to water and related hazards and proposals for restoration).

⁴⁶⁴ *Ibid.*, ss. 14-17 (construction of new, resumption of operations at shut or abandoned, major modification of existing, or related facilities associated with, coal processing plant – location and description of sources of process water, emergency discharge ponds and dams, and coal handling and storage facilities; analysis of tailings including rate of disposition and maximum amount to be deposited in impoundment; upstream and downstream areas of watershed that could affect or be affected by dam failure; measures to be taken to abandon facilities and reclaim lands disturbed by project; description of plant operations in relation to pollution control and environmental conservation; dust control measures).

⁴⁶⁵ *Ibid.*, ss. 12(1)(d)-(g) (for consent to abandon underground mines information must include details concerning any waters that may enter or be discharged from the mine workings after abandonment, methods proposed for control of effluents from the abandoned mine workings, information on stability of discard disposal areas, and methods used or proposed for abandoning and reclaiming disturbed areas), 12(2)(c)(d) (for consent to abandon a surface mine information must include details of discard dump stability and proposed surface abandonment and reclamation program and the current status of any previously initiated abandonment and reclamation program), 19 (for consent to suspend or abandon coal processing plant operations – procedures for plant abandonment to eliminate safety hazards; plan, details, description of discard disposal areas, stability of coal storage piles, emergency discharge ponds following reclamation, general abandonment and reclamation program, probable impact on environment, including measures to control pollution).

⁴⁶⁶ *Ibid.*, ss. 8(3)(f)(v) (application for licence to operate surface mine [strip mine or open pit mine – s. 1(1)(l)] must include details of any testing and instrumentation which may be required to monitor wall or strata movement and groundwater conditions in region of mine to verify design assumptions), 9 (same monitoring requirements for licence to commence commercial operations at abandoned mine, or resume mining operations at mine where operations have been suspended for more than a year), 14(1)(h), 15-17 (application for approval of construction of new, resumption of operations at shut or abandoned, major modification of existing, or related facilities associated with, coal processing plant must include details of proposed facilities and procedures for monitoring all process streams entering and leaving plant site).

⁴⁶⁷ R.S.A. 2000, c. C-17, s. 32 (includes authority to inspect, investigate, test, take samples, and examine books, records, documents).

⁴⁶⁸ *Ibid.*, ss. 47-49 (offences and penalties).

⁴⁶⁹ *Ibid.*, ss. 7 (EUB may make orders or directions necessary to effect purposes of Act but not otherwise specifically authorized by Act), 16(3) (EUB permission for mine abandonment not relieve licensee of potential future liability if further remedial work necessary), 18 (agreement between permit or licence holder and another person not relieve holder of liability to perform required abandonment, comply with EUB order, directions, conditions and costs and expenses with respect thereto), 20 (EUB may cancel permit or licence for failure to comply with Act, regulations, permit or licence terms and conditions), 22 (compliance with Part 4 of *CCA* – mine development, operation, abandonment – not relieve permit or licence holder from requirements or liabilities under other laws), 25 (EUB may order plant to shut down if not in compliance with approval).

⁴⁷⁰ *Ibid.*, s. 50 (injunctions).

The *CCA* recognizes that if an emergency occurs that causes a licensee to suspend normal operations at, or to abandon a mine, and the EUB is of the opinion that such actions are not in accordance with conditions authorized by it, the EUB may undertake appropriate **emergency response** measures.⁴⁷¹

In terms of **financial** measures, the Act authorizes the promulgation of regulations requiring an applicant to deposit a specified performance bond with the province as a guarantee of proper operations and prescribing the form of the deposits.⁴⁷² The regulations authorize the EUB to require deposit of a security with the provincial finance minister that may be in the form of (1) cash, (2) negotiable bearer bonds, or (3) security bonds. The security is to be used by the EUB to undertake remedial action at a mine or plant where there is a failure of the instrument holder to comply with prescribed conditions with respect to suspension or abandonment of operations.⁴⁷³

Where remedial costs exceed the available security, the instrument holder must pay the EUB the difference.⁴⁷⁴ Any costs remaining unpaid after exhaustion of the performance bond are a debt payable to the EUB by the permit or licence holder.⁴⁷⁵

In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the EUB spend (presumably public funds beyond those available from the security) to address emergency or related problems in connection with an abandoned mine or plant, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

In terms of the **application** of the *CCA*, the statute applies to (1) every mine and coal processing plant in Alberta, and (2) all coal produced and transported in Alberta.⁴⁷⁶

Although the *CCA* applies to both abandoned coal mines and abandoned coal processing plants it does not define the term “abandoned” and does not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The Act is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

ii. Oil Sands Conservation Act

The *Oil Sands Conservation Act* (“*OSCA*”),⁴⁷⁷ also administered by the Alberta Ministry of Energy (“MEN”), is very similar in material respects to the *CCA*, except that it regulates oil sands mines and processing plants in the province. Accordingly, the Act is not reviewed further in this report. However,

⁴⁷¹ *Ibid.*, ss. 16(1)(2), 17(1).

⁴⁷² *Ibid.*, s. 9(1)(c).

⁴⁷³ *Coal Conservation Regulations*, Alta. Reg. 270/81, as consolidated up to Alta. Reg. 63/2003, ss. 82-84. The amount of the security may range from \$500 - \$2500 per hectare of land directly affected by proposed development depending on its location in the province. *Ibid.*, s. 82(1). See also R.S.A. 2000, c. C-17, s. 17(1)(2).

⁴⁷⁴ *Coal Conservation Regulations*, Alta. Reg. 270/81, as consolidated up to Alta. Reg. 63/2003, s. 84(3).

⁴⁷⁵ R.S.A. 2000, c. C-17, s. 17(3).

⁴⁷⁶ *Ibid.*, s. 3.

⁴⁷⁷ R.S.A. 2000, c. O-7. See also *Oil Sands Conservation Regulation*, Alta. Reg. 76/1988.

the general regulatory summary and observations made in this report with respect to the *CCA* also would apply to the *OSCA*.

iii. Energy Resources Conservation Act

The *Energy Resources Conservation Act* (“*ERCA*”), administered by the EUB, can be considered a companion statute to the *CCA* and the *OSCA*. The purposes of the *ERCA* include controlling pollution and ensuring environmental conservation in the exploration for, production, development and transportation of, energy resources and energy.⁴⁷⁸

The *ERCA* defines several terms including energy resource,⁴⁷⁹ and environment.⁴⁸⁰

The *ERCA* addresses the lack of **community involvement** provisions in the *CCA* and the *OSCA*. Because, for example, the *CCA* authorizes the EUB to investigate matters, on the request of the provincial cabinet, in respect of a proposed energy resource project,⁴⁸¹ the *ERCA* requires the EUB to consider whether the project “is in the public interest” having regard to the social, economic, and environmental effects of the project.⁴⁸² In furtherance of that objective, the EUB may award the costs of participating in its process to a local intervener.⁴⁸³

iv. Mines and Minerals Act

The *Mines and Minerals Act* (“*MMA*”),⁴⁸⁴ also administered by MEN, governs primarily the management and disposition of rights in mines⁴⁸⁵ and minerals⁴⁸⁶ vested in the Crown, including the levying and collecting of rentals and royalties.

The Act and regulations address both general mineral exploration⁴⁸⁷ and primarily, but not

⁴⁷⁸ R.S.A. 2000, c. E-10, s. 2(d).

⁴⁷⁹ *Ibid.*, s. 1(c) (any natural resource in Alberta that can be used as a source of any form of energy).

⁴⁸⁰ *Ibid.*, s. 1(d) (air, land, water; interacting natural systems that include organic and inorganic matter and living organisms).

⁴⁸¹ R.S.A. 2000, c. C-17, s. 8.

⁴⁸² R.S.A. 2000, c. E-10, s. 3.

⁴⁸³ *Ibid.*, s. 28(1)(2) (defined as a person, group, or association of persons who in the opinion of the EUB has an interest in, or is in actual occupation of, or is entitled to occupy land that is or may be directly and adversely affected by a decision of the EUB as a result of a proceeding before it).

⁴⁸⁴ R.S.A. 2000, c. M-17.

⁴⁸⁵ *Ibid.*, s. 1(1)(n) (any opening or excavation in, or working of, the surface or subsurface for the purpose of workingm recovering, opening up, or proving any mineral or mineral-bearing substance, and includes works and machinery at or below the surface belonging to or in connection with the mine).

⁴⁸⁶ *Ibid.*, s. 1(1)(p) (e.g. gold, silver, copper, iron, tin, zinc, precious stones, etc.)

⁴⁸⁷ *Ibid.*, s. 106(b) (exploration defined as any investigation, work, or act to determine the presence of a mineral that, in the opinion of the Minister, results in surface disturbance of land, including preparatory operations having that effect). The regulations define surface disturbance to mean the (1) disturbance, exposure, covering, or erosion of the land surface, or (2) contamination, degradation, or deterioration of the land surface. *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, s. 1(1)(u). This same regulation also is promulgated under the *Public Lands Act*.

exclusively, placer mining⁴⁸⁸ operation activities through the issuance of **licences**,⁴⁸⁹ **permits**,⁴⁹⁰ and **approvals**.⁴⁹¹

The type of **assessment** work recognized under the *MMA* relates primarily to geological and related survey or investigation activity to establish the geology of a given metallic and industrial mineral in an area,⁴⁹² not to evaluating potential environmental impacts. However, the regulations do recognize that reclamation of disturbed sites is one way to meet assessment work requirements that a permit holder must undertake and submit information to the Minister with respect to, in order to maintain entitlement to a permit.⁴⁹³

The Act and regulations are silent on **monitoring** for environmental impacts associated with activities regulated under the *MMA*. However, the Act authorizes inspection of exploration⁴⁹⁴ and operation⁴⁹⁵ activity regulated under the Act.

The *MMA* and regulations impose quasi-criminal,⁴⁹⁶ administrative,⁴⁹⁷ and civil⁴⁹⁸ **liability** for non-compliance with the Act, regulations or licences, permits, or approvals issued under the Act.

⁴⁸⁸ *Metallic and Industrial Minerals Regulation*, Alta. Reg. 66/93, as consolidated to 108/2004, s. 1(i) (placer mining defined as any method of surface operation involving the use of water, assisted by mechanized equipment, by which sand, gravel, or topsoil are removed for the purpose of obtaining or producing a metallic and industrial mineral vested in or belonging to the Crown in right of Alberta).

⁴⁸⁹ R.S.A. 2000, c. M-17, ss. 106(e) (exploration licence authority to conduct exploration activities), 107(1) (prohibition on exploration in Alberta unless hold exploration licence). See also *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, ss. 3-4 (requirements for obtaining exploration licence). See further *Metallic and Industrial Minerals Regulation*, Alta. Reg. 66/93, as consolidated to 108/2004, s. 4 (prohibition on conducting placer mining without licence).

⁴⁹⁰ R.S.A. 2000, c. M-17, ss. 106(f) (exploration permit authority to operate exploration equipment), 107(2) (prohibition on operating exploration equipment in Alberta unless hold exploration permit). See also *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, ss. 3-4 (requirements for obtaining exploration permit). See also *Metallic and Industrial Minerals Regulation*, Alta. Reg. 66/93, as consolidated to 108/2004, s. 10.

⁴⁹¹ *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, s. 5 (exploration approvals). The regulations define an exploration approval as relating to a preliminary plan or program of exploration. *Ibid.*, s. 1(1)(g). The regulations also require that an exploration approval licensee must obtain a reclamation certificate issued under the *Environmental Protection and Enhancement Act* in respect of all work conducted under the exploration approval. *Ibid.*, s. 35.

⁴⁹² *Metallic and Industrial Minerals Regulation*, Alta. Reg. 66/93, as consolidated to 108/2004, s. 1(a).

⁴⁹³ *Ibid.*, Schedule 2, s. 3(1)(j). See also *ibid.*, s. 14 (general assessment work requirements silent on assessment of potential environmental impacts).

⁴⁹⁴ R.S.A. 2000, c. M-17, s. 108.3 (inspection and investigation of exploration program).

⁴⁹⁵ *Ibid.*, s. 52 (inspection and investigation of mine or plant operations in connection with mineral production).

⁴⁹⁶ *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, s. 44. R.S.A. 2000, c. M-17, ss. 108.3(3) (offences and penalties in relation to violation of exploration program), 63 (offences and penalties in relation to operations). Certain prohibitions in the regulations related to water protection can lead to application of offence and penalty provisions if violated. See *Metallic and Industrial Minerals Regulation*, Alta. Reg. 66/93, as consolidated to 108/2004, ss. 9 (prohibition in certain months of year on conducting placer mining in flowing water of a river, stream, or watercourse in certain rivers prescribed by regulation), 24 (prohibition on conducting placer mining if suspended sediment in discharge water to river, stream, or watercourse exceeds suspended sediment content of those water bodies).

⁴⁹⁷ R.S.A. 2000, c. M-17, ss. 108.2 (minister may issue directions to exploration licensee or permittee), 108.4 (minister may issue stop order to exploration licensee or permittee), 110 (minister may cancel exploration licence or permit), 112 (minister may impose administrative monetary penalty for non-compliance with exploration approval, licence, permit).

⁴⁹⁸ *Ibid.*, s. 112(5) (minister may recover in a court of competent jurisdiction non-payment of administrative monetary penalty by an action in debt). *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, s. 12(2) (additional funds beyond amount of security deposit expended by Minister to restore or repair land or renewable natural resources constituting debt payable to the Crown in right of Alberta recoverable by an action in debt).

The Act and regulations are not explicit about **emergency response** authority. However, certain administrative powers, such as the authority to issue stop orders,⁴⁹⁹ or to enter mines, plants, or works to remedy non-compliance and eliminate risk, damage, or loss,⁵⁰⁰ could be applied in an emergency context.

In terms of **financial** measures, the regulations impose security deposit obligations on licensees applying for exploration approvals.⁵⁰¹ Security deposits may be drawn upon where the Minister is of the opinion that, among other things, the land or any renewable natural resource associated with the land is being or has been damaged or adversely affected by the conduct of the exploration program. Where the security deposit is insufficient to entirely restore or repair the damage to land or the renewable natural resource, and the Minister must expend additional funds beyond the amount of the security deposit, the additional funds are a debt payable by the licensee to the Crown in right of Alberta and may be recovered by an action in debt.⁵⁰²

In addition, the Minister can charge the cost of supervision at a mine or plant where the operations would expose others to risk, damage, or loss.⁵⁰³

In terms of the **application** of the *MMA*, the Act applies to all (1) mines and minerals and related natural resources vested in the Crown in right of Alberta, and (2) mines and minerals in Alberta not so vested, to the extent so identified in the statute.⁵⁰⁴

The *MMA* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *MMA* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

v. Public Lands Act

The *Public Lands Act* (“*PLA*”),⁵⁰⁵ administered by Alberta Sustainable Resource Development, deals with the selling and transferring of public land and activities permitted thereon. The primary regulation under the *PLA* relating to mining is the same one that also is promulgated under the *MMA* that was discussed above.⁵⁰⁶ Accordingly, the *PLA* is not reviewed further in this report. However, the general regulatory summary and observations made in this report with respect to the *MMA* as it relates to this regulation also would apply to the *PLA*.

vi. Natural Resources Conservation Board Act

The *Natural Resources Conservation Board Act* (“*NRCBA*”),⁵⁰⁷ administered by the Natural Resources Conservation Board (“*NRCB*”), is the general responsibility of both the ministries of environment and sustainable resource development. The *NRCBA* is a bridging statute in the sense that it supplements the

⁴⁹⁹ R.S.A. 2000, c. M-17, s. 108.4 (exploration).

⁵⁰⁰ *Ibid.*, s. 60 (operations).

⁵⁰¹ *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003, ss. 10-11 (security deposit to be in amount and form specified by minister).

⁵⁰² *Ibid.*, s. 12.

⁵⁰³ R.S.A. 2000, c. M-17, s. 60.

⁵⁰⁴ *Ibid.*, s. 2.

⁵⁰⁵ R.S.A. 2000, c. P-40.

⁵⁰⁶ *Metallic and Industrial Minerals Exploration Regulation*, Alta. Reg. 213/98, as consolidated to 227/2003.

⁵⁰⁷ R.S.A. 2000, c. N-3.

requirements of both provincial mining law (the *MMA*) and environmental law (*Environmental Protection and Enhancement Act* – “*EPEA*”), the latter reviewed below. The purpose of the *NRCBA* is to provide for an impartial process to review projects that will or may affect the natural resources of Alberta in order to determine whether, in the NRCB’s opinion, the projects are in the public interest, having regard to their social, economic, and environmental effects.⁵⁰⁸ As noted above, a natural resource that can be used as an energy resource is within the ambit of the *ERCA*, not the *NRCBA*.

The *NRCBA* defines several terms including environment,⁵⁰⁹ environmental impact assessment (“EIA”) report,⁵¹⁰ metallic or industrial mineral project,⁵¹¹ natural resource,⁵¹² and reviewable project.⁵¹³

Notwithstanding the issuance of a licence, permit, or approval under any other Act, no person may commence a metallic or industrial mineral project (as defined under the *MMA*) if an EIA report has been ordered under the *EPEA* before obtaining an **approval** under the *NRCBA*.⁵¹⁴

In terms of **assessment** requirements, regulations under the *NRCBA* authorize the NRCB to (1) establish guidelines for the type of information to be included in project applications, (2) impose project-specific information requirements, or (3) adopt EIA requirements for the project from the *EPEA* or incorporate NRCB-developed information into the EIA report.⁵¹⁵

In terms of the **application** of the *NRCBA*, the regime applies to a metallic or industrial mineral project (as defined under the *MMA*) if an EIA report has been ordered under the *EPEA*.⁵¹⁶

In terms of **community involvement**, the *NRCBA* addresses the lack of such provisions in the *MMA* by authorizing (1) hearings or other proceedings prior to deciding whether to issue an approval,⁵¹⁷ and (2) funding for interveners who may wish to participate in the NRCB’s process.⁵¹⁸

b. Environmental Laws

i. Environmental Protection and Enhancement Act

The *EPEA*,⁵¹⁹ administered by Alberta Environment, contains the typical elements of provincial environmental legislation noted above that also apply generally to mining activity. The purpose of the Act is to support and promote the protection, enhancement, and wise use of the environment while recognizing such matters as (1) environmental protection is essential to the integrity of ecosystems,

⁵⁰⁸ *Ibid.*, s. 2.

⁵⁰⁹ *Ibid.*, s. 1(c) (air, land, water; interacting natural systems that include organic and inorganic matter and living organisms).

⁵¹⁰ *Ibid.*, s. 1(d) (ordered under sections 44(1)(a), 45(4), or 47 of the *EPEA*)

⁵¹¹ *Ibid.*, s. 1(f) (project to construct a mine and recover metallic or industrial minerals as defined in the *MMA* for which an EIA report has been ordered under the *EPEA*).

⁵¹² *Ibid.*, s. 1(g) (subsurface, land surface, water, fauna, flora resources of Alberta, but not energy resource as defined in *ERCA*).

⁵¹³ *Ibid.*, s. 1(i) (project referred to under section 4 of Act). Section 4 lists metallic or industrial mineral projects as reviewable projects.

⁵¹⁴ *Ibid.*, ss. 1(f), 4(c), 5, 9.

⁵¹⁵ Rules of Practice of the Natural Resources Conservation Board Regulation, Alta. Reg. 77/2005, s. 4

⁵¹⁶ R.S.A. 2000, c. N-3, ss. 1(f), 4(c).

⁵¹⁷ *Ibid.*, ss. 6, 8.

⁵¹⁸ *Ibid.*, s. 11. See also *Rules of Practice of the Natural Resources Conservation Board Regulation*, Alta. Reg. 77/2005, ss. 25-42 (costs and funding for eligible interveners).

⁵¹⁹ R.S.A. 2000, c. E-12.

humans, and societal well-being, (2) the need to integrate environmental and economic decision-making, (3) sustainable development principles, and (4) the responsibility of polluters to pay for the costs of their actions.⁵²⁰

The *EPEA* defines several terms including adverse effect,⁵²¹ conservation,⁵²² environment,⁵²³ groundwater,⁵²⁴ mine,⁵²⁵ minerals,⁵²⁶ owner,⁵²⁷ person responsible,⁵²⁸ quarry,⁵²⁹ reclamation,⁵³⁰ release,⁵³¹ substance,⁵³² surface water,⁵³³ and watercourse.⁵³⁴

The *EPEA* and regulations designate the construction, operation, or reclamation of a mine (including an oil sands mine), a coal processing plant, an oil sands processing plant, and a quarry where an EIA is necessary, as activities requiring an **approval**.⁵³⁵ The Act and regulations also designate the conduct of an exploration operation as an activity requiring notice.⁵³⁶ An approval or registration holder may apply to the Minister for a certificate of variance to vary the terms and conditions of an approval or registration.⁵³⁷

⁵²⁰ *Ibid.*, s. 2(a)(b)(c)(i).

⁵²¹ *Ibid.*, s. 1(b) (impairment or damage to environment, human health, safety, or property).

⁵²² *Ibid.*, s. 1(l) (planning, management, and implementation of an activity with the objective of protecting essential physical, chemical, and biological characteristics of environment against degradation).

⁵²³ *Ibid.*, s. 1(t) (air, land, water; interacting natural systems that include organic and inorganic matter and living organisms).

⁵²⁴ *Ibid.*, s. 1(y) (water under surface of ground).

⁵²⁵ *Ibid.*, s. 1(kk) (any opening in, excavation in, or working of surface or subsurface for purpose of working, recovering, opening up, or proving coal or coal-bearing substances).

⁵²⁶ *Ibid.*, s. 1(ll) (definition of minerals essentially same as that found in *CCA* [coal], *OSCA* [oil sands or bitumen] and *MMA* [gold, silver, copper, iron, tin, zinc, precious stones, etc.]).

⁵²⁷ *Ibid.*, s. 1(ss) (with respect to land means registered land owner, purchaser of land, or tenant in lawful possession or occupation of land).

⁵²⁸ *Ibid.*, s. 1(tt) (owner and previous owner of a substance or thing; person who has or had charge, management or control thereof; any successor, assignee, receiver, receiver-manager of such persons; any principal or agent of such persons, but not a municipality unless it owns the land, or a person who investigates and tests the land for determining its environmental condition, and they add new substances that aggravate an adverse effect on the environment).

⁵²⁹ *Ibid.*, s. 1(ccc) (any opening in, excavation in or working of the surface or subsurface for the purpose of working, recovering, opening up, or proving (i) any mineral other than coal, a coal bearing substance, oil sands or oils sands bearing substance, or (ii) ammonite shell, and includes any associated infrastructure).

⁵³⁰ *Ibid.*, s. 1(ddd) (includes removal of equipment, decontamination of buildings, land, or water, and stabilization, contouring, maintenance, conditioning, or reconstituting of land surface). See also Alberta Environment, *Focus on Land Reclamation* (Edmonton: AE, 1999) (noting that examples of major land disturbances include (1) surface mining for coal where vegetation and overburden are removed and, in the absence of reclamation, leave unstable land around coal pits and coal spoil piles unsuitable for agriculture and wildlife and presenting safety hazards, and (2) surface mining and extraction of oil sands where once bitumen [tar-like form of oil mixed with sand and clay] is extracted, tailings [slurry mixture of water and solids, containing sand, silt, clay and unextracted bitumen] are discharged into ponds and fine tailings [clay particles] may not settle out for years. *Ibid.* at 2).

⁵³¹ R.S.A. 2000, c. E-12, s. 1(hhh) (includes spill, discharge, dispose of, abandon, deposit, leak, seep, pour, emit, dump).

⁵³² *Ibid.*, s. 1(mmm) (any matter capable of being dispersed in, or transformed in, the environment).

⁵³³ *Ibid.*, s. 1(nnn) (water in watercourse).

⁵³⁴ *Ibid.*, s. 1(yyy) (bed and shore of river, stream, lake, creek, lagoon, swamp, march, or other body of water; or canal, ditch, reservoir, or other artificial human-made surface feature).

⁵³⁵ *Ibid.*, s. 68. See also *Activities Designation Regulation*, Alta. Reg. 276/2003, as consolidated to 157/2005, ss. 2(3), 5(1) and Schedule 1, Division 3 – conservation and reclamation; Schedule 1, Division 2, Part 8 - oil sands processing plant.

⁵³⁶ R.S.A. 2000, c. E-12, s. 68. See also *Activities Designation Regulation*, Alta. Reg. 276/2003, as consolidated to 157/2005, ss. 4(a.1), 5(3) and Schedule 3, Division 3 – conservation and reclamation.

⁵³⁷ R.S.A. 2000, c. E-12, s. 77 (Minister may issue a certificate of variance if of the opinion that (1) activity to which the certificate relates is operating or is likely to operate in contravention of a term or condition of an approval or a requirement of the regulations as a result of factors beyond the control of the applicant; (2) the proposed variance is not likely to cause significant adverse effect; and (3) refusal to grant a certificate of variance would result in serious economic hardship to the applicant without an offsetting benefit to others).

The Act also requires that current and past operators conserve and reclaim land and obtain a reclamation certificate.⁵³⁸

The *EPEA* requires different types of **assessment** information in support of (1) approvals,⁵³⁹ (2) registrations,⁵⁴⁰ and (3) reclamation certificates.⁵⁴¹

The *EPEA*, its regulations, and the approvals issued pursuant to the Act and regulations, impose various **monitoring** obligations on proponents of activities, including mining activities, subject to the Act.⁵⁴² The Act authorizes inspections by persons designated by the Minister to ensure compliance with the Act, regulations, approvals, registrations, certificates and related instruments issued under the Act.⁵⁴³

The *EPEA* imposes quasi-criminal,⁵⁴⁴ administrative,⁵⁴⁵ and civil⁵⁴⁶ **liability** for non-compliance with the Act, regulations, legal instruments (e.g. approvals, reclamation certificates), codes of practice, and orders issued thereunder.

⁵³⁸ *Ibid.*, ss. 134, 137-138. However, the reclamation certificate provisions of the *EPEA* do not apply to mines that were abandoned prior to June 1, 1963. *Ibid.*, s. 144(2)(b).

⁵³⁹ Under the regulations a (1) surface coal mine producing more than 45,000 tonnes per year, (2) a coal processing plant as defined under the *CCA*, and (3) an oil sands mine are designated as mandatory activities and therefore subject to the environmental assessment requirements of the *EPEA*. *Environmental Assessment (Mandatory and Exempted Activities) Regulation*, Alta. Reg. 111/93, as consolidated to 88/2000, s. 1 and Schedule 1 (g)(h)(i). Therefore, the proponent of such activities must (1) prepare terms of reference for the preparation of an EIA report, and (2) prepare an EIA report in accordance with the directions issued by Alberta Environment. Unless, the ministry specifies otherwise the EIA report must contain (1) a description of, and an analysis of the need for, the activity, (2) analysis of the site selection procedure and reasons why the proposed site was chosen and consideration of alternative sites, (3) existing environmental baseline information, (4) potential positive and negative environmental, social, economic impacts of the proposed activity, including cumulative, regional, temporal, and spatial considerations, (5) significance of impacts, (6) proposed measures to mitigate potential negative impacts, (6) human health issues, (7) alternatives to the proposed activity, including the alternative of not proceeding with activity, (8) monitoring environmental impacts and proposed mitigation measures, (9) contingency measures to respond to negative impacts, (10) public consultation program, and (11) measures to minimize production or release of substances that may have an adverse effect. R.S.A. 2000, c. E-12, ss. 48 (terms of reference), 49 (EIA report contents). See also *Environmental Assessment Regulation*, Alta. Reg. 112/93, as consolidated to 251/2001, ss. 4-8; and *Approvals and Registrations Procedure Regulation*, Alta. Reg. 113/93, as consolidated to 251/2001, ss. 3 (requirements for approval), 4 (government review of information).

⁵⁴⁰ *Approvals and Registrations Procedure Regulation*, Alta. Reg. 113/93, as consolidated to 251/2001, ss. 3 (requirements for registration), 4 (government review of information). Applicants for a registration of an exploration operation must provide information on such matters as (1) site disturbance and clearing, (2) soil handling, (3) water management and erosion control, (4) waste management, and (5) reclamation. Alberta Environment, *Code of Practice for Exploration Operations* (Edmonton: AE, 2005).

⁵⁴¹ *Conservation and Reclamation Regulation*, Alta. Reg. 115/93, as consolidated to 131/2004, ss. 1, 3.1 (adoption of *Code of Practice for Exploration Operations* in order to meet Part 6 of *EPEA* - conservation and reclamation).

⁵⁴² R.S.A. 2000, c. E-12, s. 49(i) (plans for monitoring predicted environmental impacts of activity and proposed mitigation measures required as part of EIA report). *Approvals and Registrations Procedure Regulation*, Alta. Reg. 113/93, as consolidated to 251/2001, ss. 3(1) (application for approval or registration to include summary of environmental monitoring information gathered during previous approval or registration period), 6(2) (government review of application for approval or registration may include review of proposed monitoring programs to determine emissions and their effects on environment).

⁵⁴³ R.S.A. 2000, c. E-12, ss. 25-27.

⁵⁴⁴ *Ibid.*, ss. 227-232.

⁵⁴⁵ *Ibid.* ss. 113 (environmental protection order for releases of substances), 129 (environmental protection order regarding contaminated sites), 140-142 (environmental protection order regarding conservation and reclamation), 210 (director's enforcement order), 237 (administrative monetary penalty), 246 (environmental protection order may be issued even where person unidentifiable and costs recoverable where identity of person later becomes known to ministry director). See also *Administrative Penalty Regulation*, Alta. Reg. 23/2003, ss. 2(1) and Schedule (failure to comply with *Code of Practice for Exploration Operations* under *Conservation and Reclamation Regulation*, Alta. Reg. 115/93, as consolidated to 131/2004, can result in imposition of administrative monetary penalty).

The *EPEA* establishes authority for both joint and several liability for compliance with environmental protection and other types of orders issued under the Act. Where, for example, an environmental protection order is directed to more than one person, all persons named in the order are jointly responsible for carrying out the terms of the order. They also are jointly and severally liable for payment of the costs of doing so, including the costs of the province in enforcing the order.⁵⁴⁷ This type of liability scheme is not atypical in environmental law. Voluntary abandoned mine land abatement, remediation, or reclamation activity, in the absence of statutory protection to the contrary, would usually be subject to liability of this type.

In terms of possible indemnification available under the *EPEA*, as noted above, the Act requires that current and past operators conserve and reclaim land and obtain a reclamation certificate.⁵⁴⁸ Acquiring a reclamation certificate shields an operator from liability with respect to environmental protection orders for reclamation in certain circumstances.⁵⁴⁹ However, under Part 5 of the Act a ministry director may issue an environmental protection order or may designate a site as contaminated where a substance may cause, or has caused, a significant adverse environmental effect.⁵⁵⁰ This decision may be made even if a reclamation certificate has been issued for the site.⁵⁵¹ If a site has been designated, the director may issue an environmental protection order requiring any "person responsible" to cleanup the site.⁵⁵² Persons responsible include past and present owners of the substance or thing, or persons who have or had charge or control of the substance or thing.⁵⁵³ These provisions also make it evident that a volunteer considering abating, remediating, or reclaiming abandoned mine lands could be subject to both the reclamation and contaminated site remediation provisions of the Act.

The *EPEA* defines trustees, receivers, and receiver-managers as "persons responsible" who can be issued environmental protection orders in connection with contaminated sites.⁵⁵⁴ However, other provisions of the Act limit their liability to the value of the assets they are administering. However, this limitation in their liability does not apply if they aggravate the situation identified in the order by their "gross negligence or willful misconduct."⁵⁵⁵ Like the *BIA* discussed under federal law above, the categories of

⁵⁴⁶ R.S.A. 2000, c. E-12, ss. 216 (cleanup costs incurred by director in general or emergency circumstances constitute charge in favour of government enforceable in same way as mortgage or other security on land ranks ahead of any other claim), 217, 219 (other civil remedies remain available notwithstanding *EPEA*), 218 (limitation period for bringing civil action may be extended by court), 222 (injunction by government), 223 (recovery by government through action in debt authorized for cleanup and related costs), 224 (orders may be registered on title to property), 225 (injunctions by any person for actual or anticipated loss or damage), 248 (government expended costs for emergency measures a debt due government and recoverable in court of competent jurisdiction).

⁵⁴⁷ *Ibid.*, ss. 215 (enforcement orders), 240 (environmental protection orders).

⁵⁴⁸ *Ibid.*, ss. 134, 137-138.

⁵⁴⁹ *Ibid.*, ss. 142(1) (post-issuance of reclamation certificate ministry inspector may issue environmental protection order if necessary to address conserve and reclaim land and the work relates to matters not apparent at time certificate issued), 142(2) (no environmental protection order for conservation or reclamation of land may be issued after dates specified in regulations). See also *Conservation and Reclamation Regulation*, Alta. Reg. 115/93, as consolidated to 131/2004, s. 15(1) (where reclamation certificate issued for construction, operation or reclamation of mine or reclamation of exploration operation, no environmental protection order for conservation or reclamation may be issued under section 142(2) more than 5 years after the date of issuance of the reclamation certificate, or after the date of issuance of the reclamation certificate, if the activity is listed in Division 3, Schedule 1 of the *Activities Designation Regulation* [includes construction, operation, reclamation of mines or coal processing plants] where an approval for the activity existed at the time of issuance of certificate).

⁵⁵⁰ R.S.A. 2000, c. E-12, ss. 113, 125(1).

⁵⁵¹ *Ibid.*, ss. 113, 125(2).

⁵⁵² *Ibid.*, s. 129(1). The order may apportion the cost of cleanup measures. *Ibid.*, s. 129(4).

⁵⁵³ *Ibid.*, s. 1(tt).

⁵⁵⁴ *Ibid.* Responsible persons also could be named as operators for purposes of reclamation orders. *Ibid.*, s. 134(b).

⁵⁵⁵ *Ibid.*, s. 240(3).

persons provided with environmental liability protection under the *EPEA* are probably too narrow to include those who voluntarily propose to undertake abandoned mine land abatement, remediation, or reclamation activities. However, the principle contained in this legislation could be considered under more broadly drafted provincial environmental legislative exemptions.

The *EPEA* authorizes **emergency response** activity in several contexts.⁵⁵⁶

Financial measures that may be employed under the *EPEA* include the imposition of security requirements as conditions for the issuance of approvals, registrations, variance and reclamation certificates.⁵⁵⁷ The regulations set out requirements for the amount, form, adjustment, return, retention, and forfeiture of the security.⁵⁵⁸ The regulations require security to be collected in an amount sufficient to ensure completion of conservation and reclamation,⁵⁵⁹ except where lands were disturbed under previous legislation.⁵⁶⁰ In the latter case, it is not likely that security would be sufficient to ensure conservation and reclamation.

Where the amount of a forfeited security is insufficient to pay for the cost of conservation and reclamation, the operator remains liable to the government for the balance.⁵⁶¹ In general, cleanup costs incurred by the government constitute a debt due the government and are recoverable in a court of competent jurisdiction or may be the subject of a charge on the property ranking in priority to other claims.⁵⁶²

In terms of its **application**, the *EPEA* applies to (1) construction, operation and reclamation of mines (including oil sands mines), quarries, and coal (and oil sands) processing plants,⁵⁶³ and (2) exploration operations.⁵⁶⁴ The reclamation certificate provisions of the *EPEA* do not apply to mines that were

⁵⁵⁶ *Ibid.*, ss. 20 (ministry may formulate emergency response plans to prevent, alleviate, control, or stop destruction of, or loss or damage to environment), 114-115 (emergency environmental protection order and emergency measures notification respecting releases of substances), 143 (inspector may issue emergency environmental protection order to operator in reclamation context where inspector of opinion immediate and significant adverse affect may be occurring or has occurred), 247 (general requirements for issuance of emergency environmental protection order), 248 (recovery of costs for emergency measures). See also *Approvals and Registrations Procedure Regulation*, Alta. Reg. 113/93, as consolidated to 251/2001, s. 3(1)(n) (confirmation that application for approval or registration includes confirmation that any emergency response plans required to be filed with appropriate local and provincial agencies have been so filed).

⁵⁵⁷ R.S.A. 2000, c. E-12, ss. 84 (approvals, registrations, variance certificates), 135 (reclamation certificates).

⁵⁵⁸ *Conservation and Reclamation Regulation*, Alta. Reg. 115/93, as consolidated to 131/2004, ss. 18 (amount determined on basis of estimated costs of conservation and reclamation submitted by operator; nature, complexity and extent of activity; probable difficulty of conservation and reclamation considering topography, soils, geology, hydrology and revegetation), 21 (form may include cash, cheques, government guaranteed bonds and related instruments assigned to finance minister, irrevocable letters of credit, guarantee, or performance bond), 20 (adjustment factors include cost of future conservation and reclamation changes; changes to activity; portion of specified land to be conserved and reclaimed and changes to plan with respect thereto; number of activities being conducted by operator on land), 22 (factors applicable to return of security), 23 (retention allowed for period based on amount of time available for issuance of environmental protection order under section 15 of regulation), 24 (access to security when operator fails to comply with environmental protection order under 142, emergency environmental protection order under section 143, or enforcement order under section 210).

⁵⁵⁹ *Ibid.*, s. 18(1).

⁵⁶⁰ *Ibid.*, s. 18(3).

⁵⁶¹ *Ibid.*, s. 24(6).

⁵⁶² R.S.A. 2000, c. E-12, ss. 216, 223-224, 248.

⁵⁶³ *Ibid.*, s. 68. See also *Activities Designation Regulation*, Alta. Reg. 276/2003, as consolidated to 157/2005, ss. 2(3), 5(1) and Schedule 1, Division 3 – conservation and reclamation.

⁵⁶⁴ R.S.A. 2000, c. E-12, s. 68. See also *Activities Designation Regulation*, Alta. Reg. 276/2003, as consolidated to 157/2005, ss. 3(3), 5(2) and Schedule 2, Division 3 – conservation and reclamation.

abandoned prior to June 1, 1963.⁵⁶⁵ The authority to issue variances from approvals, registrations, or any activity governed by the regulations⁵⁶⁶ is a form of exemption. Using variances as "escape valves" from generally applicable environmental requirements would appear to be broad enough, and to contain no limitations at least under Alberta law, that would prevent their being applied in the context of abandoned mine land abatement, remediation, or reclamation activities where approvals are required.⁵⁶⁷ Because the variance is issued as an instrument under provincial statute law, it would provide a potential statutory authority defence to any civil litigation as long as it was complied with. To the extent a general variance provision, such as that contained in Alberta law, is inadequate as a measure for protecting such activities from attracting liability, the existence of such authority provides a precedent, with appropriate modification, for adopting a more specific approach tailored to the abandoned mine land context.

The *EPEA* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. The Act does authorize the Minister to establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay such costs.⁵⁶⁸ The provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup). However, Alberta officials are of the view that this provision would be applicable only to contamination from metal mines or acid-generating mines and this type of mining does not occur in the province. In Alberta, given the type of mining that has predominated to date (e.g. coal mining) the main issue is seen to be reclamation (land restoration) not remediation (de-contamination).

In terms of **community involvement**, the *EPEA* and regulations (1) require applicants for approvals or registrations to describe the public consultation undertaken or proposed by the applicant,⁵⁶⁹ (2) require proponents subject to requirement to prepare EIA report to provide information respecting the manner in which they intend to implement a program of public consultation in respect of the undertaking of the proposed activity and to present the results of that program,⁵⁷⁰ (3) require applicants for variances to include information showing the nature and extent of all consultations had with persons who will be directly affected by the proposed variance,⁵⁷¹ (4) allow persons directly affected by the designation of a site as contaminated to submit a statement of concern to the ministry director,⁵⁷² and (5) require a ministry director to give notice of the issuance of an environmental protection order to the local authority of the municipality where a contaminated site is located.⁵⁷³

⁵⁶⁵ R.S.A. 2000, c. E-12, s. 144(2)(b).

⁵⁶⁶ R.S.A. 2000, c. E-12, s. 77(1).

⁵⁶⁷ By definition variances "vary" approval requirements. If there is no approval associated with abatement activity at an orphaned or abandoned, then there is no legal instrument to vary.

⁵⁶⁸ *Ibid.*, s. 124.

⁵⁶⁹ *Approvals and Registrations Procedure Regulation*, Alta. Reg. 113/93, as consolidated to 251/2001, s. 3(1)(q).

⁵⁷⁰ R.S.A. 2000, c. E-12, s. 49(1). See also *Environmental Assessment Regulation*, Alta. Reg. 112/93, as consolidated to 251/2001, s. 8(3) (summary of EIA report must discuss all public consultation and participation that is, has been, or will be occurring with respect to the EA of the proposed activity).

⁵⁷¹ R.S.A. 2000, c. E-12, s. 77(2).

⁵⁷² *Ibid.*, s. 127.

⁵⁷³ *Ibid.*, s. 130.

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The purpose of the *Occupational Health and Safety Act*,⁵⁷⁴ administered by the Ministry of Human Resources and Employment, is to protect workers and others from workplace risks. A Code established under the Act⁵⁷⁵ addresses mine safety including such matters as excavations,⁵⁷⁶ open stockpiles,⁵⁷⁷ mine discard,⁵⁷⁸ mine walls,⁵⁷⁹ and dangerous conditions.⁵⁸⁰ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with mining and environmental laws reviewed above.

d. Planning Laws

i. Municipal Government Act

The *Municipal Government Act*,⁵⁸¹ administered by the Ministry of Municipal Affairs, authorizes municipal government planning, subdivision, and development control in Alberta. Municipalities establish development planning policy by adopting statutory plans, land use by-laws, and related instruments. Approvals granted by provincial regulatory bodies such as the EUB, NRCB, or Alberta Environment prevail over municipal statutory plans.⁵⁸² The Act also authorizes development of provincial land use policies and requires that municipal statutory plans, land use by-laws, and other development decisions be consistent with these policies.⁵⁸³

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority focused primarily on the operation and closure of mines, there are a number of non-regulatory policies, programs, or initiatives in Alberta directly or indirectly related to orphaned/abandoned mines. The primary ones relate to development of a (1) atlas of operating and abandoned coal mines, and (2) mineral development strategy.

⁵⁷⁴ R.S.A. 2000, c. O-2.

⁵⁷⁵ Occupational Health and Safety Code Order, Alta. Reg. 321/2003, s. 1 (adopting Occupational Health and Safety Code, effective April 2004).

⁵⁷⁶ Alberta Ministry of Human Resources and Employment, *Occupational Health and Safety Code Explanation Guide* (2004), Part 36 – Mines, s. 535(2) (noting that designers of walls of excavations must consider both eventual deterioration of walls during mine life as well as their final location when mine abandoned).

⁵⁷⁷ *Ibid.*, s. 536 (noting that engineering must take into account potential instability of open stockpiles and that to ensure stability design and construction must address geotechnical behaviour and physical dimensions of stockpile, chemical properties of waste rock, water table location, permeability, size and strength of rocks and other materials in stockpile).

⁵⁷⁸ *Ibid.*, s. 540 (disposal of solid and liquid wastes generated by mining operation must comply with accepted engineering principles to ensure dump or impoundment stability; failure of disposal structure could cause environmental contamination).

⁵⁷⁹ *Ibid.*, s. 541 (proper engineering design and control of pit walls necessary).

⁵⁸⁰ *Ibid.*, s. 544(2) (failure of containment dam or dike resulting in uncontrolled spillage of liquid waste products can cause serious environmental and safety situation).

⁵⁸¹ R.S.A. 2000, c. M-26 (Part 17).

⁵⁸² *Ibid.*, s. 619.

⁵⁸³ *Ibid.*, s. 622.

The Coal Mine Atlas was developed by the Energy Resources Conservation Board (“ERCB”) (predecessor to the EUB) in the mid-1980s to serve as a guide for identifying areas in the province where mining has occurred.⁵⁸⁴

“Over 2000 coal mines have operated in...Alberta since mining began in the 1850s. Except for the large surface mines operated during the past 25 years, most of the coal mines used underground mining techniques and were relatively shallow in depth...

While the passage of time usually results in the eventual collapse and stabilization of the ground over these underground mines, the process is unpredictable. In certain areas of the province subsidence, either in the form of depression or open holes, still occurs 40 to 50 years after the termination of mining. Fortunately such occurrences have resulted in very little property damage, but they have created considerable concern with respect to future public safety and property damage. The ERCB believes it is extremely important that any development over abandoned underground coal mines takes into account the presence of previous mines and makes an assessment of the hazard which these mines could present to property or to safety of the public.

In 1985 the ERCB published a ‘Coal Mine Atlas’...which included information as to the location of all known abandoned mines in the Province....

The ERCB recommends that the Coal Mine Atlas be used by anyone involved in surface development or in the approval of surface development as an initial check to ascertain if a particular parcel of land is underlain by an abandoned underground coal mine....It is the ERCB’s belief that, once the existence of an abandoned mine is verified, the developer and/or the development approval authority must take reasonable steps to establish whether or not this mine would result in any constraints to the proposed development.⁵⁸⁵

The Coal Mine Atlas would appear to be the foundation for the province to produce comprehensive information on the environmental, financial, and legal status of “abandoned” coal mines in the province, including the 17 currently permitted but not operating.

Alberta also has developed a non-energy (e.g. base and precious metals) mineral development strategy because the province knows little about its potential, in comparison to that of the province’s energy minerals sector (e.g. coal, oil sands, etc.).⁵⁸⁶ The province recognizes that expansion of the non-energy minerals sector will require a more rigorous regulatory regime than that currently provided by the *MMA*

⁵⁸⁴ Alberta Energy and Utilities Board, *ST-45 Coal Mine Atlas: Operating and Abandoned Coal Mines in Alberta* (Calgary: EUB, 2005) (based on information up to 2001, but with maps accurate to 2003) (noting that at present, there are 28 permitted mines in the province, with only 11 of these currently producing coal; a “permitted mine” refers to any mine site for which a current mine permit exists).

⁵⁸⁵ Alberta Energy and Utilities Board, *Impact of Abandoned Coal Mines on Surface Developments: Informational Letter IL 91-13* (Calgary: EUB, 1992).

⁵⁸⁶ Alberta Ministry of Energy, *Alberta’s Mineral Development Strategy* (Calgary: MEN, 2002) at 5, 7.

and the NRCB.⁵⁸⁷ The province also recognizes that developing a regulatory regime for the non-energy minerals sector must address issues of post-mining abandonment and reclamation by that sector.⁵⁸⁸

Expansion of the non-energy mineral sector in the province also could give Alberta the opportunity at the outset to develop a post-mining regulatory regime that speaks to how the province will address issues of “orphaned/abandoned” mines as a matter of law.

f. Findings and Summary

There are several aspects of Alberta law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Reclamation authority under Alberta mining law focuses on operating, closing, or "abandoned" (closed) mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. Certain types of environmental orders under Alberta law that could otherwise apply to reclamation of mining sites with reclamation certificates are exempted from so applying. Where environmental orders can be applied to a mine site, the laws authorizing the application of such orders still do not address the orphaned/abandoned mine problem.
3. Alberta environmental law explicitly authorizes the Minister to establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. The provision essentially defines the orphaned/ abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup). However, Alberta officials are of the view that this provision would be applicable only to contamination from metal mines or acid-generating mines and this type of mining does not occur in the province. In Alberta, given the type of mining that has predominated to date (e.g. coal mining) the main issue is seen to be reclamation (land restoration) not remediation (de-contamination).

⁵⁸⁷ *Ibid.* at 20 (noting that the process for the actual development of a mine is complex; although Alberta has extensive experience with large energy developments such as coal mines and oil sands mines, there is little direct experience with other types of mining operations; with the potential for new opportunities for non-energy mines, there will be a need to review and adjust regulatory processes to reflect the circumstances and demands created by new industries; metal and diamond mines come with a new set of issues in relation to the environment, health and safety issues; special training programs may be required for mine regulators and inspectors to ensure mining standards are met). See also Government of Alberta, *A Proposal for Regulating Resource Development* (2002) at 5-6 (noting that the existing *MMA* would allow development of mining regulations in the shortest period of time and the NRCB has the authority to review metallic or industrial mineral projects where Alberta Environment has ordered an EIA report, but the NRCB currently has no resources or expertise to review and regulate the industry from a health, safety and environmental perspective).

⁵⁸⁸ Alberta Ministry of Energy, *Alberta's Mineral Development Strategy* (Calgary: MEN, 2002) at 22 (noting that the effects of development arising from non-energy minerals are significantly different from energy development; a metal or diamond mine will have a different imprint on the land than a coal mine; industry needs to consult with local communities to convey an accurate image of their mining and land reclamation activities). See also Government of Alberta, *A Proposal for Regulating Resource Development* (2002) at 15 (noting need for single regulator responsible for assessment, hearings, appeals, operation, abandonment, and reclamation).

4. Alberta environmental laws that provide liability protection in certain circumstances from cleanup orders pertaining to contaminated sites for secured creditors and related fiduciaries, while of precedential value, are arguably not broad enough without amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.
5. It is not clear what the impact has been in Alberta of not having statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others. The province has extensive statutory authority to respond to emergencies and to expend public funds in these circumstances. What is unclear is the nature, extent, and financial magnitude of the situation in the province. In general, the Coal Mine Atlas gives some insight into the magnitude of the abandoned coal mine problem in the past, but no clear indication of the current environmental, financial, or legal dimensions of that problem.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *CCA*, *OSCA*, *MMA*, and the *EPEA*, (as well as two hearing-type laws - the *ERCA* and *NRCBA*), all establish licence/permit/approval-type regimes for construction, operation, and reclamation of new mines and processing plants (e.g. energy [coal, oil sands] and non-energy [base and precious metal]) as well as exploration operations. These statutory regimes (e.g. *CCA*) also require approvals before such operations may be resumed at “abandoned” facilities.

(B) Assessment

Of the mining and resource management laws, the *CCA* and *OSCA* require the most environmental information for the purposes of assessing applications concerning mines and processing plants. The information requirements of these laws are supplemented by the *ERCA*. The *MMA* appears to require little, if any, environmental information, but could be supplemented by the *NRCBA*.

The *EPEA* requires different types of assessment information in support of (1) approvals, (2) registrations, and (3) reclamation certificates. This is particularly the case where approvals are required (for the larger projects) because such undertakings usually require EIA reports. The overall impact of the *EPEA* is to greatly supplement the environmental information requirements of all the mining and resource management laws in conjunction with the *ERCA* and the *NRCBA*.

(C) Monitoring

The *CCA*, *OSCA*, and *EPEA* impose various environmental monitoring obligations on proponents of mining activities subject to these regimes. The *MMA* does not appear to do so.

Both the mining and environmental laws authorize inspections by designated persons to ensure compliance with the statutes, regulations, approvals, registrations, certificates and related instruments issued under these regimes.

(D) *Liability*

The *CCA*, *OSCA*, *MMA*, and *EPEA* all impose quasi-criminal, administrative, and civil liability for non-compliance with these statutes and the regulations, permits, licences, approvals, consents, certificates, orders, directions, or codes of practice promulgated thereunder.

Liability under some orders issued under the *EPEA* may be joint and several. In addition, acquiring a reclamation certificate under the *EPEA* shields the operator from environmental protection order liability for reclamation in certain circumstances. The Act does allow a ministry director to designate a site as contaminated, notwithstanding the existence of a certificate, and require responsible persons to cleanup, where a substance may cause, or has caused, a significant adverse environmental effect.

(E) *Emergency Response*

The *CCA*, *OSCA*, and *EPEA* all explicitly authorize emergency response actions in a variety of contexts. The *MMA* is less explicit about the nature and extent of emergency response authority, but contains provisions that could allow the undertaking of such measures.

(F) *Financial Instruments*

The *CCA*, *OSCA*, *MMA*, and *EPEA* all impose financial security requirements (e.g. cash, bonds, letter of credit) as conditions for the issuance of licences, permits, approvals, registrations, variances, or reclamation certificates under these various laws. Regulations under the *EPEA* set out requirements for the amount, form, adjustment, return, retention, and forfeiture of the security that may be the most detailed of the four statutory regimes.

Generally, under each of these regimes, where the amount of a forfeited security is insufficient to pay for cleanup or reclamation, the operator remains liable for expenditures incurred by the government. The costs incurred constitute a debt due the province recoverable in a court of competent jurisdiction or may be the subject of a charge on the property ranking in priority to other claims. In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

The *EPEA* does authorize the Minister to establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay such costs. The provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup). However, Alberta officials are of the view that this provision would be applicable only to contamination from metal mines or acid-generating mines and this type of mining does not occur in the province. In Alberta, given the type of mining that has predominated to date (e.g. coal mining) the main issue is seen to be reclamation (land restoration) not remediation (de-contamination).

(G) *Application/Exemption*

In general, Alberta laws apply to construction, operation and reclamation of energy [e.g. *CCA* - coal, *OSCA* - oil sands, *EPEA* - both] or non-energy [e.g. *MMA* and *EPEA* - base and precious metal] mines or

quarries. The *CCA*, *OSCA*, and *EPEA* also apply to energy [coal or oil sands] processing plants. All of these regimes also apply to exploration operations. The *EPEA* authority to issue a variance from approvals, registrations, or any activity governed by the regulations constitutes a form of exemption from the Act's requirements for energy and non-energy mines, quarries, or processing plants (more likely aspects thereof) where authorized. Reclamation certificate provisions of the *EPEA* do not apply to mines that were abandoned prior to June 1, 1963.

(H) *Designation of Orphaned/Abandoned Sites*

The *CCA* and *OSCA* apply to both abandoned coal (or oil sands) mines and abandoned coal (or oil sands) processing plants but do not define the term “abandoned” and do not otherwise define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *MMA* and *EPEA* do not define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

(I) *Community Involvement*

The *CCA*, *OSCA*, and *MMA* are silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

The *ERCA* addresses the lack of community involvement provisions in the *CCA* and the *OSCA* by requiring the EUB to consider whether an energy project “is in the public interest” having regard to its social, economic, and environmental effects. In furtherance of that objective, the EUB may award the costs of participating in its process to a local intervener.

The *NRCBA* similarly addresses the lack of community involvement provisions in the *MMA* with respect to non-energy projects by authorizing (1) hearings or other proceedings prior to deciding whether a project is in the public interest and whether to issue an approval, and (2) funding for interveners who may wish to participate in the NRCB's process.

The *EPEA* and its regulations (1) require applicants for approvals or registrations to describe the public consultation undertaken or proposed by the applicant, (2) require proponents subject to a requirement to prepare an EIA report to provide information respecting the manner in which they intend to implement a program of public consultation in respect of the undertaking of the proposed activity and to present the results of that program, (3) require applicants for variances to include information showing the nature and extent of all consultations had with persons who will be directly affected by the proposed variance, (4) allow persons directly affected by the designation of a site as contaminated to submit a statement of concern to the ministry director, and (5) require a ministry director to give notice of the issuance of an environmental protection order to the local authority of the municipality where a contaminated site is located.

5. SASKATCHEWAN

a. Mining Laws

i. Crown Minerals Act

The *Crown Minerals Act* ("CMA"),⁵⁸⁹ administered by the Department of Industry and Resources, is the primary mining law in Saskatchewan overseeing the disposition of rights in, and the payment of royalties with respect to, Crown minerals on Crown mineral lands. In general, but with certain key exceptions, there are few provisions in this legislation relevant to environmental matters. Environmental regulation of virtually all facets of mining in Saskatchewan occurs under laws administered by Saskatchewan Environment, reviewed below. Accordingly, the following provides a very brief review of the CMA.

The CMA defines several terms including Crown lease,⁵⁹⁰ Crown mineral,⁵⁹¹ Crown mineral lands,⁵⁹² holder,⁵⁹³ mine,⁵⁹⁴ and mineral.⁵⁹⁵

The CMA grants rights to explore and prospect for Crown minerals by way of Crown **lease**.⁵⁹⁶ The only explicit environment-related provision in the CMA requires the Minister to cancel any such lease or other disposition in certain circumstances. These include (1) where an environmental assessment ("EA") conducted under the province's *Environmental Assessment Act* ("EAA") determines that the development should not proceed and the provincial cabinet, on the advice of the environment minister, so directs the Minister, (2) where the provincial cabinet directs the Minister to cancel the disposition for the purposes of environmental protection, and (3) where the holders of the Crown dispositions consent in writing to the cancellation.⁵⁹⁷ Upon cancellation, the former holders of the Crown disposition are entitled to compensation but no other remedy against the Crown.⁵⁹⁸ This authority has been described by commentators as linking the management of minerals with management of the environment.⁵⁹⁹

A further licence-related provision, contained in the regulations, prohibits the deposit of tailings, slimes, or other waste products in certain specified areas of the province without the written permission of the Minister,⁶⁰⁰ and allows their discharge to water subject to the provisions of any other law governing the matter.⁶⁰¹

In terms of the **application** of the Act, it applies to any person seeking a Crown lease or other disposition with respect to Crown minerals on Crown mineral lands.⁶⁰²

⁵⁸⁹ S.S. 1984-85-86, c. C-50.2, as am.

⁵⁹⁰ *Ibid.*, s. 2(1)(c) (lease issued under CMA or predecessor law by which Crown has granted person right to extract, recover, or produce Crown minerals).

⁵⁹¹ *Ibid.*, s. 2(1)(d) (any mineral on, in, or under Crown mineral lands).

⁵⁹² *Ibid.*, s. 2(1)(e) (mineral interest of the Crown in any lands in the province whether or not the surface rights in these lands are also Crown property).

⁵⁹³ *Ibid.*, s. 2(1)(g) (person shown in department records as owner of Crown disposition rights granted by Crown lease or other instrument for the purpose of exploration or prospecting for Crown minerals on Crown mineral lands).

⁵⁹⁴ *Ibid.*, s. 2(1)(h) (any facility in province for extracting, recovering, or producing any mineral except oil and gas).

⁵⁹⁵ *Ibid.*, s. 2(1)(i) (any substance formed by nature, but not surface or groundwater, agricultural soil, sand, or gravel).

⁵⁹⁶ *Ibid.*, s. 4.

⁵⁹⁷ *Ibid.*, s. 10.1(2).

⁵⁹⁸ *Ibid.*, s. 10.1 (3)(5)(6).

⁵⁹⁹ B.J. Barton, *Canadian Law of Mining* (Calgary: Canadian Institute of Resources Law, 1993) at 21.

⁶⁰⁰ General Regulations (Tailings Disposal Area), Sask. Reg. 270/69, s.2.

⁶⁰¹ *Ibid.*, s. 3.

⁶⁰² S.S. 1984-85-86, c. C-50.2, as am, s. 3.

There are several sections in the *CMA* that, in theory, could authorize by regulation environmental control measures in relation to mining activity.⁶⁰³ However, apart from the explicit authority noted above, the Act is silent on **assessment, monitoring, emergency response, financial measures, designation of orphaned/abandoned sites, and community involvement.**

The Act imposes quasi-criminal⁶⁰⁴ and civil⁶⁰⁵ **liability** for violation of the Act and regulations.

b. Environmental Laws

i. Environmental Management and Protection Act

The *Environmental Management and Protection Act* ("EMPA"),⁶⁰⁶ administered by Saskatchewan Environment, contains typical elements of provincial environmental legislation noted above that also apply generally to mining activity.

The Act defines several terms including adverse effect,⁶⁰⁷ contaminated site,⁶⁰⁸ discharge,⁶⁰⁹ environment,⁶¹⁰ industrial effluent works,⁶¹¹ industrial waste,⁶¹² owner,⁶¹³ permit,⁶¹⁴ person responsible for a discharge,⁶¹⁵ sewage,⁶¹⁶ substance,⁶¹⁷ surface water,⁶¹⁸ and waste.⁶¹⁹ The regulations define several

⁶⁰³ *Ibid.*, s. 5(1)(c) (requiring any document evidencing a Crown disposition to contain the terms, conditions, restrictions, and stipulations that may be prescribed by regulations). This authority could in theory allow the Minister by regulation to place environmental performance requirements on a lease, which could apply to all aspects of the environmental performance of a mine including assessment, monitoring, emergency response, financial measures, and community involvement. See also *ibid.*, s. 22(1)(e) (authorizing the provincial cabinet to make regulations requiring from holders of Crown dispositions or the occupiers or operators of any mine or well from which any Crown mineral is extracted, recovered, or produced, reports and statements of any activities carried out under any Crown disposition, or the results of any of those activities). This authority could in theory allow the provincial cabinet to make regulations requiring environmental reports or statements of any activities carried out under any Crown disposition.

⁶⁰⁴ *Ibid.*, ss. 25(2) (persons), 25(3) (officers and directors of corporation).

⁶⁰⁵ *Ibid.*, ss. 25(1) (injunction where minister or department officer obstructed in duties under Act), 27 (prosecution no bar to civil action for damages by any person harmed by commission of offence).

⁶⁰⁶ S.S. 2002, c. E-10.21.

⁶⁰⁷ *Ibid.*, s. 2(a) (impairment or damage to environment, or harm to human health caused by chemical, physical, or biological alteration).

⁶⁰⁸ *Ibid.*, s. 2(e) (an area designated or re-designated as a contaminated site by the Minister pursuant to s. 11).

⁶⁰⁹ *Ibid.*, s. 2(h) (discharge into environment including drainage, deposit, release, or emission).

⁶¹⁰ *Ibid.*, s. 2(i) (air, land – soil, subsoil, sediment, surficial deposits and rock – water, inorganic or organic matter, living organisms, and interaction thereof).

⁶¹¹ *Ibid.*, s. 2(q) (works for the collection, containment, storage, transmission, treatment, or disposal of industrial waste).

⁶¹² *Ibid.*, s. 2(r) (waste generated by any industrial process or by development of a natural resource).

⁶¹³ *Ibid.*, s. 2(u) (registered owner, or purchaser, of land).

⁶¹⁴ *Ibid.*, s. 2(v) (includes permit, order, licence, approval issued under *EMPA*).

⁶¹⁵ *Ibid.*, s. 2(w) (with respect to a substance includes: owner or previous owner; person with possession, charge, management, or control, or whose actions contributed to discharge; current or previous owner, occupant of land on which substance discharged, or related companies; principal or agent of person; successor, assignee, executor, administrator, trustee, receiver or receiver-manager of person; but not municipality with tax arrears on land unless municipality becomes owner of land and aggravates existing adverse effect or discharges new or additional substances into environment; secured creditor of person unless secured creditor participated in day-to-day management or control of land or caused or aggravated discharge; advisor on remediation who exercised due diligence unless test, investigation, or work by advisor caused or aggravated adverse effect; person who was land owner or occupier of land contaminated became owner or occupier and could not reasonably know or discover substance at time became owner or occupier; or owner of land for which surface rights have been acquired under provincial surface rights law).

⁶¹⁶ *Ibid.*, s. 2(y) (industrial liquid waste containing mineral matter).

⁶¹⁷ *Ibid.*, s. 2(bb) (solid, liquid, particulate, or gas capable of becoming disperse in environment).

⁶¹⁸ *Ibid.*, s. 2(cc) (water above surface of land, including river, stream, lake, etc.).

additional terms specific to the mineral industry including decommission,⁶²⁰ decommissioning and reclamation plan,⁶²¹ mill,⁶²² mine,⁶²³ mineral,⁶²⁴ mining,⁶²⁵ mining site,⁶²⁶ pollutant control facility,⁶²⁷ and reclaim.⁶²⁸

The Act and regulations impose **permit**⁶²⁹ (**approval**) obligations on any person seeking to (1) construct, install, alter, extend, operate, or temporarily close a pollutant control facility; (2) undertake exploration for minerals, or (3) decommission and reclaim a mining site.⁶³⁰ Other permit requirements under the *EMPA* include water and sewage works, discharge into water, and shoreline alteration.⁶³¹ However, the Act authorizes the environment minister to waive permit requirements subject to any prescribed terms and conditions the minister considers appropriate.⁶³² In addition, a draft institutional control management framework policy will set out the circumstances under which persons responsible for meeting decommissioning and reclamation requirements can be released from those obligations.⁶³³

The regulations impose **assessment** obligations on applicants for (1) pollutant control facilities,⁶³⁴ (2) mineral exploration,⁶³⁵ and (3) decommissioning and reclamation plans.⁶³⁶ In addition, draft guidelines

⁶¹⁹ *Ibid.*, s. 2(dd) (includes a solid, liquid or gas that is one of the following: rubbish, slimes, tailings, fumes, smoke of mines, factories, or other industrial works, effluent, sewage, garbage, refuse, scrap, discarded articles, or any other prescribed waste product).

⁶²⁰ *Mineral Industry Environmental Protection Regulations, 1996*, Sask. Reg. c. E-10.2, Reg. 7, s. 2(c) (remove or retire permanently from service or take any action to remove or retire all or part of a mining site).

⁶²¹ *Ibid.*, s. 2(d) (plan to decommission and reclaim all or part of a mining site).

⁶²² *Ibid.*, s. 2(g) (facility operated to crush, grind, leach, dissolve, etc. minerals and includes a smelter or refinery).

⁶²³ *Ibid.*, s. 2(h) (excavations, wells, and works connected with mineral removal, development, or operations).

⁶²⁴ *Ibid.*, s. 2(i) (any non-living substance formed by nature that occurs on or under the ground but not petroleum, naturally occurring water, agricultural soil, sand, or gravel).

