

LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation or Acronym	Definition
ARD/ML	Acid Rock Drainage/Metal Leaching
BLFN	Black Lake First Nation
CEA Agency	Canadian Environmental Assessment Agency
CEAA	Canadian Environmental Assessment Act
D&R	Decommissioning and Reclamation
EIS	Environmental Impact Statement
LSA	local study area
MOE	Saskatchewan Ministry of the Environment
NO _x	nitrogen oxides
PM _{2.5}	Particulate Matter up to 2.5 microns in size
PM ₁₀	Particulate Matter up to 10.0 microns in size
PSG	Project-Specific Guidelines
RSA	regional study area
SO _x	sulphur oxide
SAR	species at risk
TSP	total suspended particulates
UTM	Universal Transverse Mercator
VC	valued components



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
1.0	INTRODUCTION	
	The Proponent (Black Lake First Nation [BLFN] and SaskPower) has been informed that the proposed Tazi Twé Hydroelectric Project (the Project) will require an environmental assessment under the <i>Environmental Assessment Act (Saskatchewan)</i> , hereafter referred to as "The Act," and the <i>Canadian Environmental Assessment Act (CEAA)</i> . The proponent is required to conduct an environmental impact assessment and prepare an environmental impact statement (EIS) for technical and public review.	EIS represented by this document
4.0	SUMMARY OF ENVIRONMENTAL IMPACT STATEMENT	
	Executive Summary An executive summary of the EIS is required, summarizing the EIS under the following topic areas:	
	introduction and Project overview;	
	 description of the purpose of, need for, and alternative means of carrying out the Project; 	
	 description of all key components of the Project and related activities; 	Evenutive
	 description of the scope of the Project and assessment; 	Executive Summary
	 summary of the consultation conducted with Aboriginal groups, the public, and government agencies, including a summary of the issues raised and the proponent's responses; 	,
	summary of environmental effects of the Project and proposed technically and economically feasible mitigation measures;	
	description of the significance of adverse environmental effects after taking mitigation measures into account; and	
	summary of the need for and the requirements of monitoring and follow-up programs.	



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
5.0	INTRODUCTION AND PROJECT OVERVIEW	
	Geographic Setting The EIS will contain a concise description of the geographical setting in which the Project will take place including the following:	Section 3.0
	 Universal Transverse Mercator (UTM) coordinates of the main Project site; 	Section 3.1
	 current land use in the area and the relationship of the Project facilities and components with any federal lands; 	Section 3.11
5.1	environmental significance and value of the geographical setting in which the Project will take place and the surrounding area;	Section 3.0
	 environmentally sensitive areas, such as national, provincial, and regional parks, ecological reserves, wetlands, estuaries, and habitats of federally or provincially listed species at risk and other sensitive areas; 	Sections 3.8, 3.9
	 local and Aboriginal communities; and 	Sections
	traditional Aboriginal territories, treaty lands, and Indian reserve lands.	3.0, 3.11
	Regulatory Framework and the Role of Government The EIS will identify, for each jurisdiction, the government bodies involved in the environmental assessment including the following:	Section 2.0
	 any federal power duty or function to be exercised that might permit the carrying out of the Project; 	Sections 2.1.1, 2.1.4
5.2	 environmental and other specific regulatory approvals and legislation (federal, provincial, regional, and municipal) that are applicable to the Project; 	Section 2.1.4
5.2	 describe implications of government policies, resource management, planning, or study initiatives pertinent to the Project; 	Section 2.1.6
	 describe any treaty or self-government agreements with Aboriginal groups that are pertinent to the Project; 	Section 2.1.5
	 describe any relevant Land Use Plans, Land Zoning, or Community Plans; and 	Section 17.3.3
	summarize regional, provincial, or national objectives, standards, or guidelines that the proponent used in the evaluation of any predicted environmental effects.	Section 2.1.6
5.3	Participants in the Environmental Assessment The EIS will identify the main participants in the environmental assessment including jurisdictions other than the federal government, Aboriginal groups, community groups, and environmental organizations.	Section 2.1.3



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	The Proponent The EIS will include the following:	
	proponent's contact information;	
	identity of proponent and the name of the legal entity that would develop, manage, and operate the Project;	Sections 1.2,
5.4	 corporate and management structures, as well as insurance and liability management related to the Project; 	1.2.1, 1.2.2, 1.2.3
	mechanism used to ensure that corporate policies will be implemented and respected for the Project;	
	key elements of proponent's environment, health, and safety management system and discuss how the system will be integrated into the Project; and	
	identity of key personnel, contractors, or sub-contractors responsible for preparing the EIS.	
5.5	Purpose of the Project The EIS will describe the purpose of the Project including the rationale, background, and the problems or opportunities that the Project is intended to satisfy and the stated objectives from the perspective of the proponent.	
5.6	Project Components The EIS will describe the Project including the Project components, associated and ancillary works, activities, scheduling details, the timing of each phase of the Project, and other characteristics that will assist in understanding the environmental effects.	
5.7	Project Activities The EIS will include the following:	Section 5.0
	descriptions of the construction, operation, maintenance, foreseeable modifications, and where relevant, closure, decommissioning, and restoration of sites and facilities associated with the Project;	Sections 5.3 to
	 details about the activities to be carried out during each phase, the location of each activity, expected outputs, and an indication of the activity's magnitude and scale; 	5.7
	 sufficient information to predict environmental effects and address identified public concerns; 	Section 5.0
	detailed schedule including time of year, frequency, and duration for all Project activities; and	Section 5.2
	preliminary outline of a decommissioning and reclamation (D&R) plan for any components associated with the Project.	Section 5.7



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
6.0	SCOPE OF PROJECT	
	Project Scope The EIS will describe the scope of Project to be assessed including the construction, operation, and decommissioning of the following Project components:	Section 5.0
	 water intake, power tunnel, powerhouse, and a tailrace channel leading into Middle Lake; 	Sections 5.3 to 5.7
	 any potential in-water structure (e.g., submerged weir) or suitable alternative method or technology to minimize effects on Black Lake water levels; 	Section 5.3.9
	permanent access bridge over the Fond du Lac River; and	Section 5.3.2
	all related physical works and physical activities required to carry out these works and activities, including the associated cofferdams, access roads, borrow areas, waste rock disposal areas, concrete batch plant, construction power (diesel and electrical), fuel storage facility and fueling areas, explosives storage, construction camp, sewage lagoon, and dumping sites.	Section 5.3
7.0	SCOPE OF ASSESSMENT	
7.1	Factors to be Considered	
7.1.1	Valued Components The EIS describes the importance of each Valued Component (VC) for the Project and the rationale for its selection.	Section 7.2.1
7.1.2	 Effects of Potential Accidents or Malfunctions The EIS will: identify the probability of potential accidents and malfunctions related to the Project; describe the safeguards that have been established to protect against such occurrences and the emergency response 	Section 5.10 Sections 8.4.3, 9.4.3, 10.4.3, 11.4.3, 12.4.3, 13.4.3, 14.4.3,
	 procedures in place if accidents or malfunctions do occur; and present detailed contingency and response plans. 	15.4.3, 16.4.3, 17.4.3, 18.4.3, 19.4.3, 20.4.3,
7.1.3	<i>Effects of the Environment on the Project</i> The EIS will:	
	 describe how local conditions and natural hazards, such as severe or extreme weather conditions and external events could adversely affect the Project and how this in turn could affect the environment; and 	Section 5.11, Appendix 5.2
	provide details about planning, design, and construction strategies intended to minimize the potential environmental effects of the environment on the Project.	



Table 1: Co	ncordance Table to Identify Where the Project Specific Guidelines are Met in the Environmental Impact Statement (continued)		
Section in Project Specific Guidelines	Requirement		
7.2	Scope of the Factors		
7.2.1	Spatial Boundaries The EIS will: indicate the spatial boundaries to be used in assessing the potential adverse environmental effects of the proposed Project and	Sections 7.2.2.1, 8.2, 9.2, 10.2, 11.2, 12.2, 13.2,	
	 provide a rationale for each boundary; and consult with the Agency, federal and provincial government departments and agencies, local government, and Aboriginal groups and take into account public comment when defining the spatial boundaries used in the EIS. 	14.2, 15.2, 16.2, 17.2, 18.2, 19.2, 20.2	
	Temporal Boundaries The EIS will:		
7.2.2	span all phases of the Project: construction, operation, maintenance, foreseeable modifications, and where relevant, closure, decommissioning and restoration of the sites affected by the Project;	Section 7.2.2.2	
	 consider seasonal and annual variations related to VCs for all phases of the Project; 		
	 consider community and Aboriginal traditional knowledge; and 		
	identify the boundaries used and provide a rationale if the temporal boundaries do not span all phases of the Project.		
8.0	Alternative Means of Carrying Out the Project		
	The EIS will identify and consider the effects of alternative means of carrying out the Project that are technically and economically feasible using the following steps:		
	 identify the alternative means to carry out the Project; 		
	 identify the effects of each alternative means (environmental effects and potential adverse effects on potential or established Aboriginal and Treaty rights and related interests); 	Section 4.2	
	 identify the preferred means; 	Addendum I (26 March 2014)	
	address the following Project components: water intake, power tunnel, powerhouse and turbine, tailrace channel, submerged weir, waste rock disposal areas, borrow areas, access roads, construction power options, construction camp, and sewage treatment and potable water facilities; and	,	
	include options to deal with inadequate water supply at certain times of the year.		



Table 1	Concordance Table	e to Identify Where the I	Project Specific (Guidelines are Met in the	Environmental Imp	act Statement (continued)
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Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement		
9.0	Baseline Conditions			
9.1	Existing Environment			
	<i>Methodology</i> The EIS should satisfy the following criteria:			
	include a description of the environment, including components of the existing environment and environmental processes, their interrelations and interactions as well as the variability in these components, processes, and interactions over time scales appropriate to the Project;	Section 3.0, Annexes I, II, III, IV, V, and VI		
	 characterize the environment before any disturbance to the environment because of the Project; 	iv, v, and vi		
9.1.1	 identify, assess, and determine the significance of the potential adverse environmental effects of the Project; 	Sections 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4		
	include results from studies done prior to any physical disruption of the environment caused by initial site clearing activities, including environmental conditions resulting from historical and present activities.	Annexes I, II, III, IV, V, and VI		
9.1.2	Biophysical Environment			
	Atmospheric Environment and Climate The EIS will describe the following:			
	 ambient air quality in the Project areas including the following contaminants: Total Suspended Particulates (TSP), particulate matter less than 2.5 microns in size (PM_{2.5}), particulate matter less than 10 microns in size (PM₁₀), sulphur oxides (SO_x), and Nitrogen Oxides (NO_x); 	Annex I Section 8.3 Appendices 8.1 and 8.2		
	 current ambient noise levels at the Project site and within the local areas; 	Addendum I		
	existing ambient light levels at the Project site and at any other areas where Project activities could have an effect; and	(26 March 2014)		
	historical records of precipitation and temperature.			



Section in Project Specific Guidelines	Requirement	
	Geology and Geochemistry The EIS will describe the following:	
	 bedrock geology of the area, including geological maps of appropriate scale and cross-sections: spatial distribution and thickness of lithologic units; alteration styles, mineralogy, bulk chemistry, occurrence, and intensity of bedrock units; and structural fabric (e.g. fractures, faults, foliation, and lineation) and structural relationships. regional and local geological structures in the Project area that might affect the proposed infrastructure; geomorphology and topography of areas proposed for construction of major Project components; geological hazards that exist in the Project area including: 	Annex II Section 9.3.1 Appendix 9.1
	 history of seismic activity in the area; 	Appendix 5.2
	 isostatic rise or subsidence; and landslides. sites of paleontological or palaeobotanical significance; and 	Not applicable
	 geochemical composition of expected spoil disposal materials such as waste rock, overburden, and potential construction material including: mineralogy; elemental composition of lithologies in study area (major and trace elements); and potential for acid generation, neutralization, and contaminated neutral drainage. 	Annex II Section 9.3.1 Appendix 9.1



Section in Project Specific Guidelines	Requirement	
	Acid Rock Drainage/Metal Leaching	
	The ARD/ML prediction information will be used to predict water quality for effects assessment and determine mitigation requirements for the Project. The EIS will provide additional information on the following:	
	type and method used for the ARD/ML prediction and possible mitigation measures;	
	 waste rock and overburden characterization, volumes, segregation/disposal method mitigation/management plans, contingency plans, operational and post-closure monitoring and maintenance plans; 	
	 assessment of short term metal leaching properties; 	
	Ionger term kinetic testing to evaluate rates of acid generation and metal leaching;	
	assessment of the feasibility to successfully segregate potentially-acid generating and non-potentially acid generating waste materials during operations, proposed geochemical segregation criteria, and identification of operational methods that will be required to achieve geochemical characterization during operations;	Section 9.3.1.4
	 sensitivity analysis to assess the effects of imperfect segregation of waste rock; 	Appendix 9.1
	 estimates of the potential for excavated materials to be sources of ARD or ML, estimates of potential time to the onset of ARD or ML, and the ability to prevent or control ARD and ML; 	
	 chemistry of groundwater pumped during power tunnel construction; 	
	 surface and seepage water quality from the waste rock disposal areas, stockpiles, and other infrastructure; 	
	 ARD/ML prevention or management strategies; 	
	 quantity and quality of leachate from samples of waste rock and overburden; 	
	 quantity and quality of effluent to be released from the site into the receiving waters; and 	
	quality of humidity cell or column test liquid from acid rock testing.	



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	Surficial Geology (Terrain and Soil)	
	The EIS will include the following:	
	 baseline mapping and description of landforms and landform processes and soils within the local study area (LSA) and regional study area (RSA); 	
	maps depicting soil depth by horizon and soil order within the Project site area to support soil salvage and reclamation efforts, and to outline potential for soil erosion;	
	 sedimentological and geochemical characteristics of surficial sedimentary units and soils; 	
	 soil sample analysis completed and the quality assurance and quality control program followed; and 	
	summary of the baseline data on the concentration of trace elements in site soils prior to Project development.	Annex IV
	If there is permafrost in the study area the EIS will including the following:	Section 13.0
	 geomorphologic and topographic features of areas proposed for construction of major Project components; 	
	permafrost conditions including distribution, thermal conditions, ground ice, thaw sensitivity, and active layer thickness;	
	bedrock lithology, morphology, geomorphology and soils, at proposed borrow and quarry sites, and other areas where earthworks are proposed. If eskers are identified as a potential source of granular material then include a description of granular material properties, including thermal condition and ice content;	
	potential for ground and rock instability at areas planned for Project facilities;	
	 suitability of topsoil and overburden for use in the re-vegetation of surface-disturbed areas; and 	
	permafrost temperatures at areas planned for Project facilities and infrastructure, including sensitivity to climate change and implications for stability and safety of infrastructures.	

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Section in Project Specific Guidelines	Requirement			
	Water Resources			
Guidelines	Water Resources The EIS will describe the following: appropriate hydrogeologic model discussing the hydrostratigraphy and groundwater flow systems of the Project area; detailed conceptual model with clearly defined model input parameters and boundary conditions; sensitivity analysis to test model sensitivity to climatic variations and hydrogeologic parameters; and description of the hydrogeology at the Project site and within the LSA and RSA including: physical and geochemical properties of hydrogeological units (including maps); recharge and local groundwater flow patterns, rates, and quality, including seasonal variations; recharge and discharge areas; groundwater interaction with surface waters; local and regional potable groundwater supplies and quality; and description of all groundwater monitoring wells with respect to Project facilities. The EIS will describe surface water quality, hydrology, and sediment quality within the area of influence of the Project including: delineation of drainage basins, at appropriate scales; hydrological regimes; flows or design peak flows for selected periods for the Project area; interactions between surface water read groundwater flow systems under pre- development conditions and potential effects on these interactions during the various phases of the Project; local and regional potable surface water resources; seasonal water quality field a	Statement Annexes II, III Sections 9.0, 10.0, and 11.0, Appendices 5.1 9.2, 10.1, 10.2, 10.3, 11.1		
	 Lake; existing ice cover development, stability, decay, and variability from year to year along the river and in Middle Lake; and 			
	 existing shoreline environments on Black Lake. 			



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	<u>Wetlands</u> The EIS will describe the following:	
	wetlands that might be affected by Project activities (i.e., location, size, type [wetland class and form], condition [based on hydrology and water chemistry criteria], species composition, and ecological function);	Annex IV Sections 14.3,
	 wetlands with the greatest potential to be affected; 	14.5, 15.3, 15.5
	key plant communities and animals that rely on wetlands.	
	Fish and Fish Habitat The EIS will describe the following:	
	limnology, hydrology, freshwater biota, presence of fish and other freshwater species, associated habitats and habitat distribution, and fisheries in potentially affected surface waters;	
	 fish populations on the basis of species and life stage for affected waterbodies; 	
	 any rare fish or mussel species that are known to be present; 	
	 any potential waterbodies and fish habitat sites that could be rehabilitated or enhanced for possible habitat gains to offset losses from the Project; 	Annex III Sections 10.3,
	physical and biological characteristics of the fish habitat that are likely to be affected, directly or indirectly, by the project;	10.5, 12.3, 12.5
	site-specific in-stream flow needs for the Fond du Lac River;	Appendices 12.1, 12.2, 12.3
	 hydrographic network (i.e., topographic map of water bodies and watercourses), including intermittent streams, flood risk areas and wetlands; and the boundaries of the watershed and sub watersheds of the study area; 	12.4
	biophysical characteristics, including the name of each watercourse and a description of the habitat by homogeneous section (i.e., length of the section, width of the channel from the high water mark, water depths, type of substrate, and aquatic and riparian vegetation, including bank slopes); and	
	name and description of each affected water body (i.e., total surface area, bathymetry, maximum and mean depths, water level fluctuations, type of substrate, location of submerged, floating, and emergent aquatic vegetation, and water quality parameters [e.g., water temperature, turbidity, pH, and dissolved oxygen profiles]).	



Section in Project Specific Guidelines	Requirement	Section in the Environmenta Impact Statement
	The EIS will include the following:	
	 monthly, seasonal, and annual discharge data, including minimum and maximum flows; 	
	 natural obstacles or existing structures that hinder the free passage of fish; 	
	habitat maps indicating the surface area of habitat for spawning, nursery, feeding, and migration routes; and	
	a description of fish sampling survey methods.	Annex III
	For all watercourses or water bodies on which the Project is likely to have effects, the EIS will:	Sections 10.3, 10.5, 12.3, 12.5
	 describe the fish species present based on the surveys carried out and the data available; 	Appendices
	 identify the sources of the data and provide the information concerning the fishing carried out; 	12.1, 12.2, 12.3 12.4
	specify the location and surface area of potential or confirmed fish habitats and describe how they are used by fish;	12.4
	 locate and describe suitable habitats for species at risk that appear on federal and provincial lists and are found or are likely to be found in the study area; 	
	document any blasting activity near water where vibrations might affect fish behaviour, such as spawning or migrations; and	
	indicate how fish passage will be maintained for sites where stream crossings are to be installed, constructed, or modified.	
	Birds, Wildlife, and Their Habitat	
	The EIS will describe the following:	Annex IV
	migratory and non-migratory birds (including waterfowl, raptors, shorebirds, marsh birds, and other land birds), ungulates, furbearers, amphibians, small mammals, and their habitat at the Project site and within the LSA and RSA; and	Section 15.3, 15.5
	other wildlife and their habitat that could be affected by Project activities will be characterized using existing data, supplemented by surveys as appropriate, especially migratory animals, such as breeding, denning, or wintering areas, as well as breeding areas of species low in number and high in the food chain.	

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Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	Species at Risk and Species of Conservation Concern	
	The EIS will describe the following:	
	identify all species at risk (SAR) including plant species listed under the Species at Risk Act or other provincial endangered species legislation that might be affected by the Project, using existing data and literature as well as surveys to provide current field data, as appropriate;	Sections 3.8.1 12.3.2, 14.3.4, and, 15.3.1,
	 incorporate the finding and analysis of any published studies that describe the regional importance, abundance and distribution of all SARs; and 	anu, 15.5.1,
	identify residences, seasonal movements, movement corridors, habitat requirements, key habitat areas, identified critical habitat or recovery habitat, and general life history.	
	<u>Ecosystems</u> The EIS will describe the species selected within each biotic flora VC including those of importance to health and socio-economic conditions, cultural heritage, and the current use of land and resources for traditional purposes by Aboriginal persons.	Annex VI Sections 14.0, 14.3.5, and 17.3.1



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	Human Environment The following VCs will be identified and described in the relevant sections of the EIS:	
	land use context (e.g., hunting, fishing, outdoor recreation, use of seasonal cabins, and existing land development);	Section 17
	 health and socio-economic conditions; 	Sections 17, 18, 19, and 20
	physical and cultural heritage, including structures, sites or things of historical, archaeological, paleontological, or architectural significance;	Section 16
	 current use of land and resources for traditional purposes by Aboriginal persons. 	Section 17
	In describing how the Project might impede navigation, the EIS will:	Section 5
	 identify any Project components and a description of any activities that might affect waterways and water bodies; 	Section 5
9.1.3	 describe any recreational uses of natural waters; 	
	provide information on current or historical usage of all waterways and water bodies that will be directly affected by the Project, including current Aboriginal uses, where available.	Section 17
	The EIS will describe:	Annex VI
	 all baseline information relevant to human health; 	Alliex VI
	 functioning and health of the socio-economic environment, encompassing a broad range of matters that affect communities and Aboriginal peoples in the study area in a way that recognizes interrelationships, system functions, and vulnerabilities; 	Sections, 17, 18, 19, and 20
	heritage resources, including structures, sites, or things of historical, archaeological, paleontological, or architectural significance, and	Annex V
	current uses of land and resources by Aboriginal groups for traditional purposes, including activities related to hunting, fishing, trapping, cultural, and other traditional uses of the land.	Section 17



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
9.2	Potential or Established Aboriginal and Treaty Rights and Related Interests	
	For the purposes of developing the EIS, the proponent will:	
	 engage with Aboriginal groups whose potential or established Aboriginal rights and Treaty rights and related interests might be affected by the Project; 	
	hold meetings and make key environmental assessment summary documents accessible and making plain language summaries of these documents available to the following groups:	Section 6.0 Appendices
	 Black Lake Denesuline First Nation; 	6.1, 6.2, 6.3,
	 Hatchet Lake Denesuline First Nation; 	6.4, and 6.5
	Fond du Lac Denesuline First Nation; and	
	 Métis Nation – Saskatchewan Northern Region 1, Stony Rapids Local 80. 	
	ensure that the groups' views are heard and recorded.	
	Aboriginal groups whose interests might be affected but who are further removed from the Project and its related effects include the Métis Nation – Saskatchewan Northern Region 1, Uranium City Local 50, and Métis Nation – Saskatchewan Northern Region 1, and Camsell Portage Local 79. For the purposes of developing the EIS, the proponent will:	
	make key environmental assessment summary documents (Draft EIS, Final EIS, and key findings) accessible and make plain language summaries of these documents available and ensure these groups' views are heard and recorded; and	Acknowledged
	ensure that Aboriginal groups, especially those most likely to be affected by the Project, have access to timely and relevant information that they require with respect to the Project and how the Project might adversely affect them.	
	The EIS will summarize available information on the potential or established Aboriginal and Treaty rights and related interests of the named Aboriginal groups that have the potential to be adversely affected by the Project. As part of this summary, the EIS will include for each Aboriginal group:	
	background information and a map of the group's traditional territory;	Section 17.3.1
	 summary of engagement activities conducted prior to the submission of the EIS, including the date and means of engagement (e.g., meeting, mail, and telephone); 	Section 6.0,
	information on each group's potential or established rights (including geographical extent, nature, frequency, timing), including maps and data sets (e.g., fish catch numbers) when this information is provided by a group to the proponent;	17.3 Appendices
	 overview of key comments and concerns provided by each group to the proponent; 	6.1, 6.2, 6.3,
	responses provided by government or the proponent, as appropriate;	6.4, and 6.5
	future planned engagement activities;	Addendum I
	 efforts undertaken to engage with Aboriginal groups; and 	(26 March 2014)
	describe all efforts taken to solicit the information required to prepare the EIS.	



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
10.0	Effects Assessment	
10.1	Environmental Effects	
	Methodology The EIS will include the following:	Sections 8.4 to 8.6,
	indication of the Project's effects during construction, operation, maintenance, and foreseeable modifications, and where relevant, closure, decommissioning, and restoration of sites and facilities associated with the Project;	9.4 to 9.6, 10.4 to 10.6,
	indication of the nature of the effect, mechanism, magnitude, duration, frequency geographic extent, and the degree to which it might be reversible for each potential Project-related environmental effect;	11.4 to 11.6, 12.4 to 12.6,
	description of important details of direct and indirect, reversible and irreversible, short- and long-term environmental effects and clearly state the elements and functions of the environment that might be affected, specifying the location, extent, and duration of these effects and their overall effect; and	13.4 to 13.6, 14.4 to 14.6, 15.4 to 15.6, 16.4 to 16.6,
	comparison of the biophysical and human environments between the predicted future conditions with the Project and the predicted future conditions without the Project, using the best available information and methods and substantiating all conclusions.	17.4 to 17.6, 18.4 to 18.6, 19.4 to 19.6, an
10.1.1	The analyses included in the EIS will:	20.4 to 20.6
10.1.1	 demonstrate that all aspects of the Project have been examined and planned in a careful and precautionary manner to ensure that they would not cause serious or irreversible damage to the environment; 	Appendices 8.1 to 8.3, 9.1 to 9.2,
	 outline and justify the assumptions made about the effects of all aspects of the Project and the approaches to minimize these effects; 	10.1 to 10.3, 11.1,
	 ensure that in designing and operating the Project, priority has been and would be given to strategies that avoid the creation of adverse effects; 	12.1 to 12.4, 16.1, 18.1
	 develop contingency plans that explicitly address accidents and malfunctions; and 	
	identify any proposed follow-up and monitoring activities, particularly in areas where scientific uncertainty exists in the prediction of effects.	Sections 8.7, 9.7, 10.7, 11.7, 12.7, 13.7, 14.7 15.7, 16.7, 17.7 18.7, 19.7, and 20.7



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	 Changes to the Environment The effects assessment sections of each VC in the EIS will describe any change that might be caused by the Project on the environment including the following: land, water, and air, including all layers of the atmosphere; all organic and inorganic matter and living organisms; 	Sections 8.5, 9.5, 10.5, 11.5, 12.5, 13.5, 14.5, 15.5, 16.5, 17.5, 18.5, 19.5, and
	 interacting natural systems that include the components described above; and 	20.5
	 changes to components of the environment within federal jurisdiction. 	
10.1.2	The EIS will include a stand-alone section that summarises those changes that might be caused by the Project on the components of the environment listed in paragraph 5(1)(a) of CEAA 2012, (i.e., fish and fish habitat, aquatic species, and migratory birds).	Section 23.1
	Changes to the Environment that Would Occur on Federal or Transboundary lands The EIS will include a stand-alone section that summarizes any change the Project might cause to the environment that might occur on federal lands or lands outside the province in which the Project is to be located (including outside of Canada).	Section 23.2
	<u>Changes to the Environment that are Directly Linked or Necessarily Incidental to Federal Decisions</u> In situations where the Project requires one or more federal decisions identified in Section 5.2, the EIS will include a stand-alone section that describes any change that might be caused by the Project on the environment that is directly linked or necessarily incidental to these decisions.	Section 23.1
10.1.3	Effects of Changes to the Environment	
	Effects of Changes to the Environment on Aboriginal Peoples The EIS will describe the effects of any changes the Project might cause to the environment, with respect to Aboriginal peoples, on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes, or any structure, site or thing that is of historical, archaeological, paleontological, or architectural significance.	Section 16.4, 17.4, 18.4, 19.4, 20.4, and 23.3 Addendum I (26 March 2014)
	<u>Effects of Changes to the Environment that are Directly Linked or Necessarily Incidental to Federal Decisions</u> In situations where the EIS has identified changes to the environment that are directly linked or necessarily incidental to federal decisions identified in Section 5.2, the EIS will include a stand-alone section that describes the effects of these changes on health and socio-economic conditions, physical and cultural heritage, or any structure, site, or thing that is of historical, archaeological, paleontological, or architectural significance, other than as they pertain to Aboriginal peoples (who are considered in the previous section).	Sections 23.3.1, 23.3.2, and 23.3.3



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	Adverse Effects on Aboriginal and Treaty Rights and Related Interests	
	The EIS will describe, from the perspective of the proponent, the potential adverse effects of the Project on the ability of Aboriginal peoples to exercise the potential or established Aboriginal and Treaty rights and related interests identified in Section 9.2. This section will summarise the following:	Section 6 and
	potential adverse effects on potential or established Aboriginal and Treaty rights and related interests that were identified through the environmental effects described in Sections 10.1.2 and 10.1.3;	Appendices 6.1, 6.2, 6.3, 6.4, and 6.5
10.2	 specific issues and concerns raised by Aboriginal groups in relation to the potential adverse effects of the Project on potential or established Aboriginal and Treaty rights and related interests; 	Section 17.0, 23.3 Addendum I
10.2	VCs suggested for inclusion in the EIS, whether or not those factors were included, and the rationale for any exclusions;	
	where and how Aboriginal traditional knowledge or other Aboriginal views were incorporated into the consideration of environmental effects and potential adverse effects on potential or established Aboriginal and Treaty rights and related interests; and	(26 March 2014)
	efforts undertaken to engage with Aboriginal groups as part of collecting the information identified above.	
	The assessment of the potential adverse effects of each of the Project components and physical activities, in all phases, will be based on a comparison of the exercise of the identified rights between the predicted future conditions with the Project and the predicted future conditions without the Project. It is recommended that the effect matrix methodology described in Section 10.1.1 be adapted for this purpose.	Section 23.3
10.3	Public Concerns This section will detail public concerns raised in relation to the Project, including concerns raised through public consultation conducted prior to the preparation of the EIS or community knowledge that might have been provided.	Section 6 and Annex VI

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Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
11.0	MITIGATION	-
11.1	Environmental Mitigation	
	Methodology	
	The EIS will describe the following:	Sections
	standard mitigation practices, policies, and commitments that constitute technically and economically feasible mitigation measures for which they will be applied as part of standard practice regardless of location;	8.4, 8.5, 9.4, 9.5 10.4, 10.5 11.4,
	environmental protection plan and environmental management system used to deliver this plan;	11.5, 12.4, 12.5, 13.4, 13.5, 14.4,
11.1.1	 mitigation measures that are specific to each environmental effect identified in Section 7.2; 	14.5, 15.4, 15.5
	 proponent commitments, policies, and arrangements directed at promoