

4.0 REGULATORY FRAMEWORK, SCOPING, AND CONSULTATION AND ENGAGEMENT

The Project requires an environmental impact assessment (EIA) pursuant to Section 5(1) of the New Brunswick *Environmental Impact Assessment Regulation* (EIA Regulation). Additionally, several federal regulatory agencies (termed “Responsible Authorities” or “RAs”) have determined that an environmental assessment (EA) is required under Section 5(1)(d) of the *Canadian Environmental Assessment Act (CEAA)*.

This chapter:

- summarizes the regulatory framework applicable to the Project, including a discussion of the federal EA or provincial EIA requirements, a description of the harmonized approach adopted by both levels of government to conduct the EIA/EA for the Project, as well as the identification of other applicable approvals, permits, and authorizations that may be required to enable the Project to be carried out;
- describes the scope of the EIA/EA as determined by the federal and provincial regulatory agencies responsible under their respective scoping processes;
- summarizes the issues and comments received by Northcliff from the public, stakeholders, and Aboriginal persons during public, stakeholder and Aboriginal engagement activities carried out for the Project to date;
- identifies the valued environmental components (VECs) that have been selected for the EIA/EA to address the requirements of the Final Guidelines (NBENV 2009), the Terms of Reference (Stantec 2012a), and in consideration of public/stakeholder/Aboriginal issues and comments received by Northcliff; and
- identifies the other past, present, or reasonably foreseeable future projects or activities (*i.e.*, “*other projects or activities that have been or will be carried out*” as required by CEAA) with potential environmental effects that might overlap those of the Project, to assist in carrying out the assessment of cumulative environmental effects for each VEC.

4.1 REGULATORY FRAMEWORK

The Project is subject to a variety of federal and provincial environmental regulatory requirements, including EIA requirements as well as compliance with several federal and provincial acts and regulations. A summary of the applicable environmental regulatory framework for the Project is provided below.

4.1.1 Environmental Impact Assessment

4.1.1.1 *Canadian Environmental Assessment Act*

Federal EA is regulated under the *Canadian Environmental Assessment Act (CEAA)*. While the EIA of the Project commenced under CEAA (described below), that act has since been repealed and replaced

in July 2012 by the *Canadian Environmental Assessment Act, 2012 (CEAA, 2012)*. The transition provisions in *CEAA, 2012* provide that an EA review already commenced under *CEAA* will be continued under that former act. Therefore, the federal EA process for the Sisson Project is being conducted under the former *CEAA*, and this EIA Report has been written to comply with its provisions.

The requirements for federal EA are defined by *CEAA* for projects or activities under federal jurisdiction. For *CEAA* to apply there must first be a “project” as defined under the *Act*. There must also be a “trigger”. Thus, an EA is not automatically required for a project; rather, *CEAA* does not require an EA unless there is a “project” as defined in the *Act* and there are one or more “triggers” in respect of the Project.

The requirement for an EA is triggered under Section 5(1) of *CEAA* when a federal authority:

- proposes a project (Section 5(1)(a));
- provides financial assistance to a proponent to enable a project to be carried out (Section 5(1)(b));
- sells, leases, or otherwise transfers control or administration of federal land to enable a project to be carried out (Section 5(1)(c)); and/or
- provides a license, permit, approval, or authorization that is listed in the *Law List Regulations* under *CEAA* that enables a project to be carried out (Section 5(1)(d)).

All EAs under *CEAA* are screenings, unless they are on the *Comprehensive Study List Regulations* or have been referred to mediation or a review panel.

The Project requires an EA under Section 5(1)(d) of *CEAA* as it is a “project” as defined in *CEAA*, and because it requires authorizations that are “triggers” under the *Law List Regulations* of *CEAA*. The regulatory triggers under the *Law List Regulations* of *CEAA* that are applicable to the Project are outlined in Table 4.1.1 below.

Table 4.1.1 Law List Regulations Triggers for the Project

Legislation and Section	Nature of Authorization	Relevance to Project	Responsible Authority (RA)
<i>Fisheries Act</i> , Section 32	Unauthorized destruction of fish (mortality) by means other than fishing.	To address fish mortality for any in-water works during construction that may result in the killing of fish by means other than fishing (e.g., as a result of open pit and tailings storage facility (TSF) construction). A fish relocation program from portions of watercourses affected by the Project and is being considered.	Department of Fisheries and Oceans Canada (DFO)
<i>Fisheries Act</i> , Sub-section 35(2)	Harmful alteration, disruption or destruction of fish habitat (HADD).	Loss of most of Sisson Brook and Bird Brook, and the partial loss of portions of McBean Brook and an unnamed tributary to West Branch Napadogan Brook due to the presence of the open pit and TSF, must be authorized. May also be required related to HADD adjacent to, at, or downstream of these and other facilities.	Department of Fisheries and Oceans Canada (DFO)
<i>Explosives Act</i> , Sub-section 7(1)(a)	Issuance of a license for factories and magazines.	A magazine is required for the Project for the storage or manufacture of explosives.	Natural Resources Canada (NRCan)

Since they must exercise a power, duty or function in respect of issuing the above authorizations to in order to enable the Project to be carried out, the Department of Fisheries and Oceans Canada (DFO) and Natural Resources Canada (NRCan) are responsible authorities (RAs) for the EIA under *CEAA*. Though initially thought to be an RA, Transport Canada has confirmed that it is not an RA as there is no need to issue an authorization for the Project under the former *Navigable Waters Protection Act* (now superseded by the *Navigation Protection Act*), as the potentially affected watercourses are considered to be minor waters. The Canadian Environmental Assessment Agency (CEA Agency) has administered the federal EA under *CEAA* on behalf of the federal government since the EA was initiated, and it will continue to do so until the Project is referred by the Minister to the RAs under Section 23 of *CEAA* so that they may exercise their respective powers, duties, or functions pursuant to Section 37 of *CEAA*.

Section 5(2) of *CEAA* requires that an EA must be conducted if the Government of Canada must amend provisions of certain Acts or regulations so as to enable a project to be carried out. The Project need for a tailings storage facility (TSF) could precipitate the need for the Governor-in-Council to amend Schedule 2 of the *Metal Mining Effluent Regulations (MMER)* under the *Fisheries Act*. If such a regulatory amendment is ultimately determined to be required in order to allow tailings to be deposited in waters currently frequented by fish, an EA is required prior to the Government of Canada exercising this power, duty, or function to amend Schedule 2 of *MMER*. As previously discussed in Section 3.4.1.2.7, Northcliff is investigating possible means of removing fish from the affected watercourses prior to beginning Operation of the Project; if this is ultimately determined to be feasible, a regulatory amendment of *MMER* may not be required. Regardless of the outcome, this EIA Report fulfills the requirement of Section 5(2) of *CEAA* in this regard, as applicable.

The anticipated daily production rate for the mine exceeds the threshold for metal mines and metal mills under Part V, Section 16(a) of the *Comprehensive Study List Regulations* under *CEAA*. Therefore, the EA under *CEAA* is a comprehensive study.

4.1.1.2 New Brunswick *Environmental Impact Assessment Regulation*

The *Environmental Impact Assessment Regulation* (EIA Regulation), administered by the New Brunswick Department of Environment and Local Government (NBDELG), was enacted in 1987 under the New Brunswick *Clean Environment Act*. The EIA Regulation requires that the construction, operation, modification, extension, abandonment, demolition or rehabilitation of certain projects or activities (called “undertakings”) described in Schedule A of the Regulation must be registered. Schedule A identifies 24 categories of undertakings requiring registration, one of which is “(a) *all commercial extraction or processing of a mineral as defined in the Mining Act*”. Thus, the Project had to be registered under Section 5(1) of the EIA Regulation, since it is listed under item (a) of Schedule A.

Once it is registered, the registration document submitted by the proponent is reviewed by a technical review committee (TRC) to identify and understand potential environmental effects of the project and proposed mitigation. Questions of the TRC are provided to the proponent for response. When all questions have been answered (iterative process), the TRC provides its recommendations to the New Brunswick Minister of Environment and Local Government (the Minister), who will determine if the project may proceed directly with conditions (Determination Review) or if a more detailed EIA is required (Comprehensive Review).

If the Minister determines, on advice of the TRC, that a Comprehensive Review is required, the following key process elements are undertaken:

- development of Draft Guidelines for the EIA by the Minister;
- public input to Draft Guidelines;
- issuance of Final Guidelines for the EIA by the Minister;
- development of Terms of Reference by the proponent to meet the Final Guidelines;
- development of an EIA Report (also referred to as an Environmental Impact Statement or EIS) by the proponent, and subsequent review of the EIA Report by the TRC (iterative process) and associated revision of the EIA Report;
- following revision and answering of all questions, acceptance of the EIA Report by the Minister
- release of the EIA Report to the public for review and comment;
- preparation of a summary report and General Review Statement regarding the EIA by the Minister;
- public meeting; and
- decision by Lieutenant-Governor-in-Council.

Other procedural steps may be required in addition to the above, including the requirement for public, stakeholder and Aboriginal input to the EIA throughout its conduct. The specific requirements and procedural steps to be undertaken by a proponent are normally specified in the Final Guidelines.

For the Project, the Project Registration document (Rescan 2008) was submitted to the New Brunswick Department of Environment (NBENV, now the NBDELG) on September 5, 2008. The Minister determined on October 24, 2008 that an EIA (Comprehensive Review) of the Project was required. Final Guidelines for the EIA of the Sisson Project (NBENV 2009) were issued on March 1, 2009, following public consultation on them.

4.1.1.3 Harmonized Environmental Impact Assessment

The Governments of New Brunswick and Canada implemented a harmonized environmental impact assessment process for the Sisson Project. Under this approach, both levels of government have agreed to cooperate in the carrying out of the EIA to meet the requirements of their respective legislation, beginning with Terms of Reference being issued jointly to define the scope of the EIA federally and how Northcliff will meet the Final Guidelines provincially. They have also agreed that a single EIA Report prepared by the Proponent to meet the requirements of the Terms of Reference would suffice to fulfill the respective provincial and federal EIA requirements. The CEA Agency will then prepare its comprehensive study report (CSR), relying upon the EIA Report and the results of the review process.

Both levels of government have worked together extensively in carrying out Aboriginal consultation activities to fulfill their respective “duty to consult” responsibilities for the Project, and along with Northcliff have also collaborated in respect of public and stakeholder consultation and Aboriginal engagement activities for the EIA.

4.1.1.4 Terms of Reference

Section 10(1) of the EIA Regulation requires that the proponent “...prepare terms of reference for an environmental impact assessment, setting out his proposals for the carrying out of an assessment in accordance with the final guidelines”. The specific requirements for the Terms of Reference are outlined in Section 2.8 of the Final Guidelines issued on March 1, 2009. To meet the New Brunswick requirements, the Terms of Reference (Stantec 2012a) were prepared in accordance with Section 2.8 of the Final Guidelines to describe the methods used by Northcliff to conduct the EIA of the Project, and the means by which Northcliff will consult with the public during the course of the EIA, to meet the requirements of Sections 10(1) and 10(2) of the EIA Regulation. The Terms of Reference were also prepared to outline the requirements for the federal EA under Sections 15 and 16 of *CEAA*.

The Terms of Reference were issued on April 16, 2012 by the CEA Agency on behalf of the federal government as its EIS Guidelines for the EA under *CEAA*, thereby defining the scope of the EA, including scope of project, factors to be considered, and scope of factors to be considered. Following consultation on them, the Terms of Reference were approved by the Minister of NBDELG on April 16, 2012. The Terms of Reference were also adopted as the scope of the federal EA under Sections 15(1) and 16(3) of *CEAA* on April 16, 2012.

The Terms of Reference will support the preparation of a comprehensive study report (CSR) by the CEA Agency. The CEA Agency will exercise the powers, and perform the duties and functions, of the RAs until such time as the federal Minister of Environment is provided with the CSR, following the completion of the EIA.

Following acceptance of the Terms of Reference, Northcliff set out to develop this EIA Report to meet the requirements of the Final Guidelines using the methods identified in the Terms of Reference. This EIA Report provides the necessary details as set out by the Terms of Reference and serves as the basis for public comment in respect of regulatory decision-making regarding the Project.

4.1.2 Other Legislation Applicable to the Project

The key federal and provincial environmental legislation that may apply to the Project is outlined below. Other acts and regulations may apply.

4.1.2.1 Federal

4.1.2.1.1 Fisheries Act

The *Fisheries Act* is administered by Fisheries and Oceans Canada (DFO) and is the main legislation protecting fish, fisheries, and fish habitat in Canada. Under Section 35 of the former *Fisheries Act* prior to being amended in summer 2012, a development could not cause harmful alteration, disruption, or destruction (HADD) of fish habitat without authorization from DFO, and authorization was typically not granted unless the proponent agreed to compensate for the HADD such that there was no residual net

loss of habitat. Compensation projects were selected by proponents and evaluated by DFO following the guidance contained in the “Practitioners Guide to Habitat Compensation” (DFO 2006a). Subject to confirmation by DFO, it is expected that the former fish habitat requirements in Section 35 of the *Fisheries Act* as they existed before the summer 2012 amendments will continue to apply to the Project.

Specifically, a HADD authorization is required under Section 35 of the *Fisheries Act*. It is also possible that an authorization under Section 32 for the destruction of fish may be required, depending on Project specifics and methods of construction.

4.1.2.1.1 *Fisheries Act – Metal Mining Effluent Regulations*

The *Metal Mining Effluent Regulations (MMER)* of the *Fisheries Act* apply to the Project. *MMER* requires that a tailings impoundment area must be added to Schedule 2 of those regulations for depositing deleterious substances (e.g., waste rock, tailings or effluent) into those areas. Furthermore, the *MMER* establishes monitoring requirements and discharge limits for various parameters, requires effluent to be non-acutely lethal to rainbow trout and *Daphnia magna*, and requires environmental effects monitoring (EEM) to be conducted including the submittal of study designs and the requirement for evaluating sub-lethal effects on aquatic communities.

4.1.2.1.2 *Explosives Act*

The *Explosives Act*, administered by Natural Resources Canada (NRCan), regulates the manufacturing, testing, sale, storage, transportation and importation of explosives. Explosives required for blasting will be stored and handled on-site, which will result in the requirement of an on-site explosives magazine. Accordingly, a licence under the *Explosives Act* is required to enable the Project to proceed.

4.1.2.2 Provincial

4.1.2.2.1 *New Brunswick Clean Air Act – Air Quality Regulation*

The *New Brunswick Clean Air Act – Air Quality Regulation* requires, among other requirements, that a stationary “source” that releases air contaminants to the environment must obtain approvals to release those air contaminants. Accordingly, an Approval to Construct and an Approval to Operate pursuant to this regulation are anticipated to be required by the Project, as the Project will be a source.

4.1.2.2.2 *New Brunswick Clean Environment Act – Water Quality Regulation*

The *New Brunswick Clean Environment Act – Water Quality Regulation* prohibits the release of a contaminant that may result in water pollution without an approval under the regulation, among other requirements. As such, an Approval to Construct and an Approval to Operate pursuant to this regulation will be required for the Project.

4.1.2.2.3 *New Brunswick Clean Water Act – Watercourse and Wetland Alteration Regulation*

All work within 30 m of a watercourse or wetland requires a permit under the *New Brunswick Clean Water Act – Watercourse and Wetland Alteration Regulation*. As several wetlands and watercourses

are located within the Project Development Area (PDA; Figure 1.2.1), a permit under this regulation will be required for the Project before work can begin in these areas.

4.1.3 Other Approvals, Permits, and Authorizations

Following the completion of the EIA and upon obtaining approval from the respective federal and provincial regulatory agencies in respect of the EIA, the Project will require a number of approvals, permits, or authorizations prior to Project initiation. In addition, throughout Construction and Operation, compliance with various standards contained within provincial or federal legislation, regulations and guidelines will be required, in addition to specific terms and conditions that may be mandated as part of various approvals, permits and other forms of authorization required for the Project.

Table 4.1.2 provides a summary of the anticipated permits, approvals or authorizations that may be required, the enabling legislation, the regulatory agency responsible, and the aspects of the Project they may apply to. This listing is based on the best knowledge of Northcliff according to information it has received at the time writing, but is not necessarily intended to be all-inclusive. Other permits, approvals or authorizations may be determined by regulatory agencies to apply to the Project. Northcliff will work with regulatory agencies to confirm these requirements and identify any additional legislation or authorizations that may apply to the Project. It is important to note that following the completion of the EIA process, the Province is expected to issue an Approval to Construct under the New Brunswick *Clean Air Act* and/or the New Brunswick *Clean Water Act*. These Approvals often package a number of permit requirements, including watercourse and wetland alteration, air quality, sound quality, and vibration. Following Construction, it is expected that Approvals to Operate will be issued under the same two acts.

Table 4.1.2 Potential Legislation and Permits, Approvals, and Authorizations That May Apply to the Project

Permit, Approval, or Authorization	Legislation	Department or Agency	Activity or Component
Federal			
Permit, Licence or Certificate for the Manufacturing, Testing, Sale, Storage, Transportation and Importation of Explosives	<i>Explosives Act</i> R.S.C., 1985, c. E-17 (Section 7) and attendant regulations	Natural Resources Canada	Manufacture, testing, sale, storage, transportation and importation of explosives and the use of fireworks.
Permit to Import, Export, or Transport Hazardous Waste or Hazardous Recyclable Materials	<i>Canadian Environmental Protection Act</i> , 1999 (S.C. 1999, c. 33) (Section 185(1)(b)) and <i>Export and Import of Hazardous Waste and Hazardous Recyclable Materials Regulation</i>	Environment Canada	Import, export or convey in transit a hazardous waste or hazardous recyclable material, or prescribed nonhazardous waste for final disposal.
Authorization for the Destruction of Fish by Means Other than Fishing	<i>Fisheries Act</i> , c. F-14, Section 32	Fisheries and Oceans Canada	All project activities that may involve the destruction of fish (Construction phase).
Authorization for Harmful Alteration, Disruption or Destruction (HADD) of Fish Habitat	<i>Fisheries Act</i> , c. F-14, Section 35(2)	Fisheries and Oceans Canada	All project activities that may involve the alteration, disruption or destruction of fish habitat (Construction phase mainly).

Table 4.1.2 Potential Legislation and Permits, Approvals, and Authorizations That May Apply to the Project

Permit, Approval, or Authorization	Legislation	Department or Agency	Activity or Component
Scientific Collection Permit	<i>Fisheries (General) Regulations</i> 93-53 under the <i>Fisheries Act</i> (Section 52)	Fisheries and Oceans Canada	Electrofishing, seining, netting or other non-lethal means of fishing for scientific purposes.
Designation of a Waterbody as a Tailings Impoundment	<i>Metal Mining Effluent Regulations</i> 2002-222 (<i>MMER</i>) under the <i>Fisheries Act</i>	Environment Canada	Designation of a waterbody as a tailings impoundment - Requires tailings impoundment to be added via regulatory amendment to Schedule 2 of the <i>MMER</i> .
Scientific Collection Permit	<i>Migratory Birds Regulations</i> c. 1035 under the <i>Migratory Birds Convention Act, 1992</i> (Section 19)	Environment Canada	All project phases having the potential to affect migratory birds or their nests (particularly during Construction).
Species At Risk Permit	<i>Species at Risk Act</i> c.29 (Section 73(1))	Environment Canada	Any project activity affecting a listed species at risk or their habitats.
Provincial			
Approval to Construct, Modify, or Operate a Source	<i>Air Quality Regulation</i> 97-133 – <i>Clean Air Act</i>	Environment and Local Government	Approval for the release of air contaminants from a designated source of air contaminants.
Open Burning Permit	<i>Air Quality Regulation</i> 97-133 – <i>Clean Air Act</i>	Environment and Local Government	Open burning activities.
Approval to Construct, Modify, or Operate a Source	<i>Water Quality Regulation</i> 82-126 - <i>Clean Environment Act</i>	Environment and Local Government	Approval for the release of wastewater from a designated source.
Approval of the Discharge Point	<i>Water Quality Regulation</i> 82-126 - <i>Clean Environment Act</i>	Environment and Local Government	Approval of the discharge point.
Approval of any Source, Wastewater Work, or Waterworks	<i>Water Quality Regulation</i> 82-126 - <i>Clean Environment Act</i>	Environment and Local Government	Approval of any source, wastewater work, or waterworks.
Written permission to cease operation of a wastewater work or waterworks	<i>Water Quality Regulation</i> 82-126 - <i>Clean Environment Act</i>	Environment and Local Government	All releases of wastewater from the Project.
Site Approval	<i>Petroleum Product Storage and Handling Regulation</i> 87-97 - <i>Clean Environment Act</i>	Environment and Local Government	Approval of a petroleum storage site.
Environmental Approval	<i>Petroleum Product Storage and Handling Regulation</i> 87-97 - <i>Clean Environment Act</i>	Environment and Local Government	Approval of environmental protection and mitigation measures for tankage, and tanks themselves, storing petroleum products as defined in the Regulation.
Storage licence	<i>Petroleum Product Storage and Handling Regulation</i> 87-97 - <i>Clean Environment Act</i>	Environment and Local Government	License for petroleum storage systems (greater than 2000 L per site).
Watercourse and Wetland Alteration (WAWA) Permit	<i>Wetland and Watercourse Alteration Regulation</i> 90-80	Environment and Local Government / Health	All Project phases, but largely focused on Construction activities. Lesser impact for other phases (e.g., decommissioning).
Well Driller's Permit	<i>Water Well Regulation</i> 90-79 - <i>Clean Water Act</i>	Environment and Local Government/Health	Project phases and activities that require the drilling of a potable water well.

Table 4.1.2 Potential Legislation and Permits, Approvals, and Authorizations That May Apply to the Project

Permit, Approval, or Authorization	Legislation	Department or Agency	Activity or Component
Licence or Permit Authorizing the Holder to Hunt, Trap or Snare any Species of Wildlife or to Angle for any Species of Fish	<i>Fish and Wildlife Act F-14.1</i>	Agriculture, Aquaculture and Fisheries/Natural Resources	Hunt, trap or snare any species of wildlife or to angle for any species of fish (e.g., fish or wildlife rescue prior to or during construction).
Work Permit to Conduct an Industrial Operation Upon Forest Land	<i>Forest Fires Act F-20</i>	Natural Resources	Operation of Project.
Burn Permit	<i>Forest Fires Act General Regulation 84-204</i>	Natural Resources	Open burning activities.
Archaeological Field Research Permit	<i>Heritage Conservation Act H-4.05</i>	Culture, Tourism and Healthy Living	Archaeological investigations on the project site (background research, walkover, shovel test pitting (STP), excavation or mitigation).
Special Permit - restricted highway access by weight	<i>Highway Act H-5</i>	Transportation and Infrastructure	All Project phases requiring transportation of oversize or overweight loads.
Mining Lease	<i>Mining Act M-14., Section 67</i>	Energy and Mines	Lease for "production" of a mineral. Required for entire mining development. Lease must be obtained prior to construction.
Permit to Carry Out Activities in a Protected Area	<i>Protected Natural Areas Act P-19.01</i>	Natural Resources	Permit to carry out activities in a protected area for scientific research, educational, rehabilitation/restoration purposes, if the Project affects a Protected Natural Area. New Protected Natural Areas proposed by Minister of Natural Resources in October 2012.
Permit to Possess a Species at Risk	<i>Species at Risk 2012 C.6, Section 34(1)</i>	Natural Resources	The Minister may issue a permit to a person to kill an individual of a wildlife species that is listed as an extirpated species, an endangered species, or a threatened species, or to possess such an individual.
Permit to Engage in Activities	<i>Species at Risk 2012 C.6, Section 35(1)</i>	Natural Resources	The Minister may issue a permit to engage in activities that could kill, harm, or harass a species that is extirpated, endangered, or threatened.
TDG Permit	<i>Transportation of Dangerous Goods 2011, C.232 Regulation 89-67</i>	Public Safety	Not specified.
License of Occupation	<i>Crown Lands and Forests C-38.1 (Section 26)</i>	Natural Resources	Lease for the occupation of Crown Lands.
Topsoil Removal Permit	<i>Topsoil Preservation 2011, c.230</i>	Environment and Local Government	Removal of topsoil during construction activities.
Operating Permit	<i>Elevators and Lifts Act E-6</i>	Public Safety	Construction and operation of a lifting device.

Table 4.1.2 Potential Legislation and Permits, Approvals, and Authorizations That May Apply to the Project

Permit, Approval, or Authorization	Legislation	Department or Agency	Activity or Component
Development and Building Permits	<i>Community Planning Act C-12</i>	Environment and Local Government/Rural District Planning Commission	Development of an area of land, or building of a structure.
Boiler and Pressure Vessel Certificate	<i>Boiler and Pressure Vessel Act c.122 (Section 13(1))</i>	Training and Employment Development/Public Safety	Approval of boiler or pressure vessel.

4.2 SCOPE OF ASSESSMENT

The scope of the EIA of the Project to meet the requirements of the Final Guidelines (NBENV 2009), the Terms of Reference (Stantec 2012a), and Sections 15 and 16 of *CEAA* is defined in this section.

4.2.1 Scope of the Project

As outlined in Section 2.2.1 of the Terms of Reference (Stantec 2012a), the scope of the Project to be assessed under the EIA Regulation and under *CEAA* includes the Construction, Operation, and Decommissioning, Reclamation and Closure phases (including post-closure activities as appropriate) of the open pit mine; ore processing facility; tailings and ore storage areas; and all associated infrastructure. The specific processes, components and activities that form the scope of Project are outlined below. This list of Project elements encompasses those elements identified in Section 3.1 of the Final Guidelines (NBENV 2009).

The scope of the Project, and its main elements and activities, is comprised of but it not limited to, the following:

- a conventional open pit mine including blasting and movement of waste rock and ore;
- storage areas for ore, and the storage of ore in these areas;
- stockpiling of organics and overburden for future reclamation use;
- ore processing facilities (e.g., crushing, grinding, flotation), and the on-site processing of ore to produce molybdenum concentrate and ammonium paratungstate (APT), and the management of waste rock and tailings;
- a tailings storage facility (TSF) for storage of tailings from the process and waste rock, and the associated operation of the TSF;
- diversion of clean surface water away from Project facilities (i.e., open pit, TSF);

- collection of run-off and precipitation on the Project site, and groundwater flows into the open pit (collectively referred to as mine contact water), to prevent their escape to the environment and for use as process water in operations, and the discharge of surplus water as required (with treatment as needed to meet permit conditions);
- ancillary facilities, including on-site buildings, an explosives magazine for on-site storage and manufacture of explosives, a concrete batch plant during Construction, a quarry for supplying rock for construction of the TSF embankments and aggregate, fuel storage and distribution systems, potable water supply systems, and sanitary facilities;
- linear facilities to the Project site comprised of a new 138 kV electrical transmission line, a re-aligned 345 kV electrical transmission line, and use of existing public and forest resource roads, refurbished as needed to accommodate Project needs;
- transportation of the equipment, materials and supplies to the Project site, and of mineral products to off-site buyers;
- decommissioning of facilities, and reclamation and closure of the site at the end of the mine life; and
- care and maintenance of the site Post-Closure.

4.2.2 Factors to be Considered

The factors to be considered in the assessment of environmental effects of the Project were described in Section 2.2.2 of the Terms of Reference (Stantec 2012a). A summary of these factors is provided below.

4.2.2.1 Federal Environmental Assessment

All environmental assessments conducted under *CEAA* require specific factors to be considered. Sections 16(1)(a) to 16(1)(d) of *CEAA* detail the mandatory factors to be considered within the scope of an EA conducted under *CEAA*, as follows:

- (a) “the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;*
- (b) the significance of the effects referred to in paragraph (a);*
- (c) comments from the public that are received in accordance with this Act and the regulations;*
- (d) measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project.”*

Section 16(1)(e) of *CEAA* establishes that additional factors can be considered if determined to be relevant by the federal RAs:

- (e) *“any other matter relevant to the screening, comprehensive study, mediation or assessment by a review panel, such as the need for the project and alternatives to the project, that the responsible authority or, except in the case of a screening, the Minister after consulting with the responsible authority, may require to be considered.”*

As an additional factor to be considered under Section 16(1)(e) of *CEAA*, the CEA Agency requires that the EIA consider the need for and alternatives to the Project, in accordance with the CEA Agency's Operational Policy Statement entitled “Addressing “Need for”, “Purpose of”, “Alternatives to” and “Alternative Means” under the *Canadian Environmental Assessment Act*” (CEA Agency 2007).

Section 16(2) of *CEAA* requires consideration of the following additional mandatory factors as part of the EA of the scoped Project for a comprehensive study:

- (a) *“the purpose of the project;*
- (b) *alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means;*
- (c) *the need for, and the requirements of, any follow-up program in respect of the project; and*
- (d) *the capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future.”*

Further factors to be considered in the EIA to meet the requirements of *CEAA* were elaborated in sub-Sections 2.2.2.3 to 2.2.2.10 of the Terms of Reference (Stantec 2012a). The reader is referred to those sections of the Terms of Reference for further information.

4.2.2.2 Provincial Environmental Impact Assessment

The description of the existing environment and assessment of potential environmental effects of the Project were to be described for Valued Environmental Components (VECs) within defined study boundaries. The Final Guidelines (NBENV 2009) suggested the following VECs to be assessed as part of the EIA:

- Atmospheric Environment;
- Freshwater Resources (Groundwater and Surface Water);
- Freshwater/Aquatic Environment;
- Terrestrial Environment;
- Wetland Environment;

- Labour and Economy (and other Socio-economic Effects);
- Community Services and Infrastructure;
- Private/Public Land and Resource Use;
- Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons;
- Heritage and Archaeological Resources;
- Land-Based Transportation/Road Infrastructure;
- Effects on the Environment on the Project; and
- Public Health and Safety.

The factors to be considered for each of these VECs were further elaborated in the Final Guidelines (NBENV 2009). Detailed work plans and methodologies that were proposed and accepted to meet the requirements of the Final Guidelines were detailed in the Terms of Reference (Stantec 2012a), and are assessed in this EIA Report.

4.2.3 Scope of Factors to be Considered

The scope of the factors to be considered for the EIA of the Project was detailed, for each valued environmental component (VEC) of concern, in Section 4.0 of the Terms of Reference (Stantec 2012a). The elements of that identified scope of factors to be considered are extensive, and are not repeated here. The reader is referred to the Terms of Reference (Stantec 2012a) for further details on the specific detailed work plans and methodologies that were proposed (and ultimately accepted by the federal and provincial regulatory agencies) to meet the requirements of the Final Guidelines and of CEEA. This EIA Report addresses the full scope of factors as defined in the Terms of Reference for the EIA.

4.3 CONSULTATION AND ENGAGEMENT

This sub-section has been adapted from information provided by Northcliff on the public, stakeholder and Aboriginal engagement activities it has carried out in respect of the Project.

A key requirement of any EIA process is to conduct comprehensive public, stakeholder, and Aboriginal engagement. The overarching goals of such engagement are to inform such parties about the Project, to assist in the identification of key issues and concerns in respect of the Project, to obtain information that may assist in carrying out baseline or predictive studies for the EIA, to collect information in respect of the current use of land and resources for traditional purposes by Aboriginal persons, and to share information in respect of the Project with local communities, stakeholders, First Nations, and the general public. There are additional objectives around building support for the Project in the community and with governments in respect of the Project's direct and indirect benefits.

The Final Guidelines for the EIA of the Project specifically require that Northcliff:

“...must consult with persons and organizations potentially affected by the proposed project and associated infrastructure, and must inform and engage any interested individuals, groups, stakeholders, local hunters and trappers, recreational users, affected communities, and Aboriginal communities in this assessment. This will include local governments and specific groups with mandates/initiatives in this area. The stakeholder consultation program is to be reviewed and accepted in the early stages of the study (e.g., at the TOR stage).”

Additionally, Section 16(1)(c) *CEAA* requires that the EA must consider comments from the public received in relation to EA, and Section 21.2 of *CEAA* requires that the public is provided with an opportunity to participate in the comprehensive study. The following sub-sections describe Northcliff’s public, stakeholder and Aboriginal engagement program for the Project, including how Northcliff has considered the input received through this program.

4.3.1 Engagement Methods and Activities

4.3.1.1 Public and Stakeholder Engagement

The public in general has expressed considerable interest in the Project throughout the EIA process, and the Proponent has considered it essential to a successful EIA and Project to actively engage members of the public to ensure the EIA is scoped adequately, concerns are identified and addressed as appropriate, and members of the public are able to obtain information regarding the Project.

4.3.1.1.1 Public and Stakeholder Engagement Tools

Northcliff has engaged the public and First Nation communities on multiple occasions since November 2010, using a range of communication tools to share Project-related information. Open houses, the information office in Stanley, newsletters, community barbeques, and career information sessions provided a broad-based community outreach approach to introduce and communicate Project details to the general public. In those instances where specific issues and concerns were raised by individuals, stakeholder groups and First Nations, the approach included more detailed discussions through ongoing working groups and workshops.

Up to May 2013, Northcliff held 154 meetings with various stakeholders, stakeholder groups and First Nation leaders or their representatives, and has accumulated an email list of 734 names and a mailing list of 173 individuals.

The communication tools include, but are not limited to:

- Project website;
- newsletters and emails;
- an information office in Stanley;
- open houses;

- working groups;
- presentations to and meetings with stakeholder groups;
- community barbeques;
- career information sessions; and
- workshops.

Project Website

The Sisson Project website (www.sissonsproject.ca) was launched in August 2011. Stakeholder groups and individuals, key government personnel, First Nations community leaders and their representatives, and business organizations were notified by email of the creation of the website. The Project website contains information on the Project, information on Northcliff environmental leadership and sustainable development policies, news releases, frequently asked questions, contact information for Northcliff, a sign-up page for the Project newsletter, and documents available for download (e.g., Project Description (Stantec 2011), Terms of Reference (Stantec 2012a), and an interim Stakeholder and First Nations Engagement Report). The sign-up page also includes a comment form where users can submit comments or questions regarding the Project.

The website is maintained by Northcliff and updated as new information becomes available. Recent updates included changes to the frequently asked questions (FAQ) and the addition of a video on tungsten. The FAQ were updated to include questions identified during the various First Nations and stakeholder engagement activities undertaken for the Project.

The website has proven to be a successful communication tool. During the first 48 week period in 2012 the website had 4,295 visitors, with the average user viewing four different pages within the website structure. Over 160 viewers also completed the sign-up page to receive updated information on the Project. Comments received via this medium were focused almost entirely on employment and contracting opportunities. Going forward, Northcliff will maintain and update the Project website to:

- ensure that Project information is current;
- inform users when Project milestones are reached;
- provide access to latest Project-related documents and news releases; and
- advertise upcoming information sessions and community events.

Newsletters and Email Notifications

Newsletters are distributed as information on the Project becomes available and when there is Project-related news to distribute. Members of the public are able to add their name to the newsletter distribution list through the Project website, by contacting Northcliff directly, or at any consultation or engagement event such as open houses or meetings.

The newsletter is produced in both PDF format for email distribution and also printed for distribution through Northcliff's Fredericton office, the information office in Stanley, and at various industry and public events.

Currently, Northcliff distributes newsletters and other email updates in relation to the Project to approximately 734 email subscribers. Emails are sent at key Project milestones.

Information Office

Northcliff has established an information office in Stanley, New Brunswick. It is located at 80 Irishtown Road and is open from 3:00 pm to 7:00 pm on Wednesdays, and 10:00 am to 2:00 pm on Saturdays. Northcliff representatives are present to provide information on the Project, answer questions, and collect any comments or questions from members of the public.

Days of operation for the Stanley office were changed during the winter of 2013 to account for winter weather. The office is open every second Wednesday and every second Saturday until May, at which time operating hours throughout summer and fall of 2013 will be re-evaluated.

At the time of writing, approximately 130 people have visited the information office since it opened in mid-August 2011. In addition to a variety of general Project information, copies of Project documents (such as the Project Description, Terms of Reference, and Baseline Technical Reports) are available for public review. Reference materials about mining are also available.

The information office is also used to host a variety of community-based activities including meetings with provincial and municipal government officials, community barbeques, and workshops with key stakeholders, among other uses.

A large number of visitors to the information office expressed interest in possible employment and contracting opportunities, and frequently drop by to inquire about the Project and its schedule. Given the keen interest in employment and contracting opportunities, Northcliff has accepted unsolicited resumés and held them in a database until such time as the Project receives approval. To date, Northcliff has added more than 500 resumés to its database, and continues to receive resumés on a regular basis.

Open Houses

In addition to several open houses held by Geodex in 2008 and 2009, Northcliff has to date held three open houses in September 2011 as part of the public review of the Draft Terms of Reference. The open houses were held in Juniper, Millville, and Stanley at the following locations and times:

- Juniper Recreation Centre—September 12, 2011, 4:30-8:30 pm;
- Millville Village Office—September 14, 2011, 4:30-8:30 pm; and
- Upper Nashwaak Lions Club—September 15, 2011, 4:30-8:30 pm.

The public was notified of the open houses in several ways, including:

- two advertisements in the Fredericton Daily Gleaner, on September 9 and 10, 2011;
- two advertisements in the Woodstock Bugle, on September 7 and 9, 2011;
- advertisements placed in the September issues of the monthly community newspapers in Stanley, Millville, and Nackawic;
- posters in post offices, villages offices, convenience stores and restaurants in Stanley, Juniper, Florenceville-Bristol, Cross Creek, and Millville;
- letters sent to the Chiefs of all First Nations communities in New Brunswick;
- email sent to all individuals on newsletter mailing list;
- emails sent to mayors of communities in the Project area (Fredericton, Stanley, Millville, Florenceville-Bristol, and Nackawic) and representatives of local service districts in the Project area (Douglas and Aberdeen);
- email sent to the Member of the Legislative Assembly (MLA) and Member of Parliament (MP) representing the area; and
- notice on the Sisson Project website.

Key regulatory agencies, including the CEA Agency in Halifax and the NBDELG's Environmental Assessment Section were also notified of the open houses via email, and invited to attend.

Open houses were staffed by members of the Sisson Project team, including representatives of Northcliff, Stantec, Knight Piésold, and SRK Consulting. Additionally, a representative of the NBDELG's Environmental Assessment Section attended two of the three open houses. Various poster boards were laid out within the venue to provide key information on various aspects of the Project, the regulatory process including the Terms of Reference, key Project-environment interactions, and key studies planned to be carried out. Project representatives were on hand to speak with attendees, present information, and answer questions. Comments, questions, and concerns from those in attendance were recorded by the Project team.

Posters were presented at the open house and were grouped into five general subject areas:

- Project and Proponent Information—presenting information about the location and preliminary design of Project facilities, Northcliff's commitment to responsible mineral development, information on tungsten and molybdenum, and the geology of the Sisson deposit;
- Acid Rock Drainage Studies—presenting information on acid rock drainage and metal leaching in general, and on the studies being conducted to determine the potential for acid generation at the Project;

- Water Management Including Tailings Management—presenting information on the water monitoring studies that are ongoing and planned for the Project, as well as information on water management principles, including tailings storage facility engineering design considerations, for the Project;
- Aquatic Environment—presenting information on Northcliff’s ongoing fish and fish habitat studies surrounding the Project area; and
- Environmental Impact Assessment—providing information of the applicable the federal and provincial environmental assessment processes, key Project-environment interactions, key environmental issues that will be studied in the EIA, an overview of the Terms of Reference including key work plans to address key Project-environment interactions, where copies of the draft Terms of Reference can be downloaded or viewed, and information on how to submit comments and/or questions.

There were at least 17 members of the Project team present at each open house. The structure of the open houses allowed members of the public in attendance to speak with Project representatives with expertise in particular subject areas of interest. Since the Project team members present represented a wide range of technical expertise, detailed and/or technical questions were, for the most part, answered in person.

Total attendance at each open house (excluding Sisson team members) was approximately:

- 35 attendees in Juniper;
- 40 attendees in Millville; and
- 46 attendees in Stanley.

Working Groups

Four working groups have been established thus far for the Project: a Sustainability Working Group; a HADD Working Group; an Aquatics Stakeholder Working Group; and a First Nations Environmental Assessment Working Group, discussed in more detail in Section 4.3.1.2.3.

Sustainability Working Group

The Sustainability Working Group, formed in May 2012, provides a forum for information sharing and discussion. It is comprised of two community members from each of Aberdeen Parish, Millville, and Stanley. Participants include elected municipal leaders, local business owners, a representative of the New Brunswick Professional Outfitters & Guides Association, and a representative from Families of the Upper Nashwaak, which is a Stanley-based non-profit organization. The group is chaired by Northcliff with support provided by Stantec and other experts as needed. The Sustainability Working Group:

- contributes to Northcliff’s understanding of local community interests and opportunities related to the Project;

- discusses baseline data results and provide input to data related to communities and regions and users of the Project area;
- discusses Project design, potential effects arising from the Project and potential mitigation or management strategies, and strategies for enhancing local/provincial benefits from the Project;
- contributes to ideas on objectives for mine closure (*i.e.*, end land use objectives); and
- helps to identify areas for further study.

Discussion topics include the EIA and Project plans including mitigation and management strategies that are protective of people and the environment while optimizing Project benefits. From time to time, the working group invites individuals who can provide additional expertise to attend the discussions. To date, representatives from the City of Fredericton and Enterprise Fredericton have attended sessions on Water and Waste Management and Labour and Economy, respectively. The Sustainability Working Group will continue throughout the EIA as participants are recognized as an important conduit for providing information to the communities of Stanley, Juniper, and the Millville/Nackawic region.

HADD Working Group

The HADD Working Group is comprised of representatives of the federal Department of Fisheries and Oceans, the provincial departments of Natural Resources and Environment and Local Government; Northcliff; and Stantec technical staff. Its purpose is to:

- inform regulators about the planning and design of the Project as it unfolds;
- discuss field and other aquatic research activities in support of Project planning, preparation of the EIA Report, and future requirements for permits and authorizations, especially authorization under the federal *Fisheries Act* for harmful alteration, disruption, or destruction (HADD) of fish habitat; and
- develop the framework for a conceptual Fish Habitat Compensation Plan.

To date, the HADD Working Group has met four times, on June 15, 2011; November 2, 2011; September 27, 2012; and November 6, 2012. Topics of discussion at these meetings included the Project description, the 2011 aquatic field program plans and results, methods for HADD determination (both direct loss and indirect loss due to downstream flow reduction), and potential HADD compensation opportunities to form the basis of the fish habitat compensation plan for the Project based on DFO's hierarchy of preferences. It is expected that the HADD Working Group will continue to meet throughout the EIA review period and leading up to DFO's eventual HADD authorization and associated requirement for compensation.

Aquatics Stakeholder Working Group

The Aquatics Stakeholder Working Group is comprised of representatives of the Nashwaak Watershed Association (NWA), the Canadian Rivers Institute (CRI), the Atlantic Salmon Federation (ASF), the New Brunswick Salmon Council, Stantec technical staff, and Northcliff. Its purpose is to:

- inform key aquatic stakeholders about, and gain feedback on, the planning and design of the Project as it unfolds;
- discuss field and other aquatic research studies in support of Project planning and preparation of the EIA Report, and to receive feedback on the scope and content of those studies; and
- develop ideas for ways to avoid, minimize or compensate for Project environmental effects on the aquatic environment.

To date, the Aquatics Stakeholder Working Group has met three times, on May 24, 2011; December 16, 2011; and December 6, 2012. Topics of discussion at these meetings included Project description, the EIA process, the 2011 and 2012 aquatic baseline studies work plans and results, determination of effects on fish and fish habitat (including population studies and HADD determination), the basis for future fish habitat and environmental effects monitoring, and HADD compensation opportunities—both large-scale and small-scale. The basis of a fish habitat compensation plan and options for locating the TSF and alternatives was also discussed.

In addition to these meetings, Northcliff sent an update report to the Aquatics Stakeholder Working Group on July 3, 2012 on the release of the baseline technical reports and their availability for review, and the design of the 2012 aquatics field program, and how it responded to input received at the December 16, 2011 meeting. Further email communication was also held following the December 6, 2012 meeting.

The First Nations EA Working Group is discussed in Section 4.3.1.2.3.

Presentations and Meetings with Stakeholder Groups

Northcliff continues to be active in meeting and presenting the Project and updates to a number of individuals, stakeholder groups, individuals representing stakeholder groups, business groups, and federal, provincial and municipal officials.

To date, Northcliff has met, communicated with and/or presented Project information to the following groups or their representatives:

- Aberdeen local service district (LSD);
- Acadian Timber;
- Atlantic Salmon Federation (ASF);
- New Brunswick Salmon Council;
- Canadian Rivers Institute (CRI);
- City of Fredericton;
- Conservation Council of New Brunswick (CCNB);

- Douglas LSD;
- Enterprise Fredericton;
- Families of the Upper Nashwaak;
- Fredericton Chamber of Commerce;
- Fredericton Rotary Club;
- Millville Village Council;
- Stanley Village Council;
- Nashwaak Watershed Association (NWA);
- New Brunswick Metal Workers Association;
- New Brunswick Road Builders Association;
- New Brunswick Professional Guides & Outfitters Association;
- New Brunswick Trappers and Fur Harvesters Federation (NBTFTF);
- Stanley Fire Department Chief;
- Millville Fire Department;
- Southern New Brunswick Truckers Association;
- Town of Woodstock;
- Taymouth Environmental Action Committee;
- Town of Florenceville-Bristol;
- Town of Nackawic Council; and
- Upper Miramichi Village Council.

Career Information Sessions

Career information sessions were held June 20, 25, and 28, 2012 in Millville, Stanley, and Juniper, respectively. Northcliff has received many questions about possible employment opportunities with the Project through other engagement activities. These career information sessions were held to provide information about the types of careers the Project will provide, and the availability of applicable education and training programs offered locally.

A series of Project posters, detailed maps showing Project location and mine design were on display and supported by Northcliff staff. Representatives from the New Brunswick Department of Post-Secondary Education, Training and Labour, the New Brunswick Community College, and the New Brunswick Workplace Essential Skills Program also participated in these sessions and were available to provide detailed information on education and skills upgrading programs.

The public was notified of the career information sessions in several ways, including:

- drop mail cards in the communities of Stanley, Juniper, Glassville, Florenceville-Bristol, Nackawic and Millville. In total 1,680 mail-out pieces were delivered;
- media release issued to the Daily Gleaner, the Woodstock Bugle, Woodstock radio station CJ104, and Fredericton radio station 92.3 Fred FM;
- posters distributed in the communities of Stanley, Florenceville-Bristol, Juniper, Millville and Nackawic;
- emails sent to mayors of communities (Stanley, Millville, Florenceville-Bristol, and Nackawic, Millville) and representatives of local service districts in the Project area (Douglas and Aberdeen);
- email sent to the Member of the Legislative Assembly (MLA) and Member of Parliament (MP) representing the Project area;
- notice on the Sisson Project website (www.sissonsproject.ca).
- email distribution announcing the event; and
- advertisement in the Woodstock Daily Bugle on June 22, and June 26, 2012.

Nearly 400 people attended the career information sessions. There were approximately 203 attendees in Juniper, 102 in Stanley, and 85 in Millville.

Workshops

Northcliff uses workshops to explore and discuss issues as they arise with different stakeholder groups. Workshops are generally single-issue focused events sponsored by Northcliff in response to recurring questions or concerns raised by several individuals or stakeholder groups.

On October 19, 2011, Northcliff held a Feasibility Study Workshop at its information office in Stanley to help attendees gain a clear understanding of the mine development process. Many questions surrounding economics, engineering and potential environmental effects were addressed, and the process by which these are addressed in the feasibility studies and the EIA was described. Northcliff's chief geologist for the Project gave a presentation explaining the history of the Project from early exploration to development, and outlined the relationship between the feasibility study and the EIA Report including how environmental considerations are factored into the final mine design to ensure financial feasibility and environmental sustainability. The workshop was attended by Mayor and

Council for the Village of Stanley, representatives of the Local Service District of Aberdeen (Juniper), and individual stakeholders who own and operate businesses in Stanley.

Throughout the course of various public and stakeholder consultation and engagement activities, much interest was expressed in the tailings storage facility and associated waste and water management. In response, an interactive presentation was developed to address the recurring questions raised by various individuals and stakeholders. The Water and Waste Management Workshop was delivered via webex by Northcliff's engineering consultant based in British Columbia to the following stakeholders and working groups:

- Sustainability Working Group;
- Mayor and Council of the Village of Stanley;
- Taymouth Environmental Action Committee (also present were members of the Nashwaak Watershed Association and the Conservation Council of New Brunswick, as well as interested community members from Taymouth); and
- First Nations EA Working Group (Section 4.3.1.2.3).

4.3.1.2 Aboriginal Engagement

In addition to developing long-term positive partnerships with First Nations, the goal of Northcliff's Aboriginal engagement program for the Project is to identify issues and concerns related to potential impacts on Aboriginal land uses, to explore opportunities to mitigate the environmental effects and enhance the benefits of the Project, and to document assertions of Aboriginal and Treaty Rights for consideration by the provincial and federal Crowns. The objectives of these efforts are to:

- provide information and seek input from First Nations on the Project;
- identify, document, monitor and consider issues and concerns arising from the engagement process;
- discuss the past, current and future use of land and resource for traditional purposes by First Nations and how those activities might be affected by the Project;
- provide early notification of the Project field activities and engagement opportunities associated with the EIA process;
- identify the need for planning, design and management measures that will avoid, mitigate or resolve the issues raised, or otherwise accommodate potential impacts to current and future Aboriginal land uses in the Project area; and
- support the Crown's duty to consult and to consider concerns related to potential environmental effects of the Project on asserted Aboriginal and Treaty Rights.

Throughout the EIA process, Northcliff has sought numerous opportunities to meet with First Nations and their representative organizations in order to share information and discuss the Sisson Project. In addition to those described above for the general public, these opportunities have included: phone calls; both formal and informal face-to-face meetings; the establishment of the First Nations EA Working Group; emails; letters; funding an Indigenous Knowledge Study (IKS); and hosting open houses within First Nations communities.

Northcliff also funded a cross-cultural workshop conducted by First Nation elders and knowledge holders that was focused on Maliseet culture and history; Northcliff staff and consultants participated in the workshop. This workshop was held in the community of the Woodstock First Nation over a period of two days in November 2011. Information provided by First Nations during these engagement activities was taken into consideration in the Project planning and EIA Report preparation.

4.3.1.2.1 Indigenous and Traditional Knowledge

An Indigenous Knowledge Study (IKS) of the area in which the Project is located was funded by Northcliff and managed by St. Mary's, Woodstock, and Madawaska Maliseet First Nations (Moccasin Flower Consulting 2013). A more general Aboriginal Traditional Knowledge (ATK) study of endangered wildlife species of relevance to the Maliseet nation was also prepared by the Maliseet Nation Conservation Council (MNCC 2013), though it provides little information specific to the Project.

The purpose of the IKS was to collect information on the past, current, and possible future use of lands and resources in the Project area for traditional purposes by Aboriginal persons. According to the introduction to the IKS (Moccasin Flower Consulting 2013):

"...This report traces Maliseet (known in their own language as Wolastoqiyik) livelihood, land use, rights, and environmental integrity of their territory temporally through the past, present and future. Where appropriate, these topics are further divided spatially into traditional territory, REGIONAL STUDY AREA, and PROJECT AREA. This indigenous knowledge study will provide the reader with an understanding of the importance of the PROJECT AREA to continued Maliseet livelihood and land use in light of a history of restrictions on rights and a decline in environmental integrity in New Brunswick. ..."

The information in the IKS has been taken into consideration in preparing the EIA Report. This information will also be useful in considering mitigation measures for any potential adverse environmental effects on cultural or traditional uses resulting from the Project.

4.3.1.2.2 Project Information and Traditional Knowledge Study Open House Events

Open house events were held in each of the three communities participating in the IKS (*i.e.*, St. Mary's, Woodstock, and Madawaska Maliseet First Nations). The purpose of these community meetings was to provide information about, and discuss, the Sisson Project and the associated EIA process, and to raise awareness about the plans to undertake an IKS. Northcliff staff and consultants participated in these events. Information presented was similar to that presented at the public open houses held in September 2011, and covered topics such as Project and Proponent information; geochemical studies; water quality and management including tailings management; aquatic environment; and EIA (including regulatory processes, Terms of Reference, and key Project-environment interactions and planned

studies). Additionally, other information specific to the IKS and heritage resources was presented. Specifically, the IKS was introduced to community members, and the consultant retained to conduct the IKS (Moccasin Flower Consulting) was on-hand to provide information, answer questions, and collect information and feedback from those in attendance. The open houses were held in:

- Madawaska Maliseet First Nation on April 23, 2012;
- Woodstock First Nation on April 24, 2012; and
- St. Mary's First Nation on April 26, 2012.

4.3.1.2.3 First Nations Environmental Assessment Working Group (FNEAWG)

In response to the interest expressed by First Nations in being actively involved in the EIA process for the Project, Northcliff, the CEA Agency, and the Province of New Brunswick invited First Nations to participate in a First Nations Environmental Assessment Working Group (FNEAWG) chaired by Northcliff. The purpose of the FNEAWG is to:

- support the exchange of information and discussion about the Sisson Project and related studies for the federal and provincial EIA and Project permitting in order to enhance mutual understanding of the interests and concerns of all parties;
- support the exchange of information related to asserted or established Aboriginal or treaty rights of First Nations, and the potential environmental effects of the Project on these rights and means for avoiding or mitigating those effects;
- strengthen responsible Project planning and implementation, should the Project proceed; and
- provide First Nation participants meaningful information, which can be communicated to their respective communities.

The FNEAWG consists of a core group of representatives of First Nations, government departments, and Northcliff. Specifically, this core groups consists of representatives of:

- St. Mary's First Nation;
- Woodstock First Nation;
- Madawaska Maliseet First Nation;
- The Assembly of First Nations Chiefs in New Brunswick (representing the remaining 12 First Nations communities in New Brunswick);
- Northcliff;
- New Brunswick Department of Environment and Local Government (supported from time to time by representatives of various provincial departments);
- New Brunswick Aboriginal Affairs Secretariat; and

- Canadian Environmental Assessment Agency (supported from time to time by representatives of various federal departments).

Additional participants have attended the FNEAWG meetings from time to time, including technical experts from Stantec and Knight Piésold, and representatives of Health Canada, DFO, New Brunswick Archaeological Services, and NBDNR to provide information specific to the topic of a particular meeting.

When possible, FNEAWG meetings are held within a First Nation community. A summary of the meetings held to date (as of the time of writing this EIA Report) is provided in Table 4.3.1.

Table 4.3.1 Summary of FNEAWG Meetings Held

Meeting Date	Location (Host)	Key Topics Discussed (not an inclusive list of all discussions)
April 25, 2012	Delta Hotel, Fredericton (Northcliff)	<ul style="list-style-type: none"> • Terms of Reference for FNEAWG. • Overview of Project and Mining 101. • 2011 Archaeological Assessment.
May 9, 2012	Crowne Plaza Hotel, Fredericton (Northcliff)	<ul style="list-style-type: none"> • 2011 Archaeological Assessment. • 2012 Archaeological Test Pitting Program. • Terms of Reference for FNEAWG. • Provincial and Federal Harmonized Environmental Assessment Process. • Northcliff EIA Overview presentation.
June 26, 2012	Maliseet Cultural Centre, St. Mary's First Nation, Fredericton (St. Mary's First Nation)	<ul style="list-style-type: none"> • Mandate of the FNEAWG. • Archaeology Update. • 2011 Terrestrial Studies (Wildlife, Habitat, Vegetation, Wetlands). • 2011 Aquatic Baseline Studies.
August 14, 2012	Eagles Nest Gaming Palace, Woodstock (Woodstock First Nation)	<ul style="list-style-type: none"> • EIA Update. • Baseline Studies. • Waste and Water Management.
September 26, 2012	Kingsclear First Nation Band Office, Kingsclear (Kingsclear First Nation)	<ul style="list-style-type: none"> • Revisions to the FNEAWG Terms of Reference. • Human Health and Ecological Risk Assessment (HHERA). • Fish Habitat Compensation Overview.
December 5, 2012 ¹	Crowne Plaza Hotel, Fredericton (Northcliff)	<ul style="list-style-type: none"> • FNEAWG Scope and Terms of Reference. • Aboriginal Interests and Rights. • Capacity support. • Fish Habitat Compensation Workshop. • Tailings alternatives analysis.

4.3.2 Summary of Key Issues Raised During Stakeholder Consultation and First Nations Engagement Activities

Throughout the public, stakeholder, and First Nations engagement programs, questions, comments and issues were raised in respect of the Project itself, its design and operation, and its anticipated environmental effects and how they can be addressed. A number of these key issues and concerns

¹ Though First Nations were invited to this meeting, no representatives attended and the meeting continued with Northcliff and government representatives.

resulted in changes to the work plans for the EIA or changes to the design or mitigation planned for the Project itself.

The issues, comments, questions or concerns raised by the various parties to date have been exhaustive, and often ranged beyond matters relating to the Project design or the EIA. Tables 4.3.2 and 4.3.3 provide a summary of the key questions, comments, or issues raised by stakeholders, the general public and by First Nations, with a focus on those that relate to the design of the Project or the preparation of the EIA Report. Both tables also summarize Northcliff’s responses or actions taken to address each topic, and list the section of the EIA Report that addresses the question, issue or comment, as applicable. Importantly, it is noted that this listing focuses on key questions, comments or issues, and is not intended to be comprehensive. Northcliff is preparing a more detailed report on its consultation and engagement activities that will be released along with the EIA Report. These tables have been developed from information provided by Northcliff on the public, stakeholder and Aboriginal engagement activities it has carried out in respect of the Project up to and including March 31, 2013.

Table 4.3.2 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue
Will Northcliff model for catastrophic failure of the TSF embankment?	Credible accidents, malfunctions and unplanned events are assessed as part of the EIA.	Section 8.17.
Will the TSF overtop if we experience a rain event similar to what occurred in Dec. 2010 in NB?	No. Detailed engineering of the TSF takes into consideration extreme weather events. Northcliff and its engineering consultants developed and delivered a workshop on Water and Waste Management to several stakeholder groups in 2012. Updated information on TSF engineering was presented at these workshops.	Section 8.16.6.1.
Can the TSF withstand earthquakes?	Yes. A seismicity assessment has been carried out for the Sisson Project, including a review of the regional seismicity and a site-specific seismic hazard analysis.	Section 3.2.4.3.3 and 8.16.6.2.
Has Northcliff considered dry stack tailings?	Yes. Northcliff has undertaken an analysis of several tailings options, including dry stack tailings.	Section 3.3.4.
What are the reagents used in the process water and how will they be managed?	Reagents to be used in the process plant, and process water treatment and management, are described in this EIA Report.	Section 3.4.2.2.5.
Will water be released from the tailings storage facility?	Yes, after several years of operation. Site water management is described in this EIA Report.	Section 3.4.2.3.
What is the quality of the pit water?	Assessment of the pit water, during Operation and of the eventual pit lake at Closure, has been undertaken and is described in this EIA Report.	Section 8.4.4.3.
What about rain and snow melt that comes into contact with the mine?	All contact water will be collected and contained within the TSF. Non-contact water will be diverted.	Section 3.4.2.3.
How will Northcliff manage acid rock drainage?	Northcliff will store PAG tailings and waste rock under water in the tailings storage facility to effectively mitigate the potential for acid generation.	Section 8.4.4.3, 3.4.2.3, and 7.5.

Table 4.3.2 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue
Will Northcliff support the water classification process where the existing provisional "A" classification should be publically changed to a "B" to accommodate construction of a mine?	The process of water classification is a regulatory one to be determined by the Government of New Brunswick. Northcliff is committed to meeting federal and provincial water quality requirements.	N/A
Why is water quality not monitored on the lower reaches of the Nashwaak River as part of the EIA?	Site locations on the Napadogan and McBean brooks offer the best opportunity to detect changes in water quality.	Section 8.4 and 8.5.
Who will pay for water quality monitoring after the mine closes?	Northcliff will be required to provide a financial security for these and other closure costs, based on its Mining and Reclamation Plan. This security will be held by the Province of New Brunswick.	Section 2.6.3.
Will there be seepage from the TSF into groundwater? If so, how will it be managed?	Seepage from the TSF will be collected in downstream water management ponds and recirculated back into the TSF for reuse as process water. Groundwater monitoring wells will be located downstream of the ponds to ensure the water management system is operating according to its design.	Section 3.4.2.3 and 8.4.4.3.2.
What are the effects of reduced water flows on salmon spawning habitat in the Nashwaak?	Reductions in water flows and potential environmental effects to fish habitat in Napadogan Brook are described in this EIA Report.	Section 8.5.5.3.
Is Northcliff aware that Outer Bay of Fundy Atlantic salmon are recommended for SARA listing by COSEWIC, likely to become listed in SARA soon?	Northcliff has acknowledged the recommendation for Outer Bay of Fundy to SARA listing and remains committed to working within the regulatory framework.	Section 8.5.2.3.9.
Will Northcliff conduct additional stream assessments as part of it aquatics program?	Based on the recommendations of stakeholders, the 2012 aquatics program included a broader brook trout habitat availability study, and extended the baseline habitat monitoring work. The aquatics program goes beyond what is required in the EIA Terms of Reference.	Section 8.5.5.3.
What is the amount of fish habitat lost?	Calculations of lost fish habitat are included in this EIA Report, and are the basis for preparing a HADD compensation plan required under the Fisheries Act.	Section 8.5.5.3.
What are the impacts to wildlife in project area?	The potential environmental effects to the terrestrial environment are described in this EIA Report.	Section 8.6.4.3.
What effects will mine dust have on plants and wildlife?	Northcliff has completed dust dispersion modelling as part of environmental effects assessment.	Sections 8.2 and 8.9.
What are the impacts to waterfowl landing in the TSF pond?	There are mitigation strategies to minimize the occurrences of wildlife interactions with mine facilities. This is described in this EIA Report.	Section 8.6.4.3.
Will mine dust affect the health of mine workers?	A human health risk assessment has been conducted.	Sections 7.7 and 8.9.

Table 4.3.2 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue																
Lack of public meetings	Northcliff has held multiple community functions to inform the public about the project including: open houses, and Project and career information sessions. Northcliff also maintains an office in Stanley and Fredericton, an interactive website, newsletters, and a variety of additional outreach tools.	Sections 2.7.2 and 4.3.																
Will Northcliff commit to public accounting of the bonding requirements and full funding of these requirements on day one of the project?	The Government of New Brunswick (not Northcliff) determines the required bonding based on the costs of reclamation and closure calculated by Northcliff and verified by the GNB. They are included in the 43-101 Technical Report that Northcliff filed in the Canadian Securities Administrators' publically-accessible SEDAR filing system, and in the Mining and Reclamation Plan that Northcliff must provide to the GNB under the <i>Mining Act</i> .	N/A																
Will community emergency response services be required at the mine – specifically local fire & rescue units?	Northcliff will develop an Emergency Response Plan, have its own on-site emergency response equipment and supplies, and train on-site workers as primary responders to unplanned upsets or events. Northcliff has committed to developing its Emergency Response Plan with local and regional officials.	Section 8.11.																
Will local fire departments be made aware of any hazardous materials on site?	Yes. Northcliff has committed to developing its Emergency Response Plan with local and regional officials.	Section 8.11.																
How did Northcliff estimate its employment numbers during construction and during operations?	Northcliff and its consultants based its employment estimates on mining experience with projects of similar size in similar locales.	Section 8.10.4.3.																
Will the community of Stanley see increased truck traffic?	A number of transportation routes are being considered. Expected transportation routes and traffic volumes are described in this EIA Report.	Section 8.15.4.3.2.																
What will you do to protect the safety of recreational users in the area?	There will be an exclusion zone and a safety perimeter around the Project site.	Section 8.12.4.																
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Table 4.3.3 Summary of Key Issues or Concerns Identified by Aboriginal Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue
<p>Environmental Assessment needs to include current, traditional and future use of the Project area by First Nations.</p> <p>Traditional knowledge needs to augment western science for the EIA.</p>	<p>The scope of the EIA includes past, present and future use by First Nations.</p> <p>Northcliff sponsored numerous engagement opportunities to understand First Nations views and concerns regarding historic, current and future use of the project area by Aboriginal peoples.</p> <p>Northcliff commissioned an Ethnohistorical report to understand the written historic record.</p> <p>Northcliff contracted Maliseet elders to provide a cross-cultural information session in order to understand Maliseet history.</p> <p>Northcliff funded an IKS with three Maliseet First Nation communities and this information has been considered in this EIA Report along with western science.</p>	<p>Section 8.13.</p>
<p>Ensuring the Project is being developed in a manner that exceeds regulatory guidelines and industry best management practices.</p>	<p>Northcliff is committed to meeting or exceeding regulatory requirements and industry best management practices. This is addressed in this EIA Report.</p>	<p>Various, including Sections 1.4, 2.5, 2.6, and 3.</p>
<p>EIA must include community input.</p>	<p>MMFN – April 23, 2012 Open House WFN - April 24, 2012 Open House SMFN - April 26, 2012 Open House</p> <p>Component of TKS included interviews with community elders and knowledge holders.</p>	<p>Section 4.3.</p>
<p>Baseline reports have not been provided to First Nations for their input</p>	<p>Ten baseline technical reports have been provided to First Nations for their review and comment.</p>	<p>N/A</p>
<p>First Nations were not involved in the baseline studies.</p>	<p>Engagement opportunities with First Nations were sought by Northcliff throughout the baseline study process to discuss the studies and the Project.</p> <p>First Nations were notified about the commencement of baseline programs, and field technician jobs were posted in First Nations communities as well as with Aboriginal umbrella organizations.</p> <p>First Nations were offered field reconnaissance tours with Northcliff and their consultants to discuss the baseline conditions.</p> <p>IKS was funded by Northcliff.</p> <p>First Nations were advised about the archaeological field studies and were asked for field assistants and input from knowledge holders.</p>	<p>N/A</p>
<p>Updating the baseline studies upon completion of the IKS.</p>	<p>IKS was used to inform the EIA and all the associated VECs. It will not be used to update the baseline studies.</p>	<p>N/A</p>

Table 4.3.3 Summary of Key Issues or Concerns Identified by Aboriginal Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue
What is the validity of the baseline data if the Project is not built for several years?	Some baseline data collection will continue (e.g., climate, hydrology, water quality) and much of the rest (e.g., vegetation, wetlands) will change very slowly.	N/A
Species identified in the baseline study may not have included species of importance to First Nations.	<p>Baseline data collection includes an inventory of species present at each survey point.</p> <p>Baseline studies were provided to First Nations and, while the reports will not be updated, First Nations are welcome to comment on any perceived gaps in the baseline species lists.</p> <p>The IKS provided additional field information for inclusion in the EIA.</p>	Sections 8.6 and 8.13.
First Nations were not consulted as part of the archaeology program.	<p>First Nations invited for field visit of 2012 archaeological test pitting program which was undertaken in response to First Nation concerns.</p> <p>Community members were invited to participate on transmission line walkover.</p> <p>Knowledge holders from WFN were interviewed for their knowledge of the Project area.</p> <p>Presentations and extensive discussion of the archaeology research and test pitting program conducted at the First Nation EA Working Group meetings in April, May and June 2012.</p> <p>Ongoing commitment to meet and discuss program so as to modify program where warranted.</p>	Section 4.3.
Request to have traditional ceremony on site prior any ground breaking activities.	Offer was extended to First Nations to conduct such ceremonies.	N/A
Will the feasibility study be made available to First Nations?	No. The feasibility study is not a public document. Northcliff filed a 43-101 Technical Report on SEDAR which is accessible to the public and which Northcliff provided copies of to First Nations. Northcliff is committed to having its engineering team present a summary of the FS to the FNEAWG if requested.	N/A
The environmental effects of exploration drilling.	Exploration is a low impact, temporary use of the land. Water and sediment are closely controlled during drilling, and disturbed areas are then re-contoured and re-vegetated for long-term stability.	N/A
Lack of inhalation pathway for ecological receptors.	This is described in this EIA Report.	Section 7.8.
Lack of consideration for consumption of country foods by local aboriginal communities.	<p>Health Canada data is available that considers a higher consumption rate of country foods for First Nations that are greater than the general population.</p> <p>First Nations consumption rates are considered in HHRA.</p>	Section 7.8.

Table 4.3.3 Summary of Key Issues or Concerns Identified by Aboriginal Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue
Impacts of the mine and operations on air quality.	This is described in this EIA Report.	Section 7.2 and 8.2.
Increase in greenhouse gas emissions.	This is described in this EIA Report.	Section 8.2.4.3.
Impact of project on plant health.	This is described in this EIA Report.	Sections 8.7.6.2 and 8.13.
Inability of First Nations to harvest plants of importance prior to construction.	First Nations will be afforded the opportunity to collect plants of importance prior to Construction.	Section 8.13.
Impacts of the Project on clean drinking water	This is described in this EIA Report.	Section 7.6 and 8.4.
Impact of reduction of run-off due to footprint of mine on Nashwaak River.	This is described in this EIA Report.	Section 7.4, 8.4, and 8.5.
Impact to SAR/SOCC plants.	If such species are encountered, Project activities will avoid them wherever possible; otherwise, relocation of species can occur.	Section 8.7.
Impact on salmon (juvenile habitats and production, adult returns) in the Nashwaak river watershed.	This is described in this EIA Report.	Section 8.5.
Inability to utilize the Project area for hunting and trapping.	Though hunting at the project site will not be allowed for safety reasons, there remains an abundance of representative habitat in areas outside the local assessment area. Direct mortality of animals as a result of the Project will be monitored and mitigation strategies employed.	Section 8.13.
No large mammal sampling conducted in the baseline assessment.	Foraging areas are often too large to be representative of the Project site.	Section 7.8.
Depth of the mine and resultant impacts on the water table.	This is described in this EIA Report.	Section 3.2.2 and 8.4.
Animals ingesting water or contaminated food sources directly on the Project site.	Effects on the terrestrial environment are described in this EIA Report.	Section 8.6.
Impact on wildlife such as beavers living adjacent to the brooks.	This is described in this EIA Report.	Section 8.6.
Ability to influence closure and reclamation plan.	Northcliff is committed to ongoing engagement with First Nations during all phases of mine life.	N/A
Employment, contracting and business opportunities will not benefit First Nation communities	Northcliff is committed to working with First Nation communities so that they can benefit from such opportunities.	N/A
Disruption to recreational activities	This is described in this EIA Report.	Sections 8.12.4 and 8.13.4.
Health risks for local cabin owners	This is described in this EIA Report.	Section 8.8.4.
Loss of recreational fisheries habitat	The potential environmental effects on fish habitat and fishing are described in this EIA Report.	Sections 8.12.4 and 8.13.4.
Loss of resource harvesting area	Effects on harvesting of resources are described in this EIA Report.	Section 8.12.4 and 8.13.4.

Table 4.3.3 Summary of Key Issues or Concerns Identified by Aboriginal Groups During Consultation and Engagement Activities, and Associated Responses or Actions Taken

Key Questions, Comments or Issues Raised	Response	Section of EIA Report Addressing Question, Comment or Issue																																				
Loss of access to traditional territory where First Nation rights are practiced.	This is described in this EIA Report.	Section 8.13.																																				
Lack of capacity in First Nations communities to participate and understand the technical studies	<p>Northcliff established the FNEAWG to facilitate First Nation discussions with experts and government agency representatives. Northcliff offered to cover costs for First Nations attendees of FNEAWG meetings.</p> <p>Northcliff made their experts available to First Nations to discuss and explain technical issues.</p> <p>Northcliff sponsored open houses about the Project and the IKS in three Maliseet communities.</p> <p>Northcliff offered to do community presentations about the Project and studies.</p> <p>Northcliff offered site tours to understand the Project and baseline studies.</p> <p>Northcliff advertised employment opportunities in First Nations communities to work with field crews.</p> <p>Northcliff funded an IKS for First Nations.</p> <p>Northcliff offered and provided financial capacity support for First Nations to participate in meetings and to hire technical experts.</p>	N/A																																				
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4.3.3 Assertions of Aboriginal and Treaty Rights to Northcliff by Aboriginal Peoples

At meetings, workshops and other engagement activities that Northcliff has participated in with Aboriginal peoples, they stated the importance of the general Project area for their traditional resource harvesting (e.g., hunting, fishing and gathering) and related activities. Northcliff understood these statements to be implicit assertions of Aboriginal or treaty rights to undertake these activities on Crown land in proximity to the Project site.

4.3.4 Future Consultation and Engagement Plans

Northcliff remains committed to continuing and expanding its outreach activities, described in Section 4.3.1 above, to ensure New Brunswick residents are aware of and understand the Sisson Project, and are provided with opportunities to discuss the EIA results and the Project, and to provide feedback. These activities will serve to inform stakeholders, First Nations, and the public about the EIA and its results, and thus assist them in reviewing the EIA Report and in engaging in the EIA review process.

Following EIA approval and permitting, Northcliff will continue its ongoing engagement with the public, stakeholder groups, communities and First Nations throughout Construction, Operation and into Decommissioning, Reclamation and Closure. Key objectives of the ongoing engagement program are:

- to ensure transparency and accountability about the company's environmental management and social responsibility performance;
- to ensure there are continuing opportunities to discuss interests and concerns, and to resolve issues, related to the Project; and
- to work in partnership with local communities and First Nations to have the Sisson Project contribute to the achievement of their own development goals based on their priorities and aspirations.

In fulfilling these objectives, Northcliff will continue with many of the initiatives carried out to date, including the Project website, newsletters and emails, presentations and meetings, and the information office. Northcliff will also offer site tours of the Project and will host open houses at key milestones during Project implementation. A key component of Northcliff's future consultation and engagement program will be a Community Liaison Committee, as outlined in the ESMS (Appendix D).

4.4 SELECTION OF VALUED ENVIRONMENTAL COMPONENTS

Based on the requirements of the Final Guidelines and the Terms of Reference, and in response to the issues and comments received from the public, stakeholders, First Nations, and regulatory agencies, the following VECs have been selected for conducting the environmental effects assessment of the Project:

- Atmospheric Environment;
- Acoustic Environment;
- Water Resources;
- Aquatic Environment;
- Terrestrial Environment;
- Vegetated Environment;

- Wetland Environment;
- Public Health and Safety;
- Labour and Economy;
- Community Services and Infrastructure;
- Land and Resource Use;
- Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons;
- Heritage Resources; and
- Transportation.

Additionally, the Effects of the Environment on the Project have also been selected for assessment in consideration of the nature and location of the Project, the changing global climate, and the potential expenditures that could result from an adverse effect of the environment on the Project.

Finally, in recognition of public concern and the importance of a defensible and comprehensive assessment of accidents, malfunctions and unplanned events that could occur during the various phases of the Project, a separate section on potential Accidents, Malfunctions and Unplanned Events has been prepared which considers the potential environmental effects of credible accidents, malfunctions or unplanned events on all VECs listed above

4.5 IDENTIFICATION OF OTHER PROJECTS OR ACTIVITIES THAT HAVE BEEN OR WILL BE CARRIED OUT

The consideration of other projects or activities that have been or will be carried out in the Regional Assessment Area (RAA) for each VEC is a necessary component of the assessment of cumulative environmental effects. The general approach to the cumulative environmental effects assessment is to identify other past, present, or reasonably foreseeable future projects or activities whose environmental effects could overlap those of the Project. The cumulative environmental effects assessment methodology is discussed further in Section 5.4.3.

The other future projects or activities considered in the cumulative environmental effects assessment in this EIA (*i.e.*, “*other projects or activities that have been or will be carried out*”, as required by CEAA) are listed in Table 4.5.1. For convenience, the specific projects or activities that are planned or under construction are grouped with other similar projects, to facilitate the assessment of cumulative environmental effects in logical groupings.

Table 4.5.1 Other Projects or Activities for Consideration of Cumulative Environmental Effects

Category of Projects or Activities	Name of Specific Project or Activity	Brief Description of Specific Project or Activity
Past or Present Projects or Activities that have been Carried Out		
Industrial Land Use (Past or Present)	Past or present use of land or resources for industrial purposes	Historical and current use of land for commercial and industrial development to facilitate modern commerce, employment, and import and export of goods and services to meet modern societal needs. In addition, the past or present operation of several mining operations in New Brunswick, including the Bathurst mining camp and the PotashCorp mine.
Forestry and Agricultural Land Use (Past or Present)	Past or present use of land or resources for forest resource harvesting or farming activities	Historical and current use of natural resources for subsistence and economic development in the RAA, particularly forestry resource harvesting, forestry operations, and agricultural and livestock farming.
Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons (Past or Present)	Past or present use of land or resources for traditional purposes by Aboriginal persons	Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons includes resource gathering and harvesting activities, such as hunting, fishing, trapping, and plant and timber harvesting, and use of land or resources for spiritual, ceremonial or other traditional activities.
Recreational Land Use (Past or Present)	Past or present use of land or resources for recreational activities (hunting, fishing, ATV use, snowmobiling, hiking trails)	Historical and current use of land for recreational purposes, including recreational hunting, fishing, trail development, and use of land for hiking, all-terrain vehicles, or snowmobiling.
Residential Land Use (Past or Present)	Past or present use of land or resources for development of residential dwellings.	Historical and current use of land and resources for residential development and the rural and urban development of modern towns and villages, including the nearby communities of Napadogan, Juniper, Millville, Stanley, and other nearby villages and communities.
Potential Future Projects or Activities That Will Be Carried Out		
Industrial Land Use (Future)	Closure of Brunswick Mine 12	Brunswick Mine 12 is a base metal mine located in northern New Brunswick that will be closed in 2013. The mine occupies approximately 8.5 km ² within the Little River Watershed.
	Restart of Open Pit Mining	Stratabound Minerals Corp. is proposing to restart open pit mining activities at the reclaimed mine site located approximately 15 km to the northeast of the Heath Steele site. The ore will be transported to the mill at the Brunswick 12 mine for processing.
	AV Nackawic Recovery Boiler Capacity Increase	AV Nackawic Inc. is proposing to increase the capacity of their recovery boiler by installing a separate fan and scrubber on the smelt dissolving tank. This modification will allow the company to increase their production of finished pulp by 50 tonnes per day.
	Shale Gas Exploration	Throughout many parts of New Brunswick, various proponents are exploring the potential for commercial shale gas extraction.
	Mineral Exploration	Mineral exploration occurs throughout New Brunswick under licence from the New Brunswick Department of Natural Resources.
	Mining Operations	Development of new mining operations in the province, with several facilities either under exploration or development (e.g., Halfmile Lake mine, Stratmat mine, reopening of Caribou mine, reclamation of Restigouche mine, reopening of Murray Brook mine, reopening of Mount Pleasant mine).

Table 4.5.1 Other Projects or Activities for Consideration of Cumulative Environmental Effects

Category of Projects or Activities	Name of Specific Project or Activity	Brief Description of Specific Project or Activity
Forestry and Agricultural Land Use (Future)	Forest Resource Harvesting Activities	Future timber harvesting includes the construction and use of forest roads, thinning of trees, and removal of mature trees. Harvested areas are often treated and /or replanted to renew the forest resource.
	Farming Activities	Future agricultural and livestock farming activities occur in rural areas throughout the province. Preparation of soil, planting of seeds/plants, irrigation, harvesting of crops, and grazing of livestock occurs at farms of various sizes.
Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons (Future)	Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons	Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons includes resource gathering and harvesting activities, such as hunting, fishing, trapping, and plant and timber harvesting, and use of land or resources for spiritual, ceremonial or other traditional activities.
Recreational Land Use (Future)	Hunting and Fishing Activities	Authorized future recreational hunting and fishing activities on Crown land and on private land where permitted by the Crown/landowner and when in season.
	ATV Use, Snowmobile, Hiking Trail Activities	Future recreational use of trail networks in and around the region.
Planned Residential Development (Future)	Residential Subdivisions	Any planned or future residential subdivisions in the area of central New Brunswick between Stanley, Millville, and Juniper.

The list of other projects or activities that have been or will be carried out as outlined in Table 4.5.1 considers projects or activities that are proximal to the Project (e.g., in central New Brunswick) or otherwise have potentially overlapping environmental effects (e.g., for demand on specialized labour).

The list of other projects or activities in Table 4.5.1 considers those projects and activities that, as of March 2013, have been formally proposed by project proponents (i.e., have been registered under the New Brunswick EIA Regulation and/or for which an EA under CEAA or CEAA 2012 has been initiated) as well as known past, present and reasonably foreseeable future activities that may be carried out in the vicinity of the Project based on current knowledge of the area. Other potential projects, proposals, concepts, ideas, visions, or initiatives that may be under consideration, but which have not been formally registered provincially or federally for an EIA/EA, are not included in this list; their cumulative environmental effects with the Project are thus not assessed in this EIA Report. Although some project proponents may have announced their intentions regarding many other proposals or concepts, it is not possible to assess their cumulative environmental effects that overlap with those of the Project because very little concrete information is known about these proposals at this time. Without specific details of each individual development proposal that is being envisioned at this stage, it is not possible to determine where the environmental effects of these other concepts, proposals, ideas or visions may overlap with those of the Project, or to what extent.

Once these other potential projects or activities are formally proposed and assessed provincially and/or federally, their environmental effects that overlap with those of the Project would need to be assessed as part of a cumulative environmental effects assessment in those EIAs. Cumulative environmental effects in the region will be managed in this way in the future.