⁶²⁵ *Ibid.*, s. 2(j) (method of working in which mineral disturbed or otherwise manipulated in order to be obtained from ground; boring or drilling a mineral; working ground for purpose of underground storage of mineral; and well drilling to obtain mineral).

⁶²⁶ *Ibid.*, s. 2(k) (pollutant control facility, mine, mill, or land, water, or watercourse disturbed by them).

⁶²⁷ *Ibid.*, s. 2(m) (facility for managing pollutant arising from mining operations or from development or exploration of mineral and includes environmental protection components of a mine, mill, tailings management area, waste rock disposal area, mine overburden or spoil disposal area, etc.).

⁶²⁸ *Ibid.*, s. 2(n) (rehabilitate all or part of land, water, or watercourses used or disturbed by the construction or operation of a pollutant control facility, mine, or mill).

⁶²⁹ S.S. 2002, c. E-10.21, ss. 4 (prohibition on discharge of substances into environment without express authorization under Act), 56-61 (general rules respecting permits).

⁶³⁰ *Mineral Industry Environmental Protection Regulations, 1996*, Sask. Reg. c. E-10.2, Reg. 7, ss. 3, 5, 7, 10-13, 23(1) (approvals necessary for mining site pollutant control facility, exploration by mining, or site decommissioning or reclamation), 31 (approvals not transferable without approval of minister). Applicants seeking to undertake exploration by drilling, trenching, or hydraulic removal of overburden can comply with detailed requirements set out in section 24 of regulations as alternative to seeking approvals under sections 5, 7, 12 of regulations. *Ibid.*, s. 23(2)(a)(b).

⁶³¹ S.S. 2002, c. E-10.21, ss. 21-25, 35, and 36, respectively.

⁶³² S.S. 2002, c. E-10.21, s. 61.

⁶³³ Saskatchewan Environment, Institutional Control Management Framework (Draft) (Regina: SE, 2005).

⁶³⁴ *Mineral Industry Environmental Protection Regulations, 1996*, Sask. Reg. c. E-10.2, Reg. 7, ss. 6 (statement of nature of wildlife, fisheries, air, water resources, soil, and hydrogeology in area of facility; list of pollutants that may be stored or used in facility; spill contingency plan for facility pollutants), 30 (ability to comply with authorized pollutant concentrations in liquid effluent set out in appendix to regulations).

⁶³⁵ *Ibid.* (if exploration by mining). If exploration by drilling, trenching, or hydraulic removal of overburden may comply with same assessment requirements noted above, or those set out in section 24 of regulation. See also Saskatchewan Environment, *Mineral Exploration Guidelines for Saskatchewan* (2005) (setting out best management practices designed to minimize environmental impacts to assist in application, approval, and closure process for exploration activities on land administered by the department).

⁶³⁶ *Mineral Industry Environmental Protection Regulations, 1996*, Sask. Reg. c. E-10.2, Reg. 7, s. 14.

for decommissioning, reclamation, and final closure will provide guidance on the application of best management principles concerning mines in northern Saskatchewan.⁶³⁷

The *EMPA* regulations authorize **monitoring** measures at a pollutant control facility,⁶³⁸ and with respect to a decommissioning and reclamation plan.⁶³⁹ The Act also authorizes the contents of an environmental protection order to include monitoring of a substance and its storage.⁶⁴⁰ The Act authorizes inspection activities by environmental officers appointed under the Act to ensure compliance with the Act, regulations, and legal instruments issued pursuant thereto.⁶⁴¹ The draft institutional control management framework policy will require review of post-decommissioning monitoring results and an inspection before Saskatchewan Environment will release responsible persons from decommissioning and reclamation requirements.⁶⁴²

The Act imposes quasi-criminal,⁶⁴³ administrative,⁶⁴⁴ and civil⁶⁴⁵ **liability** for non-compliance with the Act, regulations, or legal instruments issued thereunder.

The Act authorizes apportionment of liability between persons directly responsible for a discharge pursuant to a remedial action plan agreement.⁶⁴⁶ Civil and administrative liability and their apportionment under the *EMPA* are without regard to proof of fault, negligence, or willful intent.⁶⁴⁷

The *EMPA* also exempts from liability certain persons in particular circumstances that otherwise would be responsible for a discharge such as municipalities, secured creditors, professional advisors, bona fide purchasers for value without knowledge of prior contamination, and owners of surface rights. Generally, such persons are exempt from liability unless they take possession of land and aggravate existing adverse effects, or discharge new substances to the environment (e.g. municipalities), or participate in

⁶³⁷ Saskatchewan Environment, Guidelines for Northern Mine Decommissioning and Reclamation and Final Closure Planning and Implementation (Draft) (Regina: SE, 2005).

⁶³⁸ Mineral Industry Environmental Protection Regulations, 1996, Sask. Reg. c. E-10.2, Reg. 7, ss. 6(2)(h), 8(2) (applicant for construction and operation approvals must provide minister with description of proposed operating schedule and methods and procedures for monitoring the operation of the pollutant control facility to detect pollutants that may be discharged into the environment).

⁶³⁹ *Ibid.*, s. 14(2) (applicant for decommissioning and reclamation plan must provide minister with description of proposed methods and procedures of, and 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).

⁶⁴⁰ S.S. 2002, c. E-10.21, s. 47(3)((b)(f).

⁶⁴¹ *Ibid.*, ss. 65-73.

⁶⁴² Saskatchewan Environment, Institutional Control Management Framework (Draft) (Regina: SE, 2005).

⁶⁴³ S.S. 2002, c. E-10.21, s. 74. Contravention of the Act or regulations is punishable upon summary conviction to a fine not exceeding \$1 million, to imprisonment not exceeding three years, or both. *Ibid.*, s. 74(2).

⁶⁴⁴ *Ibid.*, ss. 9 (minister may issue environmental protection order if person allows discharge of substance to environment contrary to Act, regulations, or legal instrument, or fails to take remedial measures), 11, 12, 14 (minister may designate site as contaminated and require person directly responsible for discharge to prepare remedial action plan), 47 (minister may issue environmental protection order if no remedial action plan filed, or it is not being complied with), 77(2) (minister may assess a penalty prescribed in the regulations against any permit holder if that person has contravened any prescribed provision of the Act or regulations).

⁶⁴⁵ *Ibid.*, ss. 15 (Crown or any person has action for compensation for loss or damage, including personal injury, loss of life, use or enjoyment of property, pecuniary loss, including loss of income against person responsible for a discharge or expenditures in respect of investigating discharge, or carrying out remedial measures pursuant to an environmental protection order that has not been complied with by person to whom order issued), 51 (costs and expenses of work carried out by minister where person responsible for complying with environmental protection order fails to do so constituting debt due and recoverable by Crown from person). See also *Mineral Industry Environmental Protection Regulations, 1996*, Sask. Reg. c. E-10.2, Reg. 7, s. 21 (where assurance fund insufficient to pay for cost of decommissioning and reclamation, shortfall constitutes debt due Crown recoverable in any manner allowed by law).

⁶⁴⁶ S.S. 2002, c. E-10.21, ss. 2(w)(i-iv), 14(2).

⁶⁴⁷ *Ibid.*, ss. 15(3)(b), 15(8).

management or control of land and aggravate or add to discharges to the environment (e.g. secured creditors).⁶⁴⁸

The Act authorizes **emergency response** action in two contexts: (1) under a time-limited emergency environmental protection order issued by the minister to a person responsible for causing a significant adverse effect,⁶⁴⁹ or (2) under a non-time-limited general environmental protection order where it is the opinion of the minister that it is in the public interest to take immediate action to remedy or prevent an adverse effect, or the minister cannot readily identify or locate the person responsible.⁶⁵⁰

In terms of **financial** measures, the *EMPA* regulations require that persons proposing to operate or permanently close a pollutant control facility, mine, mill, or engage in exploration by mining, must file with the minister a proposal for an assurance fund to ensure completion of decommissioning and reclamation for the mining site.⁶⁵¹ The application for approval of the assurance fund must include an estimate of the cost required to carry out the decommissioning and reclamation plan and the cost of monitoring the mining site after decommissioning and reclamation plan.⁶⁵² The assurance fund is to be in an amount and form approved by the minister and may consist of a variety of securities listed in the regulations or others deemed acceptable to the minister.⁶⁵³ The decommissioning and reclamation plan and the assurance plan must be reviewed by the person responsible (1) at least once every five years, (2) where the minister believes that increases in the person's responsibilities could result in a shortfall under the fund, or (3) at the time of permanent closure of the pollutant control facility, mine, or mill.⁶⁵⁴ The draft institutional control management framework policy also will allow release from on-going financial assurance obligations where post-decommissioning monitoring results and an inspection satisfy Saskatchewan Environment.⁶⁵⁵

The regulations authorize the Minister to determine that when all or part of a mining site has been abandoned, or a person responsible for the site's decommissioning and reclamation plan has become insolvent, a default in respect of the assurance fund for the mining site has occurred.⁶⁵⁶ Where there are insufficient monies in the assurance fund to pay for the decommissioning and reclamation of a mining site, the shortfall is a debt due Crown recoverable in any manner allowed by law.⁶⁵⁷

In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the minister to respond to emergencies at closed or abandoned mines and expend public funds in doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

⁶⁴⁸ *Ibid.*, ss. 2(w)(vii)-(xi), 15(4).

⁶⁴⁹ *Ibid.*, s. 46 (order expires after 15 days).

⁶⁵⁰ *Ibid.*, ss. 51-52 (minister may take or cause to be taken measures set out in section 47(3) of Act).

⁶⁵¹ Mineral Industry Environmental Protection Regulations, 1996, Sask. Reg. c. E-10.2, Reg. 7, ss. 12(b), 23(1).

⁶⁵² *Ibid.*, s. 14(1)(c).

⁶⁵³ *Ibid.*, s. 15(1) (e.g. cash, cheques and other similar negotiable instruments, government bonds, irrevocable letters of credit or guarantee, etc.).

⁶⁵⁴ *Ibid.*, s. 16(1).

⁶⁵⁵ Saskatchewan Environment, Institutional Control Management Framework (Draft) (Regina: SE, 2005).

⁶⁵⁶ Mineral Industry Environmental Protection Regulations, 1996, Sask. Reg. c. E-10.2, Reg. 7, s. 19(1)(c)(e). Other instances include where minister may make a default determination include when the plan is not being complied with, the site has been permanently closed and the person has not complied with requirements to notify minister or implement plan, or the assurance fund is in jeopardy. *Ibid.*, s. 19(1)(a)(b)(d).

⁶⁵⁷ *Ibid.*, s. 21.

In terms of the **application** of the *EMPA*, the Act and regulations apply to persons seeking to construct and operate mining sites which are defined as including a pollutant control facility, mine, mill and land, water, and watercourses used or disturbed by them,⁶⁵⁸ as well as those seeking to undertake exploration activities.⁶⁵⁹ The Act permits the environment minister to waive permit requirements for any of these activities subject to any prescribed terms and conditions the minister considers appropriate.⁶⁶⁰ The Act also applies to persons who are directly responsible for discharges into the environment that have caused the minister to designate a site as contaminated. Such persons must prepare a remedial action plan for the site for the approval of the minister.⁶⁶¹ The Act also exempts certain persons that otherwise would be persons responsible for discharges to the environment from liability in certain circumstances noted above.⁶⁶²

The regulations authorize the Minister to determine that when all or part of a mining site has been abandoned, or a person responsible for the site's decommissioning and reclamation plan has become insolvent, a default has occurred under the assurance plan for a mining site.⁶⁶³ However, the *EMPA* or regulations do not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In general, under the *EMPA* the Minister may (1) provide information to the public on the quality and use of the environment and the quantity of any substance or things in the environment, and (2) inquire into or hold a hearing, or appoint a person to conduct a public hearing, regarding the management, use, or protection of the environment.⁶⁶⁴ In addition, if an area has been designated a contaminated site, the Minister must give written notice to the person responsible, the owner or occupier of the land, the municipality, and any person whose lands are affected by the designation.⁶⁶⁵ However, the *EMPA* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

ii. Environmental Assessment Act

The *EAA*,⁶⁶⁶ administered by Saskatchewan Environment, authorizes review of potential environmental effects of proposed developments.

The Act defines several terms including contaminant,⁶⁶⁷ development,⁶⁶⁸ environment,⁶⁶⁹ pollutant,⁶⁷⁰ pollution,⁶⁷¹ and proponent.⁶⁷²

⁶⁵⁸ *Ibid.*, s. 2(k).

⁶⁵⁹ *Ibid.*, ss. 23-24.

⁶⁶⁰ S.S. 2002, c. E-10.21, s. 61.

⁶⁶¹ *Ibid.*, ss. 10-14.

⁶⁶² *Ibid.*, s. 2(w)(vii)-(xi).

⁶⁶³ Mineral Industry Environmental Protection Regulations, 1996, Sask. Reg. c. E-10.2, Reg. 7, s. 19(1)(c)(e).

⁶⁶⁴ S.S. 2002, c. E-10.21, s. 3(1)(e)(f).

⁶⁶⁵ *Ibid.*, s. 12.

⁶⁶⁶ S.S. 1979-80, c. E-10.1, as am.

⁶⁶⁷ *Ibid.*, s. 2(b)(i)-(ii) (any substance, gaseous, liquid, or solid that is foreign to or in excess of the natural environment or that affects the natural, physical, chemical, or biological quality of the environment).

⁶⁶⁸ *Ibid.*, s. 2(d)(i)-(vi) (any project, operation, activity or alteration or expansion thereof likely to have an effect on any unique, rare, or endangered feature of the environment; substantially utilize any provincial resource and in so doing pre-empt the use of that resource for any other purpose; cause emission of pollutants or create by-products requiring handling and disposal in a manner not regulated by any other law; cause widespread public concern because of potential environmental changes; involve new technology that is concerned with resource utilization and that may induce significant environmental change; or have a significant impact on the environment or necessitate a further development likely to have such effect).

Notwithstanding the requirements of any other law, the *EAA* requires a proponent to obtain a ministerial **approval** before proceeding with a development.⁶⁷³

In terms of **assessment** obligations, the Act requires the proponent to conduct an EIA of the development and submit an EIA statement to the minister with respect thereto.⁶⁷⁴ Guidelines developed by Saskatchewan Environment set out the expected contents of an EIA statement.⁶⁷⁵

The guidelines also set out the department's expectation that **monitoring** programs in connection with the proposed development will be outlined in the EIA statement.⁶⁷⁶

The Act imposes quasi-criminal⁶⁷⁷ and civil⁶⁷⁸ **liability** for non-compliance with the Act or an approval.

The Act addresses the issue of **emergency response** by authorizing the provincial cabinet to exempt a development from the *EAA*, where cabinet is of the opinion there is an emergency.⁶⁷⁹ This authority is similar to authority that may be invoked under the EA regimes of British Columbia and Ontario in order to streamline the undertaking of remediation measures. The British Columbia provision has been reviewed above, and the Ontario provision is discussed below.

The *EAA* is silent on **financial** instruments or measures.

Any project meeting the statutory definition of development,⁶⁸⁰ as interpreted by Saskatchewan Environment and, if necessary, the courts,⁶⁸¹ would be subject to the **application** of the *EAA*, unless exempted for emergency reasons.⁶⁸²

⁶⁶⁹ *Ibid.*, s. 2(e) (air, land, water; plant, animal, including human; and social, economic, and cultural conditions that influence life of humans or community).

⁶⁷⁰ *Ibid.*, s. 2(k) (substance, including contaminant, likely to result in pollution of environment).

⁶⁷¹ *Ibid.*, s. 2(l) (alteration of physical, chemical, biological properties of environment that: will render environment harmful to public health; is unsafe or harmful to other lawful uses of environment; or is harmful to wild animals, birds, or aquatic life).

⁶⁷² *Ibid.*, s. 2(m) (person seeking to undertake development).

⁶⁷³ *Ibid.*, s. 8(1). The minister may impose terms and conditions to such approval. *Ibid.*, s. 15(1). Ministerial approval conditions under the *EAA* prevail in the event of a conflict between them and any licence, permit, approval, permission, or consent granted under any other Act, regulation, or by-law. *Ibid.*, s. 8(2).

⁶⁷⁴ *Ibid.*, s. 9.

⁶⁷⁵ Saskatchewan Environment, *Environmental Assessment Review Process: Guidelines for the Preparation of a Project Proposal* (Regina: SE, 2003) (e.g. project description including resource inputs, ancillary projects, by-products and wastes, and alternatives such as location; environmental description including biological, physical and human environment; potential impacts and mitigation measures; plans for project decommissioning and reclamation; socio-economic concerns; and public consultation planned or undertaken).

⁶⁷⁶ *Ibid.*

⁶⁷⁷ S.S. 1979-80, c. E-10.1, s. 21, as am.

⁶⁷⁸ *Ibid.*, ss. 18 (injunction on application of minister), 23(1) (action by any person suffering loss, damage, injury). Section 23(2) places the burden of proving that any loss, damage, or injury was not caused by a development is on person proceeding with development. *Ibid.*, s. 23(2).

⁶⁷⁹ *Ibid.*, s. 4.

⁶⁸⁰ *Ibid.*, s. 2(d)(i)-(vi).

⁶⁸¹ Saskatchewan Environment, *Environmental Assessment Review Process: Guidelines for the Preparation of a Project Proposal* (Regina: SE, 2003) at 1 (noting that proponents should be aware that determinations by the department about whether the project is a development for which an EIA statement must be prepared are subject to legal challenge by a third party, in which case a judge would make the final determination).

⁶⁸² S.S. 1979-80, c. E-10.1, s. 4, as am.

The *EAA* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *EAA* authorizes the minister prior to making a decision whether to approve a development to (1) cause an information meeting to be conducted relating to the development and to direct the proponent to make experts available to attend the meeting,⁶⁸³ and (2) appoint persons to conduct a public inquiry with respect to the development and make recommendations to the minister.⁶⁸⁴ Decommissioning or remediation activities proposed to be conducted on an orphaned/abandoned site (if deemed to be a development) could be required to enter the EA process and, therefore, meet the public involvement provisions of the *EAA*.

c. Workplace Safety Laws

i. Occupational Health and Safety Act, 1993

The purpose of the *Occupational Health and Safety Act, 2003* (“*OHSA*”),⁶⁸⁵ administered by the Department of Labour and Employment, is to protect workers and the public from workplace hazards. Mines regulations promulgated under the Act address a number of matters related to mining activities including the design of underground and open pit mines,⁶⁸⁶ control of underground water,⁶⁸⁷ management of mine dumps and stockpiles,⁶⁸⁸ and closing or abandonment of mine workings.⁶⁸⁹ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with mining and environmental laws reviewed above.

d. Planning Laws

i. Planning and Development Act, 1983

The *Planning and Development Act, 1983* (“*PDA*”),⁶⁹⁰ administered by the Department of Government Relations, authorizes municipal government control of planning and development⁶⁹¹ in Saskatchewan. Municipalities control development planning by adopting development plans, planning statements, zoning and subdivision bylaws, and related instruments. Recently, the Act was amended to authorize the minister to develop, and the provincial cabinet to adopt, provincial land use policies and statements of provincial

⁶⁸³ *Ibid.*, s. 13. See also Saskatchewan Environment, *Environmental Assessment Review Process: Guidelines for the Preparation of a Project Proposal* (Regina: SE, 2003) at 4 (public consultation by the proponent must be documented and may include informal discussions with landowners and nearby residents, meetings with municipal councils or public interest groups, open houses, or public meetings to assist in determining whether there is local, regional, or widespread public concern respecting a proposed project).

⁶⁸⁴ S.S. 1979-80, c. E-10.1, s. 14, as am. Minister sets terms of reference for the inquiry. *Ibid.*, s. 14(1).

⁶⁸⁵ S.S. 1993, c. O-1.1, as am.

⁶⁸⁶ *Mines Regulations, 2003*, Sask. Reg. O-1.1 Reg. 2, Part VI, Division 2 (underground mines), Division 3 (open pit mines). Section 43 of the regulations relating to underground mines prohibits tailings containing cyanide.

⁶⁸⁷ *Ibid.*, ss. 373-379.

⁶⁸⁸ *Ibid.*, ss. 329-332.

⁶⁸⁹ *Ibid.*, ss. 405 (notice of intended closing or abandonment must be given to the provincial chief mines inspector and contain information on methods for securing the safety of the mine site, fencing of pit openings, disposal of explosives, and related matters), 406 (submission of plans), 407 (securing underground mine openings), 408 (securing open pit mine including posting of warning signs, and performance of remedial work so workings not present a hazard), 409 (securing of plant associated with mine from hazards), 410 (disposing of explosives).

⁶⁹⁰ S.S. 1983, c. P-13.1, as am.

⁶⁹¹ *Ibid.*, s. 2(h) (development includes carrying out mining operations in, on, or over land).

interest.⁶⁹² The amendments also require municipal development plans, planning statements, zoning and subdivision bylaws to be consistent with provincial land use policies and statements of provincial interest.⁶⁹³ The purpose of these amendments is to provide a framework for land use planning while preserving municipal authority for land use decisions and policy development at the local level.⁶⁹⁴

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority focused primarily on the operation and closure of mines, there are a number of non-regulatory policies, programs, or initiatives in Saskatchewan related to orphaned/abandoned mines. Saskatchewan has long recognized problems associated with abandoned uranium, gold, and base metal mines in the northern part of the province⁶⁹⁵ that have become the responsibility of the government.⁶⁹⁶ However, a program to undertake remedial action at such sites in the late 1980s was terminated in the early 1990s due to budget constraints. In 2000, the provincial government approved a new Abandoned Mines Assessment Program. The purpose of this program was to complete the assessments of northern sites and prioritize them based on public safety and environmental concerns. The prioritization was a risk-based assessment in which those sites that present the most severe public safety and/or environmental concerns were ranked first.⁶⁹⁷

In 2003, Saskatchewan Environment completed the assessment of the status of 75 abandoned mines in the province and in 2004 issued the final report on the status of, and cleanup measures at, some of the sites.⁶⁹⁸ The department notes in part that:

“Under current legislation, mines can no longer be abandoned in Saskatchewan. Companies are required to set aside enough money for site clean-up before they can start mining and to decommission sites when the mining operations are finished. In the 1950s and 1960s, many mining companies were not required to decommission their operations and they simply abandoned their mines when the ore ran out. Although provincial legislation does require the responsible company to clean up sites such as these, most of those companies do not exist today and so the job of cleaning up their orphaned sites has fallen to governments.”⁶⁹⁹

⁶⁹² S.S. 2005, c. 24, ss. 11-12.

⁶⁹³ *Ibid.*, s. 13.

⁶⁹⁴ Saskatchewan Department of Government Relations, Update: Proposed Amendments to the Planning and Development Act, 1983 – Phase 1 (Saskatoon: DGR, 2005).

⁶⁹⁵ Saskatchewan Environment, *An Assessment of Abandoned Mines in Northern Saskatchewan (Year 3)* (Regina: SE, 2003). See also Saskatchewan Environment, *An Assessment of Abandoned Mines in Northern Saskatchewan (Year Two): Executive Summary* (Regina: SE, 2002) (noting that mining exploration in the province dates from the early 20th century and that exploration and mining operations were abandoned with little, if any, regard to environmental protection, public safety, or aesthetics. As a result the vast majority of sites - pre-1980s - which were abandoned with no closure activities have left in some cases severe public safety hazards and possible long term environmental concerns).

⁶⁹⁶ Saskatchewan Government, News Release, “New Report on Abandoned Mines” (24 September 2002) (noting that in the 1950s and 1960s many mining companies simply walked away from sites when the ore ran out and since many of these companies no longer exist, the cleanup task has fallen to the provincial government).

⁶⁹⁷ Saskatchewan Environment, *An Assessment of Abandoned Mines in Northern Saskatchewan (Year Two): Executive Summary* (Regina: SE, 2002) at 1.

⁶⁹⁸ Saskatchewan Environment, *An Assessment of Abandoned Mines in Northern Saskatchewan (Year 3)* (Regina: SE, 2003). See also Saskatchewan Environment, “Final Report on Abandoned Mines” (18 October 2004) (noting that most of the abandoned mines examined pose no immediate public safety or environmental risk, however, there are some sites with open shafts, deteriorated buildings, or exposed tailings areas that are of concern and for which the government will be working to remediate). See further Saskatchewan Environment, “Assessing Northern Abandoned Mines” (18 September 2001) (noting release of interim report on the health, safety, and environmental risks of abandoned mines in northern Saskatchewan).

⁶⁹⁹ Saskatchewan Environment, “Final Report on Abandoned Mines” (18 October 2004).

To date the province's assessment and remedial work at these abandoned mines has been conducted with public funds. Saskatchewan Environment has been responsible for dealing with the situation at abandoned precious and base metal mines, while Saskatchewan Northern Affairs has been leading the provincial strategy to confirm federal participation in the clean-up of abandoned uranium mines for which the province believes the mining industry and the federal government should be at least partially responsible.⁷⁰⁰

Recently, Saskatchewan and the federal government have entered into negotiations to develop a memorandum of agreement ("MOA") regarding orphaned/abandoned uranium mines in the northern part of the province. The MOA will define a 50:50 cost sharing arrangement between the two governments to cover defined costs associated with decommissioning, rehabilitating, and monitoring selected orphaned/abandoned mine sites identified in the province's 2004 report on the subject. In addition, Saskatchewan Environment has committed to a two-year initiative to decommission and remediate abandoned non-uranium mines in northern Saskatchewan identified by the province in the same report.

f. Findings and Summary

There are several aspects of Saskatchewan law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Saskatchewan mining law is silent on the issue of decommissioning and reclamation, leaving these matters to provincial environmental laws.
2. Decommissioning and reclamation authority under Saskatchewan environmental law focuses on operating, closing, or "abandoned" (closed) mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation. Thus, the only person environmental orders could be applied to in such circumstance would be the Crown.
3. Saskatchewan environmental laws that provide liability protection in certain circumstances from cleanup orders pertaining to contaminated sites for secured creditors and related fiduciaries, while of precedential value, are arguably not broad enough without amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.
4. To date the province's assessment and remedial work at abandoned mines in northern Saskatchewan has been conducted with provincial public funds. The initiative is important in addressing the abandoned mine lands problem in Saskatchewan, which the provincial government believes is at least partially the responsibility of the federal government and industry. However, Saskatchewan has not reformed either its environmental or mining legislation to address specifically opportunities to encourage and, if necessary, protect voluntary abandoned mine clean-up initiatives, or to develop a permanent orphaned/abandoned mine fund that would not derive all its funding from the provincial government.

⁷⁰⁰ Ibid.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *CMA* grants rights to explore and prospect for Crown minerals by way of Crown lease and authorizes the provincial cabinet to cancel such leases for environmental protection reasons when, for example, an EA under the *EAA* determines that is the appropriate course of action.

The *EMPA* and regulations impose permit (approval) obligations on any person seeking to (1) construct, install, alter, extend, operate, or temporarily close a pollutant control facility; (2) undertake exploration for minerals, or (3) decommission and reclaim a mining site.

Notwithstanding the requirements of any other law, the *EAA* requires a proponent to obtain a ministerial approval before proceeding with a development.

(B) Assessment

The *CMA* is silent on the need for an assessment related to environmental matters.

EMPA regulations promulgated thereunder impose assessment obligations on mining activities respecting (1) pollutant control facilities, (2) mineral exploration, and (3) decommissioning and reclamation plans.

The *EAA* requires a proponent to conduct an EIA of a development and submit an EIA statement to the minister with respect thereto. Guidelines developed by Saskatchewan Environment set out the expected contents of an EIA statement.

(C) Monitoring

The *CMA* is silent on environmental monitoring.

The *EMPA* regulations authorize monitoring measures at a pollutant control facility, and with respect to a decommissioning and reclamation plan. The Act also authorizes the contents of an environmental protection order to include monitoring of a substance and its storage. The Act authorizes inspection activity by environmental officers to ensure compliance with the Act, regulations, and legal instruments issued pursuant thereto. The draft institutional control management framework policy will require review of post-decommissioning monitoring results and an inspection before Saskatchewan Environment will release responsible persons from decommissioning and reclamation requirements.

The guidelines developed for the *EAA* set out the expectation of Saskatchewan Environment that monitoring programs in connection with proposed development will be outlined in the EIA statement.

(D) Liability

The *CMA* and *EAA* impose quasi-criminal and civil liability for violation of the Act.

The *EMPA* imposes quasi-criminal, administrative, and civil liability for non-compliance with the Act, regulations, or legal instruments issued thereunder. This Act authorizes apportionment of liability between persons directly responsible for a discharge pursuant to a remedial action plan agreement. Civil

and administrative liability and their apportionment under the *EMPA* are without regard to proof of fault, negligence, or willful intent.

(E) *Emergency Response*

The *CMA* is silent on emergency response measures.

The *EMPA* authorizes emergency response measures by allowing the minister to order a responsible person to respond to a problem, or by authorizing the department to undertake such measures directly.

The *EAA* addresses the issue of emergency response by authorizing the provincial cabinet to exempt a development from the Act, where cabinet is of the opinion there is an emergency. This authority is similar to authority that may be invoked under the EA regimes of British Columbia and Ontario in order to streamline the undertaking of remediation measures.

(F) *Financial Instruments*

The *CMA* and the *EAA* are silent on financial measures.

EMPA regulations require that persons proposing to operate or permanently close a pollutant control facility, mine, mill, or engage in exploration by mining, must file with the minister a proposal for an assurance fund to ensure completion of decommissioning and reclamation for the mining site. The assurance fund must be in an amount and in a form approved by the minister and may consist of a variety of securities listed in the regulations or others deemed acceptable to the minister.

Under the *EMPA* where the amount of a security is insufficient to pay for cleanup or reclamation, the operator remains liable for expenditures incurred by the government. The costs incurred constitute a debt due the province recoverable in a court of competent jurisdiction, or in any manner allowed by law. In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the minister to respond to emergencies and presumably expend public funds in doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

(G) *Application/Exemption*

The *CMA* applies to any person seeking a Crown lease or other disposition with respect to Crown minerals on Crown mineral lands.

The *EMPA* and regulations apply to persons seeking to construct and operate mining sites which are defined as including a pollutant control facility, mine, mill and land, water, and watercourses used or disturbed by them, as well as those seeking to undertake exploration activities. The Act permits the environment minister to waive permit requirements for any of these activities subject to any prescribed terms and conditions the minister considers appropriate. The Act also exempts certain persons (e.g. secured creditors) that otherwise would be persons responsible for discharges to the environment from liability in certain circumstances.

Any project meeting the statutory definition of development, as interpreted by Saskatchewan Environment and, if necessary, the courts, would be subject to the application of the *EAA*, unless exempted for emergency reasons.

(H) *Designation of Orphaned/Abandoned Sites*

EMPA regulations authorize the Minister to determine that when all or part of a mining site has been abandoned, or a person responsible for the site's decommissioning and reclamation plan has become insolvent, a default has occurred under the assurance plan for a mining site.

However, the *EMPA*, *CMA*, or the *EAA* do not otherwise define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. An ad hoc Abandoned Mines Assessment Program commenced in 2000 has identified 75 such mine sites in northern Saskatchewan.

(I) *Community Involvement*

In general, under the *EMPA* the Minister may (1) provide information to the public on the quality and use of the environment and the quantity of any substance or things in the environment, and (2) inquire into or hold a hearing, or appoint a person to conduct a public hearing, regarding the management, use, or protection of the environment. In addition, if an area has been designated a contaminated site, the Minister must give written notice to the person responsible, the owner or occupier of the land, the municipality, and any person whose lands are affected by the designation.

The *EAA* does authorize the minister prior to making a decision whether to approve a development to (1) cause an information meeting to be conducted relating to the development and to direct the proponent to make experts available to attend the meeting, and (2) appoint persons to conduct a public inquiry with respect to the development and make recommendations to the minister. Decommissioning or remediation activities proposed to be conducted on an orphaned/abandoned site (if deemed to be a development) could be required to enter the EA process and, therefore, meet the public involvement provisions of the *EAA*.

However, the *CMA*, *EMPA*, and *EAA* are otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

6. MANITOBA

a. Mining Laws

i. Mines and Minerals Act

The *Mines and Minerals Act* ("MMA"), administered by the Minister of Industry, Economic Development, and Mines,⁷⁰¹ declares that the object and purpose of the statute is to provide for, promote, encourage, and facilitate exploration, development, and production of minerals and mineral products in Manitoba, consistent with principles of sustainable development.⁷⁰²

The Act defines sustainable development principles to include the following. First, integration of decisions respecting the economy and mining with environmental protection. Second, economic development and environmental preservation for the benefit of present and future generations. Third, the need to prevent or minimize environmental hazards from mineral development by avoiding policies, programs, and decisions that have significant adverse environmental or economic impact. Fourth, the application of conservation policies and practices that enables mineral extraction to proceed in an environmentally and economically wise manner. Fifth, recycling of mining waste by-products to enable re-use, reduction, or recovery of the by-products. Sixth, rehabilitation of lands environmentally damaged by mining activity.⁷⁰³

The Act also defines a number of terms including mine,⁷⁰⁴ mineral rights,⁷⁰⁵ mining,⁷⁰⁶ operator,⁷⁰⁷ project,⁷⁰⁸ project site,⁷⁰⁹ proponent,⁷¹⁰ and rehabilitation.⁷¹¹

Both prospecting⁷¹² and exploration⁷¹³ **licences** are issued under the Act. The holder of a mineral exploration licence may apply to convert all or part of the area covered by the licence into a mining claim,⁷¹⁴ which in turn can be the basis for applying for a mineral lease.⁷¹⁵

⁷⁰¹ Some references in this report will refer to the former portfolio of Industry, Trade, and Mines.

⁷⁰² S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 2(1).

⁷⁰³ *Ibid.*, s. 2(2).

⁷⁰⁴ *Ibid.*, s. 1(1) ("an opening or excavation in the ground that is established or maintained for the purpose of mining and includes" in addition to production, storage, waste dump, tailings and related facilities "an abandoned mine and abandoned mine tailings"). "Abandoned" is not defined under the Act.

⁷⁰⁵ *Ibid.*, s. 1(1) (right to produce minerals found on, in, or under ground).

⁷⁰⁶ *Ibid.*, s. 1(1) (variety of modes, methods, or processes for extracting a mineral or metal from soil, earth, rock, or other mineral bearing substance).

⁷⁰⁷ *Ibid.*, s. 1(1) (a person, including a Crown corporation, who, as the owner or lessee of mineral rights operates a mine subject to certain exceptions set out in the definition).

⁷⁰⁸ *Ibid.*, s. 1(1) (a mine).

⁷⁰⁹ *Ibid.*, s. 1(1) (land on which a project is located).

⁷¹⁰ *Ibid.*, s. 1(1) (operator of a project, or person who proposes to operate a project).

⁷¹¹ *Ibid.*, s. 1(1) (action to be taken to (a) protect the environment against adverse effects resulting from operations at a mine site; (b) minimize detrimental impact on adjoining lands from operations at a site; (c) minimize hazards to public safety resulting from operations at a mine site; and (d) leave the site in a state compatible with adjoining land uses and that conforms, where applicable, to a zoning by-law or development plan under *The Planning Act* and to the specifications, limits, terms and conditions of a licence issued under *The Environment Act* for the project).

⁷¹² *Ibid.*, s. 45. A prospecting licence is not transferable. *Ibid.*, s.46(2).

⁷¹³ *Ibid.*, s. 51.

⁷¹⁴ *Ibid.*, s. 55.

⁷¹⁵ *Ibid.*, ss. 102 (prohibition on commencing mineral production from Crown mineral lands unless person holds mineral lease), 104 (application requirements for mineral lease).

In terms of **assessment** activity required under this Act, both advanced exploration projects and mining activity require a closure plan before they may commence or recommence.⁷¹⁶ A closure plan is defined as a plan that sets out a program for the protection of the environment during the life of a project and for rehabilitation of the project site upon closing of the project. This includes the provision of security to the Crown for performance of rehabilitation work.⁷¹⁷ The proponent of an advanced exploration project and the operator of a mine must comply with the closure plan,⁷¹⁸ the contents of which are set out under regulations to the Act.⁷¹⁹

A proponent of an advanced exploration project and the operator of a mine must submit an annual report with respect to rehabilitation work that (1) addresses the nature and extent of rehabilitation carried out in the prior, and to be carried out in the following, twelve months, and (2) evaluates whether the approved closure plan is adequate to properly rehabilitate the site.⁷²⁰ The purpose of rehabilitation under a closure plan is to (1) eliminate unacceptable health hazards and ensure public safety, (2) limit production and circulation of substances that could damage the receiving environment and, in the long-term, eliminate the need for maintenance and monitoring, (3) restore the site to a condition in which it is visually acceptable to the community, and (4) reclaim for future uses areas where infrastructure is located.⁷²¹

Monitoring obligations are imposed on proponents of advanced exploration projects and mining operators pursuant to the closure plan under the authority of regulations promulgated under the Act.⁷²² The Department of Industry, Economic Development, and Mines ("DIEDM") also has produced closure plan guidelines relating to rehabilitation.⁷²³

⁷¹⁶ *Ibid.*, ss. 74 (advanced exploration project), 111 (mining under a mineral lease). 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. *Ibid.*, s. 1(1).

⁷¹⁷ *Ibid.*, s. 1(1).

⁷¹⁸ *Ibid.*, s. 188 (project proponent must institute and carry out program for protection of environment and for rehabilitation of project site as set out in approved closure plan). See also *Mine Closure Regulation*, Man. Reg. 67/99, ss. 11 (advanced exploration project), 12 (mine).

⁷¹⁹ *Mine Closure Regulation*, Man. Reg. 67/99, s. 9. Information to be contained in closure plans must include description or assessment of (1) the project, (2) rights held (surface, mineral, access), (3) previous use of the project site, including any activity that has, or could have, resulted in contamination of the project site or adjoining land, (4) current site conditions and security measures, (5) site plans that show areas within boundaries of proponent's surface rights that will or could be subject to disturbance, alteration, or contamination as a result of the project, (6) mining and milling processes to be employed in the operation of a project and planned production levels in tonnes per day, (7) expected life of project in months or years, (8) nature, location, and expected size of areas for the storage of tailings, associated structures, and treatment systems, (9) dams, drainage control structures, and watercourses, (10) effect of all mine openings on the stability of the surface areas above and adjacent to areas of mining activity to determine whether the surface area is likely to be disturbed, (11) schedule of any development work that could cause disturbances or hazards at the project site or land adjoining the site, (12) nature and location of systems for the treatment, management, or disposal of waste and for storage of petroleum products, hazardous and toxic substances, (13) expected conditions of and uses for the project site following permanent closure of the project and rehabilitation of the site, (14) stages by which the project will be temporarily or permanently closed and a schedule of the practices and procedures by which progressive rehabilitation of the project site will be carried out during the life of the project and at each stage of closure, (15) monitoring to be carried out at the project site during the life of the project and at each closure stage, (16) procedures to be used to evaluate and verify compliance with the plan during the life of the project and at each stage of closure, and (17) information required by Part 7 of the regulations respecting security. *Ibid.*, s. 9(a)-(w).

⁷²⁰ *Ibid.*, s. 10(1)(c)(d).

⁷²¹ Manitoba Industry, Trade and Mines, Mines Branch, *Manitoba Mine Closure Regulation 67/99: General Closure Plan Guidelines* (Winnipeg: MITM, 2001) at 2.

⁷²² *Mine Closure Regulation*, Man. Reg. 67/99, s. 9(u) (monitoring to be carried out at the project during project life and each closure stage).

⁷²³ Manitoba Industry, Trade and Mines, Mines Branch, *Manitoba Mine Closure Regulation 67/99: General Closure Plan Guidelines* (Winnipeg: MITM, 2001).

The Act also authorizes the appointment by the Minister of mine inspectors to ensure compliance with the Act.⁷²⁴ Such inspectors have the authority, when satisfied that a dangerous condition exists at a mine to direct the operator to correct the condition, whether the mine is in operation, or temporarily or permanently discontinued.⁷²⁵

Non-compliance by a mine operator with the Act or regulations may attract criminal,⁷²⁶ administrative,⁷²⁷ or civil⁷²⁸ **liability**. Moreover, such liability does not cease upon permanent closure or abandonment of the mine.⁷²⁹

Although the Act does not use the terms emergency or emergency response, the authority reviewed above for inspectors and the Minister to address dangerous conditions by issuing directives or orders (to operators or the DIEDM) with respect to operating, closed, or abandoned mines appears to provide **emergency response-type jurisdiction**.⁷³⁰

The Act defines a closure plan as one that includes provision for security to the Crown for performance of rehabilitation work,⁷³¹ and is applicable to advanced exploration projects⁷³² as well as mines.⁷³³ The regulations require that the security filed with a closure plan for projects and mines must be (1) specified in the plan, and (2) in a form and amount acceptable to the director, and may include a cash deposit.⁷³⁴ In the normal course, the security under the closure plan may be used to meet the costs incurred in performance of rehabilitation work under an order issued by DIEDM.⁷³⁵ Closure plan guidelines identify several types of **financial** assurance as security acceptable to the province.⁷³⁶ The regulations also require

⁷²⁴ S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 11.

⁷²⁵ *Ibid.*, s. 202(1)(dangerous condition defined to include a condition that presents a threat to the well-being of a person, property, or the environment). The Minister may order DIEDM to correct the condition if the inspector's direction is not complied with in the time specified by the inspector, or where the mine is abandoned, mine operations are temporarily or permanently discontinued, and the mine operator is unknown, or no longer in the province. *Ibid.*, s. 202(2)(3).

⁷²⁶ *Ibid.*, ss. 232-236 (persons, including corporations and officers, directors, employees, or agents thereof, who explore, develop, produce, or operate mines other than in accordance with the Act guilty of offence).

⁷²⁷ See e.g. s. 202(1)(2) (administrative direction or order may be issued to mine operator where dangerous condition exists).

⁷²⁸ *Ibid.*, ss. 203(1) (clean-up costs incurred by government may be recoverable as a debt due Crown in court of competent jurisdiction pursuant to ss. 180-184), 234 (civil action available for damages by person suffering damage, loss, or injury in consequence of offence by person violating Act).

⁷²⁹ *Ibid.*, s. 204 (respecting liability arising under ss. 202-203).

⁷³⁰ *Ibid.*, s. 202.

⁷³¹ *Ibid.*, s. 1(1).

⁷³² *Ibid.*, s. 74.

⁷³³ *Ibid.*, s. 111.

⁷³⁴ *Mine Closure Regulation*, Man. Reg. 67/99, s. 19(a)(b).

⁷³⁵ S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 193. See also *Mine Closure Regulation*, Man. Reg. 67/99, s. 20. Other provisions of the Act authorize establishment of a Mine Rehabilitation Fund. S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 195. This Fund is an accumulation of monies received as securities for closure plans for operating mines. For those mines in which rehabilitation has been completed as per the requirements of a closure plan, operators are entitled to a refund of any monies (and interest) left that they contributed. As such, this Fund cannot be used to transfer monies to rehabilitate orphaned/abandoned mines.

⁷³⁶ Manitoba Industry, Trade and Mines, Mines Branch, *Manitoba Mine Closure Regulation 67/99: Mine Closure Guidelines - Financial Assurance* (Winnipeg: MITM, 2001) at 2 [(1) cheque payable to the provincial Minister of Finance with funds held in trust for proponent, (2) bonds issued by Manitoba, another province, the federal government, or a Canadian municipality, (3) guaranteed investment certificate or term deposit certificate, in Canadian dollars, issued to the province by a bank, savings and credit union, or trust company, (4) irrevocable, unconditional letter of credit issued to the province by a bank, savings and credit union, or trust company, (5) security or guarantee policy issued to the province by a company legally authorized to do so, (6) security provided by a third party to the province in form acceptable to director, (7) security interests in unencumbered assets, goods, documents of title, securities, chattel papers, instruments, moneys, intangibles or interests that arise from assignment of accounts including a pledge of assets, (8) any other form of security or any other guarantee or protection acceptable to director, (9) any combination of the foregoing].

that a closure plan must include a schedule of the estimated capital and operating costs of carrying out, in accordance with the plan, closure of the project site, rehabilitation of the site, and programs to monitor and manage the site after closure. Such schedule must be certified by an officer or director of the proponent (where the proponent is a corporation) and either a professional engineer, geologist, or accountant.⁷³⁷

In terms of recovery of public funds expended by the Crown to rehabilitate mine sites, and as noted above, the costs incurred by the government to correct dangerous conditions at a mine site may be charged against the mine operator and constitute a debt due by the operator to the Crown.⁷³⁸ The debt binds the property that is the subject of the lease or mineral disposition and the Crown has a lien and charge against the property in respect of that debt that is recoverable by the Crown in a court of competent jurisdiction.⁷³⁹ Moreover, the liability of the mine operator does not cease upon permanent closure or abandonment of the mine.⁷⁴⁰ Furthermore, where the security provided under a closure plan does not cover the costs incurred in rehabilitating a mine site (pursuant to a director's rehabilitation order), the cost not covered by the security also constitutes a debt due to the Crown recoverable from the proponent or the operator in a court of competent jurisdiction.⁷⁴¹

Such cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for DIEDM to correct a dangerous condition (and presumably expend public funds) when a mine is abandoned or closed and the operator is unknown or no longer in the province,⁷⁴² the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

The **application** of the Act can be broken down into two parts: (1) persons,⁷⁴³ and (2) certain minerals, lands, operations, and processes.⁷⁴⁴

Although the Act defines a mine as including an "**abandoned** mine and abandoned mine tailings"⁷⁴⁵ it does not otherwise define these terms, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The Act also is silent on **community**/municipal/Aboriginal **involvement** in the process of orphaned/abandoned mine rehabilitation.

⁷³⁷ *Mine Closure Regulation*, Man. Reg. 67/99, s. 18(1)(2).

⁷³⁸ S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 203(1) (costs are debt to Crown).

⁷³⁹ *Ibid.*, s. 182(1) (debt to Crown a lien).

⁷⁴⁰ *Ibid.*, s. 204 (permanent closure or abandonment of mine not relieve debt).

⁷⁴¹ *Mine Closure Regulation*, Man. Reg. 67/99, s. 21.

⁷⁴² S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 202(3).

⁷⁴³ S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 1(1) (operators and proponents as defined above).

⁷⁴⁴ *Ibid.*, s. 3(1) [(a) minerals vested in or belonging to the Crown in Right of Manitoba, (b) Crown mineral land, (c) mine operations in the province and lands on which such operations are located, and (d) mineral resource primary production]. Production in this context means (a) production of minerals in the form in which they exist upon recovery or severance from their natural states, or (b) production of mineral product after processing or refining but before manufacturing. *Ibid.*, s. 3(2).

⁷⁴⁵ *Ibid.*, s. 1(1).

b. Environmental Laws

i. Environment Act

Manitoba's *Environment Act*, administered by the Minister of Conservation, contains typical elements of provincial environmental legislation noted above that also apply generally to mining activity. The Act's purposes include developing and maintaining an environmental management system that will ensure that the environment is maintained for present and future generations. The Act is meant to (1) complement and support existing and future provincial planning and policy, (2) provide for environmental assessment of projects likely to have significant environmental effects, (3) recognize and use existing environmental review processes, and (4) provide for public consultation in environmental decision-making.⁷⁴⁶

The Act requires **licences** for discharges into the environment from various classes of industrial development.⁷⁴⁷ Regulations under the Act identify mines⁷⁴⁸ as classes of development requiring a licence.⁷⁴⁹ Under the Act all operating metal mines in the province are subject to environmental licences that set environmental standards.⁷⁵⁰ In a post-operating context, a licensee, if still a legal entity, would continue to be responsible for all requirements under the licence, such as monitoring and reporting, for as long as the licensee maintains control over the mine-site property, or until the property is acquired by, and the licence transferred to, a new owner. If the property reverts by default to the Crown because of the expiry of mineral and surface rights, the Crown would become the licensee responsible for any pollutant releases into the environment in excess of licensed limits.

In conjunction with the licensing requirements under the Act, the Act establishes a five-step environmental **assessment** process for developments.⁷⁵¹ Regulations promulgated under the Act set out the content of the initial assessment information required for the development proposal,⁷⁵² which may be expanded depending on the significance of the environmental impacts.

Monitoring may be part of the environmental assessment the director may require a development proponent to undertake as a condition of obtaining a licence.⁷⁵³ The Act authorizes the development of regulations that may identify the "costs that are payable by a person with respect to monitoring of, or the review of that person's obligation to monitor," pollutants, effluent quality, or environmental quality pursuant to a licence, order, or regulation.⁷⁵⁴ The regulations themselves require that an environmental

⁷⁴⁶ S.M. 1987-88, c. 26, C.C.S.M. c. E125, s. 1(1)(a)-(d).

⁷⁴⁷ *Ibid.*, ss. 10-15.

⁷⁴⁸ *Classes of Development Regulation*, Man. Reg. 164/88, s. 1 (definition of mine being opening or excavation in ground used to remove minerals, and includes associated milling facility). The definition is not as broad as that found in the *MMA*, which defines mine to include "abandoned mine and abandoned mine tailings."

⁷⁴⁹ *Ibid.*, ss. 3 (class 2 developments under s. 11 of Act requiring a licence include mines, milling, refinery, and smelting facilities), 4 (class 3 developments under s. 12 of Act requiring a licence include potash mines and milling facilities).

⁷⁵⁰ Government of Manitoba, *State of the Environment Report for Manitoba* (Winnipeg: Government of Manitoba, 1995) at 1.

⁷⁵¹ Manitoba Conservation, *The Environmental Assessment and Licensing Process Under The Manitoba Environment Act: Information Bulletin No. 97-01E* (Winnipeg: MC, 2002) at 1-2 [(1) filing of proposal in accordance with Man. Reg. 163/88, (2) screening by public and provincial-federal technical advisory committee to assess need for more information, full environmental impact statement, or public hearing, (3) development of further information if determined by step 2 to be necessary, (4) public hearing and recommendations by Clean Environment Commission if determined necessary by Minister, (5) decision by department to issue or not issue licence].

⁷⁵² *Licensing Procedures Regulation*, Man. Reg. 163/88, s. 1(1)(j)(i)(k) (e.g. description of: potential impacts of development on environment including type, quantity, and concentration of pollutants to be released into air, water or land; proposed environmental management practices to be employed to prevent or mitigate such impacts; environmental restoration and rehabilitation of site upon decommissioning; measures for protection of environmental health).

⁷⁵³ S.M. 1987-88, c. 26, C.C.S.M. c. E125, ss. 11(9)(c), 12(5)(c).

⁷⁵⁴ *Ibid.*, s. 41(dd).

assessment describe the monitoring to be undertaken as part of the proponent's environmental management practices for mitigating adverse environmental impacts of the development proposal.⁷⁵⁵

Environmental officers are authorized to inspect any place that is subject to the Act to determine compliance with the Act, regulations, a licence, or order issued under the Act.⁷⁵⁶

The Act imposes quasi-criminal,⁷⁵⁷ administrative⁷⁵⁸ and civil⁷⁵⁹ **liability** on persons who fail to comply with the Act, regulations, licences, or orders.

The Act authorizes the taking of **emergency** action by environmental officers, directors,⁷⁶⁰ and the Minister, the latter if the provincial cabinet considers it in the public interest to alleviate an environmental emergency.⁷⁶¹

Persons owning or operating developments that may cause environmental damage may be required pursuant to regulations or orders to provide evidence of **financial** responsibility in the form of insurance or an indemnity bond, or other form of security satisfactory to the director.⁷⁶² The Act also authorizes the promulgation of regulations respecting the payment of fees payable with respect to the licensing process.⁷⁶³ As noted above, the Act also authorizes cost recovery for clean-ups performed by government by treating such costs as a debt recoverable in a court of competent jurisdiction.⁷⁶⁴

The **application** of the Act centers on development, defined as a project, industry, operation, or activity.⁷⁶⁵ As noted above, the regulations specifically identify mining activity as being included in the definition of development under two different classes. The regulations also define a mine, but in a manner somewhat differently than the *MMA*, in that the latter statute defines a mine to include an abandoned mine and abandoned mine tailing, whereas Manitoba's environmental legislation does not include this category in its definition of a mine.

The Act is silent on the issue of **orphaned/abandoned** mines and, therefore, does not define them, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the Minister may, in accordance with the regulations, require a proponent of a development that is subject to an environmental assessment to provide financial or other assistance to any person or group participating in the assessment process.⁷⁶⁶

⁷⁵⁵ *Licensing Procedures Regulation*, Man. Reg. 163/88, s. 1(1)(k).

⁷⁵⁶ S.M. 1987-88, c. 26, C.C.S.M. c. E125, s. 20.

⁷⁵⁷ *Ibid.*, ss. 31-36 (quasi-criminal liability found by judge for persons committing offence including continuing offences, and offences by officers, directors, or agents of corporations, may result in fines, clean-up action, and payment of restitution).

⁷⁵⁸ *Ibid.*, s. 24 (administrative liability in the form of order to person by environmental officer to remedy situation that is or may be unsafe or result in irreparable environmental damage).

⁷⁵⁹ *Ibid.*, s. 24(9) (clean-up costs incurred by government constituting debt due government by person subject to order and recoverable in court of competent jurisdiction).

⁷⁶⁰ *Ibid.*, s. 24(1) (environmental officer), (4) (director). Both may issue orders to remedy unsafe conditions or to avoid irreparable environmental damage).

⁷⁶¹ *Ibid.*, s. 25(1).

⁷⁶² *Ibid.*, s. 41(1)(i).

⁷⁶³ *Ibid.*, s. 41(1)(h). Class 2 mining developments are subject to a \$5,000.00 application fee. Class 3 mining developments are subject to a \$100,000.00 application fee. Manitoba Conservation, *The Environmental Assessment and Licensing Process Under The Manitoba Environment Act: Information Bulletin No. 97-01E* (Winnipeg: MC, 2002) at 1.

⁷⁶⁴ S.M. 1987-88, c. 26, C.C.S.M. c. E125, s. 24(9).

⁷⁶⁵ *Ibid.*, s. 1(1).

⁷⁶⁶ *Ibid.*, ss. 13.2, 41(1)(bb).

The Act also authorizes municipal projects for the abatement of undesirable environmental conditions.⁷⁶⁷ Although the provision is not specific to any particular type of activity, the generality of the statutory language suggests the possibility that such abatement projects could apply to orphaned/abandoned mines in appropriate circumstances.

ii. Contaminated Sites Remediation Act

The purpose of the *Contaminated Sites Remediation Act* ("CSRA") is to (1) remediate contaminated sites in accordance with sustainable development principles, (2) reduce the risks of further damage to human health and the environment, and (3) restore such sites to useful purposes. The Act's purposes further include providing for (1) identification and registration of contaminated sites, (2) determination of appropriate remedial measures and persons responsible for implementing or contributing to those measures, and (3) fair and efficient processes for apportioning responsibility for contaminated site remediation through application of the "polluter pays principle," negotiation of apportionment, and dispute resolution.⁷⁶⁸ The Act binds the Crown.⁷⁶⁹ In general, like the law of British Columbia, the CSRA contains measures relating to:

- investigation and identification of contaminated sites;
- identification of persons responsible for remediation;
- development of remediation plans and implementation of remediation orders;
- principles of apportionment of remediation responsibility (by agreement or order);
- limitations on responsibility and corresponding liability;
- cost recovery, and related matters.

In particular, the CSRA declares that the **licence** requirements of the *Environment Act* with respect to developments do not apply to the remediation of a contaminated site carried out in accordance with an agreement or order made under the CSRA.⁷⁷⁰ That is, a licence is not required under the *Environment Act* for contaminated site remediation because remediation is not regarded as development. However, the CSRA imposes obligations to engage in contaminated site remediation by order or agreement under the CSRA on responsible persons.⁷⁷¹

The director may impose site investigation obligations on persons by order or enter into an agreement with such persons to the same end.⁷⁷² Pursuant to guidelines developed in conjunction with and under authority of the Act, these obligations may expand to require preparation by responsible persons of an environmental site **assessment**.⁷⁷³

⁷⁶⁷ *Ibid.*, ss. 1(2), 48.

⁷⁶⁸ C.C.S.M., c. C205, s. 1(1)(a)-(c). Sustainable development principles under the Act include policies, programs, and decisions relating to contaminated site management that take into account the need to rehabilitate and manage sites that may cause damage to human health or the environment. *Ibid.*, s. 1(2)(d). The polluter pays principle means that the primary responsibility for contaminated site remediation lies with the person who contaminated the site. *Ibid.*, s. 21(a).

⁷⁶⁹ *Ibid.*, s. 3(5).

⁷⁷⁰ *Ibid.*, s. 20.

⁷⁷¹ *Ibid.*, ss. 10, 18.

⁷⁷² *Ibid.*, ss. 4 (order), 5 (agreement).

⁷⁷³ *Ibid.*, s. 57 (director may establish guidelines). See Manitoba Conservation, *Environmental Site Investigations in Manitoba: Guideline 98-01* (Winnipeg: MC, 2002).

The Act authorizes the director to issue remediation orders that require responsible persons to engage in contaminated site **monitoring**.⁷⁷⁴ Environmental officers may, without a warrant, enter land or buildings to conduct inspections to determine compliance with the Act, regulations, orders, or agreements.⁷⁷⁵

With respect to issues of **liability**, the Act imposes administrative,⁷⁷⁶ quasi-criminal,⁷⁷⁷ and civil⁷⁷⁸ liability on persons found responsible for contaminated sites. Administrative liability for contaminated site investigative or remediation orders under the Act is joint and several.⁷⁷⁹ Liability may be limited if a person is (1) a minor contributor,⁷⁸⁰ (2) subject to an apportionment order or agreement,⁷⁸¹ (3) a trustee, receiver, or receiver-manager,⁷⁸² or (4) party to an agreement with director limiting liability.⁷⁸³

The Act authorizes the director to undertake remediation of site contamination in an **emergency** situation.⁷⁸⁴

The director may enter into agreement with a person that sets out the **financial** obligations of that person to contribute to site investigation, or remediation including provision of security in an amount satisfactory to the director to ensure performance.⁷⁸⁵ As noted above, the Act also authorizes cost recovery for clean-ups performed by government.⁷⁸⁶

With respect to the scope of the *CSRA*'s **application**, in general the Act applies to a contaminated site regardless of whether the site became contaminated because of an act or omission that was permitted or not permitted by any law or licence.⁷⁸⁷ However, the *CSRA* does not apply to a site to which the rehabilitation provisions of the *MMA* apply, except as provided under *CSRA* regulations, if any.⁷⁸⁸ Where, because of regulations under the *CSRA*, the Act applies to a site under the *MMA*, and all requirements under the *CSRA* with respect to the site have been met, the site also is deemed to meet all rehabilitation

⁷⁷⁴ C.C.S.M., c. C205, s. 17.

⁷⁷⁵ *Ibid.*, s. 63(a).

⁷⁷⁶ *Ibid.*, Part 2 (order or agreement to investigate sites), Part 4 (orders to develop and implement remediation plan), Part 7 (appeals of orders subject to hearing before Clean Environment Commission).

⁷⁷⁷ *Ibid.*, Part 8, s. 53 (offence for individuals, officers or directors of corporations to violate Act, regulations, decisions, orders).

⁷⁷⁸ *Ibid.*, Part 6 (cost recovery authority of government where person subject to order defaults; government can clean-up site and costs thereof become a debt due to Crown recoverable in a court of competent jurisdiction; debt also treated as a lien against real and personal property of debtor and takes priority against all other creditors other than a lien for wages or municipal tax arrears).

⁷⁷⁹ *Ibid.*, s. 30(1). Person must be in default for 21 consecutive days following service of default notice. *Ibid.*, s. 30(2).

⁷⁸⁰ *Ibid.*, s. 9(3) (director may refuse to designate as responsible or may exempt a person that made no or insignificant contamination of a site and the person has not derived economic benefit from the purchase, sale, or remediation of the site).

⁷⁸¹ *Ibid.*, Part 5 (factors influencing level of remediation responsibility listed and corresponding authority for determining apportionment by order or agreement).

⁷⁸² *Ibid.*, s. 28 (such persons not liable for site remediation unless exercise of control over site resulted in contamination and, in doing so, failed to exercise due diligence).

⁷⁸³ *Ibid.*, s. 29 (person not otherwise responsible for site remediation who proposes to become site owner or occupier or undertake activity that could make that person potentially responsible may enter into agreement with director to limit responsibility for remediation related to contamination occurring before person becomes owner, occupier, or undertakes proposed activity).

⁷⁸⁴ *Ibid.*, s. 17(5) (director may remediate where prompt action necessary to prevent or limit loss of life or damage to human health or the environment).

⁷⁸⁵ *Ibid.*, ss. 5(a) (site investigation), 17(2)(c) (site remediation).

⁷⁸⁶ *Ibid.*, Part 6 (government costs a debt recoverable in a court of competent jurisdiction, and debt also constituting a lien on real and personal property of debtor, with lien taking priority over all other creditors other than a lien for wages or municipal tax arrears).

⁷⁸⁷ *Ibid.*, s. 3(1).

⁷⁸⁸ *Ibid.*, s. 3(3).

obligations under the *MMA*.⁷⁸⁹ At present, no such regulations have been promulgated under the *CSRA*. In addition, as noted above, the *CSRA* exempts contaminated site remediation from the licensing requirements of the *Environment Act*.⁷⁹⁰

The *CSRA* is silent on the issue of **orphaned/abandoned** mines or sites, though it does define a "release" as including an "abandonment" of a contaminant.⁷⁹¹

In terms of **community involvement**, the *CSRA* authorizes public hearings before the Clean Environment Commission before a remediation plan or a remediation order is issued in connection with a site.⁷⁹² The *CSRA* also establishes a site registry for the purpose of collecting and making information available to the public regarding procedures under the Act or regulations for sites being investigated, or designated as contaminated sites.⁷⁹³ In addition, except in emergency situations, the *CSRA* requires that the Minister provide opportunity for public consultation, advice, and recommendations in the formulation or review of regulations respecting levels of contamination or standards of investigation or remediation.⁷⁹⁴

iii. Water Protection Act

Manitoba recently has enacted *The Water Protection Act*. The purpose of the Act is to provide for the protection and stewardship of Manitoba's water resources and aquatic ecosystems, to ensure, among other things, protection of drinking water sources. The Act authorizes the provincial cabinet by regulation to:

- designate water quality management zones;
- establish water conservation programs;
- designate watersheds and water planning authorities for a watershed.

Water planning authorities may be (1) the board of a conservation district, (2) the board of a planning district, (3) the council of a municipality, (4) any other person or entity, or (5) a joint authority consisting of two or more entities referred to above. The Act also sets out:

- considerations in the preparation of a watershed management plan (e.g. provincial land use policies);
- content of such a plan (e.g. identification of issues relating to the protection, conservation, or restoration of water, aquatic systems, and drinking water sources in the watershed);
- requirements for consultation on the plan;
- review, approval, revision, and legal effect of such plans;
- designation of water management zones to restrict activities;
- linkage of water management to land use planning;
- regulation-making authority covering discharges or other releases and prescribing water management principles;
- requirements for development decisions to consider approved watershed management plans.⁷⁹⁵

⁷⁸⁹ *Ibid.*, s. 3(4).

⁷⁹⁰ *Ibid.*, s. 20.

⁷⁹¹ *Ibid.*, s. 2.

⁷⁹² *Ibid.*, ss. 16 (remediation plan), 45 (remediation order).

⁷⁹³ *Ibid.*, s. 55.

⁷⁹⁴ *Ibid.*, s. 60(3).

⁷⁹⁵ *The Water Protection Act*, S.M. 2005, c. 26 (assented to June 16, 2005).

This Act could have implications for operating, contaminated, and orphaned/abandoned mines. Proponents of new, or operators of existing mining activity would have to ensure that their operating activities and future closure and rehabilitation measures, were consistent with the drinking water source protection objectives of the Act and the water management plan applicable to their geographic location. In addition, where orphaned/abandoned mines are located within the geographic area of such plans the Crown, as responsible agent for such sites, would have to ensure that site management and rehabilitation are consistent with the Act and plan for the area.

c. Workplace Safety Laws

i. Workplace Safety and Health Act

The purpose of the *Workplace Safety and Health Act* is to protect workers and other persons from risks to health in the workplace.⁷⁹⁶ Regulations promulgated under the Act pertaining to the operation of mines impose obligations on operators to (1) cap shafts, (2) seal openings and support infrastructure access, (3) backfill excavations, surface openings, and stripping zones, or fence-off such areas and post warning signs, (4) ensure structural stability of surface pillars, and fence-off areas surrounding underground mining pillars, and (5) ensure stability of tailings, sedimentation pond containment and water collection structures.⁷⁹⁷ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with the mining and environmental laws reviewed above.

d. Planning Laws

i. Planning Act

The *Planning Act* is designed to facilitate provincial and municipal control of residential, commercial, and industrial subdivision or other development in the province through land use plans, zoning by-laws, and related instruments.⁷⁹⁸ Regulations under the Act establish a series of provincial land use policies that are intended to promote sustainable development in governmental review of land use and development plans, or in areas without such plans.⁷⁹⁹ The objectives of the mineral resource development policies under the regulation include rehabilitating, in accordance with the *MMA*, lands disturbed by mineral exploration, development and production to a condition that is safe, stable and environmentally compatible with adjoining lands.⁸⁰⁰

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority directed primarily to operating mines, there are a number of non-regulatory policies, programs, or initiatives in Manitoba directed explicitly at orphaned/abandoned mines. A 2003 background paper prepared for the Manitoba Mining Task Force noted the following:

"In Manitoba there are several un-rehabilitated mine sites where ownership has reverted to the 'Crown,' under the authority of the *Crown Lands Act*. These sites are referred to as 'orphaned' sites, where the former mining company no longer exists. 'Abandoned' sites are those where the former mining company still exists but no longer has the financial capacity to carry out rehabilitation. At the time of operation and closure of these mining operations, there were no environmental legislation or licensing requirements that addressed

⁷⁹⁶ C.C.S.M., c. W210, s. 2.

⁷⁹⁷ Operation of Mines Regulation, Man. Reg. 228/94, ss. 19-21.

⁷⁹⁸ C.C.S.M., c. P80.

⁷⁹⁹ Provincial Land Use Policies Regulation, Man. Reg. 184/94.

⁸⁰⁰ *Ibid.*, Policy 9 - Mineral Resources, at 50 (policy objectives), and 52 (policy application).

environmental concerns. The responsibility for management and rehabilitation of these sites now rests, at least in part, with the Crown.

In 2000, the Province initiated funding for a formal 'Orphan/Abandoned Mine Site Rehabilitation Program' in the amount of \$1 million over four years. Administered by the [DIEDM], this program focuses on addressing public safety issues such as open stopes (holes) and shafts, scattered debris, stability of tailings dams and retention structures, appropriate fencing and signage.

In 2001, the Government of Manitoba, recognizing the potential environmental and human health impacts associated with these sites, established a parallel program administered by Manitoba Conservation to complete 'Human and Environmental Health Risk Assessments' for orphaned/abandoned mine sites. This program has also received funding in the amount of \$1 million over four years and is designed to ensure that remedial measures proposed are scientifically sound and that measures taken to properly 'manage' the sites are based on the risk to the environment and to the health of residents....⁸⁰¹

The Manitoba Mining Task Force in its final report to the province itself identified concerns regarding the environmental impacts of past mining installations, but noted that considerable progress had been made in the remediation of orphaned mine sites and in ensuring responsible stewardship of mine tailings. In this regard, the Task Force recommended that:

"Manitoba continue with its work in remediating orphaned and abandoned mine sites, and that Manitoba encourage the federal government to consider its responsibilities for mine clean-up as many abandoned mines were originally initiated to produce ore to assist in the war effort."⁸⁰²

DIEDM reports provide further historical background for Manitoba's initiatives with respect to orphaned/abandoned mines:

"On July 18, 2000, Treasury Board approved-in-principle a four year \$1.0 million Broad allocation (\$250,000.00 annually) from the Sustainable Development Innovations Fund to the former Department of Industry, Trade, and Mines, Mines Branch, for an Orphan Mine Site Program to rehabilitate Crown owned orphan mine sites in Manitoba. The four-year plan included rehabilitation at Sherridon, Gods Lake, Baker Patton, Snow Lake and East Lynn Lake tailings area."⁸⁰³

During the 2003-2004 fiscal period, under the Manitoba Orphan Mine Site Rehabilitation Program "work was completed for items related to safety and environmental issues at Sherridon, Gods Lake, and Baker Patton. The total...Program's budget of [\$250,000.00] was entirely expended."⁸⁰⁴

DIEDM also has a program initiated by the department's Mines Branch "to inspect all the known approximately 250 inactive/abandoned mines to establish Manitoba's liability."⁸⁰⁵

⁸⁰¹ Manitoba Mining Task Force, *The Metals Industry in Manitoba: Background Paper* (2003) at 7-8, online: Manitoba Department of Industry, Economic Development, and Mines <http://www.gov.mb.ca/iedm/mrd/mtf/nintaskforce-m.htm> (date accessed: 10 May 2005). See also Manitoba Government, News Release, "Province to Begin Process of Rehabilitating Abandoned Mines in Northern Manitoba" (July 18, 2001) (noting that the province is investing \$2 million to begin the process of rehabilitating abandoned mines in northern Manitoba by capping and closing mine shafts and fencing off such sites, assessing environmental health risks, and mitigating impacts). The program also included establishment of an Orphan Mine Site Advisory Committee involving representatives from First Nations communities, industry, the mining sector, local communities, environmental groups, and the public to provide on-going advice and direction for policy development related to rehabilitation of abandoned mine sites. *Ibid.*

⁸⁰² Manitoba Mining Task Force, *Final Report and Recommendations* (April 2003) Rec. 12, online: Manitoba Department of Industry, Economic Development, and Mines <<http://www.gov.mb.ca/iedm/mrd/mtf/mtf-final.html>> (date accessed: 6 April 2005).

⁸⁰³ Manitoba Department of Industry, Economic Development, and Mines, *Annual Report: 2003-2004* (Winnipeg: DIEDM, 2004) at 45.

⁸⁰⁴ *Ibid.* at 5, 43.

⁸⁰⁵ *Ibid.* at 47.

f. Findings and Summary

There are several aspects of Manitoba law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under Manitoba law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. The contaminated site remediation law has the potential to apply to mining sites by regulation, but does not appear to have been applied to them to date. Were this regime to apply to a mine site, the law still does not address the orphaned/abandoned mine problem. To the extent the *CSRA* were to apply to such a site the only person the Act could be applied to would be the Crown.
3. The absence of statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others, results in an important, but ad hoc, cleanup program based on statutory emergency clean-up authority paid for entirely with provincial public funds.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

Both the *MMA*, and the *Environment Act* contain licensing requirements before new mining operations can commence or existing operations can expand. The *CSRA* exempts contaminated site remediation from the licensing requirements of the *Environment Act*. However, in the absence of specific regulations under the *CSRA*, this Act does not apply to mine rehabilitation authorized under the *MMA*. None of these three laws address explicitly licensing to facilitate rehabilitation of orphaned/abandoned mines.

(B) Assessment

The *MMA* sets out information that mining proponents must include as part of their required closure plan. As part of the licensing requirements of the *Environment Act*, proponents of mining development proposals must submit an environmental assessment that includes information respecting environmental restoration and rehabilitation of a mine site upon decommissioning. The *CSRA* imposes site investigation and environmental site assessment obligations on persons responsible for site contamination.

(C) Monitoring

The *MMA*, *Environment Act*, and the *CSRA* all contain monitoring and inspection authority.

(D) Liability

The *MMA*, *Environment Act*, and the *CSRA* all contain authority to impose administrative, quasi-criminal, and civil liability on mining owners and operators for non-compliance with these laws, regulations

promulgated under them, licences, orders and related instruments thereunder. The most sophisticated liability regime is that contained in the *CSRA*. Administrative liability for contaminated site investigative or remediation orders under the *CSRA* is joint and several. *CSRA* liability may be limited if a person is (1) a minor contributor, (2) subject to an apportionment order or agreement, (3) a trustee, receiver, or receiver-manager, or (4) party to an agreement with director limiting liability. However, the *CSRA* does not apply to a site to which the rehabilitation provisions of the *MMA* apply, except as provided under *CSRA* regulations, of which none have been promulgated to date. All of the liability authority under these statutes is predicated on the existence of a responsible person with the financial means to pay for clean-up. In the orphaned/abandoned mine context, that pre-condition does not exist.

(E) *Emergency Response*

The *MMA*, *Environment Act*, and the *CSRA* all contain emergency authority for government action. This emergency authority, primarily under the *MMA* and the *Environment Act*, appears to be the statutory basis for the government to expend public funds to remedy conditions at mining sites.

(F) *Financial Instruments*

The *MMA*, *Environment Act*, and the *CSRA* all contain authority to (1) require a broad array of financial assurances, and (2) recover government costs. Such financial assurance and cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for DIEDM to correct a dangerous condition (and presumably expend public funds) when a mine is abandoned or closed and the operator is unknown or no longer in the province,⁸⁰⁶ Manitoba law does not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

(G) *Application/Exemption*

The *MMA*, *Environment Act*, and the *CSRA* broadly apply to (1) persons (e.g. owners, operators, proponents, responsible persons), and (2) activities (e.g. lands, operations, processes, contaminated sites). The *CSRA* applies to a contaminated site regardless of whether the site became contaminated because of an act or omission that was permitted or not permitted by any law or licence. However, in the absence of specific regulations under the *CSRA*, this Act does not apply to mine rehabilitation authorized under the *MMA*. No such regulations have been promulgated to date.

(H) *Designation of Orphaned/Abandoned Sites*

The *MMA* defines a mine as including an "abandoned mine and abandoned mine tailings" but does not otherwise define these terms, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. Other provincial laws including the *Environment Act*, *CSRA*, *Planning Act*, and the *Operation of Mines Regulation* under the *Workplace Safety and Health Act* are silent on the issue of orphaned/abandoned mines.

However, since 2000 under the Orphan Mine Site Rehabilitation Program the province has invested \$2 million to begin the process of rehabilitating abandoned mines in northern Manitoba by capping and

⁸⁰⁶ S.M. 1991-92, c. 9, C.C.S.M., c. M162, s. 202(3).

closing mine shafts, fencing off such sites, assessing environmental health risks, and mitigating impacts. Also the Mines Branch of DIEDM has initiated a program "to inspect all the known approximately 250 inactive/abandoned mines to establish Manitoba's liability."

(I) *Community Involvement*

The *MMA* is silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

The *Environment Act* authorizes municipal projects for the abatement of undesirable environmental conditions. Although the provision is not specific to any particular type of activity, the generality of the statutory language suggests the possibility that such abatement projects could apply to orphaned/abandoned mines in appropriate circumstances.

The *CSRA* (1) authorizes public hearings before a site remediation plan or order is issued, (2) establishes a site registry for the collection and dissemination of information to the public regarding procedures for investigation and designation of contaminated sites, and (3) except in emergency situations, requires the Minister to provide opportunity for public input in the development of regulations respecting contamination levels or investigation/remediation standards. However, as noted above in the absence of specific regulations under the *CSRA*, this Act does not apply to mine rehabilitation authorized under the *MMA*.

The province's Orphan Mine Site Rehabilitation Program has included establishment of an Advisory Committee involving representatives from First Nations communities, industry, the mining sector, local communities, environmental groups, and the public to provide on-going advice and direction for policy development related to rehabilitation of abandoned mine sites.

7. ONTARIO

a. Mining Laws

i. Mining Act

The purpose of Ontario's *Mining Act*, administered by the Ministry of Northern Development and Mines ("MNDM"), is to encourage prospecting, staking, and exploration for the development of mineral resources, and to minimize the impact of these activities on public health, safety, and the environment through the rehabilitation of mining lands in the province.⁸⁰⁷

The Act defines a number of terms including adverse effect,⁸⁰⁸ closure plan,⁸⁰⁹ mine,⁸¹⁰ mine hazard,⁸¹¹ owner,⁸¹² progressive rehabilitation,⁸¹³ project,⁸¹⁴ proponent,⁸¹⁵ protective measures,⁸¹⁶ rehabilitate,⁸¹⁷ and site.⁸¹⁸

Prospecting⁸¹⁹ **licences** are issued under the Act. The holder of such a licence may prospect for minerals and stake out a mining claim on open lands.⁸²⁰ Holders of mining claims can apply to obtain a patent or lease for the mining claim.⁸²¹

In terms of **assessment** activity required under this Act, both advanced exploration and mine production require proponents of such activity to give notice to, and to file a closure plan with, the director of mine rehabilitation before they may commence or recommence exploration or production activity.⁸²² If the proponent certifies and files the closure plan the proponent, subject to requirements under other laws, may proceed with the exploration or production activity unless the director returns the plan as inadequate within the period prescribed by the Act.⁸²³ If the proponent seeks approval from the director and submits a proposed (uncertified) closure plan, the proponent may not proceed until the proponent pays in advance

⁸⁰⁷ R.S.O. 1990, c. M.14, s. 2.

⁸⁰⁸ *Ibid.*, s. 139(1) (damage property, impair safety of person, have severe detrimental effect on environment). The definition of "adverse effect" in the *Mining Act* is narrower than the definition of the same term in the *Environmental Protection Act*, R.S.O. 1990, c. E.19, discussed below.

⁸⁰⁹ *Ibid.* (plan to rehabilitate site or mine hazard in accordance with Act and that includes financial assurance to Crown for plan requirements).

⁸¹⁰ *Ibid.* s. 1 (excavation, works, processing facilities, tailings, and mines that have been temporarily suspended, rendered inactive, closed out, or abandoned). Regulations promulgated under the *Mining Act* further refine the definition of a mine by including (1) in the definition of mine tailings any discharge or waste from mining activities listed in the regulations, and (2) certain prescribed types of plants, premises and works identified therein. See *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, s. 2(1)(2).

⁸¹¹ R.S.O. 1990, c. M.14, s. 1 (any un-rehabilitated feature associated with a mine).

⁸¹² *Ibid.* (mine owner, lessee, occupier, agent thereof, or secured lender that has entered into possession of mine).

⁸¹³ *Ibid.*, s. 139(1) (rehabilitation done continually and sequentially during the entire period that a project or mine hazard exists).

⁸¹⁴ *Ibid.* (mine, advanced exploration, mining, or mine production).

⁸¹⁵ *Ibid.* (holder of unpatented mining claim or licence of occupation, or owner as defined above).

⁸¹⁶ *Ibid.* (steps taken in accordance with prescribed standards to protect health, safety, property, and the environment).

⁸¹⁷ *Ibid.* (protective measures and other measures taken in accordance with prescribed standards to treat a site or mine hazard so that use or condition of site is restored to its former use or condition or one approved by the director).

⁸¹⁸ *Ibid.* (lands where mine hazard located).

⁸¹⁹ *Ibid.*, ss. 18-19. Licences are not transferable. *Ibid.*, s. 19(4).

⁸²⁰ *Ibid.*, ss. 27-28 (lands open for staking).

⁸²¹ *Ibid.*, s. 81.

⁸²² *Ibid.*, ss. 140 (advanced exploration), 141 (mine production). Advanced exploration is defined in the Act and regulations to involve a wide variety of earth disturbing activities both above and below ground. *Ibid.* s. 139(1). See also *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, s. 3.

⁸²³ R.S.O. 1990, c. M.14, s. 141(3).

the costs associated with the plan's approval, and the director approves the closure plan in writing.⁸²⁴ Closure plans must contain information set out in the regulations.⁸²⁵

Regulations promulgated under the Act impose **monitoring** obligations on proponents of advanced exploration and mining production.⁸²⁶ The Act also authorizes the Minister to designate rehabilitation inspectors to conduct inspections on lands associated with a project, abandoned mine, or mine hazard for the purpose of ensuring compliance with Part VII of the Act regarding rehabilitation of mining lands.⁸²⁷

Non-compliance with Part VII of the Act or regulations may attract quasi-criminal,⁸²⁸ administrative,⁸²⁹ or civil⁸³⁰ **liability**. The Act exempts owners who surrender mining lands or rights that are accepted by the Minister,⁸³¹ from liability under the province's *Environmental Protection Act* with respect to certain environmental orders that could otherwise be issued under the latter statute.⁸³²

The Act authorizes the Minister to exercise **emergency** powers in the nature of orders or directions to a proponent, or to MNDM employees or agents where the proponent will not act, cannot be located or identified, or requests assistance, to rehabilitate a site where the Minister has reasonable grounds for believing that a mine hazard is causing or is likely to cause an immediate and dangerous adverse effect

⁸²⁴ *Ibid.*, s. 142.

⁸²⁵ *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, s. 11, and Sch. 2 (e.g. current project site conditions, project description, progressive rehabilitation, rehabilitation measures under various mining conditions or states). Closure plans also must comply with the Mine Rehabilitation Code of Ontario annexed to the regulations as Sch. 1. Four parts of the Code address protection of surface and groundwater: Part 4 – ensuring long-term physical stability of tailings dams and other containment structures; Part 5 – ensuring water quality is demonstrated to be unimpaired and satisfactory for aquatic life and other beneficial uses; Part 6 – identifying and characterizing any potential impediments to beneficial use of groundwater as a result of presence of migration of contaminants; and Part 7 – determining potential for significant metal leaching or acid rock drainage and, if necessary, ensuring development and implementation of effective prevention, mitigation, and monitoring strategies. *Ibid.*, s. 12, and Sch. 1. The regulations also set specific closing out obligations (restoration of site to former use or alternative satisfactory to director) on proponents, though proponents may be exempted from them if the director finds they are impracticable, would adversely affect the environment, are contrary to a land use control, or a superior alternative measure has been specified in the closure plan. *Ibid.*, ss. 24 (closing out), 26 (exemption).

⁸²⁶ Rehabilitation is obligatory under the Act whether or not a closure plan is in place for the site. R.S.O. 1990, c. M.14, s. 139.1 See also *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, ss. 4 (obligation on persons engaged in mine and mine hazard rehabilitation to comply with Code), 9 (progressive rehabilitation report must contain summary of results from any monitoring program). Schedule 1 (Mine Rehabilitation Code of Ontario) sets out monitoring obligations with respect to such matters as surface water, groundwater, physical stability, and revegetation. Schedule 2 of the regulations, which contains obligations for the content of closure plans, imposes similar monitoring obligations. *Ibid.*, Sch. 2, s. 10.

⁸²⁷ R.S.O. 1990, c. M.14, s. 146.

⁸²⁸ *Ibid.*, s. 167 (persons, including corporations and officers and directors thereof, may be found guilty of offence).

⁸²⁹ *Ibid.*, s. 147 (administrative order may be issued by director to proponent or prior holder of an unpatented mining claim to file certified closure plan where mine hazard exists).

⁸³⁰ *Ibid.*, ss. 167(3) (director may apply to judge of Superior Court of Ontario for restraining order prohibiting advanced exploration, mining, or mine production on site where person fails to file, or comply with, certified closure plan), 151 (costs of rehabilitation measures performed by Crown constitute debt due, and lien and charge in favour of, Crown and recoverable in court of competent jurisdiction).

⁸³¹ *Ibid.*, ss. 149 (Minister may refuse to accept surrender if proponent has either failed to rehabilitate site in accordance with closure plan or, if there is no closure plan, in accordance with prescribed site rehabilitation standards), 149.1(1) (Minister may accept surrender).

⁸³² *Ibid.*, s. 149.1(4) (exemption from liability for control, stop, remedial, preventive measure, waste removal, and director's orders under sections 7(1), 8(1), 17, 18, 43, 44 respectively of *EPA*).

and that it is in the public interest to act promptly to prevent, eliminate, and ameliorate the adverse effect.⁸³³

As noted above, the Act defines a closure plan as including **financial** assurance to the Crown for the performance of the plan's requirements.⁸³⁴ The Act⁸³⁵ and regulations⁸³⁶ also set out the type of financial assurance acceptable to the director.

Also as noted above, the Act authorizes the Crown to recover public funds expended to carry out rehabilitation measures at mine sites where there is a mine hazard.⁸³⁷ Such cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property.⁸³⁸ However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the Minister to direct MNDM to prevent, eliminate, or ameliorate a mine hazard that is likely to cause an immediate and dangerous adverse effect (and presumably expend public funds) where the proponent will not act, cannot be located or identified, or requests assistance, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

The scope of **application** of Part VII of the Act regarding rehabilitation of mining lands includes (1) underground mining, (2) surface mining of metallic minerals, (3) surface mining of non-metallic minerals on non-Crown land, and (4) advanced exploration on mining lands.⁸³⁹ There is an **exemption** from the application of Part VII for surface mining of natural gas, petroleum, and aggregate as defined in the *Aggregate Resources Act*.⁸⁴⁰

The Act does not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.⁸⁴¹

⁸³³ *Ibid.* s. 148(1)-(5). Obligation to act and liability for not acting does not apply to holders of unpatented mining claims with respect to mine hazards created by others prior to staking of claims and that has not been materially disturbed by holders since staking claims. *Ibid.*, s. 148(9).

⁸³⁴ *Ibid.*, s. 139(1).

⁸³⁵ *Ibid.*, s. 145 (cash, bank letter of credit, bond of an insurer, mining reclamation trust, compliance with prescribed corporate financial test, any other form of security including pledge of assets, sinking fund, royalties that is acceptable to director). Amount of financial assurance may be reduced if rehabilitation work has been performed in accordance with filed closure plan, or reduction justified by notice to director. *Ibid.* s. 145(7).

⁸³⁶ *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, ss. 13-20 (form and amount of financial assurance to be specified in closure plan, establishment, description, and circumstances where corporate financial tests may apply).

⁸³⁷ R.S.O. 1990, c. M.14, ss. 148 (minister's direction), 151 (costs expended constituting debt as well as lien and charge on the site property recoverable by Crown).

⁸³⁸ Debts are recoverable as money judgments in a court of competent jurisdiction in Ontario. Once a money judgment has been obtained, it is enforceable by way of (1) writ of seizure and sale, and (2) garnishment. When a writ of seizure and sale is delivered to a sheriff, it binds all of the real and personal property of the judgment debtor within the judicial district or county for which the sheriff is appointed. Rule 60, *Rules of Civil Procedure* promulgated under the *Courts of Justice Act*, R.S.O. 1990, c. C.43, as am. Rule 60 also authorizes a judgment creditor to garnish debts payable to the debtor by other persons.

⁸³⁹ R.S.O. 1990, c. M.14, s. 139(2)(a)-(d).

⁸⁴⁰ *Ibid.*, s. 139(2)(c).

⁸⁴¹ As noted above, the Act does define a "mine hazard" (any un-rehabilitated feature associated with a mine). *Ibid.*, s. 1. The regulations refer to but do not define an "abandoned site." *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, s. 12(8) (obligations of a proponent to provide information in a closure plan on conditions prior to a project with respect to an abandoned site). The current Part VII of the Act is based on 1996 amendments that came into force in 2000. Prior to that time the Act did define "abandoned" based on 1991

With respect to the issue of **community involvement**, the Act (1) grants discretionary authority to the director to require that a proponent provide public notice prior to the commencement of advanced exploration activity, and (2) mandates that a proponent provide public notice prior to the commencement of mine production.⁸⁴² The regulations also require that a closure plan contain information regarding consultations carried out with all aboriginal peoples affected by the project, including a description of their comments and response, if any to the closure plan.⁸⁴³

b. Environmental Laws

i. Environmental Protection Act

Ontario's *Environmental Protection Act* ("EPA"), administered by the Ministry of the Environment ("MOE"), contains typical elements of provincial environmental legislation noted above that also apply generally to mining activity. The EPA is the province's most comprehensive environmental law. The purpose of the Act is protection and conservation of the natural environment.⁸⁴⁴

The EPA contains a general prohibition on pollution that requires that no person discharge a contaminant into the natural environment that may cause an adverse effect.⁸⁴⁵ The law also defines discharge,⁸⁴⁶ contaminant,⁸⁴⁷ and adverse effect.⁸⁴⁸

Licences (called certificates of approval) issued under the Act pertinent to mining relate to air emissions⁸⁴⁹ and, where applicable, waste disposal.⁸⁵⁰ Licences (approvals) for discharges to water are not

amendments to Part VII. Under the 1991 regime, "abandoned" meant that a proponent had ceased or suspended indefinitely advanced exploration, mining, or mine production on the site, without rehabilitating the site. R.S.O. 1990, c. M.14, s. 139(1). Part VII was then known as "Operation of Mines." That Part VII imposed obligations on owners who abandoned mines before the Part came into force to take all reasonable steps to rehabilitate the site. Where owners failed to do so, the director could issue rehabilitation orders, which if not complied with, could result in the director declaring the site abandoned, and would allow the Crown to rehabilitate the site, and void the lease. *Ibid.*, s. 148. The 1991 version of Part VII also imposed obligations on owners who abandoned mines after the Part came into force to file a closure plan. Where such order was not complied with the director could declare the mine abandoned and the Crown could implement the rehabilitation measures, and void the lease. *Ibid.*, s. 149. This version of the Act had been upheld by administrative tribunals and the courts. See e.g. *Conwest Exploration Co. v. Ontario (Ministry of Northern Development and Mines)* (1996), 20 C.E.L.R. (N.S.) 208 (Ont. Div. Ct.) (a ruling of the mining commissioner was upheld on appeal that mineral rights included the right to extract minerals from tailings on the surface of lands and therefore carried a correlative obligation under s. 139 of the Act, respecting the requirement at the time to submit a closure plan to rehabilitate abandoned mine sites, and take steps to protect the environment from the effects of the tailings).

⁸⁴² R.S.O. 1990, c. M.14, ss. 140(1) (advanced exploration), 141(1) (mine production). The regulations set out the manner in which public notice must be given and require that the proponent provide the director with any written comments received. *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, s. 8.

⁸⁴³ *Mine Development and Closure Under Part VII of the Act*, O. Reg. 240/00, Sch. 2, s. 14. Closure plans also may be the subject of general public notice and opportunity for comment pursuant to the *Environmental Bill of Rights*, S.O. 1993, c. 28, Part II, discussed below.

⁸⁴⁴ R.S.O. 1990, c. E.19, s. 3. The definition of "natural environment" includes air, land and water of the province.

⁸⁴⁵ R.S.O. 1990, c. E.19, s. 14(1), as am.

⁸⁴⁶ *Ibid.*, s. 1(1) (addition, deposit, emission, or leak).

⁸⁴⁷ *Ibid.*, s. 1(1) (solid, liquid, gas, odour, heat...or radiation).

⁸⁴⁸ *Ibid.*, s. 1(1) (impairment of the quality of the natural environment for any use that can be made of it; injury or damage to property or to plant or animal life; harm or material discomfort to any person; adverse effect on the health of any person; impairment of the safety of any person; rendering property, plant, or animal life unfit for human use; loss or enjoyment of normal use of property; interference with normal conduct of business). The definition of "adverse effect" in the EPA is broader than the definition of the same phrase in the *Mining Act*.

⁸⁴⁹ *Ibid.*, s. 9.

issued under the *EPA*, but rather under the *Ontario Water Resources Act* ("*OWRA*"), discussed below. However, regulations promulgated under the *EPA* do address control of discharges to water from two mining sectors: industrial minerals,⁸⁵¹ and metal mining.⁸⁵² Under each regulation, maximum contaminant concentrations are set out for the sector in a manner comparable to what would be expected under a licence, permit, or approval.⁸⁵³

Because licensing for discharges to water occurs under the *OWRA*, the primary **assessment** for mining activity under the *EPA* relates to meeting the effluent limits for the parameters of concern identified in the regulations in conjunction with sampling,⁸⁵⁴ monitoring,⁸⁵⁵ and record-keeping and reporting.⁸⁵⁶ However, the *EPA* also establishes the regulatory framework for managing "Brownfields," which are industrial or commercial lands that have been abandoned, idled, or under-used and where expansion or redevelopment is complicated by real or perceived environmental contamination. Amendments to the *EPA* that have come into force recently establish rules for contaminated site assessment and cleanup under certain circumstances. The *EPA* amendments: (1) make environmental site assessment and cleanup to prescribed standards mandatory where there is a change in land use from industrial/commercial to residential/parkland,⁸⁵⁷ (2) authorize regulations to provide clear rules for site assessment, cleanup, and standards for contaminants based on a proposed land use (largely codifying MOE's 1997 contaminated site guidelines into standards for soils, sediments, and groundwater),⁸⁵⁸ and (3) require acceptance of a site-specific risk assessment by MOE as prepared by a certified professional and allow for conditions to be placed on the use of a property.⁸⁵⁹ Accordingly, the Brownfield amendments have potential application to mining lands in the limited circumstances set out above (e.g. a responsible person making a proposed change in land use with the financial wherewithal to meet the contaminated site assessment and cleanup obligations).

As noted above, regulations promulgated under the *EPA* impose effluent **monitoring** obligations on mining companies covered by a sectoral regulation.⁸⁶⁰ The Act also authorizes provincial officers to inspect any thing or place pertaining to a discharge of a contaminant into the natural environment to ensure compliance with the Act, regulations, or any instrument (e.g. order) issued thereunder.⁸⁶¹

⁸⁵⁰ *Ibid.*, ss. 27 (requirement for certificate of approval before allowed to establish or operate waste disposal site), 30 (where public hearing mandatory before certificate may be issued), 32 (where public hearing discretionary before certificate may be issued). Special regulations have been promulgated in one instance that had the effect of exempting an application by the MOE itself from the need for compliance with the mandatory or discretionary requirements for a hearing (ss. 30, 32) prior to obtaining a certificate of approval for waste disposal sites concerning the Deloro Mine Site (as noted below an orphaned/abandoned mine site). See *Exemption - Deloro Mine Site*, O. Reg. 577/98, s. 1.

⁸⁵¹ Effluent Monitoring and Effluent Limits - Industrial Mineral Sector Regulation, O. Reg. 561/94.

⁸⁵² Effluent Monitoring and Effluent Limits - Metal Mining Sector Regulation, O. Reg. 560/94.

⁸⁵³ See e.g. *ibid.*, Schedule 1 (concentration limits for cyanide, total suspended solids, copper, lead, nickel, zinc, and arsenic). The courts have held that O. Reg. 560/94 establishes a level of effluent discharge above which no one may go. However, nothing in O. Reg. 560/94 or the *EPA* generally can be taken to prohibit an MOE director from imposing more stringent levels than those contained in O. Reg. 560/94 under the authority of s. 53 of the *OWRA* in respect of mining sewage works. *Inco. Ltd. v. Ontario (Ministry of the Environment)*, [2004] O.J. No. 5013 (Ont. Sup. Ct. - Div. Ct.) at paras. 13-14.

⁸⁵⁴ Effluent Monitoring and Effluent Limits - Metal Mining Sector Regulation, O. Reg. 560/94, ss. 7-10.

⁸⁵⁵ *Ibid.*, ss. 20-30.

⁸⁵⁶ *Ibid.*, ss. 34-39.

⁸⁵⁷ R.S.O. 1990, c. E.19, s. 168.3.1, as am.

⁸⁵⁸ *Ibid.*, s. 176(10).

⁸⁵⁹ *Ibid.*, ss. 168.5 to 168.6.

⁸⁶⁰ Effluent Monitoring and Effluent Limits - Metal Mining Sector Regulation, O. Reg. 560/94, ss. 20-30.

⁸⁶¹ R.S.O. 1990, c. E.19, s. 156.

Non-compliance with the Act or regulations may attract quasi-criminal,⁸⁶² administrative order,⁸⁶³ administrative penalty,⁸⁶⁴ or civil⁸⁶⁵ liability. However, as noted above, the *Mining Act* exempts owners who surrender mining lands or rights that are accepted by the Minister,⁸⁶⁶ from liability under the *EPA* with respect to certain environmental orders that could otherwise be issued under the latter statute.⁸⁶⁷

The *EPA* "Brownfield" amendments also provide liability protection from environmental orders for current and past owners and operators (those in charge, management, or control) of contaminated property who follow the prescribed site assessment and cleanup process. This includes filing a record of site condition with the MOE under a new site registry using a certified consultant, and following other requirements recently prescribed by regulation.⁸⁶⁸ The amendments also provide liability protection in certain circumstances from environmental orders for secured creditors, receivers, trustees in bankruptcy,⁸⁶⁹ municipalities,⁸⁷⁰ and property investigators.⁸⁷¹ The liability protections afforded are from

⁸⁶² *Ibid.*, ss. 186-194 (persons, including corporations and officers and directors thereof, may be found guilty of offence).

⁸⁶³ *Ibid.*, ss. 7(1) (stop order), 8(1) (control order), 17 (remedial order), 18 (preventive measures order), 43 (waste removal order), 44 (director's order), 97 (minister's spills order). Under the *EPA* a person may be responsible for complying with environmental clean-up orders if the person is the owner, or the person in occupation or having the charge, management or control of a source of a contaminant. The obligation also applies to past owners, occupiers, or persons in control. *Ibid.*, ss. 7, 18. In one case interpreting this authority, the Ontario Court of Appeal upheld the issuance of a clean-up order to an owner and person in control and management of a plant that was a continuing source of contamination, even though the court made the following findings: (1) the person had only recently acquired the plant; (2) the company had not been the owner during the period when contamination from the plant was at its worse; (3) the company had taken many active steps to reduce or contain the contamination since acquiring the plant; and (4) the plant was operating in a more environmentally satisfactory manner since the acquisition. *Canadian National Railway Co. v. Ontario* (1992), 8 C.E.L.R. (N.S.) 1 (Ont. C.A.). The case suggests that in Ontario voluntary abandoned mine land abatement, remediation, or reclamation activity could be caught under similar administrative liability principles in the absence of legislative authority to the contrary.

⁸⁶⁴ R.S.O. 1990, c. E.19, s. 182.1 (administrative penalties - unproclaimed). The provincial government recently has introduced proposed amendments to the *EPA* that would replace the existing unproclaimed legislative authority for administrative monetary penalties contained in s. 182.1 of the *EPA*. See Bill 133, *The Environmental Enforcement Statute Law Amendment Act*, 1st Sess., 38th Leg. Ontario, 53 Eliz. II, 2004 (1st Reading, 27 October 2004).

⁸⁶⁵ *Ibid.*, Part X (spills - joint and several civil liability for compensation - s. 99; actions by municipalities or designated persons - s. 100); Part XIV (work done by MOE - orders to pay may be enforced as judgment in Superior Court - s. 153; costs expended may be treated as tax lien - s. 154).

⁸⁶⁶ R.S.O. 1990, c. M.14, ss. 149 (Minister may refuse to accept surrender if proponent has either failed to rehabilitate site in accordance with closure plan or, if there is no closure plan, in accordance with prescribed site rehabilitation standards), 149.1(1) (Minister may accept surrender).

⁸⁶⁷ *Ibid.*, s. 149.1(4) (exemption from liability for control, stop, remedial, preventive measure, waste removal, and director's orders under sections 7(1), 8(1), 17, 18, 43, 44 respectively of *EPA*).

⁸⁶⁸ *Ibid.*, s. 168.4; and Record of Site Condition Regulation, O. Reg. 153/04.

⁸⁶⁹ R.S.O. 1990, c. E.19, ss. 168.17-168.22 (afforded protection from environmental liability while protecting security interest when not in possession if providing services to property, paying taxes, collecting rent, responding to presence of contaminant on property; afforded protection from liability for five years when foreclose unless conduct resulting in need for cleanup arises from gross negligence, or willful misconduct; protection afforded from liability can be lost in environmental emergency - danger to health, safety or serious risk to environment - but only if receiver or trustee in bankruptcy grossly negligent or engaged in wilful misconduct; protection from liability even in emergency also preserved if abandon or otherwise dispose of property interest within specified period after order issued, or provincial environmental order stayed under federal bankruptcy legislation and before order stayed interest in property abandoned or otherwise disposed of).

⁸⁷⁰ *Ibid.*, ss. 168.12 - 168.16 (to facilitate redevelopment of brownfields, *EPA* amendments limit environmental liability of municipalities in a manner that parallels protections provided to secured creditors and their representatives; municipalities exempt from complying with environmental orders for a variety of activities; law reforms also allow municipalities that become owners of contaminated properties because of failed tax sales, from becoming subject to environmental orders with respect to the properties for five years; municipalities can lose this protection if there is gross negligence or willful misconduct by the municipality or if there are exceptional circumstances such as harm or risk to persons, the natural environment, or property).

⁸⁷¹ *Ibid.*, s. 168.26 (investigation of property per se does not make investigator responsible person).

administrative enforcement (i.e. environmental orders). The amendments do not provide protection from civil or quasi-criminal liability.

In general, the *EPA* authorizes **emergency response** action by the MOE in a variety of contexts that can include in response to situations at operating, closed, or abandoned mines.⁸⁷²

The *EPA* authorizes the director to impose **financial** assurance⁸⁷³ obligations in three circumstances on persons in respect of works authorized by an approval, order, or arising from the issuance of a certificate of property use. First, to ensure performance specified in the legal instrument. Second, to provide alternate water supplies if the director has reasonable and probable grounds to believe primary water supplies are likely to be contaminated. Third, to provide appropriate measures to prevent adverse effects post closure.⁸⁷⁴

The Act also authorizes the Minister to establish and require payment of fees with respect to any matter under the Act,⁸⁷⁵ and regulations have been promulgated in this regard for certain approval matters.⁸⁷⁶

As noted above, the Act also authorizes cost recovery for clean-ups performed by MOE.⁸⁷⁷

The regulations somewhat circumscribe the **application** of the *EPA* to mining activities (or their byproducts) because while rock fill or mill tailings from a mine are designated as waste they are exempt from the application of Part V of the Act and waste management regulations thereunder.⁸⁷⁸ In practice, this means that such mining activity is, with some exceptions, not subject to the waste disposal site and waste management requirements of the *EPA*.

In general, the Act or regulations do not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. In one instance an abandoned mine has been identified by special regulation under the Act. The purpose was to exempt the MOE from having to comply with the mandatory and discretionary hearing provisions of the Act with respect to establishment or use of waste disposal sites at the site where the waste was produced at, or related to, the site but not from approval requirements for cleanup and containment.⁸⁷⁹

With respect to the issue of **community involvement**, the Act authorizes public hearings prior to the establishment or expansion of waste disposal sites in the province. However, because of the exemptions from Part V of the Act and the waste management regulations that apply for rock fill or mill tailings from a mine, the opportunities for public involvement pursuant to this authority appear limited. Recent

⁸⁷² *Ibid.*, Part X (spills), Part XIV, ss. 147-148 (director may cause things to be done - by MOE employee or agent - when person responsible cannot or will not act, or when responsible person unknown), Part XV.1, s. 168.8 (where record of site condition, MOE can issue order if danger to health, safety, or serious risk to environment).

⁸⁷³ *Ibid.*, s. 131 (financial assurance may include cash, letter of credit, negotiable security, personal bond, bond of an insurer, bond of a guarantor, or agreement).

⁸⁷⁴ *Ibid.*, ss. 132(1) (approval or order), 132(1.1) (certificate of property use).

⁸⁷⁵ *Ibid.*, s. 179.1.

⁸⁷⁶ *Fees – Certificate of Approval Regulation*, O. Reg. 363/98, ss. 9 (air emissions), 27 (waste disposal sites).

⁸⁷⁷ R.S.O. 1990, c. E.19, Part XIV (recovery of costs for work performed by ministry - costs subject to order enforceable as debt recoverable in Superior Court; and cost treated as a tax lien).

⁸⁷⁸ *General – Waste Management Regulation*, R.R.O. 1990, Reg. 347, ss. 2(1).5, 3(1).6.

⁸⁷⁹ *Exemption – Deloro Mine Site Regulation*, O. Reg. 577/98, s. 1 (exemption from sections 30 and 32 of *EPA*). See also Ontario Ministry of the Environment, *Deloro Mine Site Cleanup Project* (Toronto: MOE, 2005), online: Ontario Ministry of the Environment < <http://www.ene.gov.on.ca/envision/deloro/index.htm> > (last modified: 3 March 2005) (noting that Deloro Mine Site Cleanup project, a multimillion dollar initiative of MOE to cleanup the abandoned mining, refining, and manufacturing site, is exempt from the Part V hearing requirements of the *EPA*, but not from the requirement for approval of cleanup and containment plans for contaminants at the site, responsibility for which was assumed by the MOE in 1979).

regulations promulgated for contaminated sites require that information respecting such sites contained in the environmental site registry is public.⁸⁸⁰

ii. Ontario Water Resources Act

The *Ontario Water Resources Act* ("OWRA"),⁸⁸¹ administered by the MOE, contains typical elements of provincial environmental legislation noted above that also apply generally to mining activity. The purpose of the Act is the protection of surface and groundwater in Ontario from impairing substances.⁸⁸²

The OWRA prohibits the discharge of any material into waters that may impair water quality.⁸⁸³ The Act defines a number of terms including sewage,⁸⁸⁴ sewage works,⁸⁸⁵ and waters.⁸⁸⁶

Licences (approvals) for new or expanded sewage works are issued by the director under the OWRA.⁸⁸⁷ Such works include discharges to water from mining activities and the director can set effluent limits as a condition of such approval.⁸⁸⁸

The **assessment** of discharges to water under the OWRA licensing (approval) process is aided by a number of government documents setting out guidelines and objectives.⁸⁸⁹ In other respects, the OWRA otherwise mimics or adopts the assessment-related provisions contained in the EPA.⁸⁹⁰

⁸⁸⁰ Records of Site Condition – Part XV.1 of the Act, O. Reg. 153/04, s. 8.

⁸⁸¹ R.S.O. 1990, c. O.40.

⁸⁸² *Inco. Ltd. v. Ontario (Ministry of the Environment)*, [2004] O.J. No. 5013 (Ont. Sup. Ct. - Div. Ct.) at para. 4.

⁸⁸³ R.S.O. 1990, c. O.40, s. 30(1).

⁸⁸⁴ *Ibid.*, s. 1(1) (includes industrial wastes)

⁸⁸⁵ *Ibid.* (includes works for the collection, transmission, treatment and disposal of sewage).

⁸⁸⁶ *Ibid.* (includes a well, lake, river, pond, spring, stream, reservoir, artificial watercourse, intermittent watercourse, or groundwater).

⁸⁸⁷ *Ibid.*, s. 53. In the mining context this can include tailings ponds.

⁸⁸⁸ *Inco. Ltd. v. Ontario (Ministry of the Environment)*, [2004] O.J. No. 5013 (Ont. Sup. Ct. - Div. Ct.) at para. 15. These effluent limits may be more stringent than those set out in regulations for specific mining sectors under the EPA. *Ibid.* para. 14.

⁸⁸⁹ The MOE has developed over the years a number of guidelines or objectives for use in connection with industrial discharges generally, or those from the mining industry in particular. See Ontario Ministry of the Environment, *Objectives for the Control of Industrial Waste Discharges in Ontario* (Toronto: MOE, ____) (listing of desirable effluent discharge characteristics and elimination of toxic effluent) and Ontario Ministry of the Environment, *Guidelines for Environmental Control in the Ontario Mineral Industry* (Toronto: MOE, 1981) (effluent criteria for active, inactive, and abandoned mining operations). The MOE also has policies, guidelines, and objectives for water quality management that set out the level of water quality the province seeks to achieve. See Ontario Ministry of the Environment, *Water Management – Policies, Guidelines, Provincial Water Quality Objectives* (Toronto: MOE, 1994). All of these policies, guidelines and objectives are without legal effect unless they are incorporated in whole or in part into an approval issued under the Act. To some extent parts of the industrial discharge documents have been superseded by the promulgation under the EPA of regulations setting out effluent limits for the metal mining and industrial mineral sectors.

⁸⁹⁰ R.S.O. 1990, c. O.40, ss. 89.1-89.2 (records of site condition).

With comparatively minor exceptions, the same also is true for the **monitoring**,⁸⁹¹ **liability**,⁸⁹² **emergency response**,⁸⁹³ and **financial assurance**⁸⁹⁴ provisions of the *OWRA*.

The **application** of the *OWRA* includes application to the Crown.⁸⁹⁵ Accordingly, because the Act binds the Crown there is the potential for the Crown to be subject to the various liabilities imposed under the Act for failure to meet the statutory obligations contained therein, including with respect to a failure to remediate properly an abandoned mine taken over by the MOE.⁸⁹⁶

In general, the Act or regulations do not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

With respect to the issue of **community involvement**, the Act gives a MOE director discretion to authorize public hearings prior to the establishment or expansion of sewage works,⁸⁹⁷ including those in connection with mining activity, in the province.

iii. Environmental Assessment Act

The purpose of the *Environmental Assessment Act* ("EAA"), administered by the MOE, is "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment."⁸⁹⁸ The *EAA* defines "environment" to include both the natural environment (air, land, water) and the human environment (social, economic, and cultural aspects).⁸⁹⁹

Before an "undertaking" (a public or private sector project) to which the Act applies may proceed, the proponent of the undertaking must obtain a **licence** (described as an approval under the Act).⁹⁰⁰

To obtain such an approval the proponent of the undertaking must prepare and submit to the MOE proposed terms of reference ("TOR") that will govern the preparation of an environmental **assessment**.⁹⁰¹

⁸⁹¹ *Ibid.*, s. 75 (province can require monitoring by regulation). In practice, and as noted above monitoring requirements are contained in regulations promulgated under the *EPA*. However, nothing would prevent an MOE director from imposing further monitoring requirements as a condition of approval under section 53 of the *OWRA*. The Act also authorizes inspection authority by MOE provincial officers. *Ibid.*, s. 15.

⁸⁹² R.S.O. 1990, c. O.40, ss. 30, 107-113 (quasi-criminal prohibitions, offences and penalties), 16-16.4 (administrative orders), 106.1 (administrative monetary penalties – unproclaimed), 87, 95 (civil liability for unpaid clean-up costs or judicial restraining orders). Exemptions from liability similar to that contained in the *EPA* for municipalities, secured creditors, receivers, trustees in bankruptcy, and property investigators also are contained in the *OWRA*. *Ibid.*, ss. 89.4-89.14.

⁸⁹³ *Ibid.*, s. 89.3 (emergency authority to respond to water contamination arising from old material).

⁸⁹⁴ The financial assurance provisions of the *EPA* also apply to approvals issued under the *OWRA*. R.S.O. 1990, c. E.19, Part XII, s. 131 (financial assurance). The *OWRA* also authorizes the payment of fees. R.S.O. 1990, c. O.40, s. 96. Regulations have been promulgated establishing such fees for certain approvals that would be relevant to mining. *Fees – Approvals Regulation*, O. Reg. 364/98 (s. 53 – sewage approvals). The Act also authorizes cost recovery for clean-ups undertaken by MOE. R.S.O. 1990, c. O.40, ss. 80-89 (work done by ministry).

⁸⁹⁵ R.S.O. 1990, c. O.40, s. 2 (*OWRA* binds the Crown). The *EPA* has a similar provision. R.S.O. 1990, c. E.19, s. 20.

⁸⁹⁶ *R. v. Ontario (Ministry of the Environment)*, [2001] O.J. No. 2581 (Ont. Ct. Jus.) (province acquitted of charges under section 30 of *OWRA* in its remediation of abandoned Deloro mine site because although MOE permitted continuing discharges of liquids contaminated with metals that had the ability to impair water quality, ministry demonstrated on balance of probabilities that it had exercised due diligence throughout the relevant period).

⁸⁹⁷ R.S.O. 1990, c. O.40, s. 55.

⁸⁹⁸ R.S.O. 1990, c. E.18, s. 2, as am.

⁸⁹⁹ *Ibid.*, s. 1(1).

⁹⁰⁰ *Ibid.*, s. 5(1).

⁹⁰¹ *Ibid.*, ss. 5(2), 6(1).

In order to be approved by the Minister, the TOR must meet one of the following criteria:

1. Indicate that the environmental assessment will be prepared in accordance with section 6.1(2) of the *EAA* (described below).
2. Indicate that the environmental assessment will be prepared in accordance with requirements prescribed under the regulations (no requirements have been prescribed to date).
3. Set out in detail the requirements the proponent proposes for the preparation of the environmental assessment.⁹⁰²

Once the TOR document is approved, the proponent of the undertaking must prepare the environmental assessment in accordance with the approved TOR and submit it to the MOE for approval.⁹⁰³ Where the Minister requires a proponent of a public or designated private sector undertaking to prepare an environmental assessment in accordance with section 6.1(2) of the Act, the environmental assessment must contain a description of the following:

1. Purpose of the undertaking.
2. Alternatives to, and alternative methods of (e.g. different sites), carrying out the undertaking.
3. Rationale for the undertaking (interpreted by tribunals as need for the undertaking) and the alternatives.
4. The environment to be affected by the undertaking and the alternatives
5. Potential environmental effects of the undertaking and the alternatives.
6. Mitigation measures for the undertaking and the alternatives.
7. Advantages and disadvantages to the environment of the undertaking and the alternatives.
8. Consultations about the undertaking by the proponent and the results of the consultations.⁹⁰⁴

In general, since amendments to the Act came into force in 1997, the MOE has rarely approved TOR documents that require proponents to examine the need for, alternatives to, or alternative methods of carrying out, the undertaking in their environmental assessment documents. The Ontario Court of Appeal recently upheld ministerial discretion to exclude consideration of such matters from an environmental assessment.⁹⁰⁵

Where the Minister issues an approval, he or she may impose **monitoring** and related obligations on the proponent as conditions of such approval.⁹⁰⁶ The Act also authorizes inspections by provincial officers to ensure compliance with the Act, regulations, and approvals issued.⁹⁰⁷

⁹⁰² *Ibid.*, s. 6(2)(a)-(c). The Minister is required to approve a TOR document if satisfied that an environmental assessment prepared in accordance with the TOR will be consistent with the (1) purpose of the Act, and (2) public interest. *Ibid.*, s. 6(4).

⁹⁰³ *Ibid.*, s. 6.1.

⁹⁰⁴ *Ibid.*, s. 6.1(2).

⁹⁰⁵ *Sutcliffe v. Ontario (Minister of the Environment)*, [2004] O.J. No. 3473 (Ont. C.A.) (presumption that all of the contents of section 6.1(2) must be considered by proponents, though minister retains discretion through TOR process to exclude certain matters from assessment). Leave to appeal to the Supreme Court of Canada recently has been denied thereby affirming the Court of Appeal judgment as good law in Ontario. A provincial advisory panel looking into reform of the *EAA* has recommended that the MOE produce guidelines that clearly emphasize the importance of examining "need" and "alternatives to" and should narrowly prescribe circumstances where they are not to be considered. Environmental Assessment Advisory Panel - Executive Group, *Improving Environmental Assessment in Ontario: A Framework for Reform* (Toronto: MOE, 2005) at 51-52.

⁹⁰⁶ R.S.O. 1990, c. E.18, s. 9(1)(b)(iii) (imposition of research, investigation, study, and monitoring program conditions related to the undertaking, and reports thereon).

⁹⁰⁷ *Ibid.*, s. 25.

The Act imposes quasi-criminal,⁹⁰⁸ and civil/administrative⁹⁰⁹ **liability** for non-compliance with the Act, regulations, or conditions of approval.

The Act is silent on **emergency response** authority, though in one case (noted below) an exemption from the provisions of the Act to accelerate emergency rehabilitation measures at several abandoned mines was authorized by regulation.

The Act is silent on **financial** assurance measures. In practice, financial assurance would be obtained from proponents under other provincial legislation such as the *EPA* and *OWRA*, reviewed above.

The Act has **application** to public sector undertakings unless exempted by regulation and to private sector undertakings if they are specifically designated by regulation.⁹¹⁰ In practice, the Act has been applied primarily to new or expanded public sector activities (e.g. highways, sewage treatment plants, solid and hazardous waste management facilities, power generation and transmission facilities, etc.). In one instance, emergency activities undertaken by the MNDM at three abandoned mine sites in northern Ontario were exempted by regulation from the application of the *EAA*.⁹¹¹ Proposed new or expanded private sector waste management facilities (e.g. waste disposal sites, incinerators, etc.) also have been made subject to the Act by regulation. In practice, it would be expected that a new or expanded mine would be made subject to the *EAA* in the same manner.

The Act does not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, as noted above, in one instance three abandoned mine sites in northern Ontario were identified for the purpose of exempting emergency rehabilitation activities at the sites from the application of the *EAA*.

With respect to the issue of **community involvement**, in preparing a TOR document, a proponent is required to "consult with such persons as may be interested" and to describe consultations the proponent had with interested persons and the results of those consultations.⁹¹² Once an environmental assessment is submitted to the MOE a period of public and agency comment follows that focuses on the adequacy of the environmental assessment. The Act requires during this period that the MOE do three things:

1. Prepare a review of the environmental assessment that takes into account public comments.
2. Prepare a statement identifying any deficiencies in the environmental assessment relative to the approved TOR and the purpose of the Act and giving the proponent an opportunity to remedy the deficiencies.

⁹⁰⁸ *Ibid.*, ss. 5(3)(4) (prohibitions), 38 (offences and penalties).

⁹⁰⁹ *Ibid.*, s. 28 (applications to Divisional Court of Ontario for order enjoining conduct contrary to Act).

⁹¹⁰ *Ibid.*, s. 3.

⁹¹¹ Exemption for Emergency Activities on Three Abandoned Mine Sites in the Townships of Tisdale and Deloro, City of Timmins - MNDM -2, O. Reg. 169/92 (emergency activities involved rehabilitation of the mine sites to prevent the escape of tailings from a dam that could otherwise contaminate surrounding watershed and have adverse environmental and ecological impacts thereon, and pose a physical danger to human life and property). R.S.O. 1990, c. E.18, s. 39(f) (current authority for the issuance of regulations exempting persons or undertakings from the *EAA*). MNDM recently has requested a declaration order to exempt for up to a three-year period abandoned mine hazard rehabilitation activities (at sites posing hazards to the environment or public safety) from the application of the *EAA* to each such project while the ministry prepares a class environmental assessment for such undertakings. Ontario Ministry of Northern Development and Mines, Declaration Order Request to Allow Abandoned Mine Hazard Rehabilitation Activities Across the Province of Ontario, Notice of Proposal for Regulation: EBR Registry No. RA06E0002 (Toronto: MOE, 2006).

⁹¹² R.S.O. 1990, c. E.18, ss. 5.1, 6(3).

3. Consider the appointment of a mediator to resolve any matters identified by the Minister as being in dispute concerning the undertaking and to report the results of the mediation in writing to the Minister.⁹¹³

During the comment period members of the public also may request that the Minister refer the proponent's application to the Environmental Review Tribunal, established under the Act, for hearing and decision.⁹¹⁴ The Minister may decide the matter without hearing⁹¹⁵ or may refer the application or any matter respecting the application to the Tribunal unless the Minister, in his or her "absolute discretion," considers the request for a hearing:

1. Frivolous and vexatious.
2. Unnecessary.
3. A cause of undue delay in determining the application.⁹¹⁶

In practice, since 1997 there have been very few hearings under the Act.

iv. Environmental Bill of Rights, 1993

The *Environmental Bill of Rights, 1993* ("EBR") is a process statute designed to (1) enlarge public involvement in the environmental decision-making process, (2) enhance government accountability, and (3) expand public access to the courts.⁹¹⁷ Accordingly, the *EBR* can be viewed as a supplement or complement to provincial environmental laws, such as the *EPA*, *OWRA*, and *EAA* on the above three issues.

In terms of the areas of interest for this report, the above three issues roughly correspond to **community involvement**,⁹¹⁸ **monitoring**,⁹¹⁹ and **liability**,⁹²⁰ respectively.

⁹¹³ *Ibid.*, ss. 7-8.

⁹¹⁴ *Ibid.*, s. 7.2(3).

⁹¹⁵ *Ibid.*, s. 9.

⁹¹⁶ *Ibid.*, ss. 9.1, 9.2, 9.3.

⁹¹⁷ S.O. 1993, c. 28, s. 2(3)(a)-(c).

⁹¹⁸ *Ibid.*, Part II (public participation through notice and comment on environmentally significant proposals for policies, Acts, regulations, and instruments [e.g. licences, permits, approvals, orders], as well as opportunity to seek leave to appeal issuance of instruments to provincial environmental tribunal), Part IV (public requests for review of existing Ontario policies, Acts, regulations, and instruments), Part V (public may request government to conduct investigations where believe Act, regulation, or instrument has been violated).

⁹¹⁹ *Ibid.*, s. 7 (ministry statements of environmental values [SEVs] on how the purposes of the *EBR* will be applied when decisions are made by a ministry under the legislation it administers). See also Ministry of Northern Development and Mines, *Statement of Environmental Values* (Toronto: MNDM, 1995) (noting that MNDM will ensure compliance with provincial mining, including closure requirements, and other environmental legislation through joint monitoring of advanced exploration projects and mining operations [with MOE, MNR, and the Ministry of Labour]. See also S.O. 1993, c. 28, Part III (appointment of environmental commissioner responsible for reviewing compliance with *EBR* and laws administered by various ministries with environmental implications). See Environmental Commissioner of Ontario, *Changing Perspectives: Annual Report 1999-2000* (Toronto: ECO, 2000) at 105-107 (ECO noting specific problems and costs at certain abandoned mine sites - Kam Kotia and Deloro; noting generally abandoned mines a "grave problem", with over 6000 such sites across Ontario; such sites associated with safety and environmental hazards; MNDM estimate of \$300 million needed to rehabilitate such sites; ECO recommending that MNDM needs to address larger question of how to fund the "exceptional expense of abandoned mine rehabilitation"; MNDM responding that 70% of 6000 sites have a registered owner and therefore liability rests with owner; for Crown held sites gross estimate for rehabilitation is \$120 million). These estimates of the number of abandoned mine sites and the quantum necessary to rehabilitate them, may now be superceded by the 2005 MNDM estimates noted above.

⁹²⁰ Under the *EBR*, two civil litigation reforms became law in 1994 that increase access to the courts. First, any Ontario resident may bring an action in the Superior Court of Ontario against a person who has "contravened or will imminently contravene" an Act, regulation, or instrument [e.g. approval, permit, licence] prescribed pursuant to the *EBR*. In order to bring such action, the actual or imminent contravention also must have caused or must imminently cause significant harm

v. Clean Water Act, 2005 (Bill 43)

In December 2005, the Minister of the Environment introduced in the Ontario legislature the *Clean Water Act, 2005* (Bill 43).⁹²¹ The Bill would address recommendations of the Walkerton Inquiry regarding development and implementation of watershed based source protection plans dedicated to the protection of existing and future sources of drinking water in the province.

Bill 43 addresses such matters as (1) source protection areas, authorities, committees, and regions, (2) development of terms of reference for preparation of source water assessment reports and source protection plans, (3) amendment and appeal of such documents, (4) powers of entry (for the purpose of collecting information for the assessment report and to determine whether a drinking water risk exists), and (5) regulation-making authority (addressing such matters as the content of terms of reference, assessment reports, source protection plans, and the make-up of source protection committees).

This Bill could have implications for operating, contaminated, and orphaned/abandoned mines. Background reports in conjunction with the development of the Bill have identified mines and mine tailings from such operations as potential "threats" to protection of drinking water sources.⁹²² Accordingly, when Bill 43 is implemented, proponents of new, or operators of existing mining activity may have to ensure that their operating activities and future closure and rehabilitation measures, are

to a public resource in Ontario. A plaintiff cannot bring an action for actual contravention unless the appropriate minister fails to respond to the plaintiff's application for investigation, which in the normal course will precede the bringing of such action. S.O. 1993, c. 28, s. 84. Remedies available to plaintiffs under the *EBR* include injunctions, negotiation of a restoration plan, declaratory relief, or other measures, though not damages (monetary compensation). *Ibid.*, s. 93(1). Defences to the *EBR* cause of action include: (1) defendant exercised due diligence in complying with an Act, regulation or instrument; (2) alleged contravention is in fact authorized by an Act, regulation, or instrument; or (3) defendant complied with an interpretation of the instrument a court considers reasonable. *Ibid.*, s. 85. The second reform introduced by the *EBR* permits any person to bring an action who has suffered, or who may suffer, a direct economic loss or direct personal injury as a result of a public nuisance caused by environmental harm. Such action may be undertaken without the consent of the Attorney General and regardless of whether other persons have been similarly injured. *Ibid.*, s. 103. Neither of these reforms has been widely invoked in the years since they have become the law of Ontario. See Joseph F. Castrilli, "Environmental Rights Statutes in the United States and Canada: Comparing the Michigan and Ontario Experiences" (1998) 9 Vill. Env. L.J. 349 at 430-431 (review of law during first few years suggested seven possible reasons for the lack of use of these provisions). Accordingly, their ability to act as a liability impediment to voluntary abandoned mine land abatement, remediation, or reclamation activity is likely more theoretical than actual.

⁹²¹ Bill 43, An Act to protect existing and future sources of drinking water and to make complementary and other amendments to other Acts, 2d Sess., 38th Leg., Ontario, 2005 (first reading 5 December 2005).

⁹²² Government of Ontario, *Watershed Based Source Protection: Implementation Committee Report to the Minister of the Environment* (Toronto: Queen's Printer, 2004) at 40 (noting that historically the focus of mining activities and requirements has been on removing mineral commodities, and not necessarily the rehabilitation of the mine features once the activities ceased; the most common environmental risks from mining are acid drainage and the contamination of ground and surface water by heavy metals; today's mining regulations stipulate that comprehensive environmental studies be undertaken prior to expansion or development; *Mining Act* now requires closure and rehabilitation plans along with requirement for financial assurance to pay for this; implementation committee supports provincial government's measures to inventory abandoned mines; MNDM's abandoned mine registry contains approximately 5,600 abandoned mine sites and provides useful information on which to plan, schedule, and undertake remedial work; Ministry of Natural Resources ("MNR") reviewed registry in 2002 and identified 88 sites on Crown land that had unconfined and confined mine tailings; MNR investigated 88 sites and identified variety of threats; MNDM also administers abandoned mine fund, which currently has \$21.5 million for 2004-2007; purpose of fund to address serious or immediate risks on privately-owned sites where a company is, for example, in receivership). See also Government of Ontario, *Watershed Based Source Protection Planning - Science-based Decision-making for Protecting Ontario's Drinking Water Resources: A Threats Assessment Framework - Technical Experts Committee Report to the Minister of the Environment* (Toronto: Queen's Printer, 2004) at 7A-3 (noting that MDNM's abandoned mine sites registry contains useful information about threats to drinking water sources and that this database should be examined to determine usefulness in supporting source protection planning measures).

consistent with the drinking water source protection objectives of the Act, and the plan applicable to their geographic location. In addition, where orphaned/abandoned mines are located within the geographic area of such plans the Crown, as responsible agent for such sites, would have to ensure that site management and rehabilitation are consistent with the Act and plan for the area.

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The *Occupational Health and Safety Act* ("OHSA"), administered by the Ministry of Labour ("MOL"), is designed to protect workers against health and safety hazards on the job.⁹²³ In general, regulations respecting mines and mining plants impose obligations on owners and operators of surface and underground mines, tailings dams, or other water impoundment structures to prepare plans and develop such facilities in accordance with good engineering practices employed by professional engineers.⁹²⁴ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with the mining and environmental laws reviewed above.

d. Planning Laws

i. Planning Act

The *Planning Act*, administered by the Ministry of Municipal Affairs and Housing, is designed to facilitate provincial and municipal control of residential, commercial, and industrial subdivision or other development in the province through land use plans, zoning by-laws, and related instruments. The Act authorizes ministers to issue policy statements approved by the provincial cabinet with respect to matters relating to municipal planning that in the opinion of the minister are of provincial interest. In exercising any authority that affects a planning matter, the decisions of the council of a municipality, local planning boards, the Ontario Municipal Board, and other ministries and agencies must "be consistent with" such provincial policy statements.⁹²⁵ A number of provincial policies, consolidated into a single provincial policy statement ("PPS"), have been issued pursuant to this statutory authority, and one in particular addresses rehabilitation of areas where mining has occurred.⁹²⁶ However, the PPS is silent on the issue of orphaned/abandoned mines.

⁹²³ R.S.O. 1990, c. O.1.

⁹²⁴ *Mines and Mining Plants Regulation*, R.R.O. 1990, Reg. 854, Part I, as am., ss. 7 (dam construction for tailings required to be designed by professional engineer against all possible loads), 18 (terminated mines must be protected from inadvertent access, and topographical hazards due to lack of visibility or depth; as well as need for reinforced concrete cap that meets specifications set out in regulation, and filling of underground openings to prevent subsidence), 22 (terminated mines must file detailed plans with MOL outlining property boundaries, extent of underground openings, and site hazards), 90 (surface mines must be fenced or otherwise guarded against inadvertent entry around edge of mine), 91 (vegetation around rim of surface mine must be removed to prevent hazards being obscured; unstable material prohibited), 92 (restriction on proximity of surface mine excavations to property boundaries), 255 (underground areas must be barricaded against inadvertent entry, posted with warning signs, and subject to thorough physical and atmospheric examination prior to entry).

⁹²⁵ R.S.O. 1990, c. P.13, ss. 3(1)(5).

⁹²⁶ Government of Ontario, *Provincial Policy Statement* (Toronto: Queen's Printer, 2005), para. 2.4.3.1- Minerals (rehabilitation to accommodate subsequent land uses shall be required after extraction and other related activities have ceased, and progressive rehabilitation should be undertaken wherever feasible). The PPS defines "minerals" to mean metallic and non-metallic minerals but not aggregate or petroleum resources. *Ibid.* at 25.

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by the MNDM in Ontario directed explicitly at orphaned/abandoned mines. The three categories of initiatives include: (1) an abandoned mines database; (2) an abandoned mines rehabilitation program; and (3) government-industry partnerships.

The impetus for development of these programs and initiatives arises from the fact that the historic focus of mine owners and provincial mining legislation has been on acquiring profits and taxes, not rehabilitating mines. Accordingly, the concern of the province with respect to these sites is that:

"While companies may not have closed out the site in a manner that meets today's standards, the lands have already reverted to the Crown. Other privately held lands may become the Crown's responsibility in extreme circumstances such as a business failure or receivership. There are also combinations of circumstances which will prompt government to address serious or immediate risks on a privately-owned site - for example when a company is in receivership and there are emergency situations that may place public health or safety at risk.

It has been determined that there are approximately 5,600 known abandoned mine sites in Ontario, containing...16,500 individual features....

Estimates have been made that it will cost approximately \$500 million to rehabilitate all of the abandoned mine sites in Ontario. Of these, it has been further estimated that it will cost about \$200 million to rehabilitate the 30% to 40% of these sites that have reverted to the Crown."⁹²⁷

In this regard, the province established an Abandoned Mines Information System ("AMIS") in order to develop a database of information on all abandoned and inactive mines sites on both Crown and privately held lands.⁹²⁸

In conjunction with the development of a database, Ontario has had two non-regulatory programs to abate and rehabilitate hazards identified at abandoned mines. In the first program, the Abandoned Mine Hazards Abatement Program, Ontario spent approximately \$10 million in the period 1991 - 1994 on inventory, assessment, and cleanup of orphaned/abandoned mines.⁹²⁹ In the second program, the Abandoned Mine

⁹²⁷ Ontario Ministry of Northern Development and Mines, *Abandoned Mines/Mine Hazards* (Toronto: ONDM, 2005) at 1, online: Ontario Ministry of Northern Development and Mines

< http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/default_e.asp > (last modified: 30 August 2005). While the issue of the funds needed to cleanup orphaned/abandoned sites is beyond the scope of the present legislative review, the magnitude of the problem will influence what should be the appropriate legislative strategy to solve the problem.

⁹²⁸ Ontario Ministry of Northern Development and Mines, *Abandoned Mines and Hazards Databases and Reports* (Toronto: ONDM, 2003) at 1, online: Ontario Ministry of Northern Development and Mines

<http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/abandata_e.asp> (last modified: 7 November 2003) (information includes site name, location, period site active, tenure, features, hazards, level of protection, inspections, and remedial action taken). In conjunction with this information there also are site assessment and geotechnical investigation reports available. *Ibid.* at 2.

⁹²⁹ Ontario Ministry of Northern Development and Mines, *Abandoned Mine Hazards Abatement Program* (Toronto: ONDM, 2003) at 1, online: Ontario Ministry of Northern Development and Mines

<http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/abanpro1_e.asp> (last modified: 7 November 2003) (program components included funding of municipalities to rehabilitate mine hazards, commencement of abandoned mine inventory and assessment, funding of mine tailing and acid drainage research, and response to emergencies).

Rehabilitation Program, Ontario has committed to spending \$48 million in the period 1999 - 2007 to rehabilitate sites that pose public health, safety, or environmental risks on primarily Crown lands.⁹³⁰

The third category of non-regulatory initiative in Ontario with respect to abandoned mines relates to a series of government-industry partnerships. In one such initiative, MNDM and the Ontario Mining Association ("OMA") recently signed a memorandum of understanding⁹³¹ that would allow mining companies to make voluntary contributions⁹³² to rehabilitate historical abandoned mines⁹³³ on Crown lands⁹³⁴ in return for a tax deduction⁹³⁵ and indemnification from liability.⁹³⁶ This collaborative effort was initiated in 2000 by the OMA.⁹³⁷ Under the partnership arrangement, MNDM administers funds received from industry, government, or other parties.⁹³⁸ MNDM and OMA expect that implementation of the agreement could result in (1) enhancing the rate of rehabilitation of abandoned mine hazards in Ontario, and (2) improving the image of the mining industry.⁹³⁹ Two site-specific government-industry partnerships also have been entered into in Ontario.⁹⁴⁰

f. Findings and Summary

There are several aspects of Ontario law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under Ontario law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom

⁹³⁰ Ontario Ministry of Northern Development and Mines, *Abandoned Mines Rehabilitation Program* (Toronto: ONDM, 2005) at 1, online: Ontario Ministry of Northern Development and Mines <http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/abanpro2_e.asp> (last modified: 7 November 2003).

⁹³¹ Ontario Government and Ontario Mining Association, Ontario Mining Association and Her Majesty the Queen in Right of Ontario as Represented by the Ministry of Northern Development and Mines: Memorandum of Understanding (26 May 2003) [hereinafter OMA-MNDM Memorandum of Understanding].

⁹³² *Ibid.*, art. 1 (contributions may be monetary or non-monetary, with the latter including donation of services or secondment of personnel), art. 3.2 (contributions are entirely voluntary).

⁹³³ J. Martschuk, Ontario Mining Association and W.R. Cowan, Ontario Ministry of Northern Development and Mines, "The OMA/OMNDM Initiative: A Case Study" (Workshop on Legal and Institutional Barriers to Collaboration Relating to Orphaned/Abandoned Mines, Ottawa, 24 February 2003) at 17.

⁹³⁴ *Ibid.* at 15 (noting that rehabilitation projects would be restricted to abandoned mine hazards on Crown land where 100% of the liability rests with the Crown).

⁹³⁵ *Ibid.* at 13-14, 16, 18 (noting that voluntary cash donations may be tax deductible as long as the donor receives no refund or benefit in return, and does not participate directly in the selection or rehabilitation of sites being funded).

⁹³⁶ *Ibid.* at 15 (noting that Crown in Right of Ontario will indemnify companies providing financial gifts and participants on advisory committee under this arrangement from third party liability as long as they do not act in bad faith, are not grossly negligent, and do not engage in willful misconduct, or fraud).

⁹³⁷ *Ibid.* at 4 (noting OMA resolution on how OMA and member companies can assist provincial government to address problems associated with historical abandoned mines).

⁹³⁸ *Ibid.* at 11.

⁹³⁹ *Ibid.* at 3.

⁹⁴⁰ Ontario Ministry of Northern Development and Mines, *Kinross (now Porcupine Joint Venture) Agreement - Timmins* (Toronto: ONDM, 2005) at 1, online: Ontario Ministry of Northern Development and Mines <http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/pjv_e.asp> (last modified: 7 November 2003) (when former owner went into receivership arrangement entered into between province and Kinross to co-share liabilities while company conducts exploration work and develops closure plans). See also Ontario Ministry of Northern Development and Mines, *Falconbridge - Kam Kotia Exploratory Licence of Occupation* (Toronto: ONDM, 2005) at 1, online: Ontario Ministry of Northern Development and Mines <http://www.mndm.gov.on.ca/mndm/mines/mg/abanmin/falcoelo_e.asp> (last modified: 7 November 2003) (arrangement entered into between province and Falconbridge granting company exclusive exploratory rights for five years in exchange for \$50,000 per year in environmental funding toward site clean up but exempting company for full cleanup costs of existing hazards unless make situation significantly worse).

obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation arising from past mining practices.

2. Certain types of environmental orders issued by MOE that could otherwise apply to contaminated mining sites under Ontario environmental law, are exempted from so applying by provincial mining legislation under circumstances such as the surrender of mining lands or rights accepted by the MNDM. Where environmental orders can be applied to a mine site, the laws authorizing the application of such orders still do not address the orphaned/abandoned mine problem. Thus, the only person the orders could be applied to in such circumstance would be the Crown.
3. Recent amendments to environmental laws that provide liability protection in certain circumstances from environmental orders for secured creditors, receivers, trustees in bankruptcy, municipalities, and property investigators, are arguably not broad enough without further amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.
4. The absence of statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others, has resulted in important, but ad hoc, cleanup programs based on statutory emergency clean-up authority paid for with provincial public funds. Under these programs, Ontario will have expended between 1991 and 2007, \$58 million to cleanup such sites. In addition, non-statutory generic and site-specific government-industry arrangements may have contributed in the recent past, and may contribute in future, to further cleanups in certain instances, the financial quantum of which is not known at this time. Given the magnitude and potential cost of the orphaned/abandoned mine problem in Ontario, it is difficult to evaluate the adequacy of these ad hoc arrangements as a substitute for legislative reform.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

Primary licensing (approval) and regulatory authority with respect to new or existing mining activity is contained under environmental legislation (e.g. *EPA*, *OWRA*, and potentially under *EAA*). The courts have held that conditions attached to approvals for mining sewage works under the *OWRA* may be more stringent than sector specific effluent limit regulations promulgated under the *EPA* for the same mining activity. *Mining Act* approval authority (in the form of requirements for closure plans or on-going obligations to rehabilitate if no closure plan required) also is focused on new or existing mining activity where there is a viable entity upon whom the requirements can be imposed. None of these laws address explicitly licensing to facilitate rehabilitation of orphaned/abandoned mines (unless mine production or advanced exploration were to occur at a previously mined site).

(B) Assessment

Mining Act regulations set out information that mining companies must include as part of their required closure plan. The primary (but not exclusive) assessment for mining activity under the *EPA* and *OWRA* relate to meeting the effluent discharge limits to water for the parameters of concern identified in *EPA*

metal mining and related water pollution control regulations. Recent *EPA* amendments also establish rules for contaminated site assessment and cleanup that under certain circumstances can apply to mine sites. Under the *EAA*, proponents of mining undertakings, if designated by regulation, also may be required to submit an environmental assessment. The content of that assessment may vary considerably from the standard requirements set out in the Act, depending on the prior TOR document approved by the Minister for the undertaking. In one instance, MNDM emergency rehabilitation activities at three abandoned mine sites in northern Ontario were exempted by regulation from the assessment requirements of the *EAA*.

(C) *Monitoring*

The *Mining Act*, *EPA*, *OWRA*, and *EAA* all contain monitoring and inspection authority. In addition, the *EBR* in the establishment of the office of environmental commissioner has created a "watch-dog" or oversight authority over how the provincial government implements regulatory controls, including those pertaining to mining activity. In particular, the office has issued reports on the status of the abandoned mine problem in Ontario.

(D) *Liability*

The *Mining Act*, *EPA*, *OWRA*, and *EAA* all contain authority to impose administrative, quasi-criminal, and civil liability on mining owners and operators for non-compliance with these laws, regulations promulgated under them, approvals, orders and related instruments. In the case of the *EPA* some of the potential civil liability imposed is both joint and several. The *EBR* also established (new cause of action) or expanded (reform of public nuisance law) civil liability that has potential application to mining activity. The *Mining Act* exempts owners who surrender mining lands or rights that are accepted by the Minister from liability under the *EPA* with respect to certain environmental orders that could otherwise be issued under the latter statute.

The *EPA* and *OWRA* also provide liability protection from environmental orders for current and past owners and operators (those in charge, management, or control) of contaminated property who follow the prescribed site assessment and cleanup process. This includes filing a record of site condition with the MOE under a new site registry using a certified consultant, and following other requirements recently prescribed by regulation. The amendments also provide liability protection in certain circumstances from environmental orders for secured creditors, receivers, trustees in bankruptcy, municipalities, and property investigators. The liability protections afforded are from administrative enforcement (i.e. environmental orders). The amendments do not provide protection from civil or quasi-criminal liability. Though arguably not broad enough in their current form to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines, these protections provide a precedent for future law reforms to this end.

Finally, there have been a number of recent generic and site-specific government-industry arrangements entered into with respect to orphaned/abandoned mines. These arrangements are not authorized explicitly by statute as part of a larger legislative orphaned/abandoned mine program. However, they allow mining companies to either (1) contribute monies to government to rehabilitate such sites in return for a tax deduction and indemnification from liability, or (2) allow companies exploratory rights with respect to a particular site in return for a nominal company contribution to environmental clean-up and a limitation in liability as long as the company does not worsen conditions at the site.

(E) *Emergency Response*

The *Mining Act*, *EPA*, and *OWRA* all contain emergency response authority for government action. This authority appears to be the statutory basis for the government to expend public funds to remedy

conditions at mining sites. Though the *EAA* is silent on emergency response authority, in one case an exemption from the provisions of the Act to accelerate emergency rehabilitation measures at several abandoned mines was authorized by regulation.

(F) *Financial Instruments*

The *Mining Act*, *EPA*, and the *OWRA* all contain authority to (1) require a broad array of financial assurances, and (2) recover government costs. As noted above for other jurisdictions considered in this review, such financial assurance and cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authority noted above to respond to emergencies (and presumably expend public funds), Ontario law does not establish a program to address these situations arising from past mining practices, which are the essence of the orphaned/abandoned mine problem.

However, as noted above several generic and site-specific non-statutory government-industry arrangements have been entered into to partially finance clean-up at some orphaned/abandoned sites.

(G) *Application/Exemption*

Rehabilitation of mining lands under Part VII of the *Mining Act* includes (1) underground mining, (2) surface mining of metallic minerals, (3) surface mining of non-metallic minerals on non-Crown land, and (4) advanced exploration on mining lands. Surface mining of aggregate as defined in the *Aggregate Resources Act* is exempted from the application of Part VII.

EPA regulations designate rock fill or mill tailings from a mine as waste but exempt them from the application of Part V of the Act and its waste management regulations. In practice, this means that such mining activity is, with some exceptions, not subject to the waste disposal site and waste management requirements of the *EPA*. Regulations promulgated under the *EPA* do address control of discharges to water from two mining sectors: industrial minerals, and metal mining.

The *OWRA* applies to discharges to water from sewage works, which in the mining context can include tailings ponds. Provincial environmental laws such as the *OWRA* bind the Crown. Accordingly, there is the potential for the Crown to be subject to liabilities imposed under the Act for failure to meet the statutory obligations, such as a failure to remediate properly or prevent the discharge of effluent at an abandoned mine taken over by the MOE.

The *EAA* applies to public sector undertakings unless exempted by regulation and to private sector undertakings when designated by regulation. In one instance, emergency rehabilitation by the MNDM at three abandoned mine sites was exempted by regulation from the application of the *EAA*. A new or expanded mine could be made subject to the *EAA* by a designation regulation.

(H) *Designation of Orphaned/Abandoned Sites*

The *Mining Act*, *EPA*, *OWRA* and *EAA* do not define orphaned/abandoned mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. In one instance an abandoned mine was identified by special regulation under the *EPA* so as to exempt the MOE from having to comply with the mandatory and discretionary hearing provisions of the Act with respect to

establishment or use of waste disposal sites at the site where the waste was produced at, or related to, the site but not from approval requirements for cleanup and containment. In another instance, three abandoned mine sites were identified so as to exempt emergency rehabilitation activities at the sites from the application of the *EAA*.

(I) Community Involvement

The *Mining Act* (1) grants discretionary authority to the director to require that a proponent provide public notice prior to the commencement of advanced exploration activity, and (2) mandates that a proponent provide public notice prior to the commencement of mine production. Regulations under the *Mining Act* require that a closure plan contain information regarding consultations carried out with all aboriginal peoples affected by the project, including a description of their comments and response, if any to the closure plan.

The *EPA* authorizes public hearings before the establishment or expansion of waste disposal sites. However, because of exemptions from Part V of the Act and the waste management regulations that apply for rock fill or mill tailings from a mine, the opportunities for public involvement pursuant to this authority appear limited. In one instance an abandoned mine was identified by special regulation under the *EPA* so as to exempt the MOE from having to comply with the mandatory and discretionary hearing provisions of the Act with respect to establishment or use of a mining waste disposal site. Recent *EPA* regulations promulgated for contaminated sites require that information respecting such sites contained in the environmental site registry created by the regime be public.

The *OWRA* gives MOE discretion to authorize public hearings before the establishment or expansion of mining sewage works.

The *EAA* requires public consultation in public and private undertakings to which the Act applies, which can include mining related projects, at both the TOR and environmental assessment preparation stages. The Act also grants discretionary authority to hold hearings for such undertakings. As noted above, in one instance, three abandoned mine sites were designated by regulation to exempt emergency rehabilitation activities at the sites from the application of the *EAA*.

The *EBR* authorizes public involvement in activities that may relate to mining through opportunities to comment on proposed, or to ask for reviews of existing, laws, policies, and instruments, or to request investigations concerning non-compliance with such laws.

8. QUEBEC (EN)

8. QUEBEC (FR) – SEE APPENDIX D

a. Mining Laws

i. Mining Act

As a result of 1995 amendments the *Mining Act*,⁹⁴¹ administered by the Ministry of Natural Resources and Wildlife ("MNRW"), now imposes greater obligations on the Quebec mining industry to rehabilitate and restore the environment from the adverse effects of mining activities. The environmental restoration obligations apply to open-pit or underground mines and tailings areas, identify who must carry out such work, and particularize what must be done. The 1995 rehabilitation and restoration framework has been described as an "extremely exacting" regime,⁹⁴² but it does not affect or restrict the application of the province's *Environmental Quality Act*,⁹⁴³ reviewed below. Other amendments have been made to the *Mining Act* since 1995. However, the Quebec statutory regime for control of mining is still similar to that of Manitoba and Ontario. It focuses on the existence of a viable past or present owner or operator upon whom reclamation or rehabilitation conditions can still be imposed and not on fostering the involvement of volunteers in, or establishment of a permanent fund with respect to, orphaned/abandoned mine site cleanups.

The Act defines a number of terms including operator,⁹⁴⁴ mine,⁹⁴⁵ mineral substance,⁹⁴⁶ surface mineral substance,⁹⁴⁷ and tailings.⁹⁴⁸

The Act authorizes the issuance of a variety of mining **licences** (prospecting, claim, or mining exploration), leases, and concessions, as well as the terms and conditions under which these mining rights may be held.⁹⁴⁹

In terms of **assessment** activity required under the Act, holders of mining rights and mining operators must submit a rehabilitation and restoration plan to the Minister for approval before commencing or

⁹⁴¹ R.S.Q., c. M-13.1.

⁹⁴² P.R. Granda & O. Nadon, "The Mining Industry and the Restoration of the Environment in Quebec," (1995) 18 C.E.L.R. (N.S.) 197 at 218.

⁹⁴³ R.S.Q., c. Q-2. The *Mining Act* provisions on rehabilitation and restoration do not affect or restrict the application of the *Environmental Quality Act*. R.S.Q., c. M-13.1, s. 232.12.

⁹⁴⁴ R.S.Q., c. M-13.1, s. 218 (any person who, as owner, lessee or occupant of a mine or underground reservoir, performs or directs mining operations, or causes them to be performed or directed).

⁹⁴⁵ *Ibid.* (any opening or excavation made for the purpose of searching for mineral substances or operating works of various kinds below or above ground as part of a mining operation).

⁹⁴⁶ *Ibid.*, s. 1 (natural mineral substance but not water or fossilized material).

⁹⁴⁷ *Ibid.* (e.g. sand, gravel, stone). In practice, pits and quarries, including their restoration are the responsibility of the Ministry of Sustainable Development, Environment and Parks under regulations promulgated pursuant to the province's *Environmental Quality Act*, R.S.Q., c. Q-2. See also *Regulation Respecting Pits and Quarries*, R.Q., c. Q-2, r.2, ss. 35-52 (land restoration).

⁹⁴⁸ R.S.Q., c. M-13.1, s. 1 (rejected mineral substances, sludge and water, except the final effluent, from extraction operations and ore treatment, and slag from pyrometallurgy operations). The *Environmental Quality Act* uses the same definition for tailings. R.S.Q., c. Q-2, s. 1(20).

⁹⁴⁹ R.S.Q., c. M-13.1, ss. 1-216.

continuing mining activities.⁹⁵⁰ The Act sets out the broad contents of what such plans must contain.⁹⁵¹

Guidelines developed jointly by the province's environmental and natural resource ministries provide greater particulars to proponents of exploration and mining activities as to what information to include in these plans.⁹⁵²

The guidelines also contain provincial expectations on the content of rehabilitation plans with respect to physical stability and environmental **monitoring** that are to be met by mining proponents and operators.⁹⁵³ In addition, the Act authorizes inspectors to enter places, examine and make copies of documents, or require information relating to any place where an activity governed by the Act or regulations is carried out.⁹⁵⁴

The Act imposes civil,⁹⁵⁵ administrative,⁹⁵⁶ and quasi-criminal⁹⁵⁷ **liability** on persons who fail to perform the rehabilitative and restorative obligations set out in the Act and regulations. Where such persons fail to comply with Ministerial orders, the Minister may cause the work to be performed by government or agents retained by the government for that purpose and charge the cost thereof to the holder of mining rights or the operator. Sums owing the province in these circumstances constitute a legal hypothec (charge) due the province on all the property of the debtor.⁹⁵⁸ With respect to mine tailings, the Minister can compel anyone who carried out mining-related activities in the past, and who was not involved in those activities when the 1995 amendments to the Act came into force, to submit a rehabilitation and restoration plan to the satisfaction of the natural resource and environment ministries. Again, where such persons fail to comply, the Minister may cause the work to be performed at that person's expense.⁹⁵⁹ Thus, persons who ceased mining activities, or who abandoned a mining site containing tailings before the 1995 amendments came into force, may still face liability arising from this section. Finally, the Minister may release a person from obligations to prepare, finance, and implement a rehabilitative and restorative plan where a third party is prepared to assume such obligations and the Minister is in agreement with this assumption of responsibility.⁹⁶⁰

⁹⁵⁰ *Ibid.*, ss. 232.1 (defining who must carry out such work), 232.2 (setting out obligation to submit plan).

⁹⁵¹ *Ibid.*, s. 232.3 (1)-(4) (description of rehabilitation and restoration work intended to restore affected land to satisfactory condition; where tailings are present on site, work necessary to prevent environmental damage that might be caused by the tailings; conditions and phases for any progressive rehabilitation and restoration work that may be possible; conditions and phases for completion of such work when mining activities cease; and estimate of costs to complete such work).

⁹⁵² Quebec Ministries of Natural Resources and Environment, *Guidelines for Preparing a Mining Site Rehabilitation Plan and General Mining Site Rehabilitation Requirements* (Charlesbourg; MNR, 1997) (general information such as description of environment, description of mining activities and mining site, outline of rehabilitation program, monitoring, emergency planning, restoration cost estimates, work schedule, and methods for assessing physical stability, rehabilitation options, measurement and analytical techniques, and sampling). The guidelines are now being updated to reflect various amendments to the *Mining Act* and the *EQA* since the document was published in 1997. See Quebec Ministry of Natural Resources and Wildlife, *Rehabilitation Guide*, (2003), online: Quebec Ministry of Natural Resources and Wildlife <<http://www.mrn.gouv.qc.ca/english/mines/environment/environment-guide.jsp>> (date accessed: 30 April 2005).

⁹⁵³ *Guidelines*, *ibid.* at 31-32. The guidelines state that a monitoring program must be implemented to ensure that rehabilitation and remedial measures after shutdown of a mine site are effective. *Ibid.* at 31.

⁹⁵⁴ R.S.Q., c. M-13.1, s. 251.

⁹⁵⁵ *Ibid.*, s. 232.8 (Minister may seek an injunction to require performance).

⁹⁵⁶ *Ibid.*, ss. 230 (Minister may order person responsible for natural gas emanation that threatens personal injury or property damage to remedy situation), 231-232 (Minister may order holder of mining rights or operator to take protective measures necessary or that are prescribed by regulation to prevent damage that may result from temporary or permanent cessation of mining activities).

⁹⁵⁷ *Ibid.*, ss. 318 (liability for contravention of sections 232.1, 232.2, and portions of sections 232.6 and 232.7).

⁹⁵⁸ *Ibid.*, s. 232.9 (respecting sections 230-232, 232.8).

⁹⁵⁹ *Ibid.*, s. 232.11.

⁹⁶⁰ *Ibid.*, s. 232.10.

The above administrative liability provisions also can be applied in an **emergency response** context, particular in light of the guidelines on the content of rehabilitation plans that require mining proponents to include in such documents, a plan for implementation of emergency measures.⁹⁶¹ Where an operator did not follow such emergency plans, the above administrative authorities could be invoked.

The Act,⁹⁶² regulations,⁹⁶³ and guidelines⁹⁶⁴ provide the authority and framework for, and particulars with respect to, imposing **financial** assurance obligations on holders of mining rights and mining operators regarding rehabilitation of sites. Also as noted above, where such persons fail to comply with Ministerial orders, the Minister may cause the work to be performed by government or agents retained by the government for that purpose and charge the cost thereof to the holder of mining rights or the operator. Sums owing the province in these circumstances constitute a legal hypothec (charge) due the province on all the property of the debtor.⁹⁶⁵

Also as noted above with respect to the regimes in place in Manitoba and Ontario, such cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the Minister to undertake such remedial work (and presumably expend public funds) where the proponent for whatever reasons does not act, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

The scope of **application** of the Act includes certain persons,⁹⁶⁶ activities,⁹⁶⁷ and substances.⁹⁶⁸

⁹⁶¹ Quebec Ministries of Natural Resources and Environment, *Guidelines for Preparing a Mining Site Rehabilitation Plan and General Mining Site Rehabilitation Requirements* (Charlesbourg; MNR, 1997) at 31 (emergency action plan for high-risk accidents that might occur at a mining site during rehabilitation and thereafter).

⁹⁶² R.S.Q., c. M-13.1, ss. 232.4 (rehabilitation and restoration plan must include description of financial guarantee that will be used to ensure performance of work required by plan), 232.5 (natural resources minister may require advance payment of all or part of the financial guarantee in consultation with environment minister), 232.7 (natural resources minister may increase amount of guarantee where he or she considers that it is no longer sufficient to meet foreseeable costs of carrying out rehabilitation and restoration plan - may also reduce amount of guarantee based on foreseeable costs; minister also may require payment of total amount of guarantee if financial situation of holder or operator may prevent payment of guarantee).

⁹⁶³ *Regulation Respecting Mineral Substances Other than Petroleum, Natural Gas, and Brine*, R.R.Q., c. M-13.1, r. 2, ss. 111-123 (guarantee of 70 per cent of estimated cost of restoring tailings areas - subject to section 232.7 noted above that could require more, or less; such guarantee to be in the form of cheque, guaranteed government security, guaranteed investment certificate, letter of credit, surety or guarantee policy with government as beneficiary, immovable hypothec granted by a third party, or a trust).

⁹⁶⁴ Quebec Ministries of Natural Resources and Environment, *Guidelines for Preparing a Mining Site Rehabilitation Plan and General Mining Site Rehabilitation Requirements* (Charlesbourg; MNR, 1997) at 37-39 (to same effect as that set out in the Act and regulations).

⁹⁶⁵ R.S.Q., c. M-13.1, s. 232.9 (respecting sections 230-232, 232.8).

⁹⁶⁶ *Ibid.*, s. 232.1 (holders of mining rights and operators who engage in certain exploration and mining activity, and persons who operate ore-processing plants or engage in mining operations involving tailings).

⁹⁶⁷ *Regulation Respecting Mineral Substances Other than Petroleum, Natural Gas, and Brine*, R.R.Q., c. M-13.1, r. 2, ss. 108 (listing of types of exploration work), 109 (listing of types of mining operations).

⁹⁶⁸ *Ibid.*, s. 110 (any mineral substance other than petroleum, natural gas, and surface minerals other than inert mine tailings).

In general, the Act or regulations do not define **abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.⁹⁶⁹ However, it should be noted that MNRW and MSDEP do have internal databases available to define such sites.

The Act also is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

b. Environmental Laws

i. Environmental Quality Act

Quebec's *Environment Quality Act* ("*EQA*"),⁹⁷⁰ administered by the Ministry of Sustainable Development, Environment and Parks ("*MSDEP*"), contains typical elements of provincial environmental legislation noted above that also apply generally to mining activity.

The Act defines a number of terms including water,⁹⁷¹ soil,⁹⁷² environment,⁹⁷³ contaminant,⁹⁷⁴ pollutant,⁹⁷⁵ and tailings.⁹⁷⁶

The Act and regulations require that all mines must have a (1) **licence** (called a certificate of authorization) and (2) land reclamation plan (in the case of open pit mine operations).⁹⁷⁷ Furthermore, as the Quebec mining sector is not regulated through emission standards, MSDEP has drafted guidelines (Directive 019) that (1) prohibit contamination, (2) impose an obligation to obtain a certificate of authorization from the ministry before proceeding with a project that might have adverse environmental consequences, and (3) set out the information to be provided in support of a such a certificate.⁹⁷⁸

In the context of mining activities, **assessment** information is required for: (1) land reclamation plans, (2) environmental impact assessment ("EIA") statements, and (3) contaminated site rehabilitation plans.

EQA regulations require that a land reclamation plan developed in connection with an application for an open-pit mine must contain the following information: (a) area of land liable to be damaged or destroyed,

⁹⁶⁹ The Act does recognize and establish a process for how a mining claim or related rights can be abandoned. See *e.g.* R.S.Q., c. M-13.1, s. 83. However, the Act does not define the term "abandoned" or place it in the context of mine site rehabilitation.

⁹⁷⁰ R.S.Q., c. Q-2.

⁹⁷¹ *Ibid.*, s. 1(1) (surface water and underground water).

⁹⁷² *Ibid.*, s. 1(3) (land including land submerged in water).

⁹⁷³ *Ibid.*, s. 1(4) (water, atmosphere, soil).

⁹⁷⁴ *Ibid.*, s. 1(5) (solid, liquid, gas, etc. likely to alter quality of environment).

⁹⁷⁵ *Ibid.*, s. 1(6) (contaminant present in environment in concentration or quantity greater than allowed by regulation).

⁹⁷⁶ *Ibid.*, 1(20) (rejected mineral substances, sludge and water, except the final effluent, from extraction operations and ore treatment, and slag from pyrometallurgy operations). The province's *Mining Act* uses the same definition for tailings. R.S.Q., c. M-13.1, s. 1. However, while the definition of "tailings" is in force under the *Mining Act*, it is not in force under the *EQA*.

⁹⁷⁷ *Ibid.*, ss. 22 (prohibition on carrying out works, projects, operating an industry, or industrial process likely to result in emission or discharge of contaminants to environment unless first obtain certificate of authorization from Minister), 23 (certain projects, activities, or industries likely to harm or destroy surface of soil and prescribed by regulation must submit land reclamation plan to Minister). See also *Regulation Respecting the Application of the Environment Quality Act*, R.Q., Q-2, r.1.001, s. 7(9) (contents of land reclamation plan for open pit mine).

⁹⁷⁸ Quebec Ministry of the Environment, *Directive on Mining Industries: No. 19*. In general, application of the guideline has the following objectives: (1) introduce environmental benchmarks for different types of mining works activities so as to prevent deterioration of the environment, and (2) provide mining sector operations with the necessary guidance on environmental study information that must be submitted as a condition of obtaining a certificate of authorization.

(b) type of soil and existing vegetation, (c) stages in the damaging or destruction of the soil and vegetation, with an estimate of the number of years, and (d) conditions for and stages in the carrying out of restoration work.⁹⁷⁹ However, the regulations do not set out rehabilitation standards. Instead, the Minister may have regard to guidelines specific to the mining industry (without legal effect except to the extent they are incorporated into an authorization certificate) that set out Ministry expectations for mining sites, whether open pit or not, and the effectiveness of restoration work to be carried out.⁹⁸⁰ To complement this, as noted above, guidelines developed jointly by the province's environmental and natural resource ministries also provide greater particulars to proponents of exploration and mining activities as to what information to include in rehabilitation plans.⁹⁸¹

The Act also imposes EIA obligations on certain projects, including mining projects having an ore treatment production capacity or volume threshold greater than that prescribed by regulation.⁹⁸² The matters to be included in an EIA statement include a: (1) description of the project, (2) qualitative and quantitative analysis of the environment that could be affected by the project, (3) evaluation of positive, negative, and residual impacts of the project on the environment, including indirect, cumulative, latent and irreversible effects, (4) description of different (alternative) options to the project, and means of carrying the project out, and (5) measures to prevent, reduce or attenuate environmental deterioration caused by the project's impacts, including reclamation of the area affected.⁹⁸³

The Act further imposes assessment obligations on certain mining sectors (e.g. metal ore mining) under 2003 amendments to the *EQA* that establish new rules to promote the protection of lands and their rehabilitation in the event of contamination.⁹⁸⁴ Under the amendments, the Minister of Sustainable Development, Environment and Parks may order any person that has or had the custody of the land as owner or lessee or in any other capacity to submit a rehabilitation plan setting out measures that will be implemented to protect the environment. Such measures may include in-situ rehabilitation. Notice of the presence of contaminants and applicable restrictions regarding future use of such lands are prescribed.

The amendments also apply to "voluntary land rehabilitation." Where a person intends to rehabilitate contaminated land on a voluntary basis and to leave contaminants in the land in a concentration exceeding regulatory limit values, the person must first submit a rehabilitation plan to the Minister. The plan must set out proposed measures to protect humans, other living species, the environment, and property. The

⁹⁷⁹ Regulation Respecting the Application of the Environment Quality Act, R.Q., Q-2, r.1.001, s. 7(9).

⁹⁸⁰ Quebec Ministry of the Environment, *Directive on Mining Industries: No. 19* (for mine development, extraction, or ore processing Minister expects to be made aware of (1) progressive restoration schedule during mining, (2) confinement and environmental control program during temporary shutdown, and (3) final restoration program when mine has ceased operating and been closed permanently – including restoration works activities, post-restoration environmental follow-up, and evaluation of restoration work to be carried out).

⁹⁸¹ Quebec Ministries of Natural Resources and Environment, *Guidelines for Preparing a Mining Site Rehabilitation Plan and General Mining Site Rehabilitation Requirements* (Charlesbourg; MNR, 1997) (general information such as description of environment, description of mining activities and mining site, outline of rehabilitation program, monitoring, emergency planning, restoration cost estimates, work schedule, and methods for assessing physical stability, rehabilitation options, measurement and analytical techniques, and sampling). The guidelines are now being updated to reflect various amendments to the *Mining Act* and the *EQA* since the document was published in 1997. See Quebec Ministry of Natural Resources and Wildlife, *Rehabilitation Guide*, (2003), online: Quebec Ministry of Natural Resources and Wildlife <http://www.mrn.gouv.qc.ca/english/mines/environment/environment-guide.jsp> (date accessed: 30 April 2005).

⁹⁸² R.S.Q., c. Q-2, Division IV.1, ss. 31.1 – 31.2 (obligation to prepare and file with provincial government EIA statement and obtain authorization before proceeding with project).

⁹⁸³ *Regulation Respecting Environmental Impact Assessment and Review*, R.Q., c. Q-2, r.9, s. 3. The opening and operation of a metals mine or an asbestos mine with a production capacity of at least 7000 metric tonnes triggers the obligation to prepare an EIA statement. *Ibid.*, s. 2(p). In this context, a "mine" is defined as a surface or underground infrastructure for extracting ore. *Ibid.*

⁹⁸⁴ S.Q. 2002, c. 11 (assented to 11 June 2002). R.S.Q., Q-2, ss. 31.42 – 31-69.

plan also must contain an implementation schedule, a toxicological and ecotoxicological risk assessment, and a groundwater impact assessment. In addition, the person must submit a study to the Minister characterizing the state of contamination of the land.⁹⁸⁵ The province also has promulgated regulations on land protection and rehabilitation to provide greater particulars with respect to these obligations.⁹⁸⁶ The obligations established under the amendments and the regulations would appear to have the potential to apply to voluntary abatement, remediation, and reclamation of abandoned mine lands.

The *EQA* imposes **monitoring** obligations in a number of contexts that also would be applicable to mining activities. These include, for example, the authority to (1) promulgate regulations to determine fees payable by a certificate holder to cover monitoring costs,⁹⁸⁷ (2) establish monitoring requirements with respect to the discharge of contaminants,⁹⁸⁸ and (3) establish requirements with respect to the monitoring of groundwater.⁹⁸⁹ However, the Ministry will not impose duplicate monitoring fees on the mining sector. The Act authorizes the Minister to appoint inspectors to determine compliance with the Act and regulations. For this purpose, inspectors may enter land or buildings, collect samples, install measuring apparatus, and examine records and premises.⁹⁹⁰

The *EQA* imposes quasi-criminal,⁹⁹¹ civil,⁹⁹² and administrative⁹⁹³ **liability** for non-compliance with the provisions of the Act or regulations.

The Act authorizes **emergency response** action by the Minister in a variety of contexts that can include responding to situations at operating, closed, or abandoned mines.⁹⁹⁴

⁹⁸⁵ *Ibid.*, s. 31.57.

⁹⁸⁶ *Land Protection and Rehabilitation Regulation*, R.Q., Q-2, r.18.1.01. This regulation specifies the value limits applicable for soil, the categories of industrial and commercial activities concerned, as well as the obligations that must be met to protect groundwater.

⁹⁸⁷ R.S.Q., Q-2, s. 31(4). MSDEP has indicated its intention to not compel the mining sector to pay fees supplementary to those already required under other *EQA* regulations.

⁹⁸⁸ *Ibid.*, ss. 31.15(3), 31.26, 31.39.

⁹⁸⁹ *Ibid.*, s. 31.69.

⁹⁹⁰ *Ibid.*, s. 119.

⁹⁹¹ *Ibid.*, ss. 106-107.

⁹⁹² *Ibid.*, ss. 19.1 (*EQA* recognizes right of every person to a healthy environment and to its protection, to the extent provided by the Act, regulations, orders, approvals, and authorizations issued under any section of the Act), 19.2-19.3 (upon application of any person domiciled in Quebec the Quebec Superior Court may grant an injunction to prohibit any act or operation that interferes or might interfere with such rights), 19.7 (entitlement to an injunction does not apply where the activity is being carried out in conformity with approvals, authorizations, or regulations issued under the Act). See also L. Giroux & P. Halley, "Environmental Law in Quebec" in E. Hughes, et. al., eds. *Environmental Law and Policy*, 3d ed. (Toronto: Emond Montgomery, 2003) 133 at 154-155. The environmental rights recognized by the *EQA* have the potential to apply to mining as well as voluntary abandoned mine land abatement, remediation, and reclamation activities in the province. In addition, the Minister may claim the direct and indirect costs of issuing an administrative order under the *EQA* – reviewed below – or engaging in prevention or cleanup with respect thereto, in the same manner as any debt owing the government may be claimed from the person to whom the order applies including, in the case of cleanup, the registration of a notice of land restriction in the land register of the province. In these circumstances, if the order applies to more than one person, the debtors are jointly and severally liable. *Ibid.*, ss. 114.3, 115.0.1, 115.1.

⁹⁹³ *Ibid.*, ss. 25 (Minister may order any person responsible for a source of contamination to cease or limit the emission, deposit, issuance, or discharge of such contaminant), 27 (Minister may require installation of apparatus to achieve reduction in contamination). In addition, under recent amendments to the *EQA*, rules were established to promote the protection of lands and their rehabilitation in the event of contamination. Under the amendments, the Minister may order any person that has or had the custody of the land as owner or lessee or in any other capacity to submit a rehabilitation plan setting out measures that will be implemented to protect the environment. However, such an order cannot be made if the person was unaware of the contamination, acted diligently to solve the problem once becoming aware of it, or the presence of contaminants on the land resulted from outside migration from a source attributable to a third person. *Ibid.*, s. 31.43.

⁹⁹⁴ *Ibid.*, ss. 26 (Minister may for period not exceeding 30 days order a person responsible for a source of contamination to cease or abate the emission, deposit, issuance, or discharge of the contamination when Minister of the opinion an

With respect to **financial** instruments, the Act authorizes the government to promulgate regulations regarding fees payable by the holder of a certificate or other approval to cover the costs of control and monitoring measures. The fee levels are based on the nature and characteristics of the holder's activities, and the number and seriousness of the offences of which the holder has been convicted.⁹⁹⁵ In addition, and as noted above, the Minister may claim the direct and indirect costs of issuing an administrative order or engaging in prevention or cleanup with respect thereto, in the same manner as any debt owing the government may be claimed from the person to whom the order applies including, in the case of cleanup, the registration of a notice of land restriction in the land register of the province.⁹⁹⁶

The **application** of the *EQA* centers on industrial operations, activities, or processes that may result in an emission, deposit, issuance, or discharge of contaminants to the environment.⁹⁹⁷ As noted above, guidelines on the mining industry impose environmental obligations on all mining activities to which they are subject, while regulations specifically identify open-pit mining activity as subject to the Act in the sense that a land reclamation plan must accompany an application for a certificate of authorization.⁹⁹⁸ In addition, the EIA requirements of the Act generally apply to all new, or modified existing mining developments that meet or exceed thresholds prescribed by regulation, but not to mining exploration projects.⁹⁹⁹ Furthermore, the Act exempts those proposing works necessary to implement a land rehabilitation plan approved by the Minister from the requirement to obtain a certificate of authorization.¹⁰⁰⁰ This exemption could apply to land rehabilitation plans applicable to mine sites.

The Act or regulations do not define **orphaned/abandoned** mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The nature of the **community involvement** the *EQA* authorizes, is public consultation in relation to projects, including mining projects, that otherwise are subject to (1) the EIA procedure,¹⁰⁰¹ (2) industrial depollution attestations,¹⁰⁰² or (3) for which the Minister requires a public hearing in respect of environmental matters.¹⁰⁰³ This may involve both public notice and opportunity for comment and, if necessary, a public hearing.¹⁰⁰⁴

immediate danger may result to the life, health of persons, or danger of serious, irreparable damage to property), 114.1 (where Minister considers there is an emergency, Minister may order any person that is the owner of, or has custody or control of, contaminants dumped, emitted, issued, or discharged to water or soil, to collect, remove, and cleanup water and soil, to ensure contaminants do not spread or propagate in the environment), 115 (Minister may take appropriate measures to avert damage to public or private property, human beings, wildlife, vegetation, or environment).

⁹⁹⁵ *Ibid.*, s. 31(t). See also *Regulation Respecting Industrial DePollution Attestations*, R.Q., c. Q-2, r.1.01.

⁹⁹⁶ *Ibid.*, ss. 114.3, 115.0.1, 115.1.

⁹⁹⁷ *Ibid.*, s. 22.

⁹⁹⁸ See *Regulation Respecting the Application of the Environment Quality Act*, R.Q., Q-2, r.1.001, s. 7(9) (contents of land reclamation plan for open pit mine).

⁹⁹⁹ R.S.Q., c. Q-2, ss.153-154, and Sch. A.

¹⁰⁰⁰ *Ibid.*, s. 31.64.

¹⁰⁰¹ *Ibid.*, s. 31.3. See also *Regulation Respecting Environmental Impact Assessment and Review*, R.Q., c. Q-2, r.9. Projects in northern Quebec are subject to additional EIA requirements, including public involvement in advisory committees, additional public consultation, and opportunities to make representations. R.S.Q., c. Q-2, ss. 161 (respecting projects south of 55th parallel), 199 (respecting projects north of 55th parallel). See also *Regulation Respecting the Environmental Impact Assessment and Review Applicable to a Part of the Northeastern Quebec Region*, R.Q., c. Q-2, r.10, ss. 4 (public information and consultation), 5 (additional consultation).

¹⁰⁰² R.S.Q., c. Q-2, s. 31.21. See also *Regulation Respecting Industrial DePollution Attestations*, R.Q., c. Q-2, r.1.01.

¹⁰⁰³ R.S.Q., c. Q-2, s. 6.3.

¹⁰⁰⁴ See *Rules of Procedure Relating to the Conduct of Public Hearings*, R.Q., c. Q-2, r.19.

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The *Occupational Health and Safety Act* ("OHS"), administered by the Ministry of Labour, is designed to protect against workplace health and safety hazards.¹⁰⁰⁵ In general, regulations respecting underground and open pit mines impose obligations on owners and operators to maintain ground stability generally, and in relation to groundwater and surface water sources, in particular by utilizing professional engineers in the preparation of plans and the development of such facilities.¹⁰⁰⁶ The compliance and enforcement authority under the Act¹⁰⁰⁷ is comparable to that reviewed in connection with provincial mining and environmental laws reviewed above.

d. Planning Laws

i. Land Use Planning and Development Act

The *Land Use Planning and Development Act*, administered by the Ministry of Municipal Affairs, is designed to facilitate provincial and municipal control of residential, commercial, and industrial development in the province. However, the statute makes clear that no provision in the Act, or a land use planning and development plan, an interim control by-law or resolution, or a zoning, subdivision, or building by-law may have the effect of preventing the staking or designation on a map of a claim, or exploration or search for or development or exploration of, mineral substances carried out in accordance with the provincial *Mining Act*.¹⁰⁰⁸ The Act is silent on the issue of orphaned/abandoned mines.

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by the MNRW in Quebec directed explicitly at orphaned/abandoned mines.

In this regard, MNRW appears to have two programs, or two parts of a single program dedicated to the problem. The first program (or part of the program), focused on abandoned mine sites,¹⁰⁰⁹ has seen the Quebec Government provide more than \$30 million into research, work, and financial assistance to rehabilitate "mining residue accumulation areas."¹⁰¹⁰ Approximately, \$20 million of the \$30 million provided, was for rehabilitation of 11 sites in the province. These abandoned mining sites, ownership of which has reverted to the province between 1967 and 1985, often consisting of "mine tailings placed in ponds were [in the past] unfortunately considered as being harmless, whereas, in reality, they are often the cause of the contamination problems" now experienced in the province.¹⁰¹¹

¹⁰⁰⁵ R.S.Q. c. S-2.1.

¹⁰⁰⁶ Regulation Respecting Occupational Health and Safety in Mines, R.Q., c. S-2.1, r.19.1.

¹⁰⁰⁷ R.S.Q. c. S-2.1, ss. 216-219 (inspections), 234-246 (offences and penalties).

¹⁰⁰⁸ R.S.Q., c. A-19.1, s. 246.

¹⁰⁰⁹ Mine sites where there may still be an owner, but that owner is without the financial ability to pay for rehabilitation.

¹⁰¹⁰ In Quebec, this term may be synonymous with "tailings areas."

¹⁰¹¹ Quebec Ministry of Natural Resources and Wildlife, *Mining Environment*, (2003), online: Quebec Ministry of Natural Resources and Wildlife <http://www.mrmf.gouv.qc.ca/english/mines/environment/index.jsp> (date accessed: 6 June 2005).

The second program (or part of the program) will require the provincial government to turn its attention to the problem of orphan sites. Quebec currently has 100 tailings areas that require rehabilitation at an estimated cost of \$75 million. Sixteen priority areas alone will require investments totaling \$46 million.¹⁰¹²

f. Findings and Summary

There are several aspects of Quebec law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under Quebec law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation, subject to the comments contained in paragraph 2, below.
2. Under amendments to Quebec mining law that came into force in the mid-1990s, persons who ceased mining activities, or who abandoned a mining site containing tailings before the amendments came into force, may still face liability. However, these amendments would not be any more effective than the law summarized in paragraph 1, above, where such persons are judgment proof, no longer exist, or have left the jurisdiction.
3. The Quebec statutory regime for control of mining is similar to that of Manitoba and Ontario. It focuses on the existence of a viable past or present owner or operator upon whom reclamation or rehabilitation conditions can still be imposed and not on fostering the involvement of volunteers in, or establishment of a permanent fund with respect to, orphaned/abandoned mine site cleanups.
4. The absence of statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others, results in an important, but ad hoc, cleanup program based on statutory emergency clean-up authority paid for entirely with provincial public funds. This approach has, to date, resulted in the expenditure by Quebec of approximately \$30 million in public funds for clean-up of abandoned mine sites, with an estimated additional \$75 million more spread over 15 years necessary to address orphaned mine sites. It is difficult to evaluate the adequacy of these ad hoc arrangements as a substitute for legislative reform.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

¹⁰¹² *Ibid.* Mine sites where there is no owner and perhaps ownership of which has not yet reverted to the province. A 2004 update on this program, which perhaps confusingly uses the term "abandoned mine sites," states that: "An action plan for the rehabilitation of abandoned mine sites in Quebec is currently being developed. The cost of this work is estimated at [\$75 million]. Various measures are currently being examined that would ensure adequate financing for this work, which may be spread over 15 years." Quebec Ministry of Natural Resources and Wildlife, *The Mining Environment in 2004*, (2005), online: Quebec Ministry of Natural Resources and Wildlife <http://www.mrnf.gouv.qc.ca/english/publications/online/mines/sh2004/environment.asp> (date accessed: 6 June 2005).

(A) Licence/Permit

Both the *Mining Act* and the *EQA* contain licensing requirements before new mining operations can commence or existing operations can expand. The *EQA* and regulations require that all mines require a (1) licence (called a certificate of authorization) and (2) land reclamation plan (in the case of open pit mine operations). Neither law addresses explicitly licensing to facilitate rehabilitation of orphaned/abandoned mines.

(B) Assessment

The *Mining Act* requires holders of mining rights and mining operators to submit a rehabilitation and restoration plan to the Minister for approval before commencing or continuing mining activities. The *EQA* requires assessment information for: (1) land reclamation plans, (2) environmental impact assessment (“EIA”) statements, and (3) contaminated site rehabilitation plans. The *EQA* also authorizes contaminated site rehabilitation plans to be submitted on a voluntary basis and would appear to have the potential to apply to voluntary abatement, remediation, and reclamation of abandoned mine lands.

(C) Monitoring

The *Mining Act* and the *EQA* both contain monitoring and inspection authority.

(D) Liability

The *Mining Act* and the *EQA* both contain authority to impose administrative, quasi-criminal, and civil liability on mining owners and operators for non-compliance with these laws. *Mining Act* liability may be imposed on past owners or operators. In the case of the *EQA* some of the potential civil liability that may be imposed is both joint and several. The *EQA* also establishes civil liability that has potential application to mining activity in the form of a cause of action for an injunction that any person may invoke where there has been non-compliance with the *EQA*.

(E) Emergency Response

The *Mining Act* and the *EQA* authorize emergency response action by the province in a variety of contexts that can include responding to situations at operating, closed, or abandoned mines.

(F) Financial Instruments

The *Mining Act*, regulations, and guidelines provide the authority and framework for, and particulars with respect to, imposing financial assurance obligations on holders of mining rights and mining operators regarding rehabilitation of sites. Where such persons fail to comply with Ministerial orders, the Minister may cause the work to be performed by government or agents retained by the government for that purpose and charge the cost thereof to the holder of mining rights or the operator. Sums owing the province in these circumstances constitute a legal hypothec (charge) due the province on all the property of the debtor. Comparable cost recovery provisions exist in the *EQA*.

As noted above for other jurisdictions considered in this review, such financial assurance and cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be effective in the

face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authority noted above to respond to emergencies (and presumably expend public funds), Quebec law does not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

The *EQA* also authorizes the province to promulgate regulations regarding fees payable by the holder of a certificate or other approval to cover the costs of control and monitoring measures. The fee levels are based on the nature and characteristics of the holder's activities, and the number and seriousness of the offences of which the holder may have been convicted.

(G) *Application/Exemption*

The scope of application of the *Mining Act* includes certain persons, activities, and substances at both the mine exploration and operation stages. The application of the *EQA* centers on industrial mining operations, activities, or processes that may result in an emission, deposit, issuance, or discharge of contaminants to the environment. The EIA requirements of the *EQA* apply to all new, or modified existing mining developments that meet or exceed thresholds prescribed by regulation, but not to mining exploration projects. The *EQA* also exempts those proposing works necessary to implement a land rehabilitation plan approved by the Minister from the requirement to obtain a certificate of authorization. This exemption could apply to land rehabilitation plans applicable to orphaned/abandoned mine sites.

(H) *Designation of Orphaned/Abandoned Sites*

Neither the *Mining Act* nor the *EQA* define orphaned/abandoned mines, or otherwise set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, the government has a program(s) under which it has spent or plans to spend approximately \$105 million addressing cleanup of 80 orphaned/abandoned mines in the province.

(I) *Community Involvement*

The *Mining Act* is silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

The *EQA* authorizes public consultation in relation to projects, including mining projects, that otherwise are subject to (1) the EIA procedure, (2) industrial depollution attestations, or (3) for which the Minister requires a public hearing in respect of environmental matters. This may involve both public notice and opportunity for comment and, if necessary, a public hearing.

9. NEW BRUNSWICK

a. *Mining Laws*

i. **Mining Act**

The *Mining Act*,¹⁰¹³ administered by the Department of Natural Resources, is the primary mining law regulating mining activity in New Brunswick.

The Act defines a number of terms including Crown lands,¹⁰¹⁴ environment,¹⁰¹⁵ holder,¹⁰¹⁶ mine,¹⁰¹⁷ mineral,¹⁰¹⁸ and mining.¹⁰¹⁹ The regulations also define owner.¹⁰²⁰

The *Mining Act* requires a person to obtain from the Minister of Natural Resources a (1) prospecting **licence** before being allowed to engage in exploration activity,¹⁰²¹ and (2) mining **lease** before being allowed to carry on mining production activity.¹⁰²² However, the Minister of Natural Resources cannot grant a mining lease until the Minister of Environment and Local Government and the Minister of Agriculture, Fisheries and Aquaculture have approved the applicant's program for protection, reclamation, and rehabilitation of the environment.¹⁰²³

In terms of **assessment** activity, the *Mining Act* grants authority to the Minister of Natural Resources to require that prospectors, holders of mining leases, or mine operators submit a reclamation program to the Minister before obtaining a mining lease or causing actual damage to or interference with the use and enjoyment of Crown, or non-Crown, lands.¹⁰²⁴ The regulations set out the contents of the program for protection, reclamation and rehabilitation of the environment.¹⁰²⁵

¹⁰¹³ S.N.B. 1985, c. M-14.1.

¹⁰¹⁴ *Ibid.*, s. 1 (lands vested in Crown including water upon or under the surface of such lands).

¹⁰¹⁵ *Ibid.* (air, water, soil).

¹⁰¹⁶ *Ibid.* (holder of mineral lease or claim).

¹⁰¹⁷ *Ibid.* (any ground excavation for mining purposes; orebody where mining is occurring or has occurred; and works, stockpile, waste dump below or above ground used in connection with mining).

¹⁰¹⁸ *Ibid.* (natural solid, inorganic, or fossilized organic substance but not sand, gravel, or stone).

¹⁰¹⁹ *Ibid.* (searching for or obtaining mineral by disturbing, refining, or treating rock).

¹⁰²⁰ *General Regulation – Mining Act*, N.B. Reg. 86-98, s. 23 (natural person, partnership, or corporation that is immediate holder of mine but not if only hold surface rights).

¹⁰²¹ S.N.B. 1985, c. M-14.1, s. 28.

¹⁰²² *Ibid.*, s. 67.

¹⁰²³ *Ibid.*, s. 68(2) (explicit authority for Minister of Environment and Local Government and Minister of Agriculture, Fisheries and Aquaculture to approve application for mining lease before it may be granted by Department of Natural Resources). Although mining activities are always subject to prior approval under environmental legislation before they may proceed, this type of explicit authority in a mining statute for sign-off by an environment agency before a mining lease is granted is unusual in Canada, though Saskatchewan has a somewhat similar provision in that province's mining statute, discussed above.

¹⁰²⁴ *Ibid.*, ss. 68(1)(c)(i)(iv) (lease), 77(2) (opening or reopening of mine for production purposes), 109(3.1)(a) (non-Crown land damage or interference), 110(2) (Crown land damage or interference). Usually only proposals for (1) advanced exploration or development, and (2) production would trigger the obligation to submit a reclamation program. New Brunswick Department of Natural Resources and Energy, *Mine Approval Process* (Fredericton: DNRE, 2002).

¹⁰²⁵ *General Regulation – Mining Act*, N.B. Reg. 86-98, s. 30(1)-(4) (program must describe impact of proposed mining operation on lease area and surrounding area including geographic setting; surface and ground water flow; air quality; noise; animal and plant life; natural aesthetics; human habitation; current uses of land, water, animal and plant resources; potential post-production land uses; mining process methods and chemicals to be used; quantity and chemical composition of expected effluent; effluent disposal location; analysis of potential environmental hazards from mining operation; proposed rehabilitation measures; identification of storage piles, waste dumps, settling ponds, tailings ponds).

The *Mining Act* regulations require submission of information on environmental **monitoring** procedures and schedules as part of the reclamation program.¹⁰²⁶ The Act authorizes inspections to ensure compliance with the Act and regulations.¹⁰²⁷

The Act imposes quasi-criminal¹⁰²⁸ and administrative¹⁰²⁹ **liability** for non-compliance with the Act and regulations. Among the statutory responsibilities of lessees that could attract liability if not performed are requirements to (1) institute and carry out a program for protection of the environment affected by their operations, and (2) undertake and complete a program for reclamation and rehabilitation of the environment affected by such operations and leave the environment in a condition satisfactory to the Minister.¹⁰³⁰

The *Mining Act* and regulations are not explicit about the **emergency response** authority of the Minister. However, the regulations require an owner to advise the Minister within 24 hours with respect to the following emergency-type situations (1) a surface dam or tailings pond failure, (2) a fire that could affect the surrounding environment, (3) a cave-in, or (4) an environmental contamination event in excess of limits authorized under the *Clean Environment Act* that is directly or indirectly caused by mining activity.¹⁰³¹ Administrative powers available to the Minister under the Act¹⁰³² could then allow the Minister to act to address these situations.

In terms of **financial** instruments or measures, the Act authorizes the Minister to require security for all instances where a reclamation program is required.¹⁰³³ The regulations set out the details as to the form and amount of the security.¹⁰³⁴ There is authority for the Minister to revisit the adequacy of the form and amount of security where necessary.¹⁰³⁵

There does not appear to be explicit authority in the Act or regulations for the department to recover cleanup costs expended by the government where there has been a default in the adequacy of security coverage. As noted elsewhere with respect to the laws of other provinces, such authority, even if it existed would not be adequate in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the minister to respond to emergencies and presumably expend public funds in doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

In terms of the **application** of the Act, the regime applies to mining exploration and production activity carried out by propectors, holders of mining leases, or mining operators.

¹⁰²⁶ *Ibid.*, s. 30(3)(n).

¹⁰²⁷ *Ibid.*, s. 5.

¹⁰²⁸ *Ibid.*, ss. 116-121.

¹⁰²⁹ *Ibid.*, s. 84 (Minister may cancel mining lease or make any other order Minister considers just and equitable).

¹⁰³⁰ *Ibid.*, s. 78.

¹⁰³¹ *General Regulation – Mining Act*, N.B. Reg. 86-98, s. 24(a)-(d).

¹⁰³² S.N.B. 1985, c. M-14.1, s. 84 (Minister may make any order Minister considers just and equitable).

¹⁰³³ *Ibid.*, ss. 68(1)(c)(i)(v) (lease), 109(3.1)(b) (non-Crown land damage or interference), 110(2)(b), (2.1 (Crown land damage or interference)). Usually only proposals for (1) advanced exploration or development, and (2) production would trigger the obligation to submit a reclamation program and therefore financial security. New Brunswick Department of Natural Resources and Energy, *Mine Approval Process* (Fredericton: DNRE, 2002).

¹⁰³⁴ *General Regulation – Mining Act*, N.B. Reg. 86-98, ss. 43-44 (amounts vary from between \$1500-\$3000 per hectare depending on whether the land is Crown or non-Crown), 47 (acceptable forms of security include money, negotiable bond, irrevocable letter of credit, insurance company bond).

¹⁰³⁵ S.N.B. 1985, c. M-14.1, ss. 111-112.

The *Mining Act* regulations acknowledge that mines may close or be abandoned.¹⁰³⁶ However, the Act does not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *Mining Act* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

b. Environmental Laws

i. Clean Environment Act

The *Clean Environment Act* ("CEA"),¹⁰³⁷ administered by the Department of Environment and Local Government ("DELG"), contains many of the typical elements of provincial environmental legislation noted above that also apply to mining activity.

The Act defines a number of terms including approval,¹⁰³⁸ body of water,¹⁰³⁹ contaminant,¹⁰⁴⁰ danger of pollution,¹⁰⁴¹ environment,¹⁰⁴² groundwater,¹⁰⁴³ industrial waste,¹⁰⁴⁴ release,¹⁰⁴⁵ source of contaminant,¹⁰⁴⁶ waste,¹⁰⁴⁷ wastewater,¹⁰⁴⁸ wastewater treatment facility,¹⁰⁴⁹ water.¹⁰⁵⁰ The regulations also define further terms including effluent,¹⁰⁵¹ person responsible for a source,¹⁰⁵² and water pollution.¹⁰⁵³

The *CEA* and its water quality regulation prohibit any person without an **approval** discharging a contaminant into the environment that may directly or indirectly cause water pollution to any waters of

¹⁰³⁶ *General Regulation – Mining Act*, N.B. Reg. 86-98, ss. 37 (minister may require owner of abandoned mine to address dangerous conditions), 38(6) (prohibition on owner discontinuing subsurface mining operations without prior notice to Minister).

¹⁰³⁷ S.N.B., c. C-6 (as consolidated to June 30, 2004).

¹⁰³⁸ *Ibid.*, s. 1 (approval granted under Act or regulations).

¹⁰³⁹ *Ibid.* (flowing or standing water whether naturally or artificially created).

¹⁰⁴⁰ *Ibid.* (solid, liquid, gas or combination present in environment that is foreign to, or in excess of, natural environmental constituents, affects environment, endangers health, damages property, interferes with normal conduct of business, or use and enjoyment of property).

¹⁰⁴¹ *Ibid.* (any accumulation of material, artificial disturbance of land, disposal area, excavation, impoundment of useful or waste materials that could through use or misuse, seepage, leaching, accidents, leaks, negligence, acts of God release contaminants into environment).

¹⁰⁴² *Ibid.* (air, water, soil).

¹⁰⁴³ *Ibid.* (flowing or standing water below surface of earth).

¹⁰⁴⁴ *Ibid.* (liquid, solid or other waste resulting from industrial process or exploration or development of a natural resource).

¹⁰⁴⁵ *Ibid.* (includes discharge, emit, deposit, leave contaminant in environment).

¹⁰⁴⁶ *Ibid.* (activity on real or personal property that releases contaminant to environment and includes a danger of pollution).

¹⁰⁴⁷ *Ibid.* (includes slimes, tailings, effluent, wastewater, treated or untreated, containing mineral matter).

¹⁰⁴⁸ *Ibid.* (industrial wastewater whether treated or untreated containing mineral matter).

¹⁰⁴⁹ *Ibid.* (structure used for treating, monitoring, or holding wastewater).

¹⁰⁵⁰ *Ibid.* (flowing or standing above or below surface of earth).

¹⁰⁵¹ *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 1 (includes liquid discharge from industrial works).

¹⁰⁵² *Ibid.* (owner or operator of source; person responsible for, or having charge, management or control, of source; or person holding approval for source).

¹⁰⁵³ *Ibid.* (alteration of physical, chemical, or biological properties of, or addition of substances to, waters of province that renders waters harmful to public health, safety, or welfare; or harmful or less useful to humans, animal, bird, or aquatic life).

the province.¹⁰⁵⁴ In addition, the *CEA* EIA regulation states that undertakings listed in a schedule to the regulation may, in the opinion of the provincial cabinet, result in significant environmental impact.¹⁰⁵⁵ The regulation states further that enterprises, activities, projects, structures, or programs specified in the schedule, and any modification, extension, abandonment, demolition, or rehabilitation of them also constitute undertakings.¹⁰⁵⁶ The regulation prohibits such undertakings from proceeding until (1) the Minister has determined that it may do so without the completion of an EIA, or (2) the provincial cabinet following the completion of an EIA has given approval for the undertaking to proceed.¹⁰⁵⁷ The schedule to the regulation lists “all commercial extraction or processing of a mineral as defined in the *Mining Act*” as undertakings that are subject to these requirements.¹⁰⁵⁸

In terms of **assessment** requirements for sources of water pollution, the regulations require submission to the Minister of a wide array of information.¹⁰⁵⁹ The EIA regulation authorizes the Minister to require from the proponent of an undertaking any information the Minister considers necessary to determine if an EIA is required in relation to the undertaking.¹⁰⁶⁰ The EIA regulation also authorizes the Minister to prepare, where he or she is of the view that an undertaking may result in significant environmental impact, in consultation with a government review committee established pursuant to the regulations, draft guidelines relating to the substance, scope and conduct of the EIA.¹⁰⁶¹ DELG guidelines set out specific assessment requirements for mining and mineral extraction projects.¹⁰⁶²

The *CEA* water quality regulation authorizes the Minister to impose a requirement for regular submission of **monitoring** data to the Minister as a condition of issuing an approval for a source of water pollution.¹⁰⁶³ Department guidelines also contemplate that an EIA submitted to the Minister will address proposed environmental monitoring programs for mining and mineral extraction projects.¹⁰⁶⁴ The Act also authorizes inspection activity to ensure compliance with the Act, regulations, approvals, or orders.¹⁰⁶⁵

¹⁰⁵⁴ *Ibid.*, s. 12. See also *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 3. A similar requirement exists for air pollution under the province’s clean air legislation.

¹⁰⁵⁵ Environmental Impact Assessment Regulation – Clean Environment Act, N.B. Reg. 87-83, as consolidated to April 1, 2005, s. 3(1).

¹⁰⁵⁶ *Ibid.*, s. 3(2).

¹⁰⁵⁷ *Ibid.*, s. 4(a)(b).

¹⁰⁵⁸ *Ibid.*, Schedule A, (a).

¹⁰⁵⁹ *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 6(3) (e.g. site plans, engineering process specifications, test results and engineer’s descriptions of contaminants or dangers of pollution, points of effluent discharge, pollution control equipment).

¹⁰⁶⁰ Environmental Impact Assessment Regulation – Clean Environment Act, N.B. Reg. 87-83, as consolidated to April 1, 2005, s. 6(1).

¹⁰⁶¹ *Ibid.*, s. 9.

¹⁰⁶² New Brunswick Department of Environment and Local Government, *Additional Information Requirements for Mining and Mineral Extraction Projects: Version 04-07-14* (Fredericton: DELG, 2004) (information requirements include the undertaking - project overview, siting considerations, physical components and dimensions of project, construction details, operation and maintenance, future modifications, extensions or abandonment [closure plan]; description of existing environment; summary of environmental impacts; proposed mitigation, etc.).

¹⁰⁶³ *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 8(2)(e).

¹⁰⁶⁴ New Brunswick Department of Environment and Local Government, *Additional Information Requirements for Mining and Mineral Extraction Projects: Version 04-07-14* (Fredericton: DELG, 2004) at 5 (e.g. environmental monitoring programs for surface water, groundwater, wastewater, soil, vegetation, etc.).

¹⁰⁶⁵ S.N.B., c. C-6, ss. 23-27.

The Act and regulations impose quasi-criminal,¹⁰⁶⁶ administrative,¹⁰⁶⁷ and civil¹⁰⁶⁸ **liability** for non-compliance with the Act, regulations, or approvals. Persons failing to comply with a ministerial clean-up order are jointly and severally liable.¹⁰⁶⁹

The Act is not explicit respecting **emergency response** authority available to the Minister. However, the Act does authorize direct action by the Minister to control, reduce, eliminate, or remediate release of contaminants or waste where issuance of a ministerial order, or further order, would not result in immediate remedy of situation.¹⁰⁷⁰

In terms of **financial** instruments or measures, water quality regulations under the Act authorize the Minister to require, as a condition of approval for a source of water pollution, that the person acquiring the approval keep in force a rehabilitation bond in the manner and amount approved by the Minister.¹⁰⁷¹

All mining activity that is a potential source of water pollution is subject to the **application** of the *CEA* water quality regulation.¹⁰⁷² All commercial extraction or processing of a mineral as defined in the *Mining Act* is subject to the application of the EIA regulation under the *CEA*.¹⁰⁷³

CEA does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the EIA regulations under *CEA* (1) provide opportunities for public comment on draft guidelines for the preparation of an EIA,¹⁰⁷⁴ (2) require proponents to develop terms of reference for their EIA that set out the means by which they will provide opportunities for public consultation during the course of the preparation of the EIA,¹⁰⁷⁵ (3) require the Minister to hold a public meeting with respect to the completed EIA,¹⁰⁷⁶ (4) allow further public representations following the public meeting,¹⁰⁷⁷ (5) require the Minister to prepare a summary of public participation undertaken and transcripts of the public meeting and make those available to members of the public who participated in the process,¹⁰⁷⁸ and (6) authorize the Minister to require from the proponent of an undertaking listed in Schedule A, any information the Minister considers necessary for the purposes of his determination of whether the completion of an EIA is required.¹⁰⁷⁹ Under this last authority, the Minister announced in late 2004 administrative changes requiring proponents of all undertakings registered under the regulations to

¹⁰⁶⁶ *Ibid.*, s. 33(1)-(3) (offences and penalties).

¹⁰⁶⁷ *Ibid.*, s. 5 (ministerial order to control, reduce, or eliminate release of contaminant or waste to environment; install equipment or works, or clean-up, rehabilitate, or otherwise remediate site).

¹⁰⁶⁸ *Ibid.*, ss. 5.2(1)(4) (department cleanup costs constitute debt recoverable in court of competent jurisdiction), 36 (restraining order by Minister), 37 (civil remedy available to person at common law suffering loss or damage not affected by statute).

¹⁰⁶⁹ *Ibid.*, s. 5.2(2).

¹⁰⁷⁰ *Ibid.*, s. 5.01(1)-(3).

¹⁰⁷¹ *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 8(2)(b). The regulations define “rehabilitation bond” to mean a bond payable to the province for the purpose of ensuring the operation, modification, repair or rehabilitation of any source, sewage works, or areas affected at any time, whether before or after abandonment of the source or sewage works. *Ibid.*, s. 1.

¹⁰⁷² *Water Quality Regulation – Clean Environment Act*, N.B. Reg. 82-126, s. 3.

¹⁰⁷³ *Environmental Impact Assessment Regulation – Clean Environment Act*, N.B. Reg. 87-83 (as consolidated to April 1, 2005), s. 3(1).

¹⁰⁷⁴ *Ibid.*, s. 9(1).

¹⁰⁷⁵ *Ibid.*, s. 10(2)(b).

¹⁰⁷⁶ *Ibid.*, s. 13.

¹⁰⁷⁷ *Ibid.*, s. 15(1).

¹⁰⁷⁸ *Ibid.*, ss. 15(2)(3)(4).

¹⁰⁷⁹ *Ibid.*, s. 6(1).

conduct a public involvement program in advance of the Minister's determination in accordance with minimum standards listed in a departmental registration guide. This obligation is in addition to the requirements explicitly set out in the regulations for undertakings subject to the EIA process.¹⁰⁸⁰

ii. Clean Water Act

The *Clean Water Act* ("CWA"),¹⁰⁸¹ administered by DELG, also can apply to mining activity, though in a broader water management framework. In this regard, in 2000 and 2001 the province promulgated two regulations to protect water sources. The first regulation on protection of watersheds, designates municipal watersheds as protected areas and divides them into zones (1) rivers, lakes, streams (2) 75-meter setback areas from the banks of watercourses, and (3) land areas outside the setback but inside the watershed boundary. The regulation also defines permitted activities that can take place within each zone.¹⁰⁸²

The second regulation on protection of wellheads designates protected areas that include the recharge area associated with wells that supply a public water system. This regulation also divides protected areas into three zones (1) the area closest to the wellhead based on groundwater travel time of 100 to 250 days depending on aquifer type, (2) the next closest area to the wellhead based on groundwater travel time of 100-250 days to 5 years, and (3) the most distant area based on groundwater travel time of 5 to 25 years.¹⁰⁸³

Both regulations list permitted activities and uses and prohibit any use that is not permitted within a zone. Permitted activities also are prohibited from (1) releasing contaminants into the ground or the aquifer, (2) adversely affecting the quantity or quality of water in a public groundwater supply system, and (3) must comply with all other applicable federal, provincial, and municipal laws.

This regime is still evolving in that under the current provincial community planning legislation building permits and zoning amendments, for example, may still be issued notwithstanding non-compliance with the wellhead regulation. Future source water protection reforms are expected to address these outstanding matters.

The Act contains some provisions that are very similar to the *CEA* with respect to such matters as imposition of quasi-criminal,¹⁰⁸⁴ administrative,¹⁰⁸⁵ and civil¹⁰⁸⁶ **liability** for non-compliance.

¹⁰⁸⁰ New Brunswick Department of Environment and Local Government, News Release, "Improvements to Environmental Impact Assessment Process to be Implemented" (18 November 2004). See also New Brunswick Department of Environment and Local Government, *Environmental Impact Assessment Process and Registration Guide* (Fredericton: DELG, 2004).

¹⁰⁸¹ S.N.B. 1989 c. C-6.1 (as consolidated to June 30, 2004).

¹⁰⁸² *Watershed Regulation*, N.B. Reg. 2001-83.

¹⁰⁸³ *Wellhead Regulation*, N.B. Reg. 2000-47.

¹⁰⁸⁴ S.N.B. 1989, c. C-6.1, ss. 25-26 (offences and penalties), 27 (absolute liability offence).

¹⁰⁸⁵ *Ibid.*, ss. 4 (ministerial order), 5 (other orders by minister), 6 (joint and several liability).

¹⁰⁸⁶ *Ibid.*, ss. 7-8 (remedial action costs by minister recoverable as debt in court of competent jurisdiction), 29 (restraining order by minister).

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The purpose of the *Occupational Health and Safety Act*,¹⁰⁸⁷ administered by the Department of Training and Employment Development, is to protect workers and others from workplace risks. Regulations under the respecting underground mines address such matters as closure or abandonment,¹⁰⁸⁸ and measures to be taken by operating mines as they approach abandoned mines.¹⁰⁸⁹ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with mining and environmental laws reviewed above.

d. Planning Laws

i. Community Planning Act

The *Community Planning Act*,¹⁰⁹⁰ administered by DELG, authorizes municipal planning in New Brunswick. In rural areas of the province, the Act authorizes the development of rural plans by municipalities that must include policy statements regarding such matters as resource uses, protection of water supplies, and conservation of the physical environment.¹⁰⁹¹ In un-incorporated parts of the province, the Act vests planning authority in the provincial cabinet and the minister.

e. Policies, Programs, or Related Initiatives

Apart from provincial regulatory authority focused primarily on the operation and closure of mines, development of non-regulatory policies, programs, or initiatives directly or indirectly related to orphaned/abandoned mines appears to be in its infancy in New Brunswick. The government indicates that there are 63 mine sites with 375 mine openings mostly on private land in the province that predate modern safety rules. Provincial concerns identified relate to the (1) risk of ground collapse and the safety and liability hazards this might pose to landowners, and (2) possible remedial measures that should be implemented such as posting of warning signs, erecting of access barriers, regular inspection, and permanent sealing of the mine facility.¹⁰⁹² Information available from the province does not indicate (1) environmental conditions at these abandoned mine sites, (2) the number of such sites where there is a financially viable mine owner to correct such problems, (3) the number of such (or other) sites that may have vested in the Crown because of the lack of a financially viable owner, or (4) the quantum of environmental or other liability (public and private) associated with such sites.

f. Findings and Summary

There are several aspects of New Brunswick law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

¹⁰⁸⁷ S.N.B. 1983, c. O-O.2 (as consolidated to January 18, 2005).

¹⁰⁸⁸ *Underground Mine Regulation*, N.B. Reg. 96-105, s. 8 (notice to chief compliance officer for government before closure or abandonment).

¹⁰⁸⁹ *Ibid.*, s. 9 (prohibition on work within 90 meters of abandoned mine until method of proceeding approved by engineer and copy of method provided to chief compliance officer for government).

¹⁰⁹⁰ S.N.B., c. C-12 (as consolidated to May 6, 2005).

¹⁰⁹¹ *Ibid.*, s. 27.2(v)-(vi), (viii).

¹⁰⁹² New Brunswick Department of Natural Resources, *Abandoned Mines* (Fredericton: DNR, 2005).

1. Reclamation and rehabilitation authority under New Brunswick mining and environmental laws focus on operating, closing, or "abandoned" (closed) mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. The New Brunswick non-regulatory program with respect to 63 abandoned mines in the province appears to focus on (1) risk of ground collapse and the safety and liability hazards this might pose to landowners, and (2) possible remedial measures that should be implemented such as posting of warning signs, erecting of access barriers, regular inspection, and permanent sealing of the mine facility. It does appear to focus on (1) environmental conditions at these abandoned mine sites, (2) the number of such sites where there is a financially viable mine owner to correct such problems, (3) the number of such (or other) sites that may have vested in the Crown because of the lack of a financially viable owner, or (4) the quantum of environmental or other liability (public and private) associated with such sites.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *Mining Act* requires a person to obtain from the Minister of Natural Resources a (1) prospecting licence before being allowed to engage in exploration activity, and (2) mining lease before being allowed to carry on mining production activity. The Minister cannot grant the mining lease until the provincial environment and fisheries ministers have approved the applicant's program for protection, reclamation, and rehabilitation of the environment.

Approvals are required under the (1) *CEA* and its water quality regulation for discharges that may cause water pollution, and (2) *CEA* EIA regulation for all commercial extraction or processing of a mineral as defined in the *Mining Act* that may result in a significant environmental impact.

(B) Assessment

The *Mining Act* grants authority to the Minister of Natural Resources to require that prospectors, holders of mining leases, or mine operators submit a reclamation program to the Minister before obtaining a mining lease or causing actual damage to or interference with the use and enjoyment of Crown, or non-Crown, lands. The regulations set out the contents of the program for protection, reclamation and rehabilitation of the environment.

CEA regulations require sources of water pollution to submit certain information to the Minister of Environment and Local Government. The *CEA* EIA regulation authorizes the Minister to require information to determine if an EIA is required in relation to an undertaking and to prepare draft guidelines relating to the substance, scope and conduct of the EIA. Department guidelines set out specific assessment requirements for mining and mineral extraction projects.

(C) *Monitoring*

The *Mining Act* regulations require submission of information on environmental monitoring procedures and schedules as part of the reclamation program. The Act authorizes inspections to ensure compliance with the Act and regulations.

The *CEA* water quality regulation authorizes the Minister to impose a requirement for regular submission of monitoring data to the Minister as a condition of issuing an approval for a source of water pollution. Department guidelines contemplate that an EIA submitted to the Minister will address proposed environmental monitoring programs for mining and mineral extraction projects. The Act also authorizes inspection activity to ensure compliance with the Act, regulations, approvals, or orders.

(D) *Liability*

The *Mining Act* imposes quasi-criminal and administrative liability for non-compliance with the Act and regulations.

The *CEA* and *CWA* impose quasi-criminal, administrative, and civil liability for non-compliance with these Act, their regulations, or approvals thereunder. Persons failing to comply with a ministerial clean-up order are jointly and severally liable.

(E) *Emergency Response*

The *Mining Act*, *CEA*, and *CWA* are not explicit about the emergency response authority available under these laws. However, provisions under all three laws could be construed as providing emergency response-like authority to varying degrees.

(F) *Financial Instruments*

The *Mining Act* authorizes the Minister to require security for all instances where a reclamation program is required. The regulations set out the details as to the form and amount of the security and the authority for the Minister to revisit the adequacy thereof where necessary. There does not appear to be explicit authority in the Act or regulations for the Department of Natural Resources to recover cleanup costs expended where there has been a default in the adequacy of security coverage.

Regulations under the *CEA* authorize the Minister of Environment and Local Government to require, as a condition of approval, that the person acquiring the approval keep in force a rehabilitation bond in the manner and amount approved by the Minister. The Act authorizes recovery of clean-up costs expended by the government where the amount of the rehabilitation bond is inadequate. As noted elsewhere with respect to the laws of other provinces, such authority would not be adequate in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for the minister to respond to emergencies and presumably expend public funds in doing so, the Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

(G) *Application/Exemption*

The *Mining Act* applies to mining exploration and production activity carried out by prospectors, holders of mining leases, or mining operators.

All mining activity that is a potential source of water pollution is subject to the application of the *CEA* water quality regulation. All commercial extraction or processing of a mineral as defined in the *Mining Act* is subject to the application of the EIA regulation under the *CEA*.

(H) *Designation of Orphaned/Abandoned Sites*

The *Mining Act* regulations acknowledge that mines may be closed or abandoned. However, neither this Act, nor the *CEA* or *CWA*, otherwise define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

(I) *Community Involvement*

Public involvement is authorized in the process associated with applications for commercial extraction or processing of a mineral as defined in the *Mining Act* that are subject to the application of the EIA regulation under *CEA*.

The *Mining Act* and *CEA* are silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

10. NOVA SCOTIA

a. Mining Laws

i. Mineral Resources Act

The purpose of Nova Scotia's *Mineral Resources Act* ("MRA"),¹⁰⁹³ administered by the Department of Natural Resources ("DNR"), includes supporting and promoting responsible mineral resource management consistent with sustainable development while also encouraging, promoting, and facilitating mineral exploration, development and production.¹⁰⁹⁴

The Act defines a number of terms including mine,¹⁰⁹⁵ mineral,¹⁰⁹⁶ mineral right,¹⁰⁹⁷ mining,¹⁰⁹⁸ production,¹⁰⁹⁹ and tailings.¹¹⁰⁰

The MRA prohibits any person prospecting, exploring, developing, or producing minerals in Nova Scotia unless the person is a holder of mineral rights in the province.¹¹⁰¹ Accordingly, the Act authorizes the issuance of exploration **licences**¹¹⁰² and mineral leases¹¹⁰³ to facilitate mining activity in the province.

Regulations under the MRA require **assessment** information for both (1) exploration licences,¹¹⁰⁴ and (2) mining leases.¹¹⁰⁵

MRA regulations require that the lessee must provide to the Minister procedures for post-operational **monitoring** at least one month before the intended permanent closure of the mine.¹¹⁰⁶ The Act also authorizes inspection activity to ensure compliance with the Act, regulations, and legal instruments issued thereunder.¹¹⁰⁷

¹⁰⁹³ S.N.S. 1990, c. 18, as am.

¹⁰⁹⁴ *Ibid.*, s. 1A(b).

¹⁰⁹⁵ *Ibid.*, s. 2(r) (excavation or working of ground for purpose of mining a mineral; orebody where mining being carried out; works used in connection with mining).

¹⁰⁹⁶ *Ibid.*, s. 2(s) (natural solid inorganic or fossilized organic substance, or other substance prescribed as a mineral by provincial cabinet).

¹⁰⁹⁷ *Ibid.*, s. 2(t) (licence or lease).

¹⁰⁹⁸ *Ibid.*, s. 2(v) (method of working earth whereby mineral may be disturbed for the purpose of its acquisition).

¹⁰⁹⁹ *Ibid.*, s. 2(ah) (taking or carrying away for sale or exchange of a mineral or tailing).

¹¹⁰⁰ *Ibid.*, s. 2(an) (residue discarded, set aside, or impounded during production).

¹¹⁰¹ *Ibid.*, s. 21(2)(4).

¹¹⁰² *Ibid.*, ss. 24, 28. Other exploration-related approvals may be necessary such as an excavation permit or letter of authority.

¹¹⁰³ *Ibid.*, ss. 55-56 (prohibition on carrying out mineral production without mineral lease). Other approval authorities such as mining or milling permits also are required for activity within the lease area. See also Nova Scotia Department of Natural Resources, *A User's Guide to the 'One Window' Process for Mine Development Approvals* (Halifax: DNR, 1997).

¹¹⁰⁴ *Mineral Resource Regulations*, N.S. Reg. 100/2005, s. 38(2)(b) (geological assessment work credits can be obtained for reclamation of property, rehabilitation of buildings or structures, and preparation of environmental impact or assessment studies conducted for proposed mining purposes).

¹¹⁰⁵ *Ibid.*, s. 60(c) (information required for lease includes describing methods used for mine reclamation, waste dumps, tailings ponds, and other areas disturbed by project; and site plan).

¹¹⁰⁶ *Ibid.*, s. 80(1)(e) (post-operational monitoring with respect to such matters as mine, mill, waste dump, tailings pond, and other areas disturbed by project).

¹¹⁰⁷ S.N.S. 1990, c. 18, as am., s. 155. The Act also requires a lessee to keep and make available for inspection by the department, information with respect to the quantity and analysis of tailings and waste discharges. *Ibid.*, s. 60A(e).

Non-compliance by a mineral rights holder with the Act or regulations may attract quasi-criminal,¹¹⁰⁸ administrative,¹¹⁰⁹ or civil¹¹¹⁰ **liability**. Moreover, liability for unfulfilled terms and conditions related to reclamation does not cease upon surrender, abandonment, forfeiture or expiry of a lease.¹¹¹¹

The *MRA* and regulations appear to be silent regarding **emergency response** authority available to the Minister.

In terms of **financial** instruments or measures, the *MRA* authorizes the Minister to require money, cash, security, or negotiable bonds for any purpose consistent with proper administration of the Act.¹¹¹² The DNR Registrar determines the amount of security for purposes of reclamation on a site-specific basis and must include factors identified in the regulations.¹¹¹³

The Act requires that areas where waste rock and tailings have been deposited must be reclaimed to the satisfaction of the Minister within the prescribed time from the cessation of production, and the cash or bond provided by the lessee will be forfeited to the department if reclamation is not completed by that time.¹¹¹⁴

There does not appear to be explicit authority in the *MRA* or regulations for the department to recover cleanup costs expended by the government where the amount of security is inadequate. As noted elsewhere with respect to the laws of other provinces, such authority, even if it existed would not be effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. The Act and regulations do not establish a program to address these situations, which are the essence of the orphaned/abandoned mine problem.

In terms of the **application** of the *MRA*, the statute applies to every person who searches and prospects for, mines or produces, a mineral, or any substance declared by the provincial cabinet to be a mineral.¹¹¹⁵

¹¹⁰⁸ *Ibid.*, ss. 154, 157, 161. The Act also imposes liability for commission of an offence on the officers and directors of the corporation that holds mineral rights. *Ibid.*, s. 165.

¹¹⁰⁹ See e.g. ss. 14(1)(b) (minister may cancel, revoke, or rescind a mineral right where money is due and owing the Crown by the mineral right holder), 67 (minister can order cessation of operations where lessee in breach of lease), 167 (minister can cancel mineral right where condition not complied with).

¹¹¹⁰ *Ibid.*, s. 78 (money owed with respect to a lease is a debt due Crown and may form a charge upon property). It is not clear if money owed to the province with respect to a lease could be construed as unfulfilled obligations with respect to reclamation under a lease. The Act and regulations are silent on whether monies needed for reclamation beyond the amount in security constitute a debt to the Crown forming a charge on the property. S.N.S. 1990, c. 18, s. 75. See also *Mineral Resource Regulations*, N.S. Reg. 100/2005, s. 77.

¹¹¹¹ S.N.S. 1990, c. 18, s. 74.

¹¹¹² *Ibid.*, ss. 15(1)(2), 97.

¹¹¹³ *Mineral Resource Regulations*, N.S. Reg. 100/2005, ss. 77(2) (current cost for labour, equipment, supplies and services to conduct such reclamation activities as removing buildings, structures, or foundations; capping or filling pits and shafts; stabilizing tailings disposal sites and drainage containment facilities; surface contouring; establishing proper site drainage; re-vegetation; other work necessary to reclaim area disturbed by mining activity), 77(3) (amount of security may be reviewed and adjusted every 2 years). A recent freedom of information request by a nearby landowner for DNR to disclose the monetary value and form of a performance bond posted with DNR by a coal mining company to ensure it was sufficient to pay for remediation, was denied in an administrative decision on the grounds that it would harm the competitive position of the company in negotiating site reclamation with a contractor. *Nova Scotia (Department of Natural Resources)(Re)*, 2003 CanLII 49820 (N.S.F.O.I.O.P.).

¹¹¹⁴ S.N.S. 1990, c. 18, as am., ss. 75, 97(2).

¹¹¹⁵ S.N.S. 1990, c. 18, as am., s. 3.

The *MRA* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *MRA* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

b. Environmental Laws

i. Environment Act

Nova Scotia's *Environment Act*,¹¹¹⁶ administered by the Department of Environment and Labour ("DEL"), contains many of the typical elements of provincial environmental legislation noted above that also apply to mining activity. The Act contains an extensive list of purposes that include supporting and promoting the protection, enhancement and prudent use of the environment while recognizing such goals as (1) environmental protection, (2) sustainable development, (3) polluter pays, (4) undertaking remedial, rehabilitative, and restorative action, (5) access to information and public participation, and (6) regulatory fairness, efficiency, and non-regulatory co-operation and partnering.¹¹¹⁷

The Act defines a number of terms including adverse effect,¹¹¹⁸ contaminant,¹¹¹⁹ environment,¹¹²⁰ person responsible,¹¹²¹ person responsible for contaminated site,¹¹²² proponent,¹¹²³ rehabilitation,¹¹²⁴ release,¹¹²⁵ substance,¹¹²⁶ sustainable development,¹¹²⁷ undertaking,¹¹²⁸ waste,¹¹²⁹ watershed.¹¹³⁰

The Act prohibits persons from commencing or continuing any activity designated by the regulations as requiring an **approval** until they obtain such approval from the Minister.¹¹³¹ The regulations designate the construction, operation, or reclamation of a variety of mining or mineral processing activities as subject to the approval requirements of the Act.¹¹³² The Act also prohibits undertakings that are subject to the EA requirements of the Act from proceeding before receiving Ministerial approval.¹¹³³ The regulations identify mining facilities for the extraction or processing of metallic and non-metallic minerals, coal, and other substances as Class I undertakings subject to EA the requirements.¹¹³⁴ Regulations applicable to

¹¹¹⁶ S.N.S. 1994-95, c. 1, as am.

¹¹¹⁷ *Ibid.*, s. 2.

¹¹¹⁸ *Ibid.*, s. 3(c) (impair or damage environment).

¹¹¹⁹ *Ibid.*, s. 3(k) (substance causing adverse effect).

¹¹²⁰ *Ibid.*, s. 3(r) (air, land, water; organic and inorganic organisms; interacting natural systems and for purpose of EA socio-economic and cultural aspects).

¹¹²¹ *Ibid.*, s. 3(ak) (owner or previous owner of substance; owner or occupier of land; person having charge, management, or control; principal or agent for the above; receiver, receiver-manager, trustee).

¹¹²² *Ibid.*, s. 3(al) (same as above, as well as any other person minister considers responsible).

¹¹²³ *Ibid.*, s. 3(ao) (person carrying out undertaking or activity, or owner or person having charge management or control thereof).

¹¹²⁴ *Ibid.*, s. 3(aq) (includes removal of building or contaminant; stabilizing land surface).

¹¹²⁵ *Ibid.*, s. 3(ar) (spill, discharge, dispose, deposit, leak, seep, emit, dump, etc.).

¹¹²⁶ *Ibid.*, s. 3(au) (capable of becoming dispersed in environment).

¹¹²⁷ *Ibid.*, s. 3(aw) (development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs).

¹¹²⁸ *Ibid.*, s. 3(az) (enterprise, activity, project, work, proposal that has an adverse effect and may include abandonment or modification of undertaking).

¹¹²⁹ *Ibid.*, s. 3(ba) (substance causing an adverse effect if added to environment including slimes, tailings, effluent, etc.).

¹¹³⁰ *Ibid.*, s. 3(bf) (area drained by, or contributing to a stream, lake or other water body).

¹¹³¹ *Ibid.*, ss. 50, 56.

¹¹³² *Activities Designation Regulations*, N.S. Reg. 47/95, as am., ss. 3, 16 (e.g. surface and underground mines, coal or mineral processing plants).

¹¹³³ S.N.S. 1994-95, c. 1, as am., ss. 32, 40.

¹¹³⁴ *Environmental Assessment Regulations*, N.S. Reg. 26/95, as am., Schedule A, Part B (mining).

particular watersheds also may impose approval requirements for mining activity to protect drinking water supplies.¹¹³⁵

The Act also allows the holder of an approval to apply to the Minister for a certificate of variance to vary any term or condition of an approval, or requirement of the regulations. The Minister can issue the variance certificate if the Minister considers that the proposed variance is not likely to cause a significant adverse effect. The Minister may impose terms and conditions on a certificate of variance, specify requirements as to the manner in which the activity may be carried out, or amend the terms and conditions. Certificates of variance under the Act are in effect for the period prescribed in the certificate.¹¹³⁶

In terms of **assessment** activity, the Act imposes information obligations through (1) approval,¹¹³⁷ (2) EA,¹¹³⁸ and (3) contaminated site¹¹³⁹ requirements.

Regulations promulgated under the Act set out **monitoring** requirements for approvals¹¹⁴⁰ and in the context of environmental assessment reports.¹¹⁴¹ Department guidelines respecting management of contaminated sites also recommend monitoring activity.¹¹⁴² The Act also authorizes inspection activity to ensure compliance with the Act, regulations, approvals, and variance certificates.¹¹⁴³

The Act imposes quasi-criminal,¹¹⁴⁴ administrative,¹¹⁴⁵ and civil¹¹⁴⁶ **liability** for non-compliance with the Act, regulations, approvals, variance certificates, or orders. Civil and administrative liability for orders

¹¹³⁵ *French Mill Brook Watershed Protected Water Area Regulations*, N.S. Reg. 149/2004, s. 12 (prohibition on mining without approval from municipality and DEL). Other regulations may prohibit mining altogether in certain areas of the province. See *North Tyndal – Designation and Regulations*, N.S. Reg. 200/92, s. 12 (prohibition on authorizing or commencing mineral operations in protected water area).

¹¹³⁶ S.N.S. 1994-95, c. 1, as am., s. 61.

¹¹³⁷ *Approvals Procedure Regulations*, N.S. Reg. 48/95, s. 5 (e.g. environmental assessment reports, if any; description of substances, their environmental impact, and sources of substances to be released to environment, and mitigation measures; preliminary and/or final abandonment or rehabilitation plan).

¹¹³⁸ *Environmental Assessment Regulations*, N.S. Reg. 26/95, as am., s. 19 (e.g. information on undertaking including description and reasons for proposal; methods of carrying it out; alternatives to undertaking; description of environment that might be affected; environmental effects; evaluation of advantages and disadvantages; mitigation measures; adverse or significant environmental effects that cannot be mitigated). See also Nova Scotia Department of Environment and Labour, *Guide to Preparing Environmental Assessment Registration Document for Mining Developments in Nova Scotia* (Halifax: DEL, 2002).

¹¹³⁹ S.N.S. 1994-95, c. 1, as am., s. 90(c) (Minister may issue guidelines respecting standards or criteria to be used for contaminated site rehabilitation or management). See Nova Scotia Department of Environment and Labour, *Guidelines for the Management of Contaminated Sites in Nova Scotia* (Halifax: DEL, 2005).

¹¹⁴⁰ *Approvals Procedure Regulations*, N.S. Reg. 48/95, ss. 5(1)(n) (applicant to provide summary of required environmental monitoring information gathered during any previous approval period), 8(2)(e) (government review of approval application may include evaluation of proposed monitoring programs to measure emissions and their effect on environment), 20 (compliance monitoring).

¹¹⁴¹ *Environmental Assessment Regulations*, N.S. Reg. 26/95, as am., s. 19(1)(j) (government terms of reference for preparation of EA report must include program to monitor environmental effects produced by undertaking during construction, operation, and abandonment stages).

¹¹⁴² Nova Scotia Department of Environment and Labour, *Guidelines for the Management of Contaminated Sites in Nova Scotia* (Halifax: DEL, 2005).

¹¹⁴³ S.N.S. 1994-95, c. 1, as am., ss. 117-124.

¹¹⁴⁴ *Ibid.*, ss. 158-159. See also section 164 (liability of officers and directors).

¹¹⁴⁵ *Ibid.*, ss. 89(4) (ministerial order for contaminated site), 125 (ministerial control orders), 129 (factors for minister to consider).

¹¹⁴⁶ *Ibid.*, ss. 132 (government clean-up costs constitute lien on real property against person named in order when filed in supreme court of province), 141 (other civil remedies not affected by Act), 142 (civil cause of action available to any person suffering loss or damage caused by commission of offence under Act), 144 (government preventive and remedial costs and expenses may be recovered as debt by civil action).

issued pursuant to the Act is joint and several, but apportionment of costs also is authorized by agreement between persons responsible.¹¹⁴⁷ Liability protection in certain circumstances from environmental orders also is provided for secured creditors, receivers, trustees in bankruptcy.¹¹⁴⁸

The Act authorizes **emergency response** activity by the department in terms of (1) issuing orders to responsible persons to clean-up or remediate an environmental problem,¹¹⁴⁹ or (2) allowing the department to undertake the clean-up or remedial action.¹¹⁵⁰

In terms of **financial** instruments or measures, the Act imposes obligations on any person who seeks an approval, or variance certificate under the Act to provide financial or other security for the activity or undertaking as required by the Minister and the regulations.¹¹⁵¹ The regulations set out the factors applicable to determining the form, amount, apportionment, adjustment, return, and forfeiture of security.¹¹⁵²

Where the amount of a forfeited security is insufficient to pay for the cost of rehabilitation, the approval holder remains liable to the government for the balance.¹¹⁵³ In general, cleanup costs incurred by the government constitute a debt due the government and are recoverable in a court of competent jurisdiction or may be the subject of a lien on real property.¹¹⁵⁴

The regulations also authorize the recovery of fees for such matters as contaminated site, approval, and EA reviews.¹¹⁵⁵

In terms of its **application**, the Act applies to the construction, operation, or reclamation of a variety of mining or mineral processing activities as set out in the approval and EA regulations noted above. The variance authority contained in the Act and noted above, like that under Alberta law, may be considered a precedent for the type of "escape valve" authority, with appropriate modification, that could be applied to voluntary abandoned mine land abatement, remediation, and reclamation activity. The Act also exempts certain persons, such as secured creditors, receivers, receiver-managers, and trustees in bankruptcy from certain liability provisions of the Act in certain circumstances noted above. These provisions also could

¹¹⁴⁷ *Ibid.*, s. 134(1) (joint and several liability), 89(1)(b), 134(2) (apportionment agreement for remediation costs), 134(2).

¹¹⁴⁸ *Ibid.*, ss. 165(1) (receivers, receiver-managers, trustees not responsible for contaminated site rehabilitation beyond value of assets administering less reasonable costs and fees of administration for any adverse effect that occurred before their appointment; and only liable after appointment if adverse effect caused due to failure to exercise due diligence), 165(3) (secured creditors afforded protection from liability for contaminated site where protecting security interest by acting only in purely financial matters related to site; has capacity to influence operation at site but does not exercise capacity so as to cause or increase contamination; appoints person to investigate or inspect contaminated site to determine future steps to be taken).

¹¹⁴⁹ *Ibid.*, ss. 72 (emergency measures by inspector), 125-126, 128 (ministerial stop order and emergency order where reasonable and probable grounds to shut down or stop undertaking forthwith).

¹¹⁵⁰ *Ibid.*, s. 132(2).

¹¹⁵¹ *Ibid.*, s. 57.

¹¹⁵² *Approvals Procedure Regulations*, N.S. Reg. 48/95, ss. 14 (amount must be sufficient to ensure complete site rehabilitation based on estimated rehabilitation costs; nature, complexity and extent of activity; probable difficulty of rehabilitation considering various environmental factors), 15 (apportionment based portion of site where activity to occur), 16 (adjustment based on various changes), 17 (form may include cash, cheques, government bonds, irrevocable letters of credit, etc.), 18 (return when requirements met), 19 (forfeiture of security may occur where person fails to comply with abandonment or rehabilitation plan, ministerial order, or fails to renew security before expiry and rehabilitation not complete). The regulations also set out requirements of a approval holder with respect to abandonment and rehabilitation. *Ibid.*, ss. 21-22.

¹¹⁵³ *Ibid.*, s. 19(5).

¹¹⁵⁴ S.N.S. 1994-95, c. 1, as am., ss. 144 (debt), 132(7) (lien).

¹¹⁵⁵ *Environment Act Fees and Regulations Fees Regulations*, N.S. Reg. 52-54/2005.

be considered precedents, with appropriate modification, for the encouragement of voluntary abandoned mine land abatement, remediation, and reclamation activity.

The Act does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, like the law of Alberta, the Nova Scotia law does authorize the Minister to enter into agreements, establish programs and other measures considered necessary to pay for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs.¹¹⁵⁶ While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine. Moreover, the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup).

The “orphan contaminated site” provision does not provide greater specificity regarding development of plans, meeting minimum standards, or exemption from liability under such arrangements. However, the provision does recognize as a matter of law that orphaned sites may require special attention and a different approach than sites where there are financially viable “persons responsible” still around. Accordingly, the provision may be considered a precedent for encouraging voluntary abandoned mine land abatement, remediation, and reclamation activities.

In terms of **community involvement**, the Act and regulations authorize public consultation as part of the approvals,¹¹⁵⁷ and EA¹¹⁵⁸ processes. Guidelines on contaminated site management also encourage public involvement in that process.¹¹⁵⁹

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The purpose of the *Occupational Health and Safety Act*,¹¹⁶⁰ also administered by DEL, is to protect workers and others from workplace risks. Regulations address such requirements for underground mines as (1) shutdown, closure, or abandonment of a mine, (2) mine survey plans, and (3) ground control procedures.¹¹⁶¹ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with mining and environmental laws reviewed above.

¹¹⁵⁶ S.N.S. 1994-95, c. 1, as am., s. 86 (orphan contaminated sites).

¹¹⁵⁷ *Approvals Procedure Regulations*, N.S. Reg. 48/95, s. 5(1)(u) (approval application to include description of any public consultation undertaken or proposed).

¹¹⁵⁸ S.N.S. 1994-95, c. 1, as am., Part IV (EA Process) (sets out role of public during focus report, terms of reference development for EA report, EA report, and hearings before EA Board). See also *Environmental Assessment Regulations*, N.S. Reg. 26/95, as am., ss. 12 (steps take by proponent to address environmental concerns expressed by public), 16 (public comment on focus report), 19 (public information during development of terms of reference), 23 (public consultation where class I undertaking not referred to Board), 24 (referral of matter to Board for hearing).

¹¹⁵⁹ Nova Scotia Department of Environment and Labour, *Guidelines for the Management of Contaminated Sites in Nova Scotia* (Halifax: DEL, 2005).

¹¹⁶⁰ S.N.S. 1996, c. 7, as am.

¹¹⁶¹ *Underground Mining Regulations*, N.S. Reg. 153/2003, Part 2 (notice, plan, report, filing), ss. 37, 50, 52.

d. Planning Laws

i. Municipal Government Act

The *Municipal Government Act*,¹¹⁶² administered by the Department of Housing and Municipal Affairs, is designed to facilitate provincial and municipal control of land use and development in the province through a variety of planning policies and instruments. The Act authorizes ministers to issue statements of provincial interest that the acts of the province and municipalities are to be “reasonably consistent with.”¹¹⁶³ A number of statements of provincial interest have been issued pursuant to this statutory authority. One, in particular, addresses protection of drinking water within a municipal water supply watershed.¹¹⁶⁴ The statement is not explicit about operating, contaminated, or orphaned/ abandoned mines, but could have implications for them in certain watersheds in the province.

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by provincial departments in Nova Scotia related directly or indirectly to orphaned/abandoned mines. The categories of initiatives include a: (1) mineral policy on environmental protection generally, and abandoned mines, in particular; (2) contaminated site program on clean-up of historic gold mine tailings; and (3) safety program on abandoned mine openings.

The province’s mineral policy contains a number of strategies for ensuring protection of the environment,¹¹⁶⁵ many of which can be implemented through existing legislation where they apply to operating or closing mine sites. With respect to the issue of abandoned mine sites, the policy states that the province will identify opportunities for and promote reclamation of such sites. In this regard, the policy notes that:

“Abandoned mines...provide evidence of a legacy of past practices when environmental effects and long-term socio-economic impacts were not adequately considered by industry or government. The Department [of Natural Resources] is aware of the social, economic and environmental impacts of abandoned mine sites and will work with industry, and other departments and levels of government to identify ways and means for reclaiming abandoned mine sites.

Specifically, the Department will:

¹¹⁶² S.N.S. 1998, c. 18, as am.

¹¹⁶³ *Ibid.*, ss. 193 (authority to issue statements of provincial interest), 196, 198 (provincial and municipal acts to be reasonably consistent with such statements).

¹¹⁶⁴ *Ibid.*, Schedule B (statement of provincial interest regarding drinking water stating that planning documents must identify water supply watersheds; address protection of drinking water including restricting permitted uses to those that do not pose a threat to drinking water quality; balancing expansion of permitted uses against risks posed to drinking water quality; and undertaking related protective measures).

¹¹⁶⁵ Nova Scotia Department of Natural Resources, *Minerals - A Policy for Nova Scotia* (Halifax: DNR, 1996) at Chapter 3, Policy 5.0 (encouraging mineral industry to minimize environmental disturbance during mineral exploration and development; supporting an effective and timely EA process; ensuring monitoring of environmental effects during and after mining; ensuring effective closure and reclamation planning for current and future mine sites; identifying opportunities for and promoting of abandoned mine sites; promoting research to reduce the environmental impacts of mining activities and mineral use; encouraging the use of geological and mineral resource information in land and environmental planning; and encouraging efficiency in the extraction of new minerals and in the recycling of minerals and mineral-based products). *Ibid.*, Policies 5.1-5.8.

- Explore funding mechanisms to reclaim old mine sites, concentrating on those that pose the greatest risk to environmental health and human safety;
- Provide information and technical assistance to responsible parties for the clean-up and safety of abandoned sites;
- Encourage industry to explore, develop and eventually reclaim old mine sites.”¹¹⁶⁶

It is not clear whether the DNR strategy on abandoned mines eventually will be implemented through legislation.¹¹⁶⁷ Nova Scotia, like most other provinces to date, has not reformed its legislation to address specifically opportunities to encourage and, if necessary, protect voluntary abandoned mine clean-up initiatives, or establish a dedicated orphan/abandoned mine clean-up fund derived from government, industry, and other sources.

As part of the DEL contaminated sites program, the department has been addressing problems posed by “historic gold mine tailings.”

“Gold mine tailings are the by-product of a mining process used in the 1800s and early 1900s in Nova Scotia...The tailings contain arsenic and mercury...[were] typically dumped into low-lying areas of lakes and streams near the mine...tailings sites are generally remote and many are on Crown land...”¹¹⁶⁸

The Department notes that there are 64 gold mining districts in the province and that each district may have more than one tailings site within it. DEL has mapped many of the areas of concern. The federal and Nova Scotia governments have formed an advisory group to (1) address questions of exposure to gold mine tailings, and (2) continue research in order to make future decisions on managing such sites.¹¹⁶⁹

Finally, DNR has developed and been implementing a program addressing safety hazards posed by abandoned mine openings:

“Nova Scotia has a long history of mineral exploration and mining activity. Unfortunately, this has left a large number of abandoned mine openings. [DNR] is conducting a program to locate and evaluate potentially hazardous mine openings on Crown land....

To date, more than 1,400 coal mine openings have been documented, and it is safe to say that this number would easily double if it included illegal mining activities [conducted in the past]...

...there are more than 4,400 documented mine openings related to historical gold exploration and mining operations....

[A 1984 DNR inventory] evaluated more than 200 mine sites, known to contain over 3,000 mine openings. [In 1997, DNR compiled this information into an] Abandoned Mine Openings Database and Open File Map....

As of 2002, almost 6,700 abandoned mine openings spread over 300 mine sites have been identified, with approximately 25 per cent of the openings located on provincial Crown land. All documented mine openings on Crown land have been evaluated and assigned a hazard potential. Some of the most hazardous mine openings known to exist on private land have also been evaluated and the owners notified of their

¹¹⁶⁶ *Ibid.*, Policy 5.5.

¹¹⁶⁷ The province’s environment department does have legislative authority, discussed above, to address “orphan contaminated sites.” S.N.S. 1994-95, c. 1, as am., s. 86.

¹¹⁶⁸ Nova Scotia Department of Environment and Labour, *Contaminated Sites: Historic Gold Mine Tailings* (Halifax: DEL, 2005), online: Nova Scotia Department of Environment and Labour, *Historic Gold Mine Tailings* <http://www.gov.ns.ca/enla/contaminatedsites/goldmines.asp> (last updated: 23 June 2005).

¹¹⁶⁹ *Ibid.*

liability under the criminal code. Preliminary work on Crown land has involved the posting of more than 4,000 warning signs [and related work designed to secure the safety of the sites].¹¹⁷⁰

Work continues under this program annually.¹¹⁷¹ As part of this program, DNR also published a technical information guide to assist landowners in evaluating and correcting mine-related safety hazards on their properties.¹¹⁷²

This last program is similar to the one referred to for New Brunswick. Accordingly, the same comments set out there apply to the Nova Scotia program as well. Information available from the province does not indicate (1) environmental conditions at the abandoned mine sites where the openings are located, (2) the number of such sites where there is a financially viable mine owner to correct such problems, (3) the number of such (or other) sites that may have vested in the Crown because of the lack of a financially viable owner, or (4) the quantum of environmental or other liability (public and private) associated with such sites.

f. Findings and Summary

There are several aspects of Nova Scotia law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Reclamation and rehabilitation authority under Nova Scotia mining and environmental laws focuses on operating, closing, or "abandoned" (closed) mines where a viable owner or operator remains responsible for, and upon whom obligations or orders can be imposed respecting the site but generally does not define or address the "orphaned/abandoned" mine situation. Thus, the only person the obligations or orders could be applied to in such circumstance would be the Crown.
2. Nova Scotia environmental law, like that of Alberta, explicitly authorizes the Minister to enter into agreements, establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. While this provision is not specific to mines there are circumstances where a contaminated site also could be a mine. Moreover, the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup) and makes it evident that the provincial treasury may be the primary, if not sole, the funding source of last resort for solving the problem.
3. Nova Scotia environmental laws that provide liability protection in certain circumstances from cleanup orders pertaining to contaminated sites for secured creditors and related fiduciaries, while of precedential value, are arguably not

¹¹⁷⁰ Nova Scotia Department of Natural Resources, *Abandoned Mine Openings* by E. Hennick (Halifax: DNR, 2003).

¹¹⁷¹ Nova Scotia Department of Natural Resources, *Business Plan 2004-05* (Halifax: DNR, 2004) at 19-20 (noting under a heading entitled "public safety" the annual number of "high risk abandoned mine shafts" remediated on Crown lands for the last three fiscal years through the abandoned mines program, through partnerships, and through cooperation within government).

¹¹⁷² Nova Scotia Department of Natural Resources, *Abandoned Mine Openings: Hazards and Remediation Handbook* (Halifax: DNR, 1997).

broad enough without amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/abandoned mines.

4. It is not clear what the impact has been in Nova Scotia of not having statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the provincial government, mining industry and others. The province has extensive statutory authority to respond to emergencies and to expend public funds in these and related circumstances such as where a person responsible for a contaminated (mine) site cannot be identified, or is unable to pay for cleanup costs. What is unclear is the nature, extent, and financial magnitude of the situation in the province. In general, the province's programs on abandoned mine openings and historic gold mine tailings gives some insight into the magnitude of the abandoned mine problem in the past, but no clear indication of the current environmental, financial, or legal dimensions of that problem.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *MRA* authorizes the issuance of exploration licences, mineral leases, and related instruments to facilitate mining activity in the province.

The *Environment Act* requires persons proposing to construct, operate, or reclaim mining or mineral processing facilities to obtain approvals before proceeding. Mining facilities for the extraction or processing of metallic and non-metallic minerals, coal, and other substances are designated as Class I undertakings and subject to the EA approval requirements of the Act as well. Regulations applicable to particular watersheds also may impose approval requirements on mining activity to protect drinking water supplies. The Act also allows the holder of an approval to apply to the Minister for a certificate of variance to vary any term or condition of an approval, or requirement of the regulations.

(B) Assessment

Regulations under the *MRA* require assessment information pertaining to the environment for exploration licences, mining leases, and related instruments.

The *Environment Act* imposes information obligations through (1) approval, (2) EA, and (3) contaminated site requirements.

(C) Monitoring

MRA regulations require that the lessee provide to the Minister procedures for post-operational monitoring at least one month before the intended permanent closure of the mine.

Regulations promulgated under the *Environment Act* set out monitoring requirements for approvals and in the context of environmental assessment reports. Department guidelines respecting management of contaminated sites also recommend monitoring activity.

Both laws authorize inspection activity to ensure compliance with those laws, as well as regulations, and legal instruments (e.g. approvals, variance certificates) issued under them.

(D) *Liability*

Non-compliance with the *MRA* or *Environment Act* may attract quasi-criminal, administrative, or civil liability. Moreover, liability for unfulfilled terms and conditions related to reclamation does not cease upon surrender, abandonment, forfeiture or expiry of a lease under the *MRA*.

Civil and administrative liability for orders issued pursuant to the *Environment Act* is joint and several, but the statute also authorizes apportionment of costs by agreement between persons responsible for contamination. The Act also provides protection from liability in certain circumstances from environmental orders for secured creditors, receivers, and trustees in bankruptcy.

(E) *Emergency Response*

The *MRA* and regulations appear to be silent (or at least not explicit) regarding emergency response authority available to the Minister.

The *Environment Act* authorizes emergency response activity by the department in terms of (1) issuing orders to responsible persons to clean-up or remediate an environmental problem, or (2) allowing the department to undertake clean-up or remedial action.

(F) *Financial Instruments*

The *MRA* and the *Environment Act* authorize security (e.g. money, cash, negotiable bonds, etc.) for reclamation and rehabilitation.

There does not appear to be explicit authority in the *MRA* or regulations for DNR to recover cleanup costs expended by the government where the amount of security is inadequate. Whereas under the *Environment Act*, where the amount of a forfeited security is insufficient to pay for the cost of rehabilitation, clean-up or reclamation costs incurred by DEL constitute a debt due the government and are recoverable in a court of competent jurisdiction or may be the subject of a lien on real property. In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, as noted elsewhere with respect to the laws of other provinces, such authority would not be effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

The *Environment Act*, like Alberta law, does authorize the Minister to enter into agreements, establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. This provision is not specific to mines, but there are circumstances where a contaminated site also could be a mine. However, while the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup), it is not apparent what program and measures have been created under this authority to address these situations, apart from the authorization for the province to address emergencies and expend public funds in doing so.

Environment Act regulations also authorize the recovery of fees for such matters as contaminated site, approval, and EA reviews.

(G) *Application/Exemption*

The *MRA* applies to every person who searches and prospects for, mines or produces, a mineral, or any substance declared by the provincial cabinet to be a mineral.

The *Environment Act* applies to the construction, operation, or reclamation of a variety of mining or mineral processing activities as set out in the law's approval and EA regulations. The variance authority contained in the Act and noted above, like that under Alberta law, may be considered a precedent for the type of "escape valve" authority, with appropriate modification, that could be applied to voluntary abandoned mine land abatement, remediation, and reclamation activity. The Act also exempts certain persons, such as secured creditors, receivers, receiver-managers, and trustees in bankruptcy from certain liability provisions of the Act in certain circumstances noted above. These provisions also could be considered precedents, with appropriate modification, for the encouragement of voluntary abandoned mine land abatement, remediation, and reclamation activity.

(H) *Designation of Orphaned/Abandoned Sites*

The *MRA* and *Environment Act* do not define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

However, like the law of Alberta, the *Environment Act* authorizes the Minister to enter into agreements, establish programs and other measures considered necessary to pay for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine. This "orphan contaminated site" provision does not provide greater specificity regarding development of plans, meeting minimum standards, or exemption from liability under such arrangements. However, the provision does recognize as a matter of law that orphaned sites may require special attention and a different approach than sites where there are financially viable "persons responsible" still around. Accordingly, the provision may be considered a precedent for encouraging voluntary abandoned mine land abatement, remediation, and reclamation activities.

(I) *Community Involvement*

The *MRA* is silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

The *Environment Act* and regulations authorize public consultation as part of the approvals and EA processes. Guidelines on contaminated site management also encourage public involvement in that process.

11. NEWFOUNDLAND AND LABRADOR

a. Mining Laws

i. Mineral Act

In Newfoundland and Labrador the *Mineral Act*,¹¹⁷³ administered by the Department of Natural Resources (“DNR”), addresses the acquisition of mineral rights and the regulation of mineral exploration activity in the province.

The Act and regulations authorize the issuance of **licences** and **approvals**,¹¹⁷⁴ as well as mining **leases**,¹¹⁷⁵ to expedite mineral exploration and related activity in the province.

In terms of **assessment** requirements, where a licensee anticipates undertaking extensive mineral exploration activity (and therefore an approval is required), the licensee must submit plans to address certain environmental matters set out in the regulations.¹¹⁷⁶ The regulations also set out department requirements,¹¹⁷⁷ and guidelines set out department non-binding advice,¹¹⁷⁸ with respect to abandonment and rehabilitation of mineral exploration sites. Accordingly, information submitted by a licensee for an exploration approval would set out how the licensee proposed to meet these requirements and expectations.

The Act requires mineral lease applicants to meet the environmental control requirements imposed under other laws.¹¹⁷⁹

The Act and regulations are silent on **monitoring**, but the Act does authorize government inspection activity to ensure compliance.¹¹⁸⁰

The Act imposes quasi-criminal,¹¹⁸¹ and administrative¹¹⁸² **liability** for non-compliance.

The Act is silent on government **emergency response** authority.

¹¹⁷³ R.S.N. 1990, c. M-12. The Act defines a “mineral” as a naturally occurring substance including coal and minerals contained in tailings but not water, quarry materials, oil or gas. *Ibid.*, s. 2(1)(f).

¹¹⁷⁴ *Ibid.*, ss. 22-23 (exploration licence). *Mineral Regulations*, Nfld. Reg. 1143/96, as am., s. 41(1)(2) (exploration approval necessary where mineral exploration activity will be extensive).

¹¹⁷⁵ R.S.N. 1990, c. M-12, s. 31 (mining lease may be applied for where person holds licence).

¹¹⁷⁶ *Mineral Regulations*, Nfld. Reg. 1143/96, as am., s. 41(2) (e.g. as part of assessment work information respecting activities capable of causing ground disturbance, water quality impairment, or disruption to wildlife or wildlife habitat). Changes in approved plans that could cause environmental impact require submission of additional information to DNR. *Ibid.*, s. 42(4)-(6).

¹¹⁷⁷ *Ibid.*, s. 45 (e.g. backfill trenches or stripped areas; stabilize with vegetation drill sites, trails, etc. that otherwise could cause siltation to water bodies; remove waste material; spread stockpiled soil over area; install permanent structures or retaining banks on abandoned exploration access roads to control potential erosion and siltation.).

¹¹⁷⁸ Newfoundland and Labrador Department of Natural Resources, *Environmental Guidelines for Construction and Mineral Exploration Companies* (St. John’s: DNR, undated) at 1 (guidelines represent good practices but not legally binding, though failure to follow may result in legal action).

¹¹⁷⁹ R.S.N. 1990, c. M-12, s. 31(5)(b)(iv).

¹¹⁸⁰ *Ibid.*, s. 19 (inspections).

¹¹⁸¹ *Ibid.*, s. 42.

¹¹⁸² *Ibid.*, Schedule (standard form licence conditions breach of which can result in rescinding of licence).

In terms of **financial** instruments or measures, the Act authorizes the provincial cabinet to promulgate regulations respecting the form and amount of security applicable with respect to licences.¹¹⁸³ Standard form licence conditions allow extensions to the completion of assessment work where the licensee provides the province with a security deposit in cash or other form prescribed by regulation equal in amount to the deficiency in the assessment work for the period.¹¹⁸⁴

In terms of the **application** of the *Mineral Act*, the law applies to all activities occurring on lands and waters vested in the Crown in the province.¹¹⁸⁵

The *Mineral Act* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *Mineral Act* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

ii. Mining Act

The *Mining Act*, also administered by DNR, addresses the operation of mines and mills in the province.¹¹⁸⁶

The Act defines a number of terms including abandoned,¹¹⁸⁷ closed out,¹¹⁸⁸ closure,¹¹⁸⁹ development plan,¹¹⁹⁰ financial assurance,¹¹⁹¹ lease,¹¹⁹² mill,¹¹⁹³ mine,¹¹⁹⁴ mineral,¹¹⁹⁵ operational plan,¹¹⁹⁶ progressive rehabilitation,¹¹⁹⁷ project,¹¹⁹⁸ rehabilitate,¹¹⁹⁹ rehabilitation and closure plan,¹²⁰⁰ and site.¹²⁰¹

¹¹⁸³ *Ibid.* s. 41(1)(e). Regulations respecting financial assurance that apply to mining leases issued under the *Mineral Act* have been promulgated under the *Mining Act*, reviewed below.

¹¹⁸⁴ *Ibid.*, Schedule, standard form condition 2(1)(d).

¹¹⁸⁵ *Ibid.*, s. 4.

¹¹⁸⁶ S.N. 1999, c. M-15.1.

¹¹⁸⁷ *Ibid.*, s. 2(a) (condition in which a project [mine or mill] has ceased or has been suspended indefinitely without being rehabilitated).

¹¹⁸⁸ *Ibid.*, s. 2(b) (mine or mill where all approved rehabilitation and closure plan requirements have been fulfilled).

¹¹⁸⁹ *Ibid.*, s. 2(c) (final termination of mine or mill).

¹¹⁹⁰ *Ibid.*, s. 2(d) (long term plan for mine mill development).

¹¹⁹¹ *Ibid.*, s. 2(e) (form of assurance enabling minister to rehabilitate or close out mine mill project).

¹¹⁹² *Ibid.*, s. 2(f) (mining lease under *Mineral Act* or mill licence under *Mining Act*).

¹¹⁹³ *Ibid.*, s. 2(h) (facility in which minerals processed).

¹¹⁹⁴ *Ibid.*, s. 2(i) (opening or excavation above or below ground to obtain mineral and includes mine that has been rendered inactive, closed out or abandoned as well as lands where tailings or waste rock or both or any other substance have been deposited within the geographic area described in a lease).

¹¹⁹⁵ *Ibid.*, s. 2(j) (same definition as *Mineral Act*).

¹¹⁹⁶ *Ibid.*, s. 2(l) (annual statement setting out such matters as planned progressive rehabilitation, waste rock volumes, tailings to be discharged, etc.). See *Mining Regulations*, Nfld. Reg. 42/00, s. 5.

¹¹⁹⁷ S.N. 1999, c. M-15.1, s. 2(m) (rehabilitation done continually and sequentially within a reasonable time during entire period project continues).

¹¹⁹⁸ *Ibid.*, s. 2(n) (mine or mill, but not exploration activities).

¹¹⁹⁹ *Ibid.*, s. 2(o) (measures in accord with standards set out in the regulations to restore site to former use or condition, or otherwise acceptable to minister).

¹²⁰⁰ *Ibid.*, s. 2(p) (plan required by regulations acceptable to minister describing rehabilitation process for project up to and including closure).

¹²⁰¹ *Ibid.*, s. 2(q) (land on which project located).

A person cannot operate a (1) mine unless he or she holds a **lease**,¹²⁰² or (2) mill unless he or she obtains a **licence** under the Mining Act.¹²⁰³

In terms of **assessment** activity, the *Mining Act* requires a person proposing to operate a mine or mill to submit development, as well as rehabilitation and closure, plans acceptable to the Minister.¹²⁰⁴ Regulations promulgated under the Act set out the content requirements for these plans.¹²⁰⁵ Department guidelines elaborate further on acceptable content.¹²⁰⁶

The *Mining Act* regulations require that the financial assurance obligations imposed on a lessee must include the cost of on-going **monitoring**.¹²⁰⁷ The Act also authorizes government inspection activity to ensure compliance.¹²⁰⁸

The Act imposes quasi-criminal,¹²⁰⁹ administrative¹²¹⁰ and civil¹²¹¹ **liability** for non-compliance.

The Act is silent on **emergency response** authority available to the minister though some of the administrative measures reviewed above might be implemented on an emergency basis.

The *Mining Act* imposes **financial** assurance obligations on the lessee as part of the rehabilitation and closure plan.¹²¹² Where there is non-compliance with the rehabilitation and closure plan and the amount of financial assurance is insufficient to pay for the costs incurred by the Minister in implementing rehabilitation measures, the costs in excess of the financial assurance incurred by the government constitute a debt due the Crown.¹²¹³

The Minister may exempt from the **application** of the *Mining Act* small-scale mining operations¹²¹⁴ criteria for which are set out in the regulations¹²¹⁵ and department guidelines.¹²¹⁶

¹²⁰² *Ibid.*, s. 4(a). The lease would be obtained under the *Mineral Act*, as noted above.

¹²⁰³ S.N. 1999, c. M-15.1, s. 5.

¹²⁰⁴ *Ibid.*, s. 4(b)(c). Development plans must contain information that includes how the lessee will ensure that the project conforms to prudent resource management. *Ibid.*, s. 6(1)(b). Rehabilitation plans must show how lessee will progressively rehabilitate the site. *Ibid.* s. 9.

¹²⁰⁵ *Mining Regulations*, Nfld. Reg. 42/00, ss. 4 (development plan to include descriptions of project rehabilitation, closure, mining and milling processes), 5-6 (as part of development plan an operation plan submitted annually addressing such matters as planned progressive rehabilitation, waste rock volumes, tailings to be discharged, etc.), 7 (rehabilitation and closure plan must meet content set out in department guidelines).

¹²⁰⁶ Newfoundland and Labrador Department of Natural Resources, *Guidelines to the Mining Act* (St. John's: DNR, undated) at paras. 12 (rehabilitation and closure plan), 13 (progressive rehabilitation).

¹²⁰⁷ *Mining Regulations*, Nfld. Reg. 42/00, s. 8(2).

¹²⁰⁸ S.N. 1999, c. M-15.1, s. 5, s. 11 (inspections).

¹²⁰⁹ *Ibid.*, ss. 21-22 (offences).

¹²¹⁰ *Ibid.*, ss. 8 (duty to take reasonable steps to progressively remediate site whether or not closure has commenced), 9(4) (minister may require lessee to take steps to progressively remediate site), 9(5) (ministerial stop work order to cease project operation where lessee not comply with steps), 10(4)(5) (ministerial order requiring lessee to remediate as per approved rehabilitation and closure plan).

¹²¹¹ *Ibid.*, s. 13(3) (costs to implement rehabilitation measures incurred by minister in excess of funds available in financial assurance for site constitute debt due Crown).

¹²¹² *Ibid.*, s. 10(1)(3) (form may include cash, letter of credit, bond, etc. in an amount acceptable to minister).

¹²¹³ *Ibid.*, s. 13(3).

¹²¹⁴ *Ibid.*, s. 3.

¹²¹⁵ *Small Scale Operations Regulations*, Nfld. Reg. 41/00, s. 3(a)-(f) (minister may designate an operation as small scale based on consideration of nature of materials mined or milled, location of operation with respect to surface or underground mining, whether operation requires a tailings impoundment area, total volume or tonnage produced by operation, size of area operation affects, and other particulars set out in department guidelines).

¹²¹⁶ Newfoundland and Labrador Department of Natural Resources, *Guidelines to the Mining Act* (St. John's: DNR, undated) at para. 14 (e.g. operation small scale if excavates less than 20,000 cubic metres of ore, waste or overburden in

As noted above, the *Mining Act* considers a mine or mill to be abandoned if there is cessation or indefinite suspension of operations without the site being rehabilitated.¹²¹⁷ However, the Act does not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

The *Mining Act* is silent on **community/municipal/Aboriginal involvement** in the process of orphaned/abandoned mine rehabilitation.

b. Environmental Laws

i. Environmental Protection Act

Newfoundland and Labrador's *Environmental Protection Act* ("EPA"),¹²¹⁸ administered by the Department of Environment and Conservation ("DEC"), contains many of the typical elements of provincial environmental legislation noted above that also apply to mining activity.

The *EPA* defines several terms including adverse effect,¹²¹⁹ contaminant,¹²²⁰ environment,¹²²¹ environmental effect,¹²²² environmental site assessment,¹²²³ person responsible,¹²²⁴ person responsible for the contaminated site,¹²²⁵ rehabilitation,¹²²⁶ release,¹²²⁷ sewage,¹²²⁸ substance,¹²²⁹ sustainable development,¹²³⁰ treat,¹²³¹ undertaking,¹²³² waste,¹²³³ and water.¹²³⁴

The Act prohibits any person from commencing or continuing an activity that requires an **approval** unless the person holds the appropriate approval. Activities that require approvals must be listed in the regulations. However, even in the absence of such listing, the Minister may require that an approval for

calendar year; disturbs less than 35,000 square metres of surface area during life of operation; no potential to form acid mine water).

¹²¹⁷ S.N. 1999, c. M-15.1, s. 2(a).

¹²¹⁸ S.N. 2002, c. E-14.2.

¹²¹⁹ *Ibid.*, s. 2(a) (impair or damage environment or human health).

¹²²⁰ *Ibid.*, s. 2(f) (substance causing adverse effect).

¹²²¹ *Ibid.*, s. 2(m) (air, land, water; plant and animal life, including human; social, economic, cultural conditions; solid, liquid, gas, etc.).

¹²²² *Ibid.*, s. 2(o) (change in present or future environment resulting from undertaking).

¹²²³ *Ibid.*, s. 2(p) (assessment of site to determine if environment subject to contaminant or substance; establish extent or severity of adverse effect; identify causes thereof; identify mitigation, remedial, and preventive measures).

¹²²⁴ *Ibid.*, s. 2(x) (owner or previous owner of substance; owner or occupier of land; person having charge, management, or control; principal or agent for the above; receiver, receiver-manager, trustee).

¹²²⁵ *Ibid.*, 2(y) (same as above, as well as any other person minister considers responsible).

¹²²⁶ *Ibid.*, s. 2(dd) (e.g. investigating concentration and distribution of substance; restoring former condition; removing building or contaminant; stabilizing land surface; restoring habitat).

¹²²⁷ *Ibid.*, s. 2(ee) (spill, discharge, dispose, deposit, leak, seep, emit, dump, etc.).

¹²²⁸ *Ibid.*, s. 2(gg) (includes industrial water borne and solid wastes and storm runoff that if untreated cause adverse effect).

¹²²⁹ *Ibid.*, s. 2(jj) (capable of becoming dispersed in environment).

¹²³⁰ *Ibid.*, s. 2(kk) (meeting the needs of the present generation without compromising the ability of future generations to meet their own needs).

¹²³¹ *Ibid.*, s. 2(ll) (method, technique, process designed to change physical, chemical, or biological concentration, character, composition of substance).

¹²³² *Ibid.*, s. 2(mm) (enterprise, activity, project, work, proposal, abandonment, decommissioning, rehabilitation, or modification that may have a significant environmental effect).

¹²³³ *Ibid.*, s. 2(nn) (substance causing an adverse effect if added to environment including slimes, tailings, effluent, etc.).

¹²³⁴ *Ibid.*, s. 2(qq) (river, lake stream, land covered by water, including subsurface water source).

the activity be obtained before being allowed to proceed.¹²³⁵ The Act also requires a proponent of undertaking, designated by regulation, to obtain a **registration** before proceeding.¹²³⁶ Registered undertakings may then be subject to (1) environmental preview reports – EPR – (preliminary investigations based on readily available information designed to determine whether a full environmental impact statement – EIS – is necessary, (2) an EIS (described below), and/or (3) public hearing.¹²³⁷ Mining undertakings defined in the regulations are subject to the registration requirement.¹²³⁸

In terms of **assessment** activity, the *EPA* requires certain information in the context of (1) approvals,¹²³⁹ (2) EA procedures,¹²⁴⁰ and (3) contaminated sites.¹²⁴¹

The *EPA* also authorizes the imposition of **monitoring** requirements in the context of (1) approvals,¹²⁴² (2) EA procedures,¹²⁴³ and (3) contaminated sites.¹²⁴⁴ The Act also authorizes inspection activity by government to ensure compliance with the Act, regulations, approvals, and orders.¹²⁴⁵

The *EPA* imposes quasi-criminal,¹²⁴⁶ administrative,¹²⁴⁷ and civil¹²⁴⁸ **liability** for non-compliance with the Act, regulations, approvals, and orders. Liability for orders issued under the Act may be joint and individual.¹²⁴⁹ Ministerial approval of contaminated site remediation plans may permit persons

¹²³⁵ *Ibid.*, s. 78(1)-(3). The Act also authorizes temporary variations of approval requirements as long as an adverse effect will not result. *Ibid.*, s. 88. See also Newfoundland and Labrador Department of Environment, *Guide to the Environmental Protection Act* (St. John's: DOE, 2002) (proposed activities designation regulation). This proposed regulation does not appear to have been promulgated to date.

¹²³⁶ S.N. 2002, c. E-14.2, s. 47(2).

¹²³⁷ *Ibid.*, ss. 54 (EPR), 55 (EIS), 63 (hearing before EA Board).

¹²³⁸ *Environmental Assessment Regulations, 2003*, Nfld. Reg. 54/03, s. 33 (mining of minerals, as defined in *Mineral Act*, and coal mining must be registered).

¹²³⁹ S.N. 2002, c. E-14.2, s. 80 (minister determines information to be required).

¹²⁴⁰ *Ibid.*, s. 57 (undertakings requiring an EIS must describe and provide rationale for undertaking; alternatives to, and alternative methods of carrying out, undertaking; environment to be affected; environmental effects; mitigation measures; advantages and disadvantages to environment of undertaking, alternatives to, and alternative methods, etc.).

¹²⁴¹ *Ibid.*, s. 28 (person designated by minister as responsible for contaminated site must submit to minister environmental site assessment and remedial action plan based on standards, criteria, or guidelines established by minister).

¹²⁴² *Ibid.*, s. 85(2)(a)(ii) (minister, as part of an approval amendment sought by approval holder, may amend, add, or delete a term or condition relating to monitoring).

¹²⁴³ *Ibid.*, ss. 57(h) (EIS must include proposed program of study designed to monitor all substances and harmful effects that would be produced by undertaking), 69 (where undertaking exempted or released from compliance with EA requirements, minister may require proponent to carry out environmental monitoring to determine effectiveness of mitigation measures, and compliance with obligations imposed as terms and conditions to release). See also *Voisey's Bay Nickel Company Limited Mine and Mill Undertaking Order*, Nfld. Reg. 74/99, s. 3(e)(h) (imposing obligations on company to (1) monitor environmental effects of undertaking, and (2) pay for costs government will incur with respect to monitoring including site surveillance, compliance, environmental effects, and socio-economic monitoring). See further Newfoundland and Labrador Department of Environment and Conservation, News Release "Environmental Assessment Bulletin: Undertakings Released - Pine Cove (Open Pit) Gold Mine" (10 May 2005) (imposition of environmental effects monitoring requirement as condition of release from further EA review).

¹²⁴⁴ S.N. 2002, c. E-14.2, s. 111(c) (authority to promulgate regulations respecting monitoring of contaminated sites). Provincial cabinet has not promulgated such regulations to date.

¹²⁴⁵ *Ibid.*, Part XII (inspection and investigation).

¹²⁴⁶ *Ibid.*, ss. 114-117.

¹²⁴⁷ *Ibid.*, ss. 99-102.

¹²⁴⁸ *Ibid.*, ss. 102 (costs incurred by government in carrying out terms of order not being complied with by person to whom order issued constitute debt owed Crown allowing minister to issue and file certificate for amount payable in supreme court; certificate enforceable as if it were court judgment for recovery of amount set out in certificate), 120 (costs incurred by government in carrying out environmental emergency cleanup and related measures constitute debt owed Crown by person responsible).

¹²⁴⁹ *Ibid.*, s. 103.

responsible to apportion remediation costs.¹²⁵⁰ The Act also provides protection from liability in certain circumstances from orders for secured creditors, receivers, and trustees in bankruptcy.¹²⁵¹

The Act authorizes **emergency response** action by department inspectors in a number of circumstances.¹²⁵²

The Act authorizes the imposition of **financial** security in the context of (1) approvals,¹²⁵³ (2) EA procedures,¹²⁵⁴ (3) orders,¹²⁵⁵ and (4) compliance agreements.¹²⁵⁶

In general, cleanup costs incurred by the government constitute a debt due the government and are recoverable in provincial supreme court.¹²⁵⁷ As noted elsewhere, cost recovery provisions can be effective against a mine operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

The Act acknowledges that persons responsible for a contaminated site may not be identified or may be unable to pay for the costs of rehabilitation. Therefore, the Act authorizes the Minister to enter into compliance agreements "and other agreements" and establish programs and other measures the Minister considers necessary to (1) restore and secure a contaminated site and the surrounding environment, and (2) pay for the costs of doing so. Moreover, the Act explicitly recognizes that this may be done "whether or not a person responsible for a contaminated site cannot be identified or is unable to pay for those costs."¹²⁵⁸ While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine.

¹²⁵⁰ *Ibid.*, s. 28.

¹²⁵¹ *Ibid.*, ss. 118(1) (receivers, receiver-managers, trustees not responsible for contaminated site rehabilitation beyond value of assets administering less reasonable costs and fees of administration for any adverse effect that occurred before their appointment; and only liable after appointment if adverse effect caused due to failure to exercise due diligence), 118(4) (secured creditors afforded protection from liability for contaminated site where protecting security interest by acting only in purely financial matters related to site; has capacity to influence operation at site but does not exercise capacity so as to cause or increase contamination; appoints person to investigate or inspect contaminated site to determine future steps to be taken).

¹²⁵² *Ibid.*, s. 11 (inspector may, where of opinion that release of substance into environment may cause environmental emergency, take emergency measures inspector considers necessary to prevent, reduce, remedy adverse effect of emergency; inspector may take such actions whether or not substance release was expressly authorized by and in compliance with *EPA* or approval issued thereunder). See also *Voisey's Bay Nickel Company Limited Mine and Mill Undertaking Order*, Nfld. Reg. 74/99, s. 3(d)(i) (imposing obligation on company to prepare and abide by requirements of emergency response plans approved by minister as part of EA process).

¹²⁵³ *Ibid.*, s. 84 (applicant for approval of activity must provide financial or other security in accordance with regulations; minister may determine manner and conditions under which security deposited by approval holder may be forfeited or returned, in whole or in part).

¹²⁵⁴ *Environmental Assessment Regulations, 2003*, Nfld. Reg. 54/03, s. 22 (where undertaking released or exempted under Act, minister may require proponent to provide financial or other security in a form, amount, and for a term minister considers appropriate with respect to such matters as rehabilitation of environmental effects of accidents or other events connected to undertaking).

¹²⁵⁵ S.N. 2002, c. E-14.2, ss. 77 (posting of bond or other form of security or payment of money into court to ensure compliance with reclamation order), 99 (posting of bond or other form of security or payment of money to Crown to ensure compliance with order).

¹²⁵⁶ *Ibid.*, s. 105(3)(e) (financial security to Crown for cost of remedial or preventive action taken by minister as result of contravention of Act).

¹²⁵⁷ *Ibid.*, ss. 102, 120.

¹²⁵⁸ *Ibid.*, s. 25.

The above provision of the law of Newfoundland and Labrador is similar to that of Alberta and Nova Scotia discussed above with respect to orphan contaminated sites. As with the Alberta and Nova Scotia provisions, the Newfoundland and Labrador provision does not provide greater specificity regarding development of plans, meeting minimum standards, or exemption from liability under such arrangements. However, the provision does recognize as a matter of law that such sites (effectively orphan sites) may require special attention and a different approach than sites where there are financially viable "persons responsible" still around. Accordingly, the Newfoundland and Labrador provision, like that under the laws of Alberta and Nova Scotia, may be considered a precedent for encouraging voluntary abandoned mine land abatement, remediation, and reclamation activities.

Furthermore, the *EPA* also authorizes the Minister to "impose levies and establish a fund" for the above purposes.¹²⁵⁹ It is not clear if levies have been imposed, a fund established, or what might otherwise be the source or quantum of monies associated with this statutory provision. However, the provision may be unique among provincial environmental legislation in Canada in formally authorizing establishment as a matter of law an orphaned sites fund that could, in certain circumstances, be applied to orphaned/abandoned mines.

Proponents also must pay government fees associated with EA review of an undertaking.¹²⁶⁰

In terms of the **application** of the *EPA*, at this time the Act applies to (1) activities that the Minister may require obtain an approval for the activity,¹²⁶¹ and (2) undertakings that require registration for purposes of compliance with the Act's EA requirements, including specifically coal and mineral mining undertakings.¹²⁶² The *EPA* also authorizes exemption from the Act's EA requirements.¹²⁶³

The Act does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites. However, as noted above, and like the laws of Alberta and Nova Scotia, the *EPA* does authorize the Minister to enter into agreements, establish programs and other measures considered necessary to pay for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs.¹²⁶⁴ While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine. Moreover, the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup).

¹²⁵⁹ *Ibid.*, s. 25(c).

¹²⁶⁰ *Ibid.*, s. 74 (e.g. cost and expense of government consultants).

¹²⁶¹ *Ibid.*, ss. 78.

¹²⁶² *Ibid.*, s. 47(2), and Environmental Assessment Regulations, 2003, Nfld. Reg. 54/03, s. 33.

¹²⁶³ S.N. 2002, c. E-14.2, s. 70. In one instance, under the province's former environmental assessment statute (since rolled into the *EPA*), an exemption issued to a mining undertaking was overturned by the courts. See *Labrador Inuit Association v. Newfoundland (Minister of Environment and Labour)* (1997), 155 Nfld & P.E.I.R. 93 (Nfld. C.A.) (minister's exemption order for temporary road and airstrip associated with mine exploration site quashed as not separate activities from those subject to federal-provincial EA law memorandum of understanding as part of larger mineral development undertaking). See also *Voisey's Bay Mining Development Undertaking Exemption Order*, Nfld. Reg. 21/97, as am. (confirming that EA will be performed in accordance with MOU).

¹²⁶⁴ S.N. 2002, c. E-14.2, s. 25.

In terms of **community involvement**, the *EPA* authorizes public involvement during the course of the statute's EA process.¹²⁶⁵

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The purpose of the *Occupational Health and Safety Act*,¹²⁶⁶ administered by the Department of Human Resources, Labour and Employment, is to protect workers and others from workplace risks. Regulations address such requirements for underground mines as (1) removal of overburden, and (2) dams and bulkheads.¹²⁶⁷ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with mining and environmental laws reviewed above.

d. Planning Laws

i. Urban and Rural Planning Act

The *Urban and Rural Planning Act, 2000*,¹²⁶⁸ administered by the Department of Municipal and Provincial Affairs, is designed to facilitate provincial and municipal control of land use and development in the province through a variety of planning policies and instruments. In addition to overseeing the municipal development planning process, the Act authorizes the minister to propose land use policy for the province or a portion thereof.¹²⁶⁹

e. Policies, Programs, or Related Initiatives

In addition to provincial regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by provincial departments in Newfoundland and Labrador related directly or indirectly to orphaned/abandoned mines.

The province acknowledges that its mining legacy has resulted in at least 70 abandoned mines throughout the island, and that the province started its first abandoned mine rehabilitation project in 1985.¹²⁷⁰ Ten per cent of over 100 abandoned exploration and mining properties in Newfoundland and Labrador are anticipated to incur environmental remediation costs. In 2002, the provincial auditor general reported that as no formal environmental site assessments had been completed for the ten sites, the provincial government has not determined the extent of remediation efforts or costs to rehabilitate these sites. One site alone, the Hope Brook Mine, was estimated to require over \$20 million to rehabilitate.¹²⁷¹ This site

¹²⁶⁵ *Ibid.*, ss. 58 (proponent to meet public during course of EIS preparation to provide information to and receive information from public), 59 (public may provide comments to minister on guidelines and environmental effects of undertaking), 63-64 (where minister believes strong public interest exists in undertaking minister may order public hearing by EA board on EIS).

¹²⁶⁶ S.N. 1990, c. O-3.

¹²⁶⁷ Mine Safety of Workers Regulations, Nfld. Reg. 1145/96.

¹²⁶⁸ S.N. 2000, c. U-8, as am.

¹²⁶⁹ *Ibid.*, s. 3.

¹²⁷⁰ Newfoundland and Labrador Department of Mines and Energy, *Mineral Resource Information: Vol. 3, No. 3* (St. John's: DME, 1997).

¹²⁷¹ Auditor General of Newfoundland and Labrador, *Report on Reviews of Departments and Crown Agencies for the Year Ending 31 March 2002* (St. John: Government of Newfoundland and Labrador, 2002) at 70-72.

became the responsibility of the province in 1999, following the bankruptcy of the former mine owners.¹²⁷²

In general in 2004, DNR carried out rehabilitation work at 12 abandoned mines, and in 2005 expects to rehabilitate another 13 abandoned sites. On-going department activities at several of these sites will include monitoring, detailed site assessment, and related work.¹²⁷³ In the 2003-2004 period, DEC worked closely with DNR to address environmental issues related to nine abandoned mines.¹²⁷⁴

f. Findings and Summary

There are several aspects of Newfoundland and Labrador law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under Newfoundland and Labrador mining and environmental laws focus on operating, closing, or "abandoned" (closed) mines where a viable owner or operator remains responsible for, and upon whom obligations or orders can be imposed respecting the site or else the existence of adequate security, but generally does not define or address the "orphaned/abandoned" mine situation. Thus, the only person the obligations or orders could be applied to in such circumstance would be the Crown.
2. Newfoundland and Labrador environmental law, like that of Alberta and Nova Scotia, explicitly authorizes the Minister to enter into agreements, establish programs and other measures considered necessary for the costs of restoring and securing contaminated sites and the environment affected by such sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. While this provision is not specific to mines there are circumstances where a contaminated site also could be a mine. Moreover, the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup) and makes it evident that the provincial treasury may be the primary, if not the sole, funding source of last resort for solving the problem. However, given its wording and depending on how it is administered, the Newfoundland and Labrador provision, like that under the laws of Alberta and Nova Scotia, also may be considered a precedent for encouraging voluntary abandoned mine land abatement, remediation, and reclamation activities.
3. Newfoundland and Labrador environmental law also authorizes the Minister to "impose levies and establish a fund" for the above purposes. It is not clear if levies have been imposed, a fund established, or what might otherwise be the source or quantum of monies associated with this statutory provision.

¹²⁷² Newfoundland and Labrador Department of Natural Resources, *MINFO: Vol. 10, No. 2* (St. John's: DNR, 2004) at 10 (department assumed responsibility for rehabilitation of site due to bankruptcy of former owners). See also Newfoundland and Labrador Department of Mines and Energy, *MINFO: Vol. 7, No. 3* (St. John's: DME, 2001) (province responsible for abandoned mine site after owners operated mine for 10 years ending in 1997).

¹²⁷³ Newfoundland and Labrador Department of Natural Resources, *Mine Rehabilitation Projects* (St. John's: DNR, 2005) online: < <http://www.nr.gov.nl.ca/mines&en/mining/rehab.stm> > (date accessed: 5 August 2005).

¹²⁷⁴ Newfoundland and Labrador Department of Environment and Conservation, *Annual Report 2003-2004* (St. John's: DEC, 2004).

However, the provision may be unique among provincial environmental legislation in Canada in formally authorizing establishment, as a matter, of law an orphaned sites fund that could, in certain circumstances, be applied to orphaned/abandoned mines. In practice, however, the provincial treasury has appeared to be the primary funding source for the province's current program of abandoned mine rehabilitation.

4. Newfoundland and Labrador environmental laws that provide liability protection in certain circumstances from cleanup orders pertaining to contaminated sites for secured creditors and related fiduciaries, while of precedential value, are arguably not broad enough without amendment to apply to volunteers who abate, rehabilitate, or reclaim orphaned/ abandoned mines.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *Mineral Act* and *Mining Act* authorize the issuance of licences, approvals, and leases, with respect to mineral exploration, mining, and milling activity in the province.

In the absence of regulations designating particular activities as subject to approval before being allowed to proceed, the *EPA* authorizes the Minister to impose approval requirements on selected activities as a matter of discretion. Regulations under the Act designate mining activities as requiring registration in the EA process before being allowed to proceed.

(B) Assessment

The *Mineral Act* sets out abandonment and rehabilitation information requirements for mineral exploration sites. The *Mining Act* sets out rehabilitation and closure plan information requirements for mining and milling activities.

The *EPA* requires information in the context of (1) approvals, (2) EA procedures, and (3) contaminated sites.

(C) Monitoring

The *Mineral Act* and regulations are silent on monitoring.

The *Mining Act* regulations require that the financial assurance obligations imposed on a lessee must include the cost of on-going monitoring.

The *EPA* authorizes the imposition of monitoring requirements in the context of (1) approvals, (2) EA procedures, and (3) contaminated sites.

The *Mineral Act*, *Mining Act*, and *EPA* all authorize government inspection activity to ensure compliance.

(D) *Liability*

The *Mineral Act* imposes quasi-criminal and administrative liability for non-compliance.

The *Mining Act* and *EPA* impose quasi-criminal, administrative, and civil liability for non-compliance.

In addition, under the *EPA* (1) liability for orders issued may be joint and individual, (2) ministerial approval of contaminated site remediation plans may permit persons responsible to apportion remediation costs, and (3) in certain circumstances, secured creditors, receivers, and trustees in bankruptcy may be protected from liability.

(E) *Emergency Response*

The *Mineral Act* and the *Mining Act* are silent on emergency response authority available to the minister though some administrative measures might be implemented on an emergency basis.

The *EPA* authorizes emergency response action by department inspectors in a number of circumstances.

(F) *Financial Instruments*

The *Mineral Act* authorizes the provincial cabinet to promulgate regulations respecting the form and amount of security applicable with respect to licences. Standard form licence conditions allow extensions to the completion of assessment work where the licensee provides financial security.

The *Mining Act* imposes financial assurance obligations on the lessee as part of the rehabilitation and closure plan.

The *EPA* authorizes the imposition of financial security in the context of (1) approvals, (2) EA procedures, (3) orders, and (4) compliance agreements.

The *Mining Act* and the *EPA* treat cleanup costs incurred by the government as debts due the government and make them recoverable in provincial supreme court. In general, cost recovery provisions can be effective against a mine owner or operator with other assets in the province, or against a valuable, if closed or abandoned mine property. However, as noted elsewhere with respect to the laws of other provinces, such authority would not be effective in the face of an owner/operator that (1) no longer exists, (2) is judgment proof, (3) has left the province and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

The *EPA* like the laws of Alberta and Nova Scotia acknowledges that persons responsible for a contaminated site may not be identified or may be unable to pay for the costs of rehabilitation. Therefore, the *EPA* authorizes the Minister to enter into compliance agreements "and other agreements" and establish programs and other measures the Minister considers necessary to (1) restore and secure a contaminated site and the surrounding environment, and (2) pay for the costs of doing so. While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine. As with the Alberta and Nova Scotia provisions, the Newfoundland and Labrador provision does not provide greater specificity regarding development of plans, meeting minimum standards, or exemption from liability under such arrangements. However, the provision does recognize as a matter of law that such sites (effectively orphan sites) may require special attention and a different approach than sites where there are financially viable "persons responsible" still around.

The *EPA* also authorizes the Minister to “impose levies and establish a fund” for the above purposes. It is not clear if levies have been imposed, a fund established, or what might otherwise be the source or quantum of monies associated with this statutory provision.

(G) *Application/Exemption*

The *Mineral Act* law applies to all activities occurring on lands and waters vested in the Crown in the province.

The Minister may exempt small-scale mining operations from the application of the *Mining Act*. Criteria for exemption are set out in regulations and department guidelines.

At this time the *EPA* applies to (1) activities that the Minister may require obtain an approval and (2) undertakings that require registration for purposes of compliance with the Act’s EA requirements, including specifically coal and mineral mining undertakings. The *EPA* also authorizes exemption from the Act’s EA requirements.

(H) *Designation of Orphaned/Abandoned Sites*

The *Mining Act* considers a mine or mill to be abandoned if there is cessation or indefinite suspension of operations without the site being rehabilitated.

The *EPA* authorizes the Minister to enter into agreements, establish programs and other measures considered necessary to pay for the costs of restoring and securing contaminated sites and the environment affected by sites where a person responsible for the contaminated site cannot be identified or is unable to pay for the costs. While this provision is not specific to mines, there are clearly circumstances where a contaminated site also could be a mine. Moreover, the provision essentially defines the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup).

The *Mining Act*, *Mineral Act*, and the *EPA* do not otherwise define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

(I) *Community Involvement*

The *Mineral Act* and the *Mining Act* are silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

The *EPA* authorizes public involvement during the course of the statute’s EA process.

C. Territorial

The legal and institutional framework for regulation of mining activity in northern Canada (north of the 60th parallel), historically the almost exclusive domain of the federal government, is in a period of transition. In the Yukon, the federal and Yukon governments entered into a Devolution Transfer Agreement (“DTA”) that came into force in April 2003. The effect of this agreement is to transfer authority for administration and control of land, water, and mineral resources as well as law-making powers with respect thereto from the federal government to the Yukon government. The federal government retains financial responsibility for remediation of past impacts from mining activities that occurred before April 2003. The Yukon laws that now apply to mining and resource management activity “mirror” the federal laws that were repealed when the DTA came into force. In turn, some of the “mirror” Yukon laws are meant to be temporary until the Yukon or federal governments enact replacement legislation. The federal and Northwest Territories governments are now negotiating an arrangement similar to the DTA. Currently, as noted above (Part V.A), federal mining and resource management laws continue to apply to the Northwest Territories as well as to Nunavut. In turn, Nunavut, created in the 1990s when its territory was split-off from that of the Northwest Territories, continues to use the environmental legislation of the Northwest Territories as its own for the time being. A review of the Yukon, Northwest Territories, and Nunavut regimes as they apply to mining activity follows.

1. YUKON

a. Mining or Resource Management Laws

i. Placer Mining Act

The *Placer Mining Act* (“PMA”),¹²⁷⁵ administered by the Yukon Department of Energy, Mines and Resources (“YDEM”), addresses both the disposition of placer mining rights in the Yukon, and the imposition of land use and reclamation obligations on persons subject to the Act. This Act “mirrors” the federal *Yukon Placer Mining Act*, which was repealed in 2003 when the DTA came into force.¹²⁷⁶

The purpose of Part 2 of the *PMA*, respecting land use and reclamation, is to ensure the development and viability of a sustainable, competitive and healthy placer mining industry that operates in a manner that upholds the essential socio-economic and environmental values of the Yukon.¹²⁷⁷

The *PMA* defines a number of terms including lands,¹²⁷⁸ mine,¹²⁷⁹ mining or placer mining.¹²⁸⁰

¹²⁷⁵ S.Y. 2003, c. 13.

¹²⁷⁶ See *Devolution Transfer Agreement between Canada and the Yukon* (October 29, 2001), art. 2.4 (listing federal laws to be repealed by Government of Canada and to be mirrored by the Government of the Yukon upon coming into force of DTA).

¹²⁷⁷ S.Y. 2003, c. 13, s. 100.

¹²⁷⁸ *Ibid.*, s. 1 (lands in respect of which the rights to the gold or other precious minerals or stones are under the administration and control of the Yukon Commissioner).

¹²⁷⁹ *Ibid.*, s. 2(1) (any natural stratum or bed of earth, soil, gravel, or cement that is mined for gold or other precious minerals or stones).

¹²⁸⁰ *Ibid.* (every mode and method of working earth, etc. to obtain gold or other precious minerals or stones but not working rock on site).

The Act establishes a form of **approval** regime by creating four classes of placer land use operation (respecting placer exploration, mining, or related activity) that must meet different conditions depending upon which class is involved before being allowed to proceed.¹²⁸¹

In terms of **assessment** activity, for classes of operation that require operating plans before being allowed to proceed (classes 3 and 4) regulations promulgated under the Act require that certain information be provided to the Chief, Placer Land Use.¹²⁸²

The *PMA* and regulations are silent on **monitoring** activity. The Act authorizes inspection activity to ensure compliance with the Act and regulations.¹²⁸³

The Act imposes quasi-criminal,¹²⁸⁴ administrative,¹²⁸⁵ and civil¹²⁸⁶ **liability** for non-compliance with the Act, regulations, or approved operating plans.

The *PMA* authorizes **emergency response** measures by inspectors where there may be a danger to persons, property or the environment from on-going, past, terminated, or abandoned placer land use operations.¹²⁸⁷

In terms of **financial** instruments or measures, the *PMA* authorizes the Chief to impose security obligations where there is a risk of significant adverse environmental effects from class 2-4 placer land use operations.¹²⁸⁸ The regulations set out the basis upon which the amount, form, and return of the security is to be determined.¹²⁸⁹ Where there is non-compliance with the Act, regulations, or operating

¹²⁸¹ *Ibid.*, s. 102(1) (class 1 must meet operating conditions set out pursuant to section 116(b) of Act), 102(2) (class 2 must give notice as required under Act, meet the requirements of section 103, and regulations promulgated pursuant to section 116(e) of the Act), 102(3) (class 3 must comply with operating plan approved by the Yukon Chief of Placer land Use, notify the public and engaged in public consultation if required by Chief), 102(4) (class 4 must meet the same requirements as class 3 except the operating plan approved by the Chief cannot be issued until after public notice and consultation – the regulations set out that an operation that requires a water licence under the *Waters Act* is a class 4 operation – *Placer Mining Land Use Regulation*, Y.O.I.C. 2003/59, s. 3(1)).

¹²⁸² *Placer Mining Land Use Regulation*, Y.O.I.C. 2003/59, s. 9 (description of natural characteristics of the area; map showing location and extent of operation, areas to be reclaimed; location of water bodies; description of activities to be undertaken and measures to be used to mitigate adverse environmental effects; description of consultation concerning proposed operating plan). The Act also allows the Chief to treat a class 2 operation as if it was a class 3 or 4 if there are concerns respecting potential adverse environmental effects that may not be mitigated. S.Y. 2003, c. 13, s. 103. It is understood that responsibility for class 4 placer activity has been delegated to the Chief, Yukon Water Board.

¹²⁸³ S.Y. 2003, c. 13, ss. 111-112.

¹²⁸⁴ *Ibid.*, s. 117.

¹²⁸⁵ *Ibid.*, ss. 113 (directions by inspectors to operators to take remedial measures), 114 (directions by inspectors where placer land use operation has been terminated or abandoned and there is a need for remedial measures).

¹²⁸⁶ *Ibid.*, ss. 113(8) (reasonable costs incurred by Commissioner in undertaking remedial measures not covered by financial security constitute debt due Commissioner), 114(2) (reasonable costs incurred by Commissioner in undertaking remedial measures not covered by financial security constitute debt due Commissioner), 119 (government may seek to enjoin conduct constituting offence under Act).

¹²⁸⁷ *Ibid.*, ss. 113(7) (on-going operations), 114(1) (past, terminated, or abandoned operations). The regulations also set steps expected of operators during emergency situations including the developing of a reclamation proposal to be implemented within 2 months of the start of emergency remedial measures. *Placer Mining Land Use Regulation*, Y.O.I.C. 2003/59, ss. 19-20.

¹²⁸⁸ S.Y. 2003, c. 13, s. 106(1). The Act authorizes the Chief in making this determination to consider the past performance of the operator. *Ibid.*, s. 106(2).

¹²⁸⁹ *Placer Mining Land Use Regulation*, Y.O.I.C. 2003/59, s. 17(1) (amount must cover costs of abandonment, site restoration, and on-going post-abandonment measures), 17(2) (factors to be considered in fixing the amount include degree of risk of significant adverse environmental effects; financial ability of person; existence of any security under the *Waters Act*), 17(3) (promissory note, certified cheque, government guaranteed bond, irrevocable letter of credit), 17(4) (return of security to operator mandatory when no longer required for mitigation of adverse environmental effects of operation).

plans and the amount of security is insufficient to pay for the costs incurred by the Commissioner in implementing remedial measures, the reasonable costs in excess of the security incurred by the government constitute a debt due the Commissioner.¹²⁹⁰

As noted elsewhere, cost recovery provisions can be effective against a mine operator with other assets in the jurisdiction, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the jurisdiction and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

In terms of the **application** of Part 2 and the regulations, they apply to claims or land on which a lease has been granted¹²⁹¹ in respect of the four classes of placer land use operation identified above.¹²⁹²

The Act does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *PMA* authorizes public notice and public consultation for certain classes of placer land use operation.¹²⁹³ The Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

ii. Quartz Mining Act

The *Quartz Mining Act* (“*QMA*”),¹²⁹⁴ administered by the YDEM, addresses both the disposition of mineral rights in the Yukon, and the imposition of land use and reclamation obligations on persons subject to the Act. This Act “mirrors” the federal *Yukon Quartz Mining Act*, which was repealed in 2003 when the DTA came into force.¹²⁹⁵

In general, the *QMA* is very similar to the *PMA*. The purpose of Part 2 of the *QMA*, respecting land use and reclamation, is to ensure the development and viability of a sustainable, competitive and healthy quartz mining industry that operates in a manner that upholds the essential socio-economic and environmental values of the Yukon.¹²⁹⁶

The *QMA* defines several terms including mineral,¹²⁹⁷ mill-site,¹²⁹⁸ mine,¹²⁹⁹ mineral claim,¹³⁰⁰ mining property,¹³⁰¹ development,¹³⁰² exploration program,¹³⁰³ and production.¹³⁰⁴

¹²⁹⁰ S.Y. 2003, c. 13, ss. 113(8), 114(2).

¹²⁹¹ Placer Mining Land Use Regulation, Y.O.I.C. 2003/59, s. 2.

¹²⁹² S.Y. 2003, c. 13, s. 102.

¹²⁹³ *Ibid.*, ss. 102(3) (class 3), 102(4) (class 4).

¹²⁹⁴ S.Y. 2003, c. 14.

¹²⁹⁵ See *Devolution Transfer Agreement between Canada and the Yukon* (October 29, 2001), art. 2.4 (listing federal laws to be repealed by Government of Canada and to be mirrored by the Government of the Yukon upon coming into force of DTA).

¹²⁹⁶ S.Y. 2003, c. 14, s. 130.

¹²⁹⁷ *Ibid.*, s. 1 (precious or base metals but not sand, gravel, stone).

¹²⁹⁸ *Ibid.*, s. 2(1) (land leased for purpose of erecting machinery or works for purpose of transporting, crushing, etc. ores).

¹²⁹⁹ *Ibid.* (any land in which a vein, lode, or rock in place is mined for gold or other minerals, precious or base).

¹³⁰⁰ *Ibid.* (ground staked out under this Act or the federal *Yukon Quartz Mining Act*).

¹³⁰¹ *Ibid.* (includes mineral claim, ditch, mill-site, or water right used for mining purposes).

¹³⁰² *Ibid.*, s. 129(1) (construction of a facility or work for the production of minerals).

¹³⁰³ *Ibid.* (any activity undertaken for purpose of assessing land for its suitability for mineral production).

¹³⁰⁴ *Ibid.* (taking a mineral from land, or treating a mineral that has been taken from land, for commercial purposes, but does not include an exploration program).

Like the *PMA*, the *QMA* establishes a form of **approval** regime for exploration programs by creating four classes of such activities that must meet different conditions (depending upon level of exploration activity) before proceeding.¹³⁰⁵ However, under the *QMA*, development and production activity does require a licence.¹³⁰⁶

In terms of **assessment** activity, for classes of exploration program that require operating plans before being allowed to proceed (classes 3 and 4) regulations promulgated under the Act require that certain information be provided to the Yukon Chief of Mining Land Use.¹³⁰⁷ The information requirements for purposes of assessing applications for licences are in the discretion of the Minister.¹³⁰⁸

The *QMA* and regulations are silent on **monitoring** activity. The Act authorizes inspection activity to ensure compliance with the Act and regulations.¹³⁰⁹

The Act imposes quasi-criminal,¹³¹⁰ administrative,¹³¹¹ and civil¹³¹² **liability** for non-compliance with the Act, regulations, approved operating plans, or licences.

The *QMA* authorizes **emergency response** measures by inspectors where there may be a danger to persons, property or the environment from on-going, past, terminated, or abandoned placer land use operations.¹³¹³

In terms of **financial** instruments or measures, the *QMA* authorizes the Chief to impose security obligations where there is a risk of significant adverse environmental effects from class 2-4 exploration programs, or from planned development or production.¹³¹⁴ The regulations set out the basis upon which the amount, form, and return of the security is to be determined.¹³¹⁵ Where there is non-compliance with

¹³⁰⁵ *Ibid.*, ss. 131-132. The conditions for each class are very similar to those set out for placer land use operations under the *PMA* in that, generally, classes 2-4 require operating plans, public notice, and public consultation.

¹³⁰⁶ *Ibid.*, s. 135.

¹³⁰⁷ *Quartz Mining Land Use Regulation*, Y.O.I.C. 2003/64, s. 9 (description of natural characteristics of the area; map showing location and extent of operation, areas to be reclaimed; location of water bodies; description of activities to be undertaken and measures to be used to mitigate adverse environmental effects; description of consultation concerning proposed operating plan). The Act also allows the Chief to treat a class 2 operation as if it was a class 3 or 4 if there are concerns respecting potential adverse environmental effects that may not be mitigated. S.Y. 2003, c. 14, s. 133.

¹³⁰⁸ S.Y. 2003, c. 14, s. 135. If the development or production activity will involve the disturbance of less than 10,000 tonnes of earth a year, it may be treated as an exploration program, in which case the information and other requirements for exploration programs must be met. *Ibid.*, s. 131(2).

¹³⁰⁹ S.Y. 2003, c. 14, ss. 144-145.

¹³¹⁰ *Ibid.*, s. 150.

¹³¹¹ *Ibid.*, ss. 146 (directions by inspectors to operators to take remedial measures), 147 (directions by inspectors where exploration program, development or production activity has been terminated or abandoned and there is a need for remedial measures).

¹³¹² *Ibid.*, ss. 146(8) (reasonable costs incurred by Commissioner in undertaking remedial measures not covered by financial security constitute debt due Commissioner), 147(2) (reasonable costs incurred by Commissioner in undertaking remedial measures not covered by financial security constitute debt due Commissioner), 152 (government may seek to enjoin conduct constituting offence under Act).

¹³¹³ *Ibid.*, ss. 146(7) (on-going operations), 147(1) (past, terminated, or abandoned operations). The regulations also set steps expected of operators during emergency situations including the developing of a reclamation proposal to be implemented within 2 months of the start of emergency remedial measures. *Quartz Mining Land Use Regulation*, Y.O.I.C. 2003/64, ss. 19-20.

¹³¹⁴ S.Y. 2003, c. 14, s. 139(1). The Act authorizes the Chief in making this determination to consider the past performance of the operator. *Ibid.*, s. 139(2).

¹³¹⁵ *Quartz Mining Land Use Regulation*, Y.O.I.C. 2003/64, s. 17(1) (amount must cover costs of abandonment, site restoration, and on-going post-abandonment measures), 17(2) (factors to be considered in fixing the amount include degree of risk of significant adverse environmental effects; financial ability of person; existence of any security under the

the Act, regulations, operating plans, or licences and the amount of security is insufficient to pay for the costs incurred by the Commissioner in implementing remedial measures, the reasonable costs in excess of the security incurred by the government constitute a debt due the Commissioner.¹³¹⁶

In terms of the **application** of Part 2 and the regulations, they apply to claims or land on which a lease has been granted¹³¹⁷ in respect of the four classes of exploration program, as well as development and production activity, identified above.¹³¹⁸

The Act does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *QMA* authorizes public notice and public consultation for certain classes of exploration programs.¹³¹⁹ The Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

iii. Territorial Lands (Yukon) Act

The *Territorial Lands (Yukon) Act* (“*TLYA*”),¹³²⁰ administered by YDEMR, governs the (1) administration and management of land use, and (2) distribution of mining rights and payment of royalties with respect thereto, in the Yukon. This Act “mirrors” the federal *Territorial Lands Act*, which ceased to apply to the Yukon in 2003 when the DTA came into force.¹³²¹

The *TLYA* defines land as including mines and minerals.¹³²²

TLYA land use regulations impose **permit** requirements on a variety of earth-disturbing activity that would appear to include mining-related activity.¹³²³

In terms of **assessment** activity, *TLYA* land use regulations require a territorial engineer before issuing a permit, to order an inspection of the subject lands and require the permit applicant to provide such information and data concerning the proposed land use as will enable the engineer to evaluate quantitative

Waters Act), 17(3) (promissory note, certified cheque, government guaranteed bond, irrevocable letter of credit), 18 (return of security to operator mandatory when no longer required for mitigation of adverse environmental effects of operation).

¹³¹⁶ S.Y. 2003, c. 14, ss. 146(8), 147(2).

¹³¹⁷ Quartz Mining Land Use Regulation, Y.O.I.C. 2003/64, s. 2.

¹³¹⁸ S.Y. 2003, c. 14, ss. 131-132, 135.

¹³¹⁹ *Ibid.*, s. 132(4) (class 4).

¹³²⁰ S.Y. 2003, c. 17.

¹³²¹ See *Devolution Transfer Agreement between Canada and the Yukon* (October 29, 2001), art. 2.4 (listing federal laws to be repealed by Government of Canada, or that cease to apply in the Yukon, and to be mirrored by the Government of the Yukon upon coming into force of DTA). As noted above, the federal *Territorial Lands Act* still applies in the Northwest Territories and Nunavut.

¹³²² S.Y. 2003, c. 17, s. 1.

¹³²³ *Land Use Regulation*, Y.O.I.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.

and qualitative effects of the proposed land use operation.¹³²⁴ Such information may result in the engineer imposing a variety of terms and conditions to the permit's issuance.¹³²⁵

The *TLYA* and regulations are silent on **monitoring**. However, the land use regulations authorize the submission of reports on the progress of the land use operation.¹³²⁶ That authority could be interpreted as a basis for imposing some type of monitoring obligation. The regulations also authorize inspection activity to ensure compliance with the Act, regulations, and permits.¹³²⁷

The *TLYA* and regulations impose quasi-criminal,¹³²⁸ administrative,¹³²⁹ and civil¹³³⁰ **liability** for non-compliance.

The Act and regulations are silent on **emergency response** authority available to YDEMR. However, the authority for a territorial engineer to undertake remedial measures when there is non-compliance with a permit term or condition¹³³¹ arguably is capable of being invoked in circumstances of an emergency.

In terms of **financial** instruments or measures, *TLYA* land use regulations authorize a territorial engineer to impose a security deposit, not to exceed \$100,000, as a permit condition.¹³³² The regulations also set out the form, return, default, and cost recovery provisions in respect of the security.¹³³³

In terms of the **application** of the *TLYA*, the Act and regulations apply to lands that became territorial lands in 2003 and also regulate, coal mining,¹³³⁴ and dredging for minerals,¹³³⁵ but do not limit the operation of the *PMA* or *QMA*.¹³³⁶

TLYA and regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *TLYA* authorizes opportunities for notice and comment on orders setting out territorial lands as land management zones and on draft regulations.¹³³⁷ The Act is

¹³²⁴ *Ibid.*, s. 22(1). A territorial inspector making such investigation on behalf of an engineer must report on (1) existing biological and physical characteristics of the lands proposed to be used and the surrounding lands, (2) any disturbance that the proposed land use operation may cause on the lands proposed to be used and the surrounding lands and the biological characteristics of the lands, and (3) manner in which land disturbance can be minimized and controlled. *Ibid.*, s. 22(2).

¹³²⁵ *Ibid.*, s. 30 (e.g. control of use, storage, handling, and disposal of chemical or toxic material to be used in land use operation; protection of wildlife and fisheries habitat, or other areas of ecological value; other measures necessary to protect biological or physical characteristics of land management zone).

¹³²⁶ *Ibid.*, s. 31

¹³²⁷ *Ibid.*, ss. 37-39.

¹³²⁸ S.Y. 2003, c. 17, ss. 5, 28.

¹³²⁹ *Land Use Regulation*, Y.O.I.C. 2003/51, ss. 40 (suspension of land use operation by inspector), 41 (cancellation of permit by territorial engineer).

¹³³⁰ *Ibid.*, ss. 35(7) (ministerial costs of restoring lands to former condition where security insufficient constitute debt due Yukon Government), 40(5) (costs of any action taken by engineer to correct failure of permittee to comply with permit terms and conditions constitute debt due Yukon Government).

¹³³¹ *Ibid.*, s. 40(5).

¹³³² *Ibid.*, s. 35(1). The regulations also impose obligations on a permit holder to restore an area to its pre-land use operation condition after work is completed. *Ibid.*, s. 17.

¹³³³ *Ibid.*, ss. 35(3) (form - promissory note, certified cheque, bearer bonds guaranteed by Government of Canada, or combination thereof), 35(4), 36 (return when conditions satisfied), 35(5) (default - where land use operation results in damage to lands), 35(7) (cost recovery by Minister where security insufficient to cover costs of restoring lands to former condition).

¹³³⁴ *Coal Regulation*, Y.O.I.C. 2003/54.

¹³³⁵ *Dredging Regulation*, Y.O.I.C. 2003/55.

¹³³⁶ S.Y. 2003, c. 17, s. 2.

¹³³⁷ *Ibid.*, s. 22.

otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/ abandoned mine rehabilitation.

b. Environmental Laws

i. Waters Act

The *Waters Act* (“WA”),¹³³⁸ administered by the Yukon Department of Environment (“YDE”) and YDEMR in the case of placer mining activities, controls water use and deposits of waste into Yukon waters. This Act “mirrors” the federal *Yukon Waters Act*, which was repealed in 2003 when the DTA came into force.¹³³⁹

The Act defines several terms including use,¹³⁴⁰ waste,¹³⁴¹ and waters.¹³⁴²

In general, deposits of waste into certain Yukon waters require a **licence** from the Yukon Water Board (“YWB”) established under the *WA*.¹³⁴³ The YWB cannot issue a licence with conditions relating to the deposit of waste in waters that would violate regulations under the Act.¹³⁴⁴ In addition, the YWB cannot issue a licence with conditions that are less stringent than the requirements contained in regulations under the *Canada Water Act* or the *Fisheries Act* that also may be applicable to those waters.¹³⁴⁵ The effect of these provisions in the context of mining activity is to incorporate requirements of the new *Metal Mining Effluent Regulations*¹³⁴⁶ under the *Fisheries Act* into licences issued under the *WA*. These requirements also could capture voluntary abandoned mine land abatement, remediation, and reclamation projects.

There also is authority under the *WA* to exempt the deposit of waste from requiring a licence if the waste deposited:

1. has no potential for significant adverse environmental effects;
2. would not interfere with existing rights of other water users or waste depositors; and
3. satisfies criteria set out in the regulations in respect of placer or quartz mining undertakings.¹³⁴⁷

A voluntary abandoned mine land abatement, remediation, or reclamation project might be characterized as a placer or quartz mining undertaking in the absence of specific statutory or regulatory definitions clarifying the matter. Alternatively, such a voluntary project also might be treated as a miscellaneous or

¹³³⁸ S.Y. 2003, c. 19.

¹³³⁹ See *Devolution Transfer Agreement between Canada and the Yukon* (October 29, 2001), art. 2.4 (listing federal laws to be repealed by Government of Canada and to be mirrored by the Government of the Yukon upon coming into force of DTA).

¹³⁴⁰ S.Y. 2003, c. 19, s. 1 (direct and indirect use, including diversion, obstruction, alteration of water flow or river bank or bed alteration).

¹³⁴¹ *Ibid.* (any substance that may degrade or alter water making it detrimental to use by humans, animals, fish, or plants, including quantities or concentrations of substances identified in the regulations).

¹³⁴² *Ibid.* (inland water, whether liquid or frozen, on or below land surface).

¹³⁴³ *Ibid.*, ss. 7, (prohibiting deposit of waste in Yukon waters except in accordance with licence issued by YWB; prohibition and licence requirement not apply if waste to be deposited in water quality management area designated under *Canada Water Act* and deposit would meet requirements of regulations under that Act for that area), 12 (authority to issue licence).

¹³⁴⁴ *Ibid.*, ss. 12(4)(c), 13(6).

¹³⁴⁵ *Ibid.*, ss. 13(3)(5).

¹³⁴⁶ S.O.R./2002-222.

¹³⁴⁷ *Waters Regulation*, Y.O.I.C. 2003/58, s. 4(1)(a)-(c) and Schedules 6-7 (licensing criteria for placer and quartz mining undertakings, respectively).

conservation undertaking under regulations to the *WA* and subject to licensing requirements with respect thereto.¹³⁴⁸ Given the broad generality of the language contained in the Act, it is arguable that the jurisdiction exists to apply its licensing requirements to such projects, or to exempt them from the requirements if they meet the exemption criteria. However, even if the language were interpreted narrowly, and such projects were exempt from licensing requirements under the *WA*, the provisions of laws such as the *Fisheries Act* and possibly its regulations could still apply directly to such activities.

In terms of **assessment** activity under this Act, the *WA* requires licence applicants to provide the YWB with such information and studies concerning the use of waters or deposit of waste proposed by the applicant as will enable the YWB to evaluate any qualitative and quantitative effects on waters.¹³⁴⁹ The regulations also set out additional information requirements.¹³⁵⁰

The *WA* authorizes **monitoring** activity as a condition of licence approval.¹³⁵¹ The Act authorizes the Minister to appoint inspectors to ensure compliance with the Act, regulations, or a licence.¹³⁵²

The *WA* imposes quasi-criminal,¹³⁵³ administrative,¹³⁵⁴ and civil¹³⁵⁵ **liability** for non-compliance with the Act, regulations, or licences.

The *WA* is not explicit about **emergency response** authority available under the Act. However, the authority for inspectors or the Minister to undertake remedial measures when there is non-compliance with a licence condition or regulatory provision¹³⁵⁶ arguably is capable of being invoked in circumstances of an emergency.

¹³⁴⁸ *Ibid.*, Schedule 10 (licensing criteria for agricultural, conservation, recreational, and miscellaneous undertakings).

¹³⁴⁹ S.Y. 2003, c. 19, s. 14(2).

¹³⁵⁰ *Waters Regulation*, Y.O.I.C. 2003/58, s. 5(2)(e)(f)(h) (where water to be used for placer or quartz mining undertaking, description of undertaking and all wastes produced and chemicals used in operation; where undertaking involves deposit of waste location, rate, timing, frequency, and duration of deposit, constituents of deposit and concentration, treatment, assessment of effects on waters where deposit to occur; plans for the abandonment, or temporary closing of proposed undertaking).

¹³⁵¹ S.Y. 2003, c. 19, s. 13(1)(d) (YWB may include as condition of licence issuance, monitoring programs to be undertaken by licence holder).

¹³⁵² *Ibid.*, ss. 33-34.

¹³⁵³ *Ibid.*, ss. 38-39. Under the former federal *Yukon Waters Act*, companies were prosecuted though due to the often insolvent nature of the companies involved, the impact of the prosecution as a specific deterrent on the particular defendant's conduct was moot. See e.g. *R. v. Gauthier and United Keno Hill Mines Ltd.*, 2002 YKTC 75 (CanLII). In this decision, the territorial court judge noted: "...in the Yukon...there has been a long history of problems caused when mine owners have walked away and left the taxpayers and the environment holding the bag..." (para. 9); "As a result of the insolvency of the company and its failure to comply with the water licence, the taxpayers were required to step in and take over the maintenance of the mine site – at considerable expense. ...[T]hese expenses totaled in excess of \$1 million during the period in which the government had to take control of the mine before it was sold to new owners. So there has been a considerable impact. ...[T]here is no prospect of the fines being paid. I share the frustration of the regulatory authorities with the ineffectiveness of the court process in circumstances of this kind, where there are environmental infractions committed by insolvent or will-of-the-wisp corporations." (paras. 35-36)).

¹³⁵⁴ *Ibid.*, s. 35 (inspector may direct licensee or person, as case may be, violating Act, licence condition, or regulations to take remedial measures).

¹³⁵⁵ *Ibid.*, ss. 28 (any person adversely affected by issuance of licence or use of water or deposit of waste authorized by the regulations entitled to be compensated by licensee and may sue to recover such compensation in court of competent jurisdiction), 35(3)(4), 37(1)(2) (costs of remedial measures undertaken by inspector, or by Minister in context of improperly closed or abandoned work beyond amount, if any, available as security constituting debt due Yukon Government), 41(1) (injunction by Yukon Minister of Justice for conduct constituting violation of Act).

¹³⁵⁶ *Ibid.*, ss. 35(3), 37(1).

In terms of **financial** instruments or measures, the Act authorizes the YWB to require an applicant for a licence to furnish and maintain security with the Minister.¹³⁵⁷ The regulations set out (1) how the amount of the security is to be determined, and (2) acceptable forms of security.¹³⁵⁸ Where there is non-compliance with the Act, regulations, or licences and the amount of security is insufficient to pay for the costs incurred by the Yukon Government in implementing remedial measures, the reasonable costs in excess of the security incurred by the government constitute a debt due the government.¹³⁵⁹

As noted elsewhere, cost recovery provisions can be effective against a mine operator with other assets in the jurisdiction, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the jurisdiction and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.¹³⁶⁰

In terms of the **application** of the *WA* to mining activity, the Act applies to placer and quartz mining undertakings that will require the use of water or that will deposit waste.¹³⁶¹

Although the *WA* and regulations recognize the likelihood of eventual closing or abandonment of placer and quartz mining undertakings, they do not otherwise define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, in addition to opportunities for notice and comment on draft regulations, the Act authorizes optional or mandatory public hearings by the YWB before issuing, amending, or canceling certain categories of licence.¹³⁶²

¹³⁵⁷ *Ibid.*, s. 15(1). The security may be used to (1) compensate persons adversely affected by the issuance of a licence or the use of water or deposit of waste authorized by the regulations, or (2) reimburse in whole or in part the Yukon Government for costs incurred with respect to directing or undertaking remedial measures. *Ibid.*, s. 15(2). A licence applicant also must satisfy the YWB that the financial responsibility of the applicant is adequate, taking into account past performance, to ensure satisfactory maintenance and restoration of site in event of future closing or abandonment of undertaking. *Ibid.*, s. 12(4)(d).

¹³⁵⁸ *Waters Regulation*, Y.O.I.C. 2003/58, s. 11(1)(2) (in setting financial security YWB must require that costs of abandonment, site restoration, and on-going post-abandonment measures be covered; factors YWB must consider include ability of licence applicant to pay such costs, and past performance of applicant in respect of other licences), 11(3) (promissory note guaranteed by Canadian bank, certified cheque, security bond, irrevocable letter of credit, cash).

¹³⁵⁹ S.Y. 2003, c. 19, ss. 35(4), 37(2).

¹³⁶⁰ Some courts have viewed adequate security as the solution to the problems posed by mining companies becoming insolvent. See e.g. *R. v. Gauthier and United Keno Hill Mines Ltd.*, 2002 YKTC 75 (CanLII). In this decision, the territorial court judge noted in part: "...it is apparent that if a mine is closed and that mine requires upkeep and maintenance for a more or less indefinite period, that it is virtually inevitable that, at some point, the owners will no longer provide that upkeep and that it will fall upon the public purse to deal with the aftermath of the mining operation....the only real defence against this prospect is...to require sufficient security up front from the promoters and operators in order to fund the eventual decommissioning process. In the absence of that being done, the court process...will prove, ultimately, unsatisfactory." (paras. 36-37). However, in 2002 the office of the federal environment commissioner noted several examples in the Yukon where advance prediction of the appropriate quantum of security was not accurate in the circumstances of particular mining operations that became insolvent. See Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at 9 (Faro Mine - amount of financial security collected from owner - \$14 million; estimated costs to DIAND to cleanup - at least \$200 million; Mount Nansen Mine - amount of financial security collected from owner - \$445,000; estimated costs to DIAND to cleanup - \$6.3 million). Accordingly, while authority to impose a financial security requirement is an important component in ensuring that mines do not become a burden on the public purse, it may not be the complete solution to the problem of orphaned/abandoned mines.

¹³⁶¹ *Waters Regulation*, Y.O.I.C. 2003/58, ss. 3, 5(2)(e)(f)(h) and Schedules 6-7 (classifying placer and quartz mining undertakings).

¹³⁶² S.Y. 2003, c. 19, ss. 19(1) (optional hearing), 19(2) (mandatory hearing). An otherwise mandatory hearing can be dispensed with where no person expresses an intention to appear and make representations at the hearing. *Ibid.*, s. 19(3).

ii. Environment Act

The *Environment Act*,¹³⁶³ administered by the YDE, is an omnibus statute that may apply to mining activities in certain circumstances. The Act (1) addresses a variety of environmental matters including issuance of development approvals and permits, release of contaminants, environmental rights, responsibilities, partnerships, and compliance and enforcement, and (2) contains a number of over-riding objectives and principles.¹³⁶⁴

The Act defines several terms including contaminant,¹³⁶⁵ development,¹³⁶⁶ environment,¹³⁶⁷ public trust,¹³⁶⁸ release,¹³⁶⁹ and sustainable development.¹³⁷⁰

The Act authorizes the issuance of **permits** for development,¹³⁷¹ and the regulations authorize permits for risk-based restoration of contaminated sites.¹³⁷²

In terms of **assessment** activity, the Act requires information for (1) development permits,¹³⁷³ and (2) contaminated site restoration and rehabilitation.¹³⁷⁴

The regulations impose **monitoring** obligations in a number of contexts that also could be applicable to mining activities.¹³⁷⁵ The Act authorizes the Minister to appoint inspectors to ensure compliance with the Act, regulations, or permits.¹³⁷⁶

¹³⁶³ R.S.Y. 2002, c. 76.

¹³⁶⁴ *Ibid.*, ss. 5(1) (objectives include wise management of Yukon environment, promotion of sustainable development, effective public participation), 5(2) (principles to be applied in realizing Act's objectives include interdependence of development and environment, integration of environmental considerations into public decision-making, wise environmental management for present and future generations, and responsibility of persons for their environmental consequence of their actions).

¹³⁶⁵ *Ibid.*, s. 2 (solid, liquid, gas that is foreign to or exceeds natural environmental constituents, or concentrations, and results from human activity).

¹³⁶⁶ *Ibid.* (any human project, industry, or undertaking).

¹³⁶⁷ *Ibid.* (air, land, water and ecological relationships with respect thereto).

¹³⁶⁸ *Ibid.* (collective interest of Yukon people in quality of natural environment for benefit of present and future generations).

¹³⁶⁹ *Ibid.* (e.g. discharge, abandon, deposit, leak, emit).

¹³⁷⁰ *Ibid.* (development that meets needs of present without compromising ability to meet needs of future generations).

¹³⁷¹ *Ibid.*, Part 6, ss. 81-93. As noted above, the definition of development is broad enough to include mining and related activities.

¹³⁷² *Contaminated Sites Regulation*, Y.O.I.C. 2002/171, s. 11.

¹³⁷³ R.S.Y. 2002, c. 76, s. 84 (location, size, nature, and use of development, environmental effects, mitigation measures, contaminant quantities to be released to environment, contingency plans, closure and decommissioning plans).

¹³⁷⁴ *Ibid.*, s. 115 (obligation to prepare site assessment). See also *Contaminated Sites Regulation*, Y.O.I.C. 2002/171, ss. 9 (site assessment to contain identification of contaminants, physical and chemical form in which found at site, site concentrations, field work in relation to groundwater, surface water, soils, sediments), 10 (restoration plan to include strategy for compliance with restoration standards set out in regulations, timetable, site security, etc.).

¹³⁷⁵ See e.g. R.S.Y. 2002, c. 76, s. 167 (minister may impose as financial assurance obligation post-closure monitoring condition). See also *Contaminated Sites Regulation*, Y.O.I.C. 2002/171, s. 10(2)(e)(f) (mitigation and risk-management monitoring measures, respectively).

¹³⁷⁶ R.S.Y. 2002, c. 76, ss. 63, 151.

The Act imposes quasi-criminal,¹³⁷⁷ administrative,¹³⁷⁸ and civil¹³⁷⁹ **liability** for non-compliance with the Act, regulations, or permits. The regulations authorize the Minister to appoint person(s) to provide an opinion to the Minister on whether liability for a particular contaminated site should be shared in the circumstances.¹³⁸⁰

The Act is not explicit about **emergency response** authority. However, the authority for the Minister to undertake remedial measures when there is non-compliance with the Act¹³⁸¹ arguably is capable of being invoked in circumstances of an emergency.

In terms of **financial** instruments or measures, the Act authorizes the Minister to impose financial assurance as a condition of permit issuance or an environmental protection order. The Act also grants the territorial cabinet the authority to promulgate regulations that would allow the imposition of a lien on the property of a person or a permit holder that is not in compliance with an environment protection order.¹³⁸²

In terms of the **application** of the Act, mining activity that is caught by the definition of development or that results in contaminated sites, may be subject to the requirements of the Act.

The Act and regulations promulgated thereunder do not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the Act authorizes opportunities for notice and comment and public hearings before promulgating or revising regulations,¹³⁸³ and participant funding for a variety of processes authorized under the Act.¹³⁸⁴ The regulations require that persons responsible for preparation of contaminated site restoration plans set out the details of any public consultation that has occurred or is proposed during the restoration process.¹³⁸⁵ The Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

iii. Environmental Assessment Act

The *Environmental Assessment Act* ("EAA"), administered by the YDE, came into effect in April 2003 and "mirrors" CEAA.¹³⁸⁶ The EAA is only meant to remain in effect until the federal YESAA comes fully

¹³⁷⁷ *Ibid.*, s. 19 (private prosecution), Part 14 (offences and penalties generally).

¹³⁷⁸ *Ibid.*, ss. 91 (permit cancellation or suspension), 115 (ministerial order for contaminated site restoration and rehabilitation), 136 (environmental protection order respecting spills), 159-160 (environmental protection order from environmental protection officer or minister), 169 (financial assurance realization order).

¹³⁷⁹ *Ibid.*, ss. 8-12 (right of action by any person for impairment of natural environment may lead to civil liability in form of damages, declaration, or injunction), 165(2)(3) (expense incurred by minister in effecting compliance with a direction or order issued under Act constituting debt recoverable against person to whom direction or order issued), 185 (injunction by government).

¹³⁸⁰ *Contaminated Sites Regulation*, Y.O.I.C. 2002/171, s. 15 (minister not bound by opinion rendered).

¹³⁸¹ R.S.Y. 2002, c. 76, s. 165(1)

¹³⁸² *Ibid.*, s. 169.

¹³⁸³ R.S.Y. 2002, c. 76, ss. 29-31

¹³⁸⁴ *Ibid.*, s. 36.

¹³⁸⁵ *Contaminated Sites Regulation*, Y.O.I.C. 2002/171, s. 10(1)(i).

¹³⁸⁶ See *Devolution Transfer Agreement between Canada and the Yukon* (October 29, 2001), art. 2.31 (noting obligation of Yukon Government to adopt legislation that mirrors CEAA upon coming into force of DTA). See now S.Y. 2003, c. 2.

into force.¹³⁸⁷ The *YESAA* came into force in November 2004. Any assessments begun under the *EAA*, prior to full implementation of *YESAA*, will undergo full assessment under the *EAA*.¹³⁸⁸

c. Workplace Safety Laws

i. Occupational Health and Safety Act

The *Occupational Health and Safety Act* ("*OHSa*") is designed to protect workers against health and safety hazards on the job.¹³⁸⁹ In general, regulations promulgated under the Act address a variety of matters including mine closure.¹³⁹⁰ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with the mining and environmental laws reviewed above.

d. Policies, Programs, or Related Initiatives

In addition to Yukon regulatory authority directed primarily at operating or closing mines where a responsible person is available to finance rehabilitation measures, there are a number of non-regulatory policies, programs, or initiatives administered by the YDEMR directed explicitly at orphaned/abandoned mines. The initiatives include (1) establishment of an assessment and abandoned mines unit; (2) implementation of policies or principles arising from the DTA; and (3) federal-territorial government cooperative arrangements with respect to "Type II" (major) mine sites.

With respect to the first initiative noted above, YDEMR has established an assessment and abandoned mines unit that is (1) overseeing the on-going care and maintenance of several abandoned mines in the territory, and (2) planning for final closure of these mine sites. Costs to properly close these three mines (Clinton Creek, Mount Nansen, United Keno Hill Mines) range from \$36-90 million, with the federal government responsible to fund remediation of any environmental impacts that occurred before April 2003.¹³⁹¹

With respect to the second initiative noted above, the DTA established a number of policies and principles applicable to orphaned/abandoned mines in the Yukon (i.e. where there is no operator or responsible party to undertake or finance the required care, maintenance, and abandonment of a site). These policies or principles include (1) government will assist with remediation financing only in the

¹³⁸⁷ S.Y. 2003, c. 2, s. 83 (*EAA* to be repealed after *YESAA* comes into force). See also four Yukon regulations that mirror *CEAA* regulations: (1) *Activities Requiring Environmental Assessment (Inclusion List) Regulation*, Y.O.I.C. 2003/68, ss. 10-12 (production activities and class 3-4 exploration program activities under *PMA* and *QMA*); (2) *Exclusion List Regulation*, Y.O.I.C. 2003/67; (3) *Comprehensive Study List Regulation*, Y.O.I.C. 2003/70, ss. 10-12 (proposed construction, decommissioning, abandonment, or expansion of mineral and mineral processing facilities of certain types and sizes); (4) *Law List Regulation*, Y.O.I.C. 2003/66, Parts 1-2 (certain provisions of the *TLYA*, *PMA*, *QMA* and regulations thereunder operate as triggers for the application of *EAA*). For reasons probably having to do with the timing of the coming into force of the DTA and the *EAA*, these four regulations were not promulgated under the *EAA* but rather under the *Environment Act*, R.S.Y. 2002, c. 76.

¹³⁸⁸ *Ibid.* See also Government of the Yukon, Executive Council Office, *Environmental Assessments in the Yukon Government* (Whitehorse: YECO, 2004).

¹³⁸⁹ R.S.Y. 2002, c. 159.

¹³⁹⁰ *Mine Safety Regulations*, Y.O.I.C. 1986/164, ss. 12-13 (addressing secure fencing, capping, filing of closure plans, and removal of hazardous or dangerous substances or chemicals from mine site). *OHSa* and regulations promulgated thereunder address worker safety. Once a mine is abandoned, issues of public safety would be addressed by YDEMR and DIAND.

¹³⁹¹ Yukon Department of Energy, Mines and Resources, Assessment and Abandoned Mines Unit (Whitehorse, YDEMR, 2004) at 1, online: Yukon Department of Energy, Mines and Resources <http://www.emr.gov.yk.ca/mining/type2.html> (last updated: 4 October 2004).

absence of an operator or responsible party, (2) the federal government is responsible for the remediation of impacts associated with activities that occurred on a site prior to April 2003, (3) the Yukon government is responsible for remediation of impacts associated with permits or authorizations issued by that government after April 1, 2003, (4) First Nations must be involved in the process, and (5) site remediation must address human health and safety as well as environmental protection.¹³⁹²

With respect to the third initiative noted above, which also largely arises from the DTA, the YDEMR and the federal DIAND agreed to take a cooperative approach to managing what the DTA defined as "Type II" sites. These are major mine sites that if abandoned without proper closure could pose substantial financial liability to government. Currently, seven mine sites are designated as Type II sites, four of which are under government care, the other three of which are retained by the owner or operator but are either not currently in operation, or are undergoing decommissioning.¹³⁹³ The territorial-federal management of these sites includes (1) development of work plans and budgets for care and maintenance, (2) abandonment-related research and development of abandonment options, (3) closure plan development, (4) preparation of environmental assessments and meeting of regulatory requirements, (5) reclamation, (6) monitoring, and (7) consultation.¹³⁹⁴

e. Findings and Summary

There are several aspects of Yukon law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Rehabilitation authority under Yukon law focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.
2. Yukon authority for control of mining activity is fairly recent arising from the DTA and territorial laws that "mirror" federal laws. The absence of Yukon statutory authority for encouraging voluntary clean-up, and/or establishing a permanent orphaned/abandoned mine fund contributed to by the Yukon government, mining industry and others, has nonetheless resulted in development of important cleanup programs. These programs are based on the DTA and federal statutory emergency clean-up authority and will be paid for substantially by federal public funds for "Type II" mine sites where impacts pre-date April 2003. The full quantum of expenditures is unknown for this group of sites at this time but appears to be in the \$250 million range. Future abandoned mine sites, if any, will become the responsibility of the Yukon, not the federal, government, where the impacts post-date April 2003. Given the magnitude and potential cost of the orphaned/abandoned mine problem based on

¹³⁹² Devolution Transfer Agreement between Canada and the Yukon (October 29, 2001), c. 6 (environmental matters). As part of this obligation, the Government of the Yukon currently is conducting public consultation on a mine closure and reclamation policy.

¹³⁹³ *Ibid.* at 85. See also Yukon Department of Energy, Mines and Resources and Canada Department of Indian Affairs and Northern Development, *Background: Type II Mine Sites Under the Devolution Transfer Agreement* (Whitehorse, YDEMR/DIAND, 2003) at 1-5. Cleanup cost estimates for five of these mines, derived in part from the 2002 federal environment commissioner's audit report on abandoned mines in northern Canada, are in excess of \$250 million. *Ibid.*

¹³⁹⁴ Yukon Department of Energy, Mines and Resources, Assessment and Abandoned Mines Unit (Whitehorse, YDEMR, 2004) at 1-2, online: Yukon Department of Energy, Mines and Resources <<http://www.emr.gov.yk.ca/mining/type2.htm>> (last updated: 4 October 2004).

past experience in the Yukon, it is difficult to evaluate the adequacy of DTA arrangements as a substitute for Yukon legislative reform.

A brief summary of the key laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *PMA* and *QMA* establish a form of licence regime by creating four classes of placer land use operation (*PMA*) and exploration program (*QMA*) that must meet different conditions depending upon which class is involved before being allowed to proceed. Under the *QMA*, development and production activity also requires a licence.

TLYA land use regulations impose permit requirements on a variety of earth disturbing activity that would appear to include mining-related activity.

Under the *WA*, water use and deposits of wastes into Yukon waters, other than waters forming part of a water quality management area under the *Canada Water Act*, require a licence from the YWB.

The *Environment Act* authorizes the issuance of permits for development, and the regulations authorize permits for risk-based restoration of contaminated sites.

(B) Assessment

For classes of operation that require operating plans before being allowed to proceed (classes 3 and 4) regulations promulgated under the *PMA* require that certain information be provided to the Chief, Placer Land Use. (For class 4 placer activity, this responsibility has been delegated to the Chief, YWB).

For classes of exploration program that require operating plans before being allowed to proceed (classes 3 and 4) regulations promulgated under the *QMA* require that certain information be provided to the Chief, Mining Land Use. The information requirements for purposes of assessing applications for licences are in the discretion of the Minister.

TLYA land use regulations require a territorial engineer before issuing a permit, to order an inspection of the subject lands and require the permit applicant to provide such information and data concerning the proposed land use as will enable the engineer to evaluate quantitative and qualitative effects of the proposed land use operation.

The *WA* requires licence applicants to provide the YWB with such information and studies concerning the use of waters or deposit of waste proposed by the applicant as will enable the YWB to evaluate any qualitative and quantitative effects on waters. The regulations also set out additional information requirements.

The *Environment Act* requires information for (1) development permits, and (2) contaminated site restoration and rehabilitation.

(C) Monitoring

The *PMA* and *QMA* (and regulations) are silent on monitoring activity.

The *TLYA* and regulations are silent on monitoring. However, the land use regulations authorize the submission of reports on the progress of the land use operation. That authority could be interpreted as a basis for imposing some type of monitoring obligation.

The *WA* authorizes monitoring activity as a condition of licence approval.

Environment Act regulations impose monitoring obligations in a number of contexts that also could be applicable to mining activities.

The *EAA* authorizes the imposition of monitoring requirements as a condition of an environmental assessment.

The *PMA*, *QMA*, *TLYA*, *WA*, and the *Environment Act* all authorize the appointment of inspectors or officers to ensure compliance with these laws.

(D) *Liability*

The *PMA*, *QMA*, *TLYA*, *WA*, and the *Environment Act* all impose quasi-criminal, administrative, and civil liability for non-compliance with the Act, regulations, approved operating plans, licences, or permits as the case may be.

(E) *Emergency Response*

The *PMA* and *QMA* authorize emergency response measures by inspectors where there may be a danger to persons, property or the environment from on-going, past, terminated, or abandoned placer land use operations, exploration programs, development or production activities as the case may be.

The *TLYA*, *WA*, and *Environment Act* are silent about emergency response authority available under these laws. However, the authority under each of these statutes for inspectors or the Minister to undertake remedial measures when there is non-compliance with a licence, permit condition, or regulatory provision arguably is capable of being invoked in circumstances of an emergency.

(F) *Financial Instruments*

The *PMA*, *QMA*, and the *WA* authorize the government to impose security obligations where there is a risk of significant adverse environmental effects from class 2-4 placer land use operations, quartz exploration programs, planned quartz mining development or production, or deposits of waste as the case may be. The regulations set out the basis upon which the amount, form, default, and return of the security is to be determined. Where there is non-compliance with the Act, regulations, operating plans, or other legal instruments and the amount of security is insufficient to pay for the costs incurred by the government in implementing remedial measures, the reasonable costs in excess of the security incurred by the government constitute a debt due the government.

TLYA land use regulations authorize a territorial engineer to impose a security deposit, not to exceed \$100,000, as a permit condition. The regulations also set out the form, return, default, and cost recovery provisions in respect of the security.

The *Environment Act* authorizes the Minister to impose financial assurance as a condition of permit issuance or an environmental protection order. The Act also grants the territorial cabinet the authority to promulgate regulations that would allow the imposition of a lien on the property of a person or a permit holder that is not in compliance with an environment protection order.

As noted elsewhere, cost recovery provisions can be effective against a mine operator with other assets in the jurisdiction, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the jurisdiction and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up.

(G) Application/Exemption

PMA and *QMA* (Part 2 and the regulations) apply to claims or land on which a mineral lease has been granted in respect of the four classes of placer land use operation (*PMA*), exploration program, development or production activity (*QMA*) as the case may be.

The *TLYA* and regulations apply to lands that became territorial lands in 2003 and also regulate coal mining, and dredging for minerals, but do not limit the operation of the *PMA* or *QMA*.

The *WA* applies to placer and quartz mining undertakings that will require the use of water or that will deposit waste.

Mining activity that is caught by the definition of development or that results in contaminated sites, may be subject to the requirements of the *Environment Act*.

(H) Designation of Orphaned/Abandoned Sites

The *PMA*, *QMA*, *TLYA*, *WA*, and *Environment Act* do not define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

As a result of the DTA and the earlier 2002 federal environmental commissioner audit report on abandoned mines in northern Canada, a listing of major mine sites (Type II) has been compiled.

(I) Community Involvement

The *PMA* and *QMA* authorize public notice and public consultation for certain classes of placer land use operation or exploration program as the case may be.

The *TLYA* authorizes opportunities for notice and comment on orders setting out territorial lands as land management zones and on draft regulations.

In addition to opportunities for notice and comment on draft regulations, the *WA* authorizes optional or mandatory public hearings by the YWB before issuing, amending, or canceling certain categories of licence.

The *Environment Act* authorizes opportunities for notice and comment and public hearings before promulgating or revising regulations, and participant funding for a variety of processes authorized under the Act. The regulations require that persons responsible for preparation of contaminated site restoration plans set out the details of any public consultation that has occurred or is proposed during the restoration process.

These laws are otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

2. NORTHWEST TERRITORIES AND NUNAVUT

As noted above, the federal and Northwest Territories governments are now negotiating an arrangement similar to the DTA that applies in the Yukon. Until those arrangements are completed, federal mining and resource management laws (reviewed above – Part VI.A) continue to apply to the Northwest Territories. Federal mining and resource management legislation also continues to apply to Nunavut. Therefore, neither territorial government has mining laws of its own at this time (except with respect to mine workplace safety). Furthermore, Nunavut, created in the 1990s when its territory was split-off from that of the Northwest Territories, continues to use the environmental and mine safety legislation of the Northwest Territories as its own for the time being, until future statutory reforms are enacted by the Nunavut Legislative Assembly. Accordingly, because the laws of the Northwest Territories and Nunavut essentially are identical, a single review follows of the Northwest Territories and Nunavut environmental and mine workplace safety regimes as they apply, or may apply, to mining activity.

a. Environmental Laws

i. Environmental Protection Act

The *Environmental Protection Act* (“EPA”),¹³⁹⁵ administered by the Department of Environment and Natural Resources (“DENR”) in the Northwest Territories and by the Department of Environment (“DOE”) in Nunavut, is the primary environmental law applicable, or potentially applicable, to mining activity in the Northwest Territories and Nunavut.

The *EPA* defines several terms including contaminant,¹³⁹⁶ discharge,¹³⁹⁷ environment,¹³⁹⁸ and substance.¹³⁹⁹

The *EPA* authorizes the issuance of **permits** and **licences** in accordance with the regulations.¹⁴⁰⁰ Currently, there are no regulations applicable to mining under this Act. Accordingly, the application of the permitting/licensing authority under the Act to mining activity may be more theoretical than actual at this time. However, the authority appears to be in place to apply the Act to such activity in future.

In terms of **assessment** activity, the *EPA* provides the authority for development of information requirements for permits and licences.¹⁴⁰¹

The *EPA* is silent on **monitoring**. However, the authority for imposing monitoring-type requirements appears to exist under the Act.¹⁴⁰² The Act also authorizes inspections to ensure compliance with the Act, regulations, permits, licences, or orders.¹⁴⁰³

¹³⁹⁵ R.S.N.W.T. 1988, c. E-7, as am. In Nunavut, the statute is entitled the *Environmental Protection Act (Nunavut)*, R.S.N.W.T. 1988, c. E-7, as amended by statute enacted under s. 76.05 of the *Nunavut Act*, S.N.W.T., c. 34. Hereinafter, all citations will be to Northwest Territories law.

¹³⁹⁶ R.S.N.W.T. 1988, c. E-7, s. 1, as am. (any substance that where discharged to the environment endangers the health, safety or welfare of persons; interferes or is likely to interfere with normal enjoyment of life and property; endangers the health of animal life; or causes or is likely to cause damage to plant life or property).

¹³⁹⁷ *Ibid.* (dump, emit, leak, spill, escape, etc.).

¹³⁹⁸ *Ibid.* (air, land water; organic or inorganic matter and living organisms and interacting natural systems that include above components).

¹³⁹⁹ *Ibid.* (solid, liquid, gas, organism, or combination thereof).

¹⁴⁰⁰ *Ibid.*, s. 10.1.

¹⁴⁰¹ *Ibid.*, s. 34(1)(m)(n) (regulation-making authority with respect to applications for permits and licences).

¹⁴⁰² *Ibid.*, s. 34(1)(e)(f)(g)(m)(n) (regulation-making authority with respect to reporting and sampling of emissions, as well as with respect to applications for permits and licences).

The *EPA* imposes quasi-criminal,¹⁴⁰⁴ administrative,¹⁴⁰⁵ and civil¹⁴⁰⁶ **liability** for non-compliance with the Act, regulations, permits, licences, or orders. Liability may be joint and several under the Act.¹⁴⁰⁷

The *EPA* authorizes **emergency response** activity by the government where there is a need for immediate remedial measures to protect the environment.¹⁴⁰⁸

In terms of **financial** instruments or measures, the *EPA* authorizes the imposition of fees in connection with applications for permits or licences,¹⁴⁰⁹ but is silent on the imposition of financial assurance or security measures.

In terms of the **application** of the *EPA*, it applies to persons who discharge contaminants to the environment and thus may apply to mining through general prohibition of, or permitting/licensing with respect to, such discharges.¹⁴¹⁰

The *EPA* does not define **orphaned/abandoned** mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

In terms of **community involvement**, the *EPA* authorizes notice to, and comment by, interested persons with respect to (1) applications for permits or licences,¹⁴¹¹ and (2) proposed regulations.¹⁴¹² The Act is otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

ii. Environmental Rights Act

The *Environmental Rights Act* ("ERA") is a process statute designed to (1) enlarge public involvement in the environmental decision-making process, (2) enhance government accountability, and (3) expand public access to the courts.¹⁴¹³ Accordingly, the *ERA* can be viewed as a supplement or complement to the *EPA*.

In terms of the areas of interest for this report, the above roughly correspond to **community involvement**,¹⁴¹⁴ and **liability**,¹⁴¹⁵ respectively.

¹⁴⁰³ *Ibid.*, ss. 18-19.

¹⁴⁰⁴ *Ibid.*, ss. 12-15.

¹⁴⁰⁵ *Ibid.*, ss. 4 (issuance of environmental protection order by chief environmental protection officer), 6-7(1) (inspector's orders to stop discharge and remedy environmental damage), 10.7 (suspension of permit or licence by controller of licensing).

¹⁴⁰⁶ *Ibid.*, ss. 15.2 (injunctions), 16 (reasonable costs of territorial government incurred in undertaking remedial measures where orders not complied with constituting debt due government recoverable in a court of competent jurisdiction).

¹⁴⁰⁷ *Ibid.*, s. 16(2).

¹⁴⁰⁸ *Ibid.*, s. 7(2).

¹⁴⁰⁹ *Ibid.*, s. 10.2.

¹⁴¹⁰ *Ibid.*, ss. 5 (prohibition on discharge of contaminants), 10.1 (permitting and licensing authority).

¹⁴¹¹ *Ibid.*, s. 10.5(3).

¹⁴¹² *Ibid.*, s. 34(2).

¹⁴¹³ R.S.N.W.T. 1988, c. 83 (Supp.), preamble (*ERA* an enactment designed to establish rights for all persons to protect environment), s. 2(4) (*ERA* binds territorial government).

¹⁴¹⁴ *Ibid.*, s. 4 (public may request government to conduct investigations where believe territorial environmental laws have been violated).

¹⁴¹⁵ *Ibid.*, ss. 5 (standing granted to prosecute environmental offences), 6 (standing recognized to initiate action for injunction or damages to protect environment and public trust – defined as interest of public in environmental quality for future generations).

b. Workplace Safety Laws

i. Mine Health and Safety Act

The *Mine Health and Safety Act* (“MHSA”) is designed to protect workers against health and safety hazards on the job.¹⁴¹⁶ In general, regulations promulgated under the Act address a variety of matters including mine closure.¹⁴¹⁷ The compliance and enforcement authority under the Act is comparable to that reviewed in connection with the mining and environmental laws reviewed above.

c. Policies, Programs, or Related Initiatives

In addition to Northwest Territories and Nunavut regulatory authority applicable, or potentially applicable, to operating or closing mines where a responsible person is available to finance remedial measures, there are a number of non-regulatory policies, programs, or initiatives directed explicitly at orphaned/abandoned mines. The initiatives include (1) federal-Northwest Territories government cooperative arrangements directed toward devolving greater responsibility to the territorial government, (2) sustainable development policies in the Northwest Territories; and (3) adoption of a northern strategy by both the Northwest Territories and Nunavut that includes remediation of contaminated sites.

With respect to the first initiative noted above, the Northwest Territories and the federal government have signed both a memorandum of intent (“MOI”) and a framework agreement respecting eventual devolution of responsibilities to the territorial government for public land and water management (“DFA”). The MOI, signed in 2001, set out the initial objectives, principles, and related matters that would guide discussions on establishing a formal process on devolution and resource revenue sharing, including pre-and-post devolution responsibility for environmental liabilities.¹⁴¹⁸ The DFA, signed in 2004, committed the governments to negotiating an agreement in principle relating to (1) transfer to the territorial government of administration, control, and responsibility for public lands and waters currently administered by DIAND, and (2) post-devolution land and resource management.¹⁴¹⁹

With respect to the second initiative noted above, the Northwest Territories government sustainable development policy commits the government to (1) promoting exploration, development, and use of mineral resources in ways that provide lasting social and economic benefits while maintaining ecological

¹⁴¹⁶ S.N.W.T. 1994, c. 25.

¹⁴¹⁷ *Mine Health and Safety Regulations*, N.W.T. Reg. 125-95, ss. 17.01-17.03 (addressing securing of mine site and filing of closure plan).

¹⁴¹⁸ Government of Canada and Government of the Northwest Territories, *Memorandum of Intent on Devolution and Resource Revenue Sharing* (May 22, 2001) at art. 1.0, 2.0 (objectives include transfer of legislative powers, programs, and responsibilities with respect to administration of mines and minerals; water, land, and environmental management; and related matters), art. 3.14 (discussions based on principle that for the period prior to transfer environmental obligations and liabilities incurred will be responsibility of the federal government; for the period after transfer environmental obligations and liabilities incurred will be the responsibility of the territorial and aboriginal governments). Key among environmental obligations and liabilities at issue is the fate of 22 abandoned mine sites in the Northwest Territories identified in 2002 by the federal environment commissioner. See Commissioner of the Environment and Sustainable Development, *Abandoned Mines in the North: Report to the House of Commons* (Ottawa: CESD, 2002) at Appendix (noting 22 abandoned mines in Northwest Territories that may, likely, or do require action). At just two of these mine sites the 2002 audit noted the following: Colomac Mine - amount of financial security collected from owner - \$1.5 million; estimated costs to DIAND to cleanup - \$70 million; Giant Mine - amount of financial security collected from owners - \$7.4 million; estimated cost to DIAND to cleanup - between \$53 million and \$400 million depending on option selected. *Ibid.* at 9.

¹⁴¹⁹ Government of Canada, Government of the Northwest Territories, and Aboriginal Summit, *Northwest Territories Lands and Resources Devolution Framework Agreement* (March 18, 2004) art. 1.1 (public lands defined as including mineral resources), art. 4.1(a) (transfer), art. 4.1(b) (post-devolution management).

processes and natural diversity, (2) collaborating with the public and private sector to achieve these goals, and (3) reviewing periodically territorial programs, policies, and laws to ensure they are consistent with sustainable development principles.¹⁴²⁰

With respect to the third initiative noted above, federal and territorial governments, including the Northwest Territories and Nunavut, adopted a northern strategy framework in 2004 that includes as a goal protection of the environment through objectives such as remediation of contaminated sites, environmental monitoring, and effective land and water management processes.¹⁴²¹

d. Findings and Summary

There are several aspects of Northwest Territories and Nunavut law, policy, and programs that merit comment in the context of operating, contaminated, and orphaned/abandoned mines. These include:

1. Currently, neither the Northwest Territories nor Nunavut have ownership of mines and minerals and therefore do not have mining laws, apart from mine workplace safety laws. This situation may change in the near future for the Northwest Territories when devolution transfer arrangements between the federal and Northwest Territories governments respecting public land (mines and minerals) and water management are completed. These arrangements also will address environmental responsibilities and liabilities for abandoned mines pre-and-post devolution.
2. To the extent mine rehabilitation authority exists under environmental or mine workplace safety laws in the Northwest Territories and Nunavut it focuses on operating, closing, or "closed" mines where a viable owner or operator remains responsible for, and upon whom obligations can be imposed respecting, the site but generally does not define or address the "orphaned/abandoned" mine situation.

A brief summary of the key Northwest Territories and Nunavut laws, policies, and programs discussed above, organized by the nine categories of interest to the NOAMI - GLRTG, appears below.

(A) Licence/Permit

The *EPA* authorizes the issuance of permits and licences in accordance with the regulations. Currently, there are no regulations applicable to mining under this Act. Accordingly, the application of the permitting/licensing authority under the Act to mining activity may be more theoretical than actual at this time. However, the authority appears to be in place to apply the Act to such activity in future.

(B) Assessment

The *EPA* provides the authority for development of information requirements for permits and licences.

¹⁴²⁰ Government of the Northwest Territories, *Sustainable Development Policy – 52.05* (Yellowknife: GNWT, 2005) at 8.

¹⁴²¹ Government of Canada and Governments of Yukon, Northwest Territories, and Nunavut, *Nation Building – Framework for a Northern Strategy* (2004).

(C) *Monitoring*

The *EPA* is silent on monitoring. However, the authority for imposing monitoring-type requirements appears to exist under the Act. The Act also authorizes inspections to ensure compliance with the Act, regulations, permits, licences, or orders.

(D) *Liability*

The *EPA* imposes quasi-criminal, administrative, and civil liability for non-compliance with the Act, regulations, permits, licences, or orders. Liability may be joint and several under the Act.

The *ERA* provides the authority to impose quasi-criminal and civil liability for non-compliance with territorial environmental laws.

(E) *Emergency Response*

The *EPA* authorizes emergency response activity by the government where there is a need for immediate remedial measures to protect the environment.

(F) *Financial Instruments*

The *EPA* authorizes the imposition of fees in connection with applications for permits or licences, but is silent on the imposition of financial assurance or security measures.

(G) *Application/Exemption*

The *EPA* applies to persons who discharge contaminants to the environment and thus may apply to mining through general prohibition of, or permitting/licensing with respect to, such discharges.

(H) *Designation of Orphaned/Abandoned Sites*

The *EPA* does not define orphaned/abandoned mines, set out criteria for identifying these facilities, or authorize compilation of an inventory of such sites.

(I) *Community Involvement*

The *EPA* authorizes notice to, and comment by, interested persons with respect to (1) applications for permits or licences, and (2) proposed regulations.

Under the *ERA* the public may request government to conduct investigations where they believe territorial environmental laws have been violated.

The *EPA* and *ERA* are otherwise silent on community/municipal/Aboriginal involvement in the process of orphaned/abandoned mine rehabilitation.

VII. OVERALL FINDINGS ON COLLABORATION, LIABILITY, AND FUNDING FOR OPERATING, CONTAMINATED, AND ORPHANED/ABANDONED MINES IN CANADA

This part of the report makes three broad areas of findings arising from the above review of federal, provincial, and territorial laws, policies, and programs respecting operating, contaminated, and orphaned/abandoned mines in Canada. These areas of findings are with respect to (A) collaboration, (B) liability, and (C) funding.

Overall, what the findings suggest is that the gap in existing law continues to be with respect to the orphaned/abandoned mine problem. Both mining and environmental laws operate on the assumption of a responsible person being available upon whom regulators may impose obligations (e.g. permits, licences, assessment, monitoring) and, if necessary, liability. Such laws are silent on the orphaned/abandoned mine problem. Implicitly under these laws an orphaned/abandoned mine, which by definition has no responsible person upon whom regulators may impose obligations, is presumed not to occur. Accordingly, these laws do not have application to, and have not developed mechanisms for when there are, orphaned/abandoned mines (other than emergency response by government using public funds to remedy the problem).

A gloss on the above overall finding is with respect to the environmental laws of certain Maritime and western provinces that have recognized the concept of an “orphan contaminated site.” These laws, which define an orphan contaminated site in a generically similar manner to an orphaned/abandoned mine, are relatively new and contain very broad, if general, authority for government to address the “orphan contaminated site” problem. The authority granted government usually is to enter into agreements, development programs, or other measures to address the problem. However, this broad, general authority has not been translated into any obvious programs in the mining context to date that look any different than government invoking emergency response authority and expending public funds to assess and cleanup such sites. Moreover, on its face there would seem to be many instances where a contaminated site also could be a mine, in which case these particular laws could apply to the latter. However, it also appears that in at least one of these jurisdictions (Alberta) the primary type of mining that has occurred in the past (coal mining) may not generate the type of problem that would cause provincial authorities to apply contaminated site laws to such mine sites.

Overall, the application of funding measures, such as financial security requirements, also has proven to be a weak link in existing legislation. In several cases noted in the report, predictions of the quantum of financial security needed from applicants to ensure proper closure and rehabilitation have not been accurate. In these cases, when mining companies became insolvent or disappeared actual funding that became necessary to avoid major shortfalls in cleanup costs had to be provided by government using public funds with little expectation of cost recovery.

Finally, ad hoc non-statutory collaborative attempts to deal with the orphaned/abandoned mine problem, while of importance from a practical and precedent standpoint, do not appear to be the most effective way to deal with the overall problem if they are expected to be a primary response to it. Given the potential magnitude, scope and cost of the orphaned/abandoned mine problem a systematic approach that would result in collaborations involving many sites would or should be occurring. However, this review was able to point to relatively few site collaborations across the country.

These and related issues respecting collaboration, liability, and funding are covered in more detail below.

A. Collaboration

The review identified four types of collaborative measures. First, there are federal-provincial collaborations. An example of this is the Canada-Ontario agreement respecting abandoned uranium mine and mill tailings under which each government agrees to cover 50 per cent of perpetual care costs where a producer or owner is unable to pay for cleanup due to bankruptcy, insolvency, or in emergency circumstances.

Second, there are federal-territorial collaborations. An example of this is the Canada-Yukon DTA under which Canada is responsible for the remediation of environmental impacts associated with activities that occurred on an abandoned mine site prior to April 2003. In turn, the Yukon is responsible for remediation of impacts associated with permits or authorizations issued by that government to mining operations after April 1, 2003.

Third, there are federal-industry collaborations. An example of this arises with respect to the 2002 federal mine site reclamation policy for the Northwest Territories (and Nunavut). Under this policy if a mine operator is insolvent and a receiver, interim receiver, or trustee-in-bankruptcy abandons a mine because the unsecured environmental liabilities exceed the economic value of the mine, the federal government will enter into transactions with a purchaser of such an abandoned mine under certain conditions. These conditions include: (1) the purchaser would have its liability for the existing environmental condition of the property limited, (2) a portion of the economic value of the production from the mine would go to a fund for the remediation of the existing liabilities at the site, and (3) the purchaser would remain fully liable for the remediation costs of any environmental impact resulting from its operations at the site. Pursuant to this policy, the federal government entered into a variation of this arrangement with respect to the Giant Mine. The federal environment commissioner adversely commented upon the particulars of this arrangement, in part because it may have departed from some of the conditions set out in the policy, but the federal government has defended the arrangement given the circumstances.

Fourth, there are provincial-industry collaborations. Examples of this include:

- The 2001 British Columbia indemnification for environmental liabilities to the successor companies of the Britannia Mine operators in exchange for \$30 million. Using this money, the provincial government has undertaken remediation at the mine site. The current estimated total cost for remediation and treatment at the site is \$75 million, of which the province is contributing \$45 million. Although there are conflicting views as to whether the Britannia Mine is "abandoned" the arrangement entered into between the province and the successor companies specifies a fixed level of mining company contribution (i.e. \$30 million) and blends with that industry contribution, an indeterminate level of public funds (\$45 million to date) to attempt to solve the "orphaned/abandoned" mine problem on that particular site. Overtime, and depending on the particulars of the Britannia Mine arrangement, if the commitment of public funds were to grow while the company contribution remained fixed, there is the potential for the arrangement to be viewed as problematic from a public policy perspective;
- The 2003 Ontario and Ontario Mining Association ("OMA") memorandum of understanding that allows mining companies to make voluntary contributions to rehabilitate historical abandoned mines on Crown lands in return for a tax deduction and indemnification from liability. Under the partnership arrangement, Ontario administers funds received from industry, government, or other parties. Ontario and OMA expect that implementation of the agreement could result in (1) enhancing the rate of rehabilitation of abandoned mine hazards in Ontario, and (2) improving the image of the mining industry; and

- Two site-specific government-industry partnerships also have been entered into in Ontario. In the first, when a former mine owner went into receivership, Ontario and Kinross Mines entered into an arrangement to co-share liabilities while the company conducted exploration work and developed closure plans. In the second, Ontario and Falconbridge entered into an arrangement respecting the abandoned Kam Kotia mine that granted the company exclusive exploratory rights for five years in exchange for \$50,000 per year in environmental funding toward site cleanup. Ontario also exempted Falconbridge from full cleanup costs respecting existing hazards unless the company made the situation significantly worse.

The first two types of collaborations noted above (federal-provincial; federal-territorial) are arrangements in which 100 per cent of environmental clean-up costs for orphaned/abandoned mines are paid for through public funds. The advantage of these types of collaborations is that a broader base of public funding is available for cleanup of orphaned/abandoned mines. The disadvantage of these types of collaborations is that with only public funds available the clean-up process may still take a long time. This will be due to a variety of factors arising from the lack of a permanent dedicated funding source (as opposed to simply monies from consolidated revenue) as well as the overall magnitude of the orphaned/abandoned mine problem.

The last two types of collaborations noted above (federal-industry; provincial-industry) have the potential to result in something less than 100 per cent of clean-up costs for orphaned/abandoned mines being paid for through public funds. The advantages of these types of collaborations include (1) not all the funding comes from public funds, and (2) a broader base of funds available for clean-up can expedite the time within which problems at these sites are addressed. The disadvantages of these types of collaborations include: (1) potential lack of a systematic tackling of the overall orphaned/abandoned mine problem as the sites that may attract industry interest or be on Crown land may not be the ones most in need of environmental attention; and (2) the proportion or percentage of public to private funds may/likely will vary considerably from site to site, as will the terms and conditions of the arrangement, depending upon the best “deal” that can be negotiated in the circumstances.

In addition, several provinces were of the view that federal-provincial (Manitoba) or federal-provincial-industry (Saskatchewan) orphaned/abandoned mine collaborations should be taking place in their jurisdictions because of past federal government and mining industry encouragement, promotion, or undertaking of mining activity to meet national security needs (e.g. war effort; uranium mining).

Finally, the environmental laws of Newfoundland and Labrador and Nova Scotia authorize the government to enter into agreements, establish programs and other measures necessary to restore and secure contaminated sites and the environment affected by such sites where a person responsible cannot be identified or is unable to pay clean-up costs. While these authorities are not specific to mines there are circumstances where a contaminated site also could be a mine. Moreover, the provisions essentially define the orphaned/abandoned mine situation (i.e. responsible person cannot be identified or is unable to pay for cleanup) and make it evident that the provincial treasury may be the primary, if not the sole, funding source of last resort for solving the problem. However, given the wording and depending on how these authorities are administered, the laws of these two provinces also may be considered precedents for encouraging voluntary abandoned mine land abatement, remediation, and reclamation activities. What may be necessary, however, is greater specificity and guidance in the laws themselves about how these authorities will be administered, if at all, in the context of orphaned/abandoned mines. Furthermore, these laws may need to be more pro-active in nature in order to attract, on a systematic basis, public and private sector collaborators in solving the orphaned/abandoned mine problem.

B. Liability

In general, federal-provincial-territorial jurisdictions reviewed appear to possess authority under both mining and environmental legislation to impose three types of liability with respect to mining activity: (1) quasi-criminal, (2) administrative, and (3) civil. (Exceptions to this are the Northwest Territories and Nunavut that, at this time, have environmental and mine workplace safety legislation but not general mining legislation. This situation should change in the relatively near future for the Northwest Territories when federal authority for public land – mines and minerals – and water management will devolve to the territorial government. This likely will result in Northwest Territories mining legislation that will “mirror” current federal mining laws).

Quasi-criminal liability may arise from public or private prosecution of an offender in a court for violation of general prohibitions contained in mining or environmental legislation or regulations, or terms or conditions of licences, permits, approvals, or remedial orders issued thereunder. Administrative liability may arise from the issuance by inspectors, federal, provincial, or territorial officers, or the minister of remedial orders, suspension or cancellation of licences, permits, or approvals. Civil liability may arise from government or private citizen court actions or applications seeking damages, injunctions, cost recovery, or other remedies available under statute law, common law, or civil law (Quebec). However, imposition of liability is most effective under statute law, common law, or civil law with respect to operating, closing, or closed mines where a viable responsible party still exists against whom financial obligations or sanctions may be imposed. Authority to impose liability is not effective against orphaned/abandoned mines because either the person responsible for the site cannot be identified or is unable to pay for rehabilitation. Thus, many such facilities under most legislation revert to Crown ownership. Moreover, the only entity against whom liability may attach in these circumstances is the Crown itself. Accordingly, orphaned/ abandoned mines, by definition, render ineffectual statutory regimes based solely or primarily on imposition of liability for non-compliance and current statutory regimes based exclusively on liability principles make it inevitable that the legal, financial, and technical responsibility for orphaned/ abandoned sites will revert to government. This report noted many examples of the potential financial liability for cleanup that has been accruing, or may yet accrue, to governments as a result of the orphaned/abandoned mine problem:

- Federal government (in northern Canada only) - \$550 million (estimate viewed as conservative);
- Ontario - \$500 million;
- Quebec - \$75 million;
- Manitoba - no estimate (currently inspecting all the known approximately 250 inactive/abandoned mines to establish province's liability);
- Saskatchewan - no estimate (assessment of 75 abandoned mines completed);
- Newfoundland and Labrador - partial estimate at least \$20 million (one site); no estimate to date for at least nine other sites;
- British Columbia - \$45 million (government contribution to solving environmental problems at Britannia Mine); no estimate for province as a whole;
- Alberta - no estimate;
- Nova Scotia - no estimate;
- New Brunswick - no estimate.

The authority to impose joint and several liability authorized under some environmental legislation, potentially can expand the scope of persons upon whom liability may be imposed. However, in practice this authority also by definition will largely be ineffective in the face of orphaned/abandoned mines.

Finally, one other emerging trend is noteworthy in the imposition of liability under environmental legislative regimes. That trend relates to the circumstances under which protection from environmental liability for contaminated sites may be offered for certain classes of otherwise potentially responsible persons (e.g. receivers, receiver-managers, trustees-in-bankruptcy). This development may provide a possible precedent for future legislative reforms that would protect volunteers seeking to remediate orphaned/abandoned mines. Some examples of this already have occurred on an ad hoc basis in the orphaned/abandoned mine context and have been identified elsewhere in this report.

A potential statutory precedent along these lines has developed in British Columbia. In that province, certain types of environmental orders and/or security obligations that otherwise could apply to contaminated mining sites under British Columbia environmental law, are exempted from so applying if they are historic, exploration, advanced exploration, or producing or past producing mine sites. The objective of such exemptions may be to encourage voluntary remediation or commercial re-mining activity as a means of solving some of the environmental problems at such sites. However, concern also has been expressed that the approach could in future increase the number of, and public liability for, orphaned/abandoned mine sites.

C. Funding

Sources of funding to address the orphaned/abandoned mine problem may arise from a variety of authorities under existing mining and environmental legislation. These include (1) fees, (2) security, (3) cost recovery authority arising from non-compliance with such laws, (4) expenditure of public funds arising out of statutory emergency response authority, and (5) authority to impose levies and create permanent funds dedicated specifically to site remediation.

Authority to impose fee requirements as a condition of obtaining a licence, permit, or approval for a mining or milling facility range from the merely nominal, to time spent by government in reviewing applications and supporting documentation including, in some instances, EA reviews. However, authority to impose fees is not based on potential future abandonment of and the cost to rehabilitate such sites.

Financial instruments, such as security requirements, imposed as conditions of licence, permit, or approval issuance are designed to address on-going and post-operation rehabilitation and restoration of mine sites. This authority usually will address such matters as the amount, form, return, and default with respect to such security. Financial security requirements are predicated on being able to predict at the time of application, and periodically thereafter, what it will cost to ensure complete site rehabilitation, restoration, and clean-up by the time mining operations cease at a site. In practice, experience has not demonstrated the accuracy of predictions on the quantum of financial security necessary to achieve this goal. There are numerous examples summarized in the report on the gap between financial security obligations imposed and the quantum of funds actually necessary to rehabilitate, restore, and clean-up particular mine sites that became orphaned or abandoned.

In terms of cost recovery of public funds expended by the Crown to rehabilitate mine sites, generally both mining and environmental laws characterize costs incurred by government to correct dangerous conditions at a mine site as a charge against, and a debt due by, the mine operator to the Crown. The debt binds the property that is the subject of the lease or mineral disposition and the Crown has a lien and charge against the property in respect of that debt that is recoverable by the Crown against the mine

owner or operator in a court of competent jurisdiction. Moreover, the liability of the mine operator does not cease upon permanent closure or abandonment of the mine. Furthermore, where the security provided under a closure plan does not cover the costs incurred in rehabilitating a mine site, the cost not covered by the security also constitutes a debt due to the Crown recoverable from the owner or operator in a court of competent jurisdiction.

Such cost recovery provisions can be effective against a mine operator with other assets in the jurisdiction, or against a valuable, if closed or abandoned mine property. However, such provisions would not be very effective in the face of an operator that (1) no longer exists, (2) is judgment proof, (3) has left the jurisdiction and taken all assets with it, (4) has left inadequate security, or (5) has left a damaged or contaminated property that is worth less than the costs of clean-up. Apart from the authorization for government to correct dangerous conditions (and presumably expend public funds) when a mine is abandoned or closed and the operator is unknown or no longer in the jurisdiction, mining and environmental laws do not establish a program to address these situations. However, these situations are the essence of the orphaned/abandoned mine problem.

As noted above, in general mining and environmental laws authorize government expenditure of public funds arising out of statutory emergency response authority. This emergency response authority appears to have been the primary legislative basis relied upon to address problems created by orphaned/abandoned mines. The inadequacy of cost recovery measures where government has expended public funds in the orphaned/abandoned mine context has been noted above.

Authority to impose levies and create permanent funds dedicated specifically to mine site remediation has not been created in the laws of jurisdictions reviewed for this report. However, Newfoundland and Labrador environmental law does authorize the Minister to “impose levies and establish a fund” for purposes of contaminated site remediation generally. It is not clear if levies have been imposed, a fund established, or what might otherwise be the source or quantum of monies associated with this statutory provision, or whether the regime is meant to apply to mines that also constitute contaminated sites. However, the provision may be unique among provincial environmental legislation in Canada in formally authorizing establishment, as a matter of law, of an orphaned sites fund that could, in certain circumstances, be applied to orphaned/abandoned mines as well. In practice, however, the provincial treasury has appeared to date to be the primary funding source for the province's current program of abandoned mine rehabilitation.

VIII. RECOMMENDATIONS

In the 2002 report on "Barriers to Collaboration" for NOAMI the following recommendations were made relating to the orphaned/abandoned mine problem in Canada:

"Based on the above review there are some precedents to be drawn from that provide a basis for recommendations that might be of assistance to the [Barriers to Collaboration] Task Group. These recommendations are premised on the view that either existing legislation will have to be amended one law at a time (as in an omnibus bill), or that a single stand-alone law will need to be enacted that has the same effect. Accordingly, the following is a short list of possible components or options (some stated in the alternative with the source noted) for a federal and provincial legislative/regulatory approach to facilitating voluntary abandoned mine land abatement, remediation, and reclamation:

- Amend existing or enact new law that encourages volunteers to abate, remediate, and reclaim abandoned mine lands by (1) setting out the protections afforded, (2) identifying who is eligible for protection under the Act, (3) identifying the types of projects covered, and (4) listing the exceptions to immunity from liability (Pennsylvania generally; Kentucky and USDOJ with regard to permit blocking);
- Exempt volunteers from being "responsible persons" under contaminated site, water pollution, or related laws as a result of carrying out "good samaritan" remediation if (1) prior to commencing the remediation, the volunteer was not a "responsible person" in respect of the site; and (2) environment (or environment and mining) ministry officers approve the work. The exemption would not apply to the extent the contamination or water pollution is caused or exacerbated by work carried out negligently, (or grossly negligently, or by willful misconduct) of the volunteer (recommended but only partially adopted in British Columbia; California);
- Establish (1) an abandoned mine reclamation "good samaritan" permit program, which would require permittees to specify reclamation plans and meet certain standards for cleanup, ensure public participation, and environment ministry oversight of cleanups; (2) provide that only "orphan" sites, with no identifiable responsible persons, can be the subject of a reclamation permit; (3) waive potential environmental liability for reclamation permittees during cleanup, but not if the water quality is made worse by the permittee. Where water quality is made worse, environmental liability would re-apply; (4) require compliance with all other water quality and environmental laws (US Congressional Bills);
- Require remining operators to implement strategies that control pollutant releases and ensure that pollutant discharges during remining activities are less than the pollutant levels released from the abandoned site prior to remining. Remining operators would have to develop a site-specific pollution abatement plan designed to reduce the pollution load from pre-existing discharges. The plan must incorporate the design and implementation of best management practices, based on environmental ministry guidance. Require operators to ensure that levels of certain specific substances (e.g. iron, manganese, and pH, etc.) in pre-existing discharges are not made worse from remining activities (USEPA under *Clean Water Act*);
- Create exemptions from remediation liability at "historic mine sites." A person would not be responsible for remediation at a historic mine site if: (1) indemnification has been provided to the person for that site under appropriate legislation; or (2) the person has acquired mineral or coal rights at the site for the purpose of undertaking mineral or coal exploration activities and the exploration activities have not exacerbated any

contamination that existed at the time the person acquired these mineral or coal rights (British Columbia);

- Adoption of measures identified under Part IV.C above (from various federal/provincial jurisdictions in Canada [these include: *Partial exemption from liability for historic mine site contamination* for those seeking to remine such sites as has recently been enacted in one province; *Variance authority* that acts as an "escape valve" from generally applicable environmental requirements such as approvals and regulations, subject to certain obligations, such as consultation with those who may be directly affected by the proposed variance; *Exemptions for secured creditors* from being held as persons responsible for cleanup in certain circumstances are a potential precedent under several provincial laws that could be extended to abandoned mine land volunteers; *Orphan contaminated site rehabilitation agreements* are authorized in several provinces and constitute a precedent for a more sophisticated approach of this type for volunteers in the abandoned mine land context; *Limitations of liability* of responsible persons through a variety of apportionment, allocation, minor contributor, and other measures have been legislated under provincial environmental laws and constitute precedents for more equitable treatment of abandoned mine land volunteers].

Finally, these proposals should be considered in conjunction with other measures that are outside the scope of this report (e.g. abandoned mine land funds, more effective security deposits, etc.), but also appear to be integral to development of a comprehensive response to the abandoned mine land problem in Canada."

In the 2003 "Funding Approaches" report for NOAMI the following recommendations were made relating to the orphaned/abandoned mine problem in Canada (footnote references are from the 2003 report):

"Based on the above review the authors provide the following recommendations for the consideration of the [Funding Models] Task Group.¹⁴²²

1. Governments in Canada with authority for control of mining¹⁴²³ should amend existing or enact new legislation¹⁴²⁴ addressing specifically adoption and implementation of a funding regime for cleanup of orphaned/abandoned mines in their respective jurisdictions.
2. The funding regime should be designed to substantially eliminate the backlog of orphaned/abandoned mines in the jurisdiction in which the legislation is enacted within a reasonable timeframe (i.e. one or more decades not one or more centuries). To achieve this goal the legislation should identify the minimum and maximum quantum of monies that the Fund identified in recommendation 4 below should commence with at the start of each government fiscal year and authorize a well-defined remedial action planning and budgetary process.
3. Such legislative regimes should be based on a mix of all of the following funding approaches including:

¹⁴²² These recommendations do not address what the percentage financial contribution should be from each of the funding approaches identified in recommendation 3, below. The reasons for this include that at the time of writing the Report the authors did not have information available on a number of matters that would greatly assist in such a determination. These matters include (1) an accurate estimate of the costs for cleanup of orphaned/abandoned mines in each jurisdiction in Canada; (2) the economic health of the mining industry for each jurisdiction in Canada; or (3) the timeframe that governments in each jurisdiction will want to use to achieve cleanup. While the authors recommend that the cleanup timeframe not exceed 2-3 decades, that is still a matter that governments will need to consider on a jurisdiction by jurisdiction basis.

¹⁴²³ Federal, provincial and, where appropriate, territorial governments.

¹⁴²⁴ Legislation as used in Part X includes, where appropriate, rules and regulations promulgated under the statute.

- Government funding from general revenues coming from a single level of government;
- Federal-provincial (or federal-territorial) government funded cost sharing arrangements from general revenues, where appropriate;¹⁴²⁵
- Levies on mining industry production;
- Government-industry partnerships;
- Government re-direction of a portion of existing mining tax revenue, and reduction of existing incentives to the mining industry and application of both streams to orphaned/abandoned mine cleanup; and
- Other sources of monies such as interest on monies contained in the Fund, deposits to the Fund of fines and administrative penalties imposed on the mining industry under this law and general environmental legislation, donations to the Fund by individuals or others, etc.

4. The legislative regime adopted in each jurisdiction should include establishment of an Orphaned/Abandoned Mine Cleanup Fund ("OAMCF" or "Fund") into which general government revenue, industry levies, and other monies are deposited on an annual basis.

5. The legislation should specify the minimum annual financial appropriation to be made by the government and the period over which that level of appropriation is to continue. Where there is a shortfall from the declared minimum size of the Fund set out in recommendation 2 following estimates based on implementation of all of the funding approaches set out in recommendation 3, the legislation should set out how the shortfall is to be made up for that year.

6. The legislation also should specify the annual levy or levy range to be imposed on each mining company, mining industry sector, or classes within a sector as a cost attributable to its activities in the jurisdiction and the period over which that level of contribution is to continue. The levy calculation may be based on fixed fee(s) per tonne of production, percentage of net proceeds from the previous year, or other method. In specifying the levy or levy range the legislation may take into account such factors as credits to the industry arising from government-industry partnerships, mining type (e.g. surface, underground), environmental impacts, and related matters. The levy should be designed to achieve three objectives. First, it should not constitute an undue financial burden on the mining industry.¹⁴²⁶ Second, it should generate sufficient funds for meeting statutory objectives within a reasonable timeframe in conjunction with the other funding approaches. Third, it should be structured so that it does not exert an inflationary influence on the economy.

7. The legislation should set out the basis for government-industry partnerships, including whether they may be generic or site specific, or both. Where such arrangements are entered into the legislation should set out the effect of such arrangements, if any, on the annual levy noted in recommendation 6 and tax and incentive measures noted in recommendation 8.

¹⁴²⁵ It should be recognized that where federal financing occurs that level of government will be entitled to establish national standards, should it so desire, pursuant to the federal spending power of the Canadian Constitution.

¹⁴²⁶ This can include sensitivity to cash flow and ability to pay within a particular timeframe during periods of economic downturn that impact on the mining industry. The result could be deferral of a requirement on a company to pay the levy in certain years as long as the deferred payment is made up in subsequent years. Volatility of income in the mining sector that may justify this approach is illustrated in Part XIV (Appendix D) of this report using the Ontario mining industry as an example.

8. The legislation should amend federal and provincial tax laws to specifically identify (1) the annual quantum of mining tax revenue being re-directed to the Fund, and (2) the annual quantum reduction of existing incentives to the mining industry being re-directed to the Fund.

9. The legislation should set out the specific purposes of the funding regime including:

- Reclamation and restoration of land and water resources adversely affected by past mining activities;
- Clean-up of abandoned surface mine, processing, milling, and disposal areas;
- Sealing, filling, and grading abandoned underground mine entries, shafts, openings, and voids;
- Planting of land adversely affected by past mining to prevent erosion and sedimentation, including measures for the conservation of soil, water, woodland, fish, and wildlife;
- Prevention, abatement, treatment and control of water pollution created by mine drainage including restoration of stream beds, and construction and operation of water treatment plants;
- Prevention, abatement, and control of mine subsidence;
- Protection of public health, safety, general welfare, and property from extreme danger or adverse effects of abandoned mines;
- Protection, repair, replacement, or enhancement of public facilities, such as roads, recreation, conservation, and open space areas;
- Provision for studies or technical reports by qualified professionals on remedial solutions to environmental, health, or safety problems at orphaned/abandoned mines;
- Compensation for private property or health damage; and
- Public involvement and reporting.

10. The legislation should specify that lands and water eligible for cleanup through the funding regime are those for which there is no identifiable responsible person and that were mined or adversely affected by mining and abandoned or left inadequately reclaimed prior to a date identified in the law. The legislation also should address how (whether) the funding regime will address sites abandoned after the above date so as not to encourage creation of future orphaned/abandoned mines.

11. The legislation should specify the orphaned/abandoned mine cleanup priorities under which the funding regime will operate. Possible priorities could include cleanup of sites posing (1) extreme danger to public health, safety, welfare, property, and the environment and (2) adverse effects¹⁴²⁷ to public health, safety, welfare, property, and the environment, including restoration of land, water, fish and wildlife resources degraded by past mining activity.

¹⁴²⁷ "Adverse effects" include (a) impairment of the quality of the environment for any use that can be made of it, (b) injury or damage to property or to plant or animal life, (c) harm or material discomfort to any person, (d) impairment of the health or safety of any person, (e) rendering any property or plant or animal life unfit for human use, (f) loss of enjoyment of normal use of property, or (g) interference with the normal conduct of business.

12. The legislation should identify the administering entity for the funding regime. The authors recommend that this entity be either a department of government or special government agency created by the legislation establishing the funding regime. Whichever entity is chosen it should bring to the task the expertise that resides within mines and environment departments as well as industry because of the safety, environmental, human health, and engineering problems posed by orphaned/abandoned mines. Furthermore, the decision-making processes employed by the entity should include public input, oversight, accountability, and freedom from conflict of interest. Use of a multi-stakeholder advisory body should be considered to achieve these objectives.

13. The legislation should authorize promulgation of rules and regulations addressing such matters pertaining to administration of the funding regime as:

- Levy collection, mining production reporting, and compliance;
- General fund administration;
- Remedial action planning and budgetary process;
- General reclamation requirements relating to such matters as determining eligibility of specific lands and waters, cleanup objectives and priorities;
- Exemptions, credits for industry partnership contributions, variances, and/or time-limited deferrals from the funding regime;
- Program considerations such as land, water, or mineral rights required for cleanup, jurisdictional responsibilities, non-emergency site selection criteria, emergency projects, and the application of risk assessment to the site selection and site cleanup process;
- Site considerations such as mine drainage, slide-prone areas, erosion and sedimentation, toxic materials, hydrologic balance, public health and safety, fish and wildlife values, and air quality;
- Community involvement and public consultation in site selection and site cleanup projects as well as policy development; and
- Such further and other matters as deemed appropriate in the circumstances.

14. In conjunction with establishment of a funding regime, the process of cleanup of orphaned/abandoned mines should be facilitated through measures designed to eliminate barriers and facilitate community involvement identified by previous studies commissioned by NOAMI. The authors are of the view that (1) adopting any funding approach beyond appropriation of government funding from general revenue and (2) addressing existing legal and institutional barriers to orphaned/abandoned mine cleanup¹⁴²⁸ will compel Parliament and provincial legislatures to address these and related problems as a matter of law. In the circumstances, establishing a comprehensive legal and financial response to these matters appears warranted."

The two overriding legislative reform themes that emerge from the 2002 and 2003 reports are the need for laws that (1) facilitate volunteers in the rehabilitation of orphaned/abandoned mines, and (2) establish permanent funding arrangements for addressing the orphaned/abandoned mine problem that are not

¹⁴²⁸ Castrilli, *supra* note 1.

reliant entirely on public funds. The findings from the current report, which expands the review to operating and contaminated as well as orphaned/abandoned mines, suggest that the recommendations from the 2002 and 2003 reports are still pertinent to the problem.

To underscore the need for legislative reform in these two areas the following supplemental recommendations are proposed for the purposes of expanding or clarifying law reforms proposed in the 2002 and 2003 reports. Repetition with recommendations made in the 2002 and 2003 reports may occur but is not intended. Where there are any inconsistencies between the recommendations in the current report and those in the 2002 and 2003 reports, the recommendations in the current report take precedence.

To facilitate voluntary rehabilitation of orphaned/abandoned mines, amendment of existing, or enactment of new, legislation should address the following matters:

1. Establish that the purpose of such legislation is the facilitation of cleanup of orphaned/abandoned mines by limiting the potential liability of persons that undertake such cleanup.
2. Ensure that the scope of such legislation is not intended to facilitate new mining activities or any reduction in responsibility or liability associated with any current or new mining or processing activities.
3. Authorize issuance of permits for the rehabilitation of orphaned/abandoned mines to persons (government, non-government, First Nation, etc.).
4. Authorize as a condition of permit issuance the submission of an orphaned/abandoned mine rehabilitation plan that includes such information as:
 - Identity of persons proposing, and land area to be addressed by, plan;
 - Environment adversely affected by past mining activities at the orphaned/abandoned mine;
 - Baseline environmental conditions at the time of permit application including impacts from the orphaned/abandoned mine;
 - Conditions at the orphaned/abandoned mine that are causing the adverse environmental impacts;
 - Identity of current and past owners or operators of, or who whose activities contributed to the conditions on, the land on which the orphaned/abandoned mine is located;
 - Rehabilitation plan goals and objectives including actions to be taken to meet applicable environmental requirements to the maximum extent practicable and that will not worsen baseline environmental conditions identified above;
 - Rehabilitation plan practices and estimated schedule and completion date for implementing such practices designed to meet applicable environmental requirements to the maximum extent practicable and that will not worsen baseline environmental conditions identified above;

- Description of how proposed practices will result in rehabilitation plan meeting applicable environmental requirements to the maximum extent practicable and that will not worsen baseline environmental conditions identified above;
- Proposed monitoring, assessment, and reporting that will evaluate success of practices during and after implementation in comparison to the baseline conditions;
- Proposed contingency plans for responding to emergencies at the orphaned/abandoned mine to ensure that practices implemented during such events achieve rehabilitation plan goals and objectives;
- Budget for rehabilitation plan including source(s) of funding or financing to ensure plan implementation can be achieved;
- Legal authority of applicant to conduct rehabilitation plan activities at orphaned/abandoned mine;
- Covenant obligating future landowners to operate and maintain property to ensure rehabilitation plan goals and objectives continue to be met.

5. Authorize government review of applications including public notice and opportunity for comment and, in the case of major orphaned/abandoned mine rehabilitation projects, public hearing(s) on the application as part of the process of determining if a permit should be issued.

6. Authorize government issuance of a permit if (1) applicant has made reasonable efforts to locate and identify current and past owners or operators of, or those whose activities contributed to the conditions on, the land on which the orphaned/abandoned mine is located; (2) no such person exists or is otherwise financially able to undertake the rehabilitation plan; and (3) the rehabilitation plan demonstrates with reasonable certainty that implementation of the plan will meet applicable environmental requirements to the maximum extent practicable and will not worsen baseline environmental conditions identified above.

7. Set out circumstances under which Government could modify or terminate the permit.

8. Allow a permit holder to sell or use materials recovered during the implementation of the rehabilitation plan, but require that the sale proceeds be used to defray rehabilitation costs of the site addressed in the permit or the costs of rehabilitation at other orphaned/abandoned mine sites.

To provide a source of funding for the rehabilitation of orphaned/abandoned mines, amendment of existing, or enactment of new, legislation should address the following matters:

1. Establish that the purpose of such legislation is to create a dedicated source of funding to ensure cleanup of orphaned/abandoned mines.
2. Require that among other sources for such funding fees, levies, percentage of net proceeds, or other methods of fund acquisition will be imposed on persons producing

minerals from a mine and will be payable to government (or government agency established under the regime).

Other recommendations not directly or primarily connected to facilitating volunteers or establishing a dedicated fund for cleanup of orphaned/abandoned mines follow based on the nine categories of provisions investigated for this report:

Licence/Permit:

1. Mining laws that authorize approval of mining operations in the absence of a closure plan should be amended to require such a plan as a condition of approval.
2. Environmental and/or mining laws should be amended to ensure that approval requirements with respect to mining operations and/or remediation, including orphaned/abandoned mine remediation, address protection of drinking water supplies.

Assessment:

3. Mining laws that contain minimal or no assessment information with respect to environmental matters should be reconciled with environmental laws and, if necessary, one, the other, or both amended to require the production of requisite assessment information.

Monitoring:

4. Mining laws that contain no monitoring requirements with respect to environmental matters should be reconciled with environmental laws and, if necessary, one, the other, or both amended to require such activity to ensure no gaps in monitoring coverage.
5. Mining and/or environmental laws should include the cost of on-going and post operation monitoring as part of financial assurance obligations.

Liability:

6. Mining laws that exempt mining operators from liability from certain orders available under environmental laws where mining lands or rights have been surrendered, should be amended to remove the exemptions.
7. Environmental laws that exempt historic, exploration, advanced exploration, producing and past producing mines from certain types of liability, should be amended to remove the exemptions, except to the extent activities at historic mine sites represent “Good Samaritan” attempts to remediate the sites.
8. Liability under mining and environmental laws should be made at least joint and several, but allow apportionment of costs by agreement between persons responsible for mine site contamination.

Emergency Response:

9. Mining and environmental laws that are silent on, or unclear about, the authority to undertake emergency response actions in a mining context, should be amended to explicitly authorize such activity.

10. Where environmental laws exempt (or grant the Minister discretion to exempt) a proponent from having to conduct an individual environmental assessment (where the project is in response to a contaminated or orphaned/abandoned mine site emergency and carrying out the project forthwith is in the interest of preventing damage to property, environment, public health or safety), conditions should be attached to the exemption to ensure community involvement occurs of the type set out in recommendation 28, below.

Financial Instruments:

11. Where mining or environmental laws do not provide for provision of financial assurance or security with respect to operating mines, such laws should be amended to do so.

12. Where mining or environmental laws do not provide for periodic re-evaluation of the adequacy of financial assurance or security and adjustment with respect to operating mines, such laws should be amended to do so.

13. Where mining or environmental laws do not require that in determining the amount of security with respect to operating mines for purposes of mine rehabilitation on a site-specific basis certain factors identified in the laws must be addressed, such laws should be amended to do so. At least the following factors should be identified in such laws:

- current cost for labour, equipment, supplies and services to conduct such rehabilitation activities as removing buildings, structures, or foundations;
- capping or filling pits and shafts;
- stabilizing tailings disposal sites and drainage containment facilities;
- surface contouring;
- establishing proper site drainage;
- re-vegetation;
- other work necessary to reclaim area disturbed by mining activity.

14. Where mining or environmental laws do not provide for a closure plan for mining activity, such laws should be amended to do so. Such closure plan should be required to include the form and amount of financial assurance or security, a schedule of the estimated capital and operating costs of carrying out, in accordance with the plan, closure of the project site, rehabilitation of the site, and programs to monitor and manage the site after closure. Such a closure plan should be certified by an officer or director of the proponent (where the proponent is a corporation) and either a professional engineer, geologist, or accountant. All aspects of the closure plan should be subject to periodic (yearly) review and adjustment where necessary.

15. Where mining or environmental laws do not require a closure plan to contain information regarding consultations carried out with all aboriginal peoples and other members of the public affected by a mining project, including a description of their comments and response, if any, to financial assurance portions of the closure plan, such laws should be amended to do so.

16. Environmental laws that exempt exploration, advanced exploration, producing and past producing mines from having to provide financial security should be amended to remove the exemptions.

17. Mining laws that are silent on recovery of mine cleanup costs incurred by government should be amended to authorize such recovery.

18. Limits established by mining or environmental regulations on the quantum of mine site financial security should be removed.

19. Mining and/or environmental laws should include the cost of on-going and post operation monitoring as part of financial assurance obligations.

Application/Exemption:

20. Where laws respecting environmentally contaminated sites do not apply because mining law rehabilitation provisions apply, both laws should be reconciled and, if necessary, one, the other, or both amended to ensure there are no gaps in coverage.

21. Where rock fill or mill tailing wastes are exempt from the application of waste management provisions of environmental laws, these laws should be reconciled with any other relevant or applicable laws and, if necessary, amended to remove the exemptions.

22. Environmental laws that exempt mining exploration projects from the application of such laws should be amended to remove the exemption.

23. The discretion under environmental assessment laws to exempt the application of EA requirements to mining projects above a certain threshold of production capacity or disturbance area should be reviewed and, where necessary, amended to reduce or eliminate the discretion.

24. Threshold limits for the application of EA requirements based on production capacity or disturbance area should be reviewed and, where necessary, amended to reduce the threshold limits.

Designation of Orphaned/Abandoned Sites:

25. See 2002 and 2003 report and above supplementary recommendations where appropriate.

26. Mining laws, where applicable, should be amended so that their definitions for “abandoned mines” do not define them as sites where permit obligations have been satisfied.

27. Building on the work that has been undertaken in several jurisdictions set out in this report with respect to contaminated sites or orphaned/abandoned mines, mining laws should be amended to define orphaned/abandoned mines as un-rehabilitated sites for which a person responsible cannot be identified or is unable to pay for cleanup, set criteria for identifying these facilities, and authorize compilation of an inventory or database of such sites that is accessible to the public.

Community Involvement:

28. Mining and/or environmental laws should be amended to (1) authorize public involvement and/or hearings before a contaminated or orphaned/abandoned mine site remediation plan or order is issued, (2) establish a site registry for the collection and dissemination of information to the public regarding procedures for investigation and designation of such sites, and (3) require the Minister to provide opportunities for public input in the development of regulations respecting contamination levels or investigation/remediation standards at such sites.

29. Where mining or environmental laws do not require a closure plan to contain information regarding consultations carried out with all aboriginal peoples and other members of the public affected by a mining project, including a description of their comments and response, if any, to the closure plan, such laws should be amended to do so.

30. Mining or environmental laws should (1) require an EA hearing determining whether a major mining project proposal “is in the public interest” having regard to its social, economic, and environmental effects and whether it should be approved, and (2) authorize costs and/or funding to interveners participating in the process.

31. Mining and/or environmental laws should (1) require applicants for mining permits or variances to include information showing the nature and extent of all consultations undertaken with aboriginal peoples and other members of the public who will be directly affected by the proposed permit or variance, (2) allow such persons to submit statements of concern that must be considered by the responsible ministry, and (3) require the responsible ministry to give notice of issuance of any environmental protection or related order respecting a mining operation to the local authority of the municipality where the mine is located, a First Nation, or such other persons as may be affected as is appropriate in the circumstances.

IX. APPENDIX A - LEGISLATION/POLICY/PROGRAM MATRIX TABLES

The following Legislation/Policy/Program Matrix Tables are designed to provide at a glance basic information that is contained in greater detail in the text and summaries for each jurisdiction reviewed in this report. Identification of key mining and environmental legislation or the existence of a policy or program (where there is no legislative regime in place) appears along the horizontal axis (A, B, etc.). The category of provision appears along the vertical axis (1 to 9). The categories of provisions listed below are the same as those addressed throughout the text of the report under each piece of legislation (or policy/program) considered. Policies and programs are grouped under one heading as these measures often have the same characteristics, are integrated with each other, and/or are applied together. A short description for each of the categories listed immediately below was provided by NOAMI. The full description for each of the categories, provided by NOAMI, appears in Part X - Appendix B of the report. Both the short and full descriptions for each of the categories formed the basis for the analysis undertaken in the report:

- Licence/permit
(This provision addresses licences, permits, certificates, orders, or any form of approval issued for contaminated sites, operating mines and orphaned/abandoned mine sites);
- Assessment
(Assessment includes environmental and financial, and also closure and decommissioning plans);
- Monitoring
(Provisions for environmental and financial monitoring as well as site inspection);
- Liability
(Provisions for attribution/limitation of liability);
- Emergency response
(Provisions for responding to sites where there are immediate public health and safety concerns);
- Financial instruments
(Financial instruments include performance bonds, cost sharing, levies, fees, liens, and any form of security);
- Application/exemption
(Who does the legislation apply to and are there any specific exemptions?);
- Designation of orphaned/abandoned sites
(Provisions for designation of orphaned/abandoned sites);
- Community involvement
(Provisions for involving community groups in mine-site remediation).

Where greater detail is required for a particular jurisdiction the reader should consult the full text of the report.

TABLE A.1 - JURISDICTION: Federal
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	N	N	N	O Y	N	O	O	O	O	O	O	N	N	
2. Assessment	O	O	N	O Y	O	O	O	O	O	O	O	O	P	
3. Monitoring	O	O	N	O Y	O	O	O	O	O	O	N	O	P	
4. Liability	O	O	C Y	O	O	O	O	O	O	O	O	N	P	
5. Emergency response	O Y	O Y	N	O Y	N	O Y	O Y	O Y	N	O Y	N	N	P	
6. Financial instruments	N	N	N	O	N	O	O	O	O	O	O	N	P	
7. Application/exemption	O	O	C Y	O Y	O Y	O	O	O	O	O	O	O	N	
8. Designation of O/A sites	N	N	N	Y	N	N	N	N	N	N	N	N	P	
9. Community involvement	O	O	N	O Y	O Y	O	O	O	O	O	O	O	P	

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Canadian Environmental Protection Act, 1999</i>
B	<i>Fisheries Act</i>
C	<i>Bankruptcy and Insolvency Act, Companies' Creditors Arrangement Act</i>
D	<i>Nuclear Safety and Control Act</i>
E	<i>Canadian Environmental Assessment Act</i>
F	<i>Territorial Lands Act</i>
G	<i>Northwest Territories Waters Act</i>

H	<i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i>
I	<i>Nunavut Land Claims Agreement Act</i>
J	<i>Mackenzie Valley Resource Management Act</i>
K	<i>Yukon Surface Rights Board Act</i>
L	<i>Yukon Environmental and Socio-Economic Assessment Act</i>
M	<i>Overall Federal Policy on Mine Reclamation, Northern Contaminated Sites Program, Mine Site Reclamation Policy for Northwest Territories and Nunavut, Federal-Ontario Uranium Mine and Mill Tailings Agreement</i>

TABLE A.2 - JURISDICTION: British Columbia
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	O	N										
2. Assessment	O	O C	O	P										
3. Monitoring	O	O C	O	P										
4. Liability	O	O C	N	P										
5. Emergency response	O Y	O C Y	O	P										
6. Financial instruments	O	O C	N	P										
7. Application/exemption	O	O C	O	N										
8. Designation of O/A sites	O	C Y	N	P										
9. Community involvement	O	O C Y	O	P										

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Mines Act</i>
B	<i>Environmental Management Act</i>
C	<i>Environmental Assessment Act</i>
D	<i>Crown Contaminated Sites Program, Historic Mine Site Database, Britannia Mine Site Government-Industry Collaboration</i>

TABLE A.3 - JURISDICTION: Alberta
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	O	O	O	O	O	N						
2. Assessment	O	O	O	N	N	O	O	N						
3. Monitoring	O	O	N	N	N	N	O	N						
4. Liability	O	O	N	O	O	N	O	N						
							C							
5. Emergency response	O	O	N	O	O	N	O	N						
							C							
6. Financial instruments	O	O	N	O	O	N	O	N						
							C							
7. Application/exemption	O	O	O	O	O	O	O	N						
							C							
8. Designation of O/A sites	N	N	N	N	N	N	N	P						
9. Community involvement	N	N	O	N	N	O	O	P						
							C							

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Coal Conservation Act</i>
B	<i>Oil Sands Conservation Act</i>
C	<i>Energy Resources Conservation Act</i>
D	<i>Mines and Minerals Act</i>
E	<i>Public Lands Act</i>
F	<i>Natural Resources Conservation Board Act</i>
G	<i>Environmental Protection and Enhancement Act</i>
H	<i>Coal Mine Atlas, Mineral Development Strategy</i>

TABLE A.4 - JURISDICTION: Saskatchewan
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O C	O	N										
2. Assessment	N	O C	O	P										
3. Monitoring	N	O C	O	P										
4. Liability	O	O C	O	N										
5. Emergency response	N	O Y C	O	P										
6. Financial instruments	N	O C	N	N										
7. Application/exemption	O	O C	O	N										
8. Designation of O/A sites	N	Y C	N	P										
9. Community involvement	N	O C	O	P										

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Crown Minerals Act</i>
B	<i>Environmental Management and Protection Act</i>
C	<i>Environmental Assessment Act</i>
D	<i>Abandoned Mines Assessment Program</i>

TABLE A.5 - JURISDICTION: Manitoba
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	C	O	O	N										
2. Assessment	C	O	O	P										
3. Monitoring	C	O	O	P										
4. Liability	C	O	O	N										
5. Emergency response	C	O Y	O Y	P										
6. Financial instruments	C	O	O	N										
7. Application/exemption	C	O	O	N										
8. Designation of O/A sites	C	N	N	P										
9. Community involvement	C	N	N	P										

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Contaminated Sites Remediation Act</i>
B	<i>Mines and Minerals Act</i>
C	<i>Environment Act</i>
D	<i>Orphan Mine Site Rehabilitation Program</i>

TABLE A.6 - JURISDICTION: Ontario
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	O	O	N	N								
2. Assessment	O	O	O	O	N	P								
3. Monitoring	O	O	O	O	O	P								
4. Liability	O	O C	O C	O	O	P								
5. Emergency response	O Y	O Y	O Y	N	N	P								
6. Financial instruments	O	O	O	N	N	P								
7. Application/exemption	O	O C Y	O C	O Y	N	N								
8. Designation of O/A sites	N	N	N	N	N	P								
9. Community involvement	O	O C	O	O	O	N								

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Mining Act</i>
B	<i>Environmental Protection Act</i>
C	<i>Ontario Water Resources Act</i>
D	<i>Environmental Assessment Act</i>
E	<i>Environmental Bill of Rights</i>
F	<i>Abandoned Mines Rehabilitation Program, Abandoned Mines Database, MNDM-OMA MOU</i>

TABLE A.7 - JURISDICTION: Quebec
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	N											
2. Assessment	O	O	P											
		C												
3. Monitoring	O	O	P											
4. Liability	O	O	N											
5. Emergency response	O	O	P											
	Y	Y												
6. Financial instruments	O	O	N											
7. Application/exemption	O	O	N											
8. Designation of O/A sites	N	N	P											
9. Community involvement	N	O	N											

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Mining Act</i>
B	<i>Environmental Quality Act</i>
C	<i>Abandoned Mine Site Program, Orphan Mine Site Program</i>

TABLE A.8 - JURISDICTION: New Brunswick

Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	N	N										
2. Assessment	O	O	N	P										
3. Monitoring	O	O	N	P										
4. Liability	O	O	O	P										
5. Emergency response	O Y	O Y	O Y	P										
6. Financial instruments	O	O	N	N										
7. Application/exemption	O	O	N	N										
8. Designation of O/A sites	N	N	N	P										
9. Community involvement	N	O	N	N										

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Mining Act</i>
B	<i>Clean Environment Act</i>
C	<i>Clean Water Act</i>
D	<i>Abandoned Mines Program</i>

TABLE A.9 - JURISDICTION: *Nova Scotia*

Legislation/Policy/Program Framework

[illegible]

Legend

- **O/A = Orphaned/Abandoned Mines**
- **Y = Yes, applies to O/A mine sites**
- **P = Policy/program in place that applies to O/A mine sites**
- **A = Considering development or amendment of statutes as they apply to O/A mine sites**
- **O = Yes, applies to operating mine sites**
- **C = Yes, applies to contaminated sites**
- **N = Not applicable**

<u>Legislation</u>	<u>Policy/Program</u>	<u>Title</u>
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A	<i>Mineral Resources Act</i>
B	<i>Environment Act</i>
C	<i>Mineral Policy on Environmental Protection, Contaminated Site - Historic Gold Mine Tailings Program, Safety Program on Abandoned Mine Openings</i>

TABLE A.10 - JURISDICTION: Newfoundland and Labrador
Legislation/Policy/Program Framework

[illegible]

Legend

- **O/A = Orphaned/Abandoned Mines**
- **Y = Yes, applies to O/A mine sites**
- **P = Policy/program in place that applies to O/A mine sites**
- **A = Considering development or amendment of statutes as they apply to O/A mine sites**
- **O = Yes, applies to operating mine sites**
- **C = Yes, applies to contaminated sites**
- **N = Not applicable**

Legislation	Policy/Program	Title
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A	<i>Mineral Act</i>
B	<i>Mining Act</i>
C	<i>Environmental Protection Act</i>
D	<i>Abandoned Mine Rehabilitation Program</i>

TABLE A.11 - JURISDICTION: Yukon
Legislation/Policy/Program Framework

Legislation/ Policy/Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Provisions														
1. Licence/permit	O	O	O	O	O C	N	N							
2. Assessment	O	O	O	O	O C	O	P							
3. Monitoring	N	N	O	O	O	O	P							
4. Liability	O	O	O	O	O	O	P							
5. Emergency response	O Y	O Y	O Y	O Y	O Y	N	P							
6. Financial instruments	O	O	O	O	O	N	P							
7. Application/exemption	O	O	O	O	O C	O	N							
8. Designation of O/A sites	N	N	N	N	N	N	P							
9. Community involvement	O	O	O	O	O C	O	P							

Legend

- O/A = Orphaned/Abandoned Mines
- Y = Yes, applies to O/A mine sites
- P = Policy/program in place that applies to O/A mine sites
- A = Considering development or amendment of statutes as they apply to O/A mine sites
- O = Yes, applies to operating mine sites
- C = Yes, applies to contaminated sites
- N = Not applicable

Legislation Policy/Program Title

A	<i>Placer Mining Act</i>
B	<i>Quartz Mining Act</i>
C	<i>Territorial Lands (Yukon) Act</i>
D	<i>Waters Act</i>
E	<i>Environment Act</i>
F	<i>Environmental Assessment Act</i>
G	<i>Assessment and Abandoned Mines Unit Program, DTA Policies, Federal-Yukon Cooperative Arrangements for Type II (Major) Mine Sites</i>

TABLE A.12 - JURISDICTION: Northwest Territories and Nunavut
Legislation/Policy/Program Framework

[illegible]

Legend

- **O/A = Orphaned/Abandoned Mines**
- **Y = Yes, applies to O/A mine sites**
- **P = Policy/program in place that applies to O/A mine sites**
- **A = Considering development or amendment of statutes as they apply to O/A mine sites**
- **O = Yes, applies to operating mine sites**
- **C = Yes, applies to contaminated sites**
- **N = Not applicable**

<u>Legislation</u>	<u>Policy/Program</u>	<u>Title</u>
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A	<i>Environmental Protection Act</i>
B	<i>Environmental Rights Act</i>
C	<i>Developing Federal-NWT DTA Arrangements, NWT Sustainable Development Policy, Northern Strategy</i>

X. APPENDIX B - DESCRIPTION OF PROVISION CATEGORIES

1. Licence/Permit/Certificate of Approval/Orders

- Is the licence/permit a standard template or are specific conditions applied on a site-specific basis?
- Is there a duration to the licence/permit and, if so, is the licence/permit renewable?
- Can a licence/permit be transferred?
- Is a licence/permit (or certificate) required prior to rehabilitating the abandoned mine site? If so, list the departments or agencies involved in the permit/licence (or certificate) being reviewed and issued.
- Are federal/provincial/territorial/Aboriginal agencies or organizations involved in the permit review/issuance? If so, list which ones and briefly describe the applicable legislation.
- Site Plans
 - Do you have provisions for site planning, including remediation, closure, decommissioning and follow-up?
 - Do you have provisions for exit tickets? What are they?

2. Assessment

- Are there specific requirements for assessment and, if so, what type of assessment?
- Is there a legal definition for characterizing sites? Is there a distinction between Crown sites and non-Crown sites?
- Do assessments include both environmental and human health/social impacts?
- Are there standards for these assessments?
- Who is responsible for conducting the assessments (government officials, etc.)? Are the assessments conducted by government officials, consultants acting on behalf of the government or the owners? Is the government agency or territory conducting assessments doing so in its own jurisdiction?
- Is funding available for detailed site assessment?
- Is there a process that involves a joint review process that is inclusive of the municipal/Aboriginal government level?

3. Monitoring (*applies to contaminated sites, operating mines and O/A mines*)

- Which departments in your government deal with orphaned/abandoned mine sites in terms of monitoring, maintenance and management of the sites, and regulatory/environmental assessment of the sites?
- Are there specific requirements for monitoring and, if so, for what type of monitoring?
- Do standards or guidelines exist for reclamation or remediation of lands and watercourses?
- Are the monitoring requirements legislated?
- Are there other agencies involved in the review/implementation of the monitoring programs?

- Who is responsible for inspecting the rehabilitated mine hazards and ensuring that the monitoring programs are successfully implemented?
- Is the information shared and is it available?

4. Liability Allocation and Limits

- How is liability assessed, who does it, what's the process?
- Does liability include retroactive, joint and several, or absolute provisions for assigning responsibility?
- Are environmental indemnifications ever granted to individuals or companies for sites?
- Is there a mechanism for allocating or dividing the liability associated with rehabilitation of a mine site?
- How are clean-up costs funded by the government?
- Is there any legislation limiting liability for organizations involved in voluntary reclamation (NGO, community groups, for-profit organizations and companies)?
- Is there a legislative or regulatory requirement for disclosure of environmental liability (includes provisions under securities law and regulation)? If so, please describe.
- Are there agreements between governments and companies that are (or are not) legislation-based that limit liability for new companies wishing to access an orphaned or abandoned site for the purpose of exploration or mining?

5. Emergency Response

- Are there provisions for emergency response by government for operating, closed or orphaned sites?
- What are they?

6. Financial Instruments

(Licence Fees, Performance Bonds, Recovery of Public Funds, Levy or Fees, Dedicated Revenue Streams)

Performance Bonds

- How is the amount of security required to cover environmental liability calculated? Is full security required?
- What forms of security are acceptable?
- Is security required for all sites?

Recovery of Public Funds

- Do provisions exist for placing liens on properties where the Crown has expended funds?
- Is there a mechanism in place for the Crown to rehabilitate mine sites and recover the associated costs?

Levy or Fees

- Does a schedule of fees exist for technical reviews, issuance of approvals, etc., related to program function or service delivery? (Fee for service)

Other

- Who is financially responsible for the assessments with respect to closure plans and decommissioning plans?

- Are there any examples or precedents where cost sharing/partnerships have been made for the purposes of rehabilitating an abandoned mine hazard?

7. Application/Exemption

- Does this statute apply to only certain individuals or individual organizations, or are there specific exemptions?
- Does this statute identify individuals?
- Are there limitation dates provided in the statute?

8. Designation of Orphaned/Abandoned Sites

- What criteria exist for determining or identifying orphaned or abandoned sites?
- Does an inventory of orphaned or abandoned sites exist?
- How are sites prioritized?

9. Community Involvement

- Is there a provision for community groups/NGOs/municipalities/Aboriginal governments to become involved in the rehabilitation of orphaned/abandoned sites? If so, what is the process?
- Is there a database in place for the public to access information on orphaned/ abandoned mines? How is information shared?

XI. APPENDIX C - GOVERNMENT REPRESENTATIVES

Government of Canada

- Kate Hearn, Indian and Northern Affairs Canada
- Chris Doiron, Environment Canada
- Charles Dumaesq, Environment Canada
- Ron Stenson, Canadian Nuclear Safety Commission

Government of British Columbia

- Graeme McLaren, Ministry of Energy, Mines and Petroleum Resources
- John Ward, Ministry of Environment
- Kelvin Hicke, Ministry of Environment
- Bob Hart, Environmental Assessment Office

Government of Alberta

- Brian Hudson, Alberta Energy
- Chris Powter, Alberta Environment
- Mel White, Alberta Sustainable Resource Development

Government of Saskatchewan

- Bob Ruggles, Saskatchewan Environment
- Dale Kristoff, Saskatchewan Environment

Government of Manitoba

- Ernest Armitt, Manitoba Industry, Economic Development and Mines
- Clemens Moche, Manitoba Conservation

Government of Ontario

- Dawn Spires, Ministry of Northern Development and Mines
- Harri Ollila, Ministry of the Environment
- Bernie Deck, Ministry of Labour

Government of Quebec

- Louis Bienvenu, Ministry of Sustainable Development, Environment and Parks
- Pierre Perron, Ministry of Sustainable Development, Environment and Parks

Government of New Brunswick

- Sam McEwan, Department of Natural Resources
- Cory Neumann, Department of Natural Resources

Government of Nova Scotia

- Don Jones

Government of Newfoundland and Labrador

- Charles Bown

Government of the Yukon

- Judy St. Amand, Department of Energy, Mines and Resources
- Robert Holmes, Department of Energy, Mines and Resources
- Fred Privett, Department of Energy, Mines and Resources

Government of the Northwest Territories

- Deb Archibald

Government of Nunavut

- Gord McKay

XII. APPENDIX D – QUEBEC (FR)

8. QUÉBEC

a. Législation minière

i. Loi sur les mines

Par suite des modifications qui lui ont été apportées en 1995, la *Loi sur les mines*¹, qui est appliquée par le ministère des Ressources naturelles et de la Faune (MRNF), impose maintenant un plus grand nombre d'obligations à l'industrie minière du Québec, en matière de réaménagement et de restauration de l'environnement endommagé par l'activité minière. Les obligations dans le domaine de la restauration environnementale s'appliquent aux mines à ciel ouvert ou souterraines et aux aires d'accumulation des résidus et précisent ce qui doit être fait et qui doit exécuter les travaux. Le cadre de réaménagement et de restauration a été décrit, en 1995, comme étant « un régime extrêmement exigeant »², mais il ne touche ni ne restreint l'application de la *Loi sur la qualité de l'environnement* du Québec³, qui est examinée ci-dessous. D'autres modifications ont été apportées à la *Loi sur les mines* depuis 1995. Toutefois, le régime législatif du Québec qui régit l'exploitation minière est encore similaire à celui du Manitoba et de l'Ontario. Il met l'accent sur l'existence d'un propriétaire ou d'un exploitant passé ou actuel qui est solvable et à qui il est encore possible d'imposer des obligations en matière de restauration ou de réaménagement, et non pas sur l'obtention de la participation de bénévoles ou l'établissement d'un fonds permanent pour la décontamination des sites miniers orphelins/abandonnés.

Plusieurs termes sont définis dans la Loi, notamment : exploitant⁴, mine⁵, substances minérales⁶, substances minérales de surface⁷ et résidus miniers⁸.

La Loi autorise la délivrance de toute une gamme de **licences** (prospection, claim ou exploration minière), concessions et baux miniers et fixe les modalités de la détention de ces droits miniers.⁹

Les titulaires des droits miniers et les exploitants des mines doivent faire approuver par le Ministre un plan de restauration et de réaménagement, avant d'entamer ou de poursuivre toute activité minière.¹⁰

¹ L.R.Q., c. M-13.1.

² P.R. Granda and O. Nadon, *The Mining Industry and the Restoration of the Environment in Quebec*, (1995) 18 C.E.L.R. (N.S.) 197 at 218.

³ L.R.Q., c. Q-2. Les dispositions de la *Loi sur les mines* portant sur le réaménagement et la restauration « n'ont pas pour effet ni d'affecter ni de restreindre l'application de la *Loi sur la qualité de l'environnement* ». L.R.Q., c. M-13.1, s. 232.12.

⁴ L.R.Q., c. M-13.1, s. 218 (toute personne qui, à titre de propriétaire, de locataire ou d'occupante d'une mine ou d'un réservoir souterrain, effectue, fait effectuer, dirige ou fait diriger des travaux d'exploitation minière).

⁵ *Idem* (toute ouverture ou excavation faite dans le but de rechercher ou d'exploiter des substances minérales ou un réservoir souterrain).

⁶ *Idem*, s. 1 (les substances minérales naturelles, à l'exception de l'eau et des substances fossilisées).

⁷ *Idem* (p. ex., sable, gravier, pierre). Dans les faits, les carrières et sablières, notamment la restauration de leurs sites, relèvent du ministre du Développement durable, de l'Environnement et des Parcs, aux termes du règlement promulgué en vertu de la *Loi sur la qualité de l'environnement*, L.R.Q., c. Q-2. Voir aussi le *Règlement sur les carrières et sablières*, R.Q., c. Q-2, r.2, ss. 35-52 (Restauration du sol).

⁸ L.R.Q., c. M-13.1, s. 1 (les substances minérales rejetées, les boues et les eaux, sauf l'effluent final, provenant des opérations d'extraction ou du traitement du minerai et les scories provenant des opérations de pyrometallurgie). La *Loi sur la qualité de l'environnement* utilise la même définition. L.R.Q., c. Q-2, s. 1(20).

⁹ L.R.Q., c. M-13.1, ss. 1-216.

¹⁰ *Idem*, ss. 232.1 (défini qui doit effectuer les travaux), 232.2 (établit l'obligation de soumettre un plan).

La Loi stipule le contenu général de ce plan.¹¹ Des lignes directrices élaborées conjointement par les ministères du Québec chargés de l'environnement et des ressources naturelles précisent l'information à inclure dans ce plan, à l'intention des promoteurs d'activités d'exploration et d'exploitation minière.¹²

Les attentes du gouvernement du Québec à l'égard du traitement réservé à la stabilité physique et à la **surveillance** environnementale dans le plan sont précisées dans les lignes directrices, à l'intention des promoteurs et des exploitants miniers.¹³ De plus, la Loi autorise les inspecteurs à entrer dans les endroits où s'exerce une activité régie par la Loi ou son règlement d'application, à examiner et à copier les documents relatifs à cette activité ou à exiger des renseignements à l'égard de cette activité.¹⁴

La Loi impute une **responsabilité** civile¹⁵, administrative¹⁶ et quasi-criminelle¹⁷ aux personnes qui ne remplissent pas les obligations en matière de réaménagement et de restauration énoncées dans la Loi et son règlement d'application. Lorsque ces personnes ne se conforment pas aux directives du Ministre, ce dernier peut faire exécuter les travaux par le gouvernement ou des agents dont les services sont retenus à cette fin par le gouvernement et faire payer ces travaux par le titulaire des droits miniers ou l'exploitant de la mine. Toutes les sommes dues à l'État dans ces circonstances lui confèrent une hypothèque légale (droit à percevoir) sur tous les biens du débiteur.¹⁸ Quant aux résidus miniers, le Ministre peut obliger quiconque a exécuté dans le passé des activités liées à l'exploitation minière mais ne participait pas à ces activités lorsque les modifications apportées à la Loi en 1995 sont entrées en vigueur, de soumettre un plan de réaménagement et de restauration qui répondra aux attentes des ministères chargés des ressources naturelles et de l'environnement. Ici encore, le Ministre peut faire exécuter les travaux aux frais des personnes qui ne se conforment pas à ses prescriptions.¹⁹ Par

¹¹ *Idem*, s. 232.3 (1)-(4) (description des travaux de réaménagement et de restauration visant à remettre le terrain dans un état satisfaisant; le cas échéant, travaux nécessaires pour prévenir les dommages environnementaux que pourraient causer les résidus; conditions et étapes de la réalisation de travaux de réaménagement et de restauration progressifs, lorsque ceux-ci sont possibles; conditions et étapes de la réalisation des travaux lorsque l'activité minière cesse définitivement; évaluation du coût des travaux).

¹² Ministères des Ressources naturelles et de l'Environnement du Québec, *Guide et modalités de préparation du plan et exigences générales en matière de restauration des sites miniers au Québec* (Charlebourg, MRN, 1997) (information générale, telle que : description de l'environnement, description de l'activité minière et du site minier, grandes lignes du programme de réaménagement, surveillance, établissement d'un plan d'urgence, évaluation du coût de la restauration, calendrier des travaux, méthodes pour évaluer la stabilité physique, options en matière de réaménagement, techniques de mesure et d'analyse, et échantillonnage). Les lignes directrices sont en train d'être mises à jour en fonction des modifications qui ont été apportées à la *Loi sur les mines* et à la *Loi sur la qualité de l'environnement* depuis qu'elles ont été publiées en 1997. Voir le site *Restauration minière* du ministère des Ressources naturelles et de la Faune du Québec, mis à jour en 2003 : <http://www.mrn.gouv.qc.ca/mines/restauration/index.jsp> (date de l'accès : 30 avril 2005).

¹³ *Guide, idem* à 31-32. Il est mentionné dans les lignes directrices qu'un programme de surveillance doit être mis en oeuvre pour veiller à l'efficacité des mesures de réaménagement et d'assainissement prises après la fermeture du site de la mine. *Idem* à 31.

¹⁴ L.R.Q., c. M-13.1, s. 251.

¹⁵ *Idem*, s. 232.8 (Le Ministre peut solliciter une injonction aux fins du respect des obligations.)

¹⁶ *Idem*, ss. 230 (Le Ministre peut enjoindre les responsables des émissions de gaz naturel susceptibles de porter atteinte à la santé ou à la sécurité des humains ou d'endommager des biens de remédier à la situation.), 231-232 (Le Ministre peut enjoindre les titulaires des droits miniers ou les exploitants des mines de prendre les mesures nécessaires ou les mesures prescrites par le règlement pour prévenir tout dommage qui pourrait découler de la cessation temporaire ou permanente de l'activité minière.)

¹⁷ *Idem*, s. 318 (amendes prévues pour quiconque contrevient aux sections 232.1, 232.2 et à des parties des sections 232.6 et 232.7).

¹⁸ *Idem*, s. 232.9 (à l'égard des sections 230-232, 232.8).

¹⁹ *Idem*, s. 232.11.

conséquent, les personnes qui ont mis fin à leur activité minière ou ont abandonné un site minier renfermant des résidus avant l'entrée en vigueur des modifications de 1995 peuvent tout de même se voir imputer une responsabilité aux termes de cette section. Enfin, le Ministre peut relever une personne de son obligation de produire, financer et mettre en œuvre un plan de réaménagement et de restauration lorsqu'une tierce partie accepte d'assumer cette obligation et que le Ministre consent à ce que cette tierce partie assume cette obligation.²⁰

Les dispositions sur la responsabilité administrative décrites ci-dessus peuvent être appliquées également dans un contexte d'**intervention en cas d'urgence**, particulièrement à la lumière des lignes directrices sur le contenu des plans de restauration qui exigent des promoteurs miniers qu'ils incluent dans ces plans un programme de mise en œuvre de mesures d'urgence.²¹ Les dispositions administratives mentionnées ci-dessus peuvent être appliquées lorsqu'un exploitant minier ne se conforme pas à ce programme.

La Loi²², le Règlement²³ et les lignes directrices²⁴ confèrent le pouvoir, établissent le cadre et fournissent les renseignements nécessaires pour imposer des obligations en matière de garanties **financières** aux titulaires des droits miniers et aux exploitants des mines, pour ce qui concerne la restauration des sites. De plus, comme nous l'avons précisé ci-haut, lorsque ces personnes ne se conforment pas aux directives du Ministre, ce dernier peut faire exécuter les travaux par le gouvernement ou des agents dont les services sont retenus à cette fin par le gouvernement et faire payer ces travaux par ces personnes. Les sommes dues à l'État dans ces circonstances lui confèrent une hypothèque légale (droit à percevoir) sur tous les biens du débiteur.²⁵

Comme nous l'avons mentionné ci-dessus à l'égard des régimes en place au Manitoba et en Ontario, ces dispositions de recouvrement des coûts peuvent être efficaces lorsque l'exploitant de la mine possède d'autres actifs dans la province ou, dans le cas d'une mine fermée ou abandonnée, lorsqu'il existe un actif de poids. Toutefois, ces dispositions ne seront pas très efficaces dans les cas où l'exploitant de la mine 1) n'existe plus, 2) est imperméable aux jugements, 3) a quitté la province et apporté tous les actifs avec lui, 4) a laissé une garantie insuffisante ou 5) a laissé derrière lui une propriété endommagée ou contaminée qui vaut moins que le coût de sa décontamination. Exception

²⁰ *Idem*, s. 232.10.

²¹ Ministères des Ressources naturelles et de l'Environnement du Québec, *Guide et modalités de préparation du plan et exigences générales en matière de restauration des sites miniers au Québec* (Charlesbourg, MRN, 1997), à 31 (plan d'intervention en cas d'urgence pour les accidents à risque élevé susceptibles de se produire à un site minier durant sa restauration et après).

²² L.R.Q., c. M-13.1, ss. 232.4 (Le plan de réaménagement et de restauration doit contenir la description de la garantie financière qui assurera l'exécution des travaux qui y sont prévus.), 232.5 (Le ministre des Ressources naturelles peut exiger le versement préalable de la garantie financière, en tout ou en partie, après consultation du ministre de l'Environnement.), 232.7 (Le ministre des Ressources naturelles peut accroître le montant de la garantie s'il juge qu'il n'est plus suffisant étant donné les coûts prévisibles de l'exécution du plan de réaménagement et de restauration; il peut aussi réduire le montant de la garantie, toujours en fonction des coûts prévisibles; le Ministre peut aussi exiger le versement de la totalité de la garantie lorsque la situation financière du titulaire des droits miniers ou de l'exploitant de la mine risque d'empêcher le versement de la garantie.)

²³ *Règlement sur les substances minérales autres que le pétrole, le gaz naturel et la saumure*, R.R.Q., c. M-13.1, r. 2, ss. 111-123 (Le montant de la garantie correspond à 70 pour cent du coût estimatif de la restauration des aires d'accumulation des résidus, sous réserve de la section 232.7 [voir ci-dessus], qui pourrait augmenter ou diminuer ce montant; cette garantie peut prendre la forme d'un chèque, d'un titre garanti par un gouvernement, d'un certificat de dépôt garanti, d'une lettre de crédit, d'un cautionnement ou d'une police de garantie émis en faveur du gouvernement, d'une hypothèque immobilière accordée par une tierce partie ou d'une fiducie.)

²⁴ Ministères des Ressources naturelles et de l'Environnement du Québec, *Guide et modalités de préparation du plan et exigences générales en matière de restauration des sites miniers au Québec* (Charlesbourg, MRN, 1997), à 37-39 (a le même objet que celui qui est établi dans la Loi et son règlement d'application).

²⁵ L.R.Q., c. M-13.1, s. 232.9 (à l'égard des sections 230-232, 232.8).

faite du pouvoir conféré au Ministre de faire effectuer les travaux de restauration (qui seront probablement payés à même les fonds publics) si le promoteur ne le fait pas pour une raison ou une autre, la Loi et son règlement d'application n'établissent pas de programme pour remédier à ces situations, qui sont au cœur du problème des mines orphelines/abandonnées.

La portée de l'**application** de la Loi englobe certaines personnes²⁶, activités²⁷ et substances²⁸.

En général, la Loi et son règlement d'application ne définissent pas ce que sont les mines **abandonnées**, n'établissent pas de critères pour leur identification et n'autorisent pas leur inventaire.²⁹

De plus, la Loi ne fait aucunement mention de la **participation** des **collectivités**/municipalités/Autochtones au processus de restauration des sites miniers orphelins/abandonnés.

b. Législation environnementale

i. Loi sur la qualité de l'environnement

La *Loi sur la qualité de l'environnement* du Québec³⁰, qui est appliquée par le ministre du Développement durable, de l'Environnement et des Parcs (MDDEP), contient des éléments typiques de la législation environnementale provinciale mentionnée ci-dessus qui, en règle générale, s'appliquent aussi à l'activité minière.

La Loi définit plusieurs termes, notamment : eau³¹, sol³², environnement³³, contaminant³⁴, polluant³⁵ et résidus miniers³⁶. Il convient toutefois de mentionner que, pour cette dernière définition, celle mentionnée dans la Loi n'est toujours pas en vigueur.

La Loi et son règlement d'application exigent que les exploitants de toute mine aient 1) une **licence** (appelée « certificat d'autorisation ») et, 2) dans le cas des exploitants de mines à ciel ouvert, un plan de réaménagement du terrain.³⁷

²⁶ *Idem*, s. 232.1 (les titulaires des droits miniers et les exploitants qui s'adonnent à certaines activités d'exploration et d'exploitation minière et les personnes qui exploitent des usines de concentration ou procèdent à des travaux miniers comportant des résidus).

²⁷ *Règlement sur les substances minérales autres que le pétrole, le gaz naturel et la saumure*, R.R.Q., c. M-13.1, r.2, ss. 108 (liste des types de travaux d'exploration), 109 (liste des types de travaux d'exploitation minière).

²⁸ *Idem*, s. 110 (toutes les substances minérales à l'exception du pétrole, du gaz naturel et des substances minérales de surface autres que les résidus miniers inertes).

²⁹ La Loi reconnaît et établit un processus pour l'abandon d'un claim ou des droits connexes. Voir p. ex. L.R.Q., c. M-13.1, s. 83. Mais la Loi ne définit pas le terme « abandonné » et ne le place pas dans le contexte de la restauration des sites miniers.

³⁰ L.R.Q., c. Q-2.

³¹ *Idem*, s. 1(1) (eau de surface et eau souterraine).

³² *Idem*, s. 1(3) (tout terrain, y compris tout terrain submergé d'eau).

³³ *Idem*, s. 1(4) (eau, atmosphère, sol).

³⁴ *Idem*, s. 1(5) (solide, liquide, gaz, etc. susceptibles d'altérer la qualité de l'environnement).

³⁵ *Idem*, s. 1(6) (contaminant présent dans l'environnement en une concentration ou une quantité supérieures au seuil établi par règlement).

³⁶ *Idem*, 1(20) (les substances minérales rejetées, les boues et les eaux, sauf l'effluent final, provenant des opérations d'extraction ou du traitement du minerai et les scories provenant des opérations de pyrométallurgie). La *Loi sur les mines* du Québec utilise la même définition. L.R.Q., c. M-13.1, s. 1.

³⁷ *Idem*, ss. 22 (interdiction d'exécuter des travaux ou des projets et d'exploiter une industrie ou un procédé industriel qui se traduiront vraisemblablement par une émission ou un rejet de contaminants dans l'environnement, à moins d'avoir obtenu préalablement un certificat d'autorisation du Ministre), 23 (pour certains projets, activités ou industries

De plus, comme le secteur minier au Québec n'est pas réglementé en ce qui concerne les normes d'émission dans le milieu récepteur, le ministère du Développement durable, de l'Environnement et des Parcs a rédigé la Directive 019 sur l'industrie minière de manière à soutenir l'application de la Loi, plus particulièrement la section IV et les articles 20 et 22 portant sur l'interdiction de contaminer, sur l'obligation d'obtenir un certificat d'autorisation du ministre avant d'entreprendre un projet pouvant générer des conséquences environnementales et sur les renseignements à fournir lors d'une demande de certificat d'autorisation.³⁸

De manière générale, l'application de la directive vise les objectifs suivants :

- présenter les balises environnementales retenues et les exigences de base requises pour les différents types d'activités minières de façon à prévenir la détérioration de l'environnement, et;
- fournir aux intervenants du secteur minier les renseignements nécessaires à l'élaboration de l'étude de répercussions environnementales préalable à une demande de certificat d'autorisation.

En vertu du Règlement relatif à l'application de la Loi sur la qualité de l'environnement, les plans de réaménagement du terrain déposés aux fins de l'obtention du certificat d'autorisation pour les mines à ciel ouvert doivent contenir l'information suivante : a) superficie du sol susceptible d'être endommagée ou détruite, b) nature du sol et de la végétation existante, c) étapes d'endommagement ou de destruction du sol et de la végétation, avec une estimation du nombre d'années et d) conditions et étapes de réalisation des travaux de restauration.³⁹

Le Règlement ne fixe pas de normes pour la restauration, mais le Ministre peut tenir compte des lignes directrices qui ont été établies expressément pour l'industrie minière (sans conséquence juridique si ce n'est qu'elles sont enchâssées dans les certificats d'autorisation) et qui énoncent les attentes du Ministère à l'égard des plans de restauration des sites miniers, qu'ils soient à ciel ouvert ou non, et de l'efficacité des travaux de restauration réalisés.⁴⁰

De façon complémentaire et tel que nous l'avons dit ci-dessus, les lignes directrices élaborées conjointement par les ministères du Québec chargés de l'environnement et des ressources naturelles

susceptibles de porter atteinte à la surface du sol ou de la détruire et déterminés par règlement, il faut soumettre un plan de réaménagement du terrain au Ministre). Voir aussi le *Règlement relatif à l'application de la Loi sur la qualité de l'environnement*, R.Q., Q-2, r.1.001, s. 7(9) (contenu du plan de réaménagement du terrain dans le cas des mines à ciel ouvert).

³⁸ *Directive 019 sur l'industrie minière*, ministère de l'Environnement du Québec. En général, l'application de la Directive a les objectifs suivants : 1) fournir des repères environnementaux pour les différents types d'activités et de travaux miniers, en vue de prévenir la dégradation de l'environnement et 2) donner aux exploitants miniers des indications à l'égard de l'information sur l'étude environnementale qu'ils doivent soumettre pour pouvoir obtenir un certificat d'autorisation.

³⁹ Règlement relatif à l'application de la Loi sur la qualité de l'environnement, R.Q., Q-2, r.1.001, s. 7(9).

⁴⁰ Ministère de l'Environnement du Québec, *Directive 019 sur l'industrie minière* (pour la construction des mines, l'extraction du minerai ou la concentration du minerai, le Ministre s'attend à être informé 1) du plan de restauration progressive qui sera mis en oeuvre durant l'exploitation de la mine, 2) du programme de confinement, de contrôle et de suivi environnemental qui sera exécuté durant toute cessation temporaire de l'activité et 3) du programme de restauration finale qui sera réalisé dans le cas des mines qui ont cessé l'exploitation et qui sont fermées définitivement et des étapes de ce programme, qui doit comprendre, outre les travaux de restauration proprement dits, le suivi environnemental post-restauration et l'évaluation de la performance des travaux de restauration réalisés.

précisent l'information à inclure dans ces plans, à l'intention des promoteurs d'activités d'exploration et d'exploitation minière.⁴¹

La Loi exige la réalisation d'une évaluation environnementale (EE) dans le cas de certains projets, notamment les projets miniers dont la capacité de production ou le volume de traitement de minerai dépassent les seuils prescrits par règlement.⁴² Toute EE doit renfermer notamment : 1) une description du projet, 2) une analyse qualitative et quantitative de l'environnement susceptible d'être touché par le projet, 3) une évaluation des répercussions positives, négatives et résiduelles du projet sur l'environnement, entre autres, des effets indirects, cumulatifs, différés et irréversibles, 4) une description des différentes options (solutions de rechange) au projet et des moyens d'exécuter le projet et 5) un exposé des mesures prévues pour prévenir, réduire ou atténuer la détérioration de l'environnement causée par les répercussions du projet et restaurer le milieu touché par le projet.⁴³

La Loi impose aussi des obligations supplémentaires à certains secteurs miniers (p. ex., extraction de minerai métallique), aux termes de modifications apportées en 2003 à la *Loi sur la qualité de l'environnement*, qui établissent de nouvelles règles pour promouvoir la protection du terrain et sa réhabilitation advenant une contamination.⁴⁴ En vertu des modifications, le ministre du Développement durable, de l'Environnement et des Parcs peut enjoindre quiconque a la garde du terrain à titre, notamment, de propriétaire ou de locataire de soumettre un plan de réhabilitation dans lequel seront précisées les mesures qui seront mises en œuvre pour protéger l'environnement. De plus, on reconnaît maintenant dans la Loi que le maintien en place des contaminants dans un terrain est un mode de réhabilitation possible en autant que soient prises certaines mesures correctrices propres à protéger l'environnement. Des mesures de publicité sont également prescrites pour informer les tiers relativement à la présence de contaminants et aux restrictions applicables à l'usage futur du terrain.

Les modifications s'appliquent aussi à la « réhabilitation volontaire d'un terrain ». Toute personne qui a l'intention d'assainir, sur une base volontaire, un terrain contaminé et de laisser dans le terrain des contaminants dont la concentration excède les valeurs limites réglementaires doit présenter au Ministre un plan de réhabilitation qui comprend les mesures prévues pour protéger les humains, les autres espèces vivantes, l'environnement et les biens ainsi qu'un calendrier d'exécution, une évaluation des risques toxicologiques et écotoxicologiques et une évaluation de l'impact sur les eaux souterraines. De plus, cette personne doit remettre au Ministre une étude de caractérisation portant sur l'état de la contamination du terrain.⁴⁵ Le Québec a aussi promulgué un règlement sur la protection et la

⁴¹ Ministères des Ressources naturelles et de l'Environnement du Québec, *Guide et modalités de préparation du plan et exigences générales en matière de restauration des sites miniers au Québec* (Charlesbourg, MRN, 1997) (information générale, telle que : description de l'environnement, description de l'activité minière et du site minier, grandes lignes du programme de réaménagement, surveillance, établissement d'un plan d'urgence, évaluation du coût de la restauration, calendrier des travaux, méthodes pour évaluer la stabilité physique, options en matière de réaménagement, techniques de mesure et d'analyse, et échantillonnage). Les lignes directrices sont en train d'être mises à jour pour tenir compte des modifications apportées à la *Loi sur les mines* et à la *Loi sur la qualité de l'environnement* depuis qu'elles ont été publiées en 1997. Voir le site *Restauration minière* du ministère des Ressources naturelles et de la Faune du Québec, mis à jour en 2003 : <http://www.mrn.gouv.qc.ca/mines/restauration/index.jsp> (date de l'accès : 30 avril 2005).

⁴² L.R.Q., c. Q-2, Division IV.1, ss. 31.1 – 31.2 (obligation de produire une EE, de la déposer au gouvernement du Québec et d'obtenir l'autorisation avant de mettre en branle le projet).

⁴³ *Règlement sur l'évaluation et l'examen des impacts sur l'environnement*, R.Q., c. Q-2, r.9, s. 3. L'EE est obligatoire dans les cas d'ouverture et d'exploitation de mines de métaux ou de mines d'amiante d'une capacité de production d'au moins 7 000 tonnes métriques. *Idem*, s. 2(p). Dans ce contexte, une « mine » est définie comme étant une infrastructure de surface ou souterraine qui sert à extraire du minerai. *Idem*.

⁴⁴ L.Q. 2002, c. 11 (sanctionnée le 11 juin 2002). L.R.Q., Q-2, ss. 31.42 – 31-69.

⁴⁵ *Idem*, s. 31.57.

restauration des terrains, afin de préciser ces obligations.⁴⁶ En fait, ce règlement précise les valeurs limites applicables pour un terrain, les catégories d'activités industrielles et commerciales visées, ainsi que les obligations en matière de contrôle de la qualité de l'eau souterraine.

Enfin, il est important de souligner que la Loi et le Règlement sur la protection et la réhabilitation des terrains prévoient que les obligations établies en vertu des modifications qui ont été apportées puissent également être appliquées à toute action volontaire visant la réduction de la pollution, le réaménagement et la restauration des terrains miniers abandonnés.

La *Loi sur la qualité de l'environnement* impose des obligations en matière de **surveillance** dans plusieurs contextes qui pourraient être appliqués aussi à l'activité minière. Il s'agit, par exemple, du pouvoir 1) de promulguer des règlements pour fixer les frais que doivent acquitter les détenteurs de certificat afin de supporter le coût de la surveillance⁴⁷, 2) d'établir les exigences pour la surveillance du rejet de contaminants⁴⁸ et 3) d'établir les exigences pour la surveillance des eaux souterraines⁴⁹. Sur ces derniers points, il est à noter cependant que le ministre du Développement durable, de l'Environnement et des Parcs a déjà indiqué son intention de ne pas contraindre le secteur minier à payer des redevances supplémentaires à ce qui est déjà prévu au *Règlement sur les attestations d'assainissement en milieu industriel*.

La Loi autorise le Ministre à nommer des inspecteurs pour vérifier la conformité à la Loi et à son règlement d'application. À cette fin, les inspecteurs peuvent entrer sur les terrains ou dans les édifices, prélever des échantillons, installer des appareils de mesure et examiner les registres et les lieux.⁵⁰

La *Loi sur la qualité de l'environnement* impute une **responsabilité** quasi-criminelle⁵¹, civile⁵² et administrative⁵³ aux personnes qui ne se conforment pas aux dispositions de la Loi ou de son règlement d'application.

⁴⁶ Règlement sur la protection et la réhabilitation des terrains, R.Q., Q-2, r.18.1.01.

⁴⁷ L.R.Q., Q-2, s. 31(4).

⁴⁸ *Idem*, ss. 31.15(3), 31.26, 31.39.

⁴⁹ *Idem*, s. 31.69.

⁵⁰ *Idem*, s. 119.

⁵¹ *Idem*, ss. 106-107.

⁵² *Idem*, ss. 19.1 (Aux termes de la *Loi sur la qualité de l'environnement*, tout le monde a droit à un environnement sain et à ce que cet environnement sain soit protégé, dans la mesure prévue par la Loi et les règlements, les ordonnances, les approbations et les autorisations émis en vertu de toute section de la Loi.), 19.2-19.3 (À la demande de toute personne domiciliée au Québec, la Cour supérieure du Québec peut accorder une injonction pour empêcher tout acte ou toute opération qui porte atteinte ou est susceptible de porter atteinte à l'exercice de ces droits.), 19.7 (Le droit à l'injonction ne s'applique pas lorsque l'activité est exécutée conformément à des approbations, à des autorisations ou à des règlements découlant de la Loi.). Voir aussi L. Giroux and P. Halley, « Environmental Law in Quebec », dans E. Hughes, et al., eds. *Environmental Law and Policy*, 3d ed. (Toronto: Emond Montgomery, 2003), 133 à 154-155. Les droits environnementaux reconnus dans la *Loi sur la qualité de l'environnement* peuvent éventuellement s'appliquer à l'exploitation minière et aux activités volontaires d'assainissement, de réaménagement et de restauration des sites miniers abandonnés poursuivies au Québec. De plus, le Ministre peut recouvrer le coût direct et indirect de l'émission d'une ordonnance administrative en vertu de la *Loi sur la qualité de l'environnement* – examinée ci-dessous – ou des travaux de prévention ou d'assainissement liés à cette ordonnance, en ce sens que le paiement de toute dette due au gouvernement peut être exigé de la personne visée par l'ordonnance. Dans le cas de l'assainissement d'un terrain, le Ministre peut exiger l'inscription d'un avis de restriction d'utilisation du terrain, dans le registre foncier du Québec. Dans ces circonstances, si l'ordonnance vise plus d'une personne, les débiteurs sont responsables des coûts conjointement et individuellement. *Idem*, ss. 114.3, 115.0.1, 115.1.

⁵³ *Idem*, ss. 25 (Le Ministre peut ordonner au responsable de la source d'une contamination de cesser ou de réduire l'émission, le dépôt, le dégagement ou le rejet du contaminant.), 27 (Le Ministre peut exiger l'installation d'appareils afin que la contamination soit réduite.). De plus, en vertu de modifications apportées récemment à la *Loi sur la qualité de l'environnement*, des règles ont été établies pour promouvoir la protection des terrains et leur assainissement

La Loi autorise le Ministre à **intervenir en cas d'urgence**, dans divers contextes, notamment lorsque la situation à des mines en production, fermées ou abandonnées le justifie.⁵⁴

Quant aux instruments **financiers**, la Loi autorise le gouvernement à promulguer des règlements sur les frais exigibles des détenteurs de certificat ou sur toute autre mesure approuvée pour supporter le coût des mesures de contrôle et de surveillance. Les niveaux des frais sont basés sur la nature et les caractéristiques des activités du détenteur du certificat de même que sur le nombre d'infractions commises par le détenteur du certificat et le degré de gravité de ces infractions.⁵⁵ De plus, comme nous l'avons mentionné ci-dessus, le Ministre peut recouvrer le coût direct et indirect de l'émission d'une ordonnance administrative ou des travaux de prévention ou d'assainissement liés à cette ordonnance, en ce sens que le paiement de toute dette due au gouvernement peut être exigé de la personne visée par l'ordonnance. Dans le cas de l'assainissement d'un terrain, le Ministre peut exiger l'inscription d'un avis de restriction d'utilisation du terrain, dans le registre foncier du Québec.⁵⁶

L'**application** de la *Loi sur la qualité de l'environnement* est axée sur les opérations, activités ou procédés industriels susceptibles de se traduire par une émission, un dépôt, un dégagement ou un rejet de contaminants dans l'environnement.⁵⁷ Comme nous l'avons précisé ci-dessus, la Directive 019 sur l'industrie minière fixe les exigences environnementales à respecter pour toute activité minière visée par cette directive alors que le règlement d'application de la Loi stipule que l'activité minière à ciel ouvert est assujettie à la Loi en ce sens qu'il est obligatoire de présenter un plan de réaménagement du terrain accompagnant la demande de certificat d'autorisation.⁵⁸ Les exigences de la Loi en matière d'EE s'appliquent en général aux installations minières nouvelles ou modifiées qui atteignent ou dépassent les seuils prescrits par règlement, mais non pas aux projets d'exploration minière.⁵⁹ La Loi exempte les promoteurs des travaux nécessaires à la mise en œuvre des plans de réhabilitation des terrains approuvés par le Ministre, de l'obligation d'obtenir un certificat d'autorisation.⁶⁰ Cette exemption pourrait s'appliquer aux plans de réhabilitation des terrains visant les sites miniers.

La Loi et son règlement d'application ne définissent pas ce que sont les mines **orphelines/abandonnées**, n'établissent pas de critères pour leur identification et n'autorisent pas leur inventaire.

advenant leur contamination. Aux termes des modifications, le Ministre peut enjoindre quiconque a, ou a eu, la garde du terrain à titre, notamment, de propriétaire ou de locataire, de soumettre un plan de restauration dans lequel seront précisées les mesures qui seront mises en œuvre pour protéger l'environnement. Toutefois, le Ministre ne peut émettre une telle ordonnance si cette personne n'était pas au courant de la contamination ou si elle a pris rapidement des mesures pour résoudre le problème une fois qu'elle en a eu connaissance ou lorsque la contamination du terrain résulte d'une migration de contaminants à partir d'une source extérieure au terrain qui est attribuable à une tierce personne. *Idem*, s. 31.43.

⁵⁴ *Idem*, ss. 26 (Le ministre peut, pour une période d'au plus 30 jours, ordonner au responsable d'une source de contamination de cesser ou de diminuer l'émission, le dépôt, le dégagement ou le rejet du contaminant, lorsqu'à son avis, il en résulte un danger immédiat pour la vie ou la santé des personnes ou un danger de dommage sérieux ou irréparable aux biens.), 114.1 (Lorsque le Ministre estime qu'il y a urgence, il peut ordonner à toute personne qui est propriétaire de certains contaminants ou qui en a la garde ou le contrôle, de ramasser ou d'enlever tout contaminant déversé, émis, dégagé ou rejeté dans l'eau ou sur le sol, et de prendre les mesures requises pour nettoyer l'eau et le sol et pour que ces contaminants cessent de se répandre ou de se propager dans l'environnement.), 115 (Le Ministre peut prendre les mesures nécessaires pour éviter tout dommage aux biens publics ou privés, aux humains, à la faune, à la végétation ou à l'environnement.).

⁵⁵ *Idem*, s. 31(t). Voir aussi le Règlement sur les attestations d'assainissement en milieu industriel, R.Q., c. Q-2, r.1.01.

⁵⁶ *Idem*, ss. 114.3, 115.0.1, 115.1.

⁵⁷ *Idem*, s. 22.

⁵⁸ Voir le *Règlement relatif à l'application de la Loi sur la qualité de l'environnement*, R.Q., Q-2, r.1.001, s. 7(9) (contenu du plan de restauration du terrain dans le cas des mines à ciel ouvert).

⁵⁹ L.R.Q., c. Q-2, ss.153-154 et annexe A

⁶⁰ *Idem*, s. 31.64.

Au chapitre de la **participation des collectivités**, la *Loi sur la qualité de l'environnement* autorise la consultation du public à l'égard des projets miniers et des autres projets pour lesquels sont exigées 1) une EE⁶¹, 2) des attestations d'assainissement en milieu industriel,⁶² ou, 3) pour lesquels le ministre demande au Bureau d'audiences publiques sur l'environnement d'enquêter pour toute question relative à l'environnement.⁶³

Ce processus peut comporter à la fois un avis public et une occasion de présenter des commentaires, et, le cas échéant, une audience publique.⁶⁴

c. Législation sur la sécurité au travail

i. Loi sur la santé et la sécurité du travail

La *Loi sur la santé et la sécurité du travail*, qui est appliquée par le ministère du Travail, vise à protéger les travailleurs des dangers pour leur santé et leur sécurité.⁶⁵ En général, les règlements visant les mines souterraines et à ciel ouvert obligent les propriétaires et les exploitants des mines à assurer la stabilité des terrains dans leur ensemble et par rapport aux sources d'eau souterraines et de surface, plus particulièrement à avoir recours à des ingénieurs pour la production des plans des mines et la construction de ces dernières.⁶⁶ Le pouvoir conféré par la Loi d'en assurer la conformité et l'application⁶⁷ est comparable au pouvoir prévu dans la législation minière et environnementale du Québec passée en revue ci-dessus.

d. Législation en matière de planification

i. Loi sur l'aménagement et l'urbanisme

La *Loi sur l'aménagement et l'urbanisme*, qui est appliquée par le ministère des Affaires municipales, a pour but de faciliter le contrôle provincial et municipal du développement résidentiel, commercial et industriel dans la province. Cependant, la Loi stipule clairement qu'aucune de ses dispositions, aucun schéma d'aménagement et de développement, aucun règlement ou aucune résolution de contrôle intérimaire, ou aucun règlement de zonage, de lotissement ou de construction ne peut avoir pour effet d'empêcher le jalonnement ou la désignation sur carte d'un claim, ou l'exploration, la recherche, la mise en valeur ou l'exploitation de substances minérales, lorsque ces activités sont réalisées conformément à la *Loi sur les mines* du Québec.⁶⁸ La Loi ne mentionne aucunement la question des mines orphelines/abandonnées.

⁶¹ *Idem*, s. 31.3. Voir aussi le *Règlement sur l'évaluation et l'examen des impacts sur l'environnement*, R.Q., c. Q-2, r.9. Les projets situés dans le Nord du Québec sont assujettis à des exigences supplémentaires en matière d'EE. Par exemple, le public doit être représenté au sein des comités de consultation, la consultation du public est accrue et des possibilités de faire des représentations sont prévues. L.R.Q., c. Q-2, ss. 161 (vise les projets situés au sud du 55^e parallèle), 199 (vise les projets situés au nord du 55^e parallèle). Voir aussi le *Règlement sur l'évaluation et l'examen des impacts sur l'environnement dans une partie du Nord-Est québécois*, R.Q., c. Q-2, r.10, ss. 4 (information et consultation publiques), 5 (consultation supplémentaire).

⁶² L.R.Q., c. Q-2, s. 31.21. Voir aussi le *Règlement sur les attestations d'assainissement en milieu industriel*, R.Q., c. Q-2, r.1.01.

⁶³ L.R.Q., c. Q-2, s.6.3

⁶⁴ Voir les Règles de procédure relatives au déroulement des audiences publiques, R.Q., c. Q-2, r.19.

⁶⁵ L.R.Q., c. S-2.1.

⁶⁶ *Règlement sur la santé et la sécurité du travail dans les mines*, R.Q., c. S-2.1, r.19.1.

⁶⁷ L.R.Q., c. S-2.1, ss. 216-219 (inspections), 234-246 (infractions et pénalités).

⁶⁸ L.R.Q., c. A-19.1, s. 246.

e. *Politiques, programmes et initiatives connexes*

En plus des instruments réglementaires régissant principalement l'exploitation ou la fermeture des mines lorsqu'une personne responsable est prête à financer les mesures de restauration du site, il existe au Québec des politiques, des programmes ou des initiatives non réglementaires qui sont exécutés par le ministère des Ressources naturelles et de la Faune et qui visent expressément les mines orphelines/abandonnées.

Pour régler le problème des mines orphelines/abandonnées, le ministère des Ressources naturelles et de la Faune semble avoir deux programmes ou un seul programme divisé en deux volets. Aux termes du premier programme (ou du premier volet du programme), qui est axé sur les sites miniers abandonnés⁶⁹, le gouvernement du Québec a consacré plus de 30 millions de dollars à des travaux de recherche et à de l'aide financière pour restaurer des « aires d'accumulation de résidus miniers »⁷⁰. Environ 20 millions de ces 30 millions ont été affectés à la restauration de 11 sites miniers abandonnés dont la propriété a été rétrocédée au gouvernement du Québec entre 1967 et 1985. La mention « Les résidus miniers entreposés dans les parcs ont malheureusement été considérés comme inoffensifs dans le passé, alors qu'ils sont souvent à l'origine des problèmes de contamination que nous connaissons aujourd'hui [dans la province] »⁷¹ s'applique à bon nombre de ces sites.

Le second programme (ou second volet du programme) exigera du gouvernement du Québec qu'il se penche sur le problème des sites orphelins. À l'heure actuelle, le Québec renferme 100 aires de résidus miniers qui doivent être restaurées, et l'on estime que ces restaurations coûteront 75 millions de dollars. Seize aires prioritaires nécessiteront à elles seules un investissement global de 46 millions de dollars.⁷²

f. *Sommaire*

Plusieurs aspects de la législation, de la politique et des programmes du Québec méritent d'être commentés dans le contexte des mines en production, des sites contaminés et des mines orphelines/abandonnées. Voici quelques-uns de ces commentaires :

1. Aux termes de la législation du Québec, les pouvoirs en matière de restauration des sites miniers sont concentrés sur les sites en production, en voie de fermeture ou « fermés » dont le propriétaire ou l'exploitant est solvable et demeure responsable du site et à qui il est possible d'imposer des obligations à l'égard du site, mais ces pouvoirs ne s'accompagnent pas d'une définition de l'expression « mine orpheline/abandonnée » ni de moyens pour régler le problème des mines orphelines/abandonnées, sous réserve des commentaires présentés au paragraphe 2. ci-dessous.

⁶⁹ Sites miniers dont le propriétaire est connu, mais financièrement incapable de payer les travaux de restauration.

⁷⁰ Au Québec, cette expression est quelquefois synonyme d'« aires de résidus miniers ».

⁷¹ Ministère des Ressources naturelles et de la Faune du Québec, site *Restauration minière* (mis à jour en 2003) : <http://www.mrnf.gouv.qc.ca/mines/restauration/index.jsp> (date de l'accès : 6 juin 2005).

⁷² *Idem*. Sites miniers dont le propriétaire est inconnu et dont la propriété n'a peut-être pas encore été rétrocédée au gouvernement du Québec. On peut lire dans une mise à jour de 2004 concernant ce programme, qui crée peut-être une certaine confusion en utilisant l'expression « sites miniers abandonnés », que : « Un plan d'action sur la restauration des sites miniers abandonnés sur le territoire québécois est en voie de réalisation. Le coût de ces travaux est estimé à 75 millions de dollars. Différentes mesures sont en cours d'évaluation pour assurer le financement des travaux qui pourraient s'échelonner sur 15 ans. » Site *Environnement minier en 2004* (mis à jour en 2005) du ministère des Ressources naturelles et de la Faune du Québec :

<http://www.mrnf.gouv.qc.ca/publications/enligne/mines/bfs2004/environnement.asp> (date de l'accès : 6 juin 2005).

2. En vertu des modifications de la législation minière du Québec qui sont entrées en vigueur au milieu des années 1990, les personnes qui ont cessé d'exécuter des activités minières ou qui ont abandonné un site minier abritant des résidus, avant l'entrée en vigueur des modifications, peuvent encore se voir imputer une responsabilité. Cependant, ces modifications ne seront pas plus efficaces que la législation résumée au paragraphe 1. ci-dessus, dans les cas où ces personnes sont imperméables aux jugements, n'existent plus ou ont quitté la province.
3. Pour ce qui concerne le contrôle de l'exploitation minière, le régime législatif du Québec est similaire à celui du Manitoba et de l'Ontario. Il met l'accent sur l'existence d'un propriétaire ou d'un exploitant passé ou actuel qui est solvable et à qui il est encore possible d'imposer des obligations en matière de restauration ou de réaménagement, et non pas sur l'obtention de la participation de bénévoles ou l'établissement d'un fonds permanent pour la décontamination des sites miniers orphelins/abandonnés.
4. L'absence d'un instrument législatif qui permettrait de favoriser l'assainissement volontaire des sites miniers orphelins/abandonnés et (ou) l'établissement, pour ces sites, d'un fonds permanent auquel contribueraient le gouvernement du Québec, l'industrie minière et d'autres parties a donné lieu à la mise sur pied d'un programme d'assainissement qui est important, mais qui demeure ponctuel et basé sur un pouvoir législatif d'assainir un site en cas d'urgence, et ce, entièrement aux frais de l'État. Dans le cadre de cette approche, le gouvernement du Québec a jusqu'à maintenant dépensé environ 30 millions de dollars pour l'assainissement de sites miniers abandonnés et il devra dépenser, estime-t-on, 75 millions de dollars sur 15 ans pour assainir des sites miniers orphelins. Il est difficile d'évaluer la pertinence de ces arrangements ponctuels à titre de solution de rechange à une réforme de la législation.

Vous trouverez ci-dessous un très bref résumé des résultats de l'examen des principaux programmes, lois et politiques effectué ci-dessus. La structure de ce résumé reprend les neuf catégories d'intérêt du Groupe de travail sur les lignes directrices pour l'examen de la législation (GTLDEL) de l'INMOA.

(A) Licences/permis

En vertu de la *Loi sur les mines* et de la *Loi sur la qualité de l'environnement*, il faut obtenir une licence avant de mettre en production une nouvelle mine ou avant d'agrandir une mine existante. Aux termes de la *Loi sur la qualité de l'environnement* et de son règlement d'application, les exploitants des mines à ciel ouvert doivent avoir 1) une licence (appelée « certificat d'autorisation ») et 2) un plan de réaménagement du terrain. Ni l'une ni l'autre loi ne prévoient expressément la délivrance de licences pour faciliter la restauration des sites miniers orphelins/abandonnés.

(B) Évaluation

Selon la *Loi sur les mines*, les titulaires des droits miniers et les exploitants des mines doivent faire approuver par le Ministre un plan de restauration et de réaménagement, avant d'entamer ou de poursuivre toute activité minière. Aux termes de la *Loi sur la qualité de l'environnement*, de l'information sur l'**évaluation** est exigée pour : 1) les plans de réaménagement du terrain, 2) les évaluations environnementales (EE) et 3) les plans d'assainissement des sites contaminés. La *Loi sur*

la qualité de l'environnement autorise le dépôt, sur une base volontaire, de plans d'assainissement de sites contaminés et semblerait pouvoir être appliquée à toute action volontaire visant la réduction de la pollution, le réaménagement et la restauration des terrains miniers abandonnés.

(C) Surveillance

La *Loi sur les mines* et la *Loi sur la qualité de l'environnement* confèrent toutes deux des pouvoirs en matière de surveillance et d'inspection.

(D) Responsabilité

La *Loi sur les mines* et la *Loi sur la qualité de l'environnement* confèrent toutes deux le pouvoir d'imputer une responsabilité administrative, quasi-criminelle et civile aux propriétaires et aux exploitants des mines qui ne se conforment pas à ces lois. La responsabilité prévue dans la *Loi sur les mines* peut être imputée aux personnes qui ont été les propriétaires ou les exploitants de la mine dans le passé. La *Loi sur la qualité de l'environnement* prévoit qu'une partie de la responsabilité civile est à la fois conjointe et individuelle, et établit une responsabilité civile qui peut éventuellement s'appliquer à l'activité minière, en ce sens qu'elle prévoit la possibilité pour toute personne de demander une injonction dans les cas de non-conformité à cette loi.

(E) Intervention d'urgence

La *Loi sur les mines* et la *Loi sur la qualité de l'environnement* autorisent le gouvernement du Québec à intervenir en cas d'urgence, dans divers contextes, notamment lorsque la situation à des mines en production, fermées ou abandonnées le justifie.

(F) Instruments financiers

La *Loi sur les mines*, les règlements et les lignes directrices confèrent le pouvoir, établissent le cadre et fournissent les renseignements nécessaires pour imposer des obligations en matière de garanties **financières** aux titulaires des droits miniers et aux exploitants des mines, pour ce qui concerne la restauration des sites. Lorsque ces personnes ne se conforment pas aux directives du Ministre, ce dernier peut faire exécuter les travaux par le gouvernement ou des agents dont les services sont retenus à cette fin par le gouvernement et faire payer ces travaux par ces personnes. Les sommes dues à l'État dans ces circonstances lui confèrent une hypothèque légale (droit à percevoir) sur tous les biens du débiteur. La *Loi sur la qualité de l'environnement* renferme des dispositions de recouvrement des coûts comparables à celles de la *Loi sur les mines*.

Comme nous l'avons mentionné ci-dessus à l'égard d'autres provinces visées par cet examen, ces dispositions en matière de recouvrement des coûts et de garanties financières peuvent être efficaces lorsque l'exploitant de la mine possède d'autres actifs dans la province ou, dans le cas d'une mine fermée ou abandonnée, lorsqu'il existe un actif de poids. Toutefois, ces dispositions ne seront pas efficaces dans les cas où l'exploitant de la mine 1) n'existe plus, 2) est imperméable aux jugements, 3) a quitté la province et apporté tous les actifs avec lui, 4) a laissé une garantie insuffisante ou 5) a laissé derrière lui une propriété endommagée ou contaminée qui vaut moins que le coût de sa décontamination. Exception faite du pouvoir conféré d'intervenir en cas d'urgence (probablement aux frais de l'État), comme il est noté ci-dessus, la législation du Québec n'établit pas de programme pour remédier à ces situations, qui sont au cœur du problème des mines orphelines/abandonnées.

La *Loi sur la qualité de l'environnement* autorise le gouvernement à promulguer des règlements sur les frais exigibles des détenteurs de certificat ou sur toute autre mesure approuvée pour supporter le coût des mesures de contrôle et de surveillance. Les niveaux des frais sont basés sur la nature et les

caractéristiques des activités du détenteur du certificat de même que sur le nombre d'infractions commises par le détenteur du certificat et le degré de gravité de ces infractions

(G) Application/exemption

La *Loi sur les mines* **s'applique** à certaines personnes, activités et substances, aux étapes de l'exploration et de l'exploitation de la mine. L'application de la *Loi sur la qualité de l'environnement* est axée sur les opérations, activités ou procédés industriels susceptibles de se traduire par une émission, un dépôt, un dégagement ou un rejet de contaminants dans l'environnement. Les exigences en matière d'EE de la *Loi sur la qualité de l'environnement* s'appliquent aux installations minières nouvelles ou modifiées, mais non pas aux projets d'exploration minière. La *Loi sur la qualité de l'environnement* exempte les promoteurs des travaux nécessaires à la mise en œuvre des plans de réaménagement des terrains approuvés par le Ministre, de l'obligation d'obtenir un certificat d'autorisation. Cette exemption pourrait s'appliquer aux plans de réaménagement des terrains visant les sites miniers orphelins/abandonnés.

(H) Définition de l'expression « sites orphelins/abandonnés »

La *Loi sur les mines* et la *Loi sur la qualité de l'environnement* ne définissent pas ce que sont les mines orphelines/abandonnées, n'établissent pas de critères pour leur identification et n'autorisent pas leur inventaire. Toutefois, le gouvernement du Québec a un ou plusieurs programmes en vertu desquels il a dépensé ou envisage de dépenser environ 105 millions de dollars pour décontaminer 80 sites miniers orphelins/abandonnés situés au Québec.

(I) Participation des collectivités

La *Loi sur les mines* ne fait aucunement mention de la participation des collectivités/municipalités/Autochtones au processus de restauration des sites miniers orphelins/abandonnés.

La *Loi sur la qualité de l'environnement* autorise la consultation du public à l'égard des projets miniers et des autres projets pour lesquels sont exigées 1) une EE et 2) des attestations d'assainissement en milieu industriel. Ce processus peut comporter à la fois un avis public et une occasion de présenter des commentaires, et une audience publique.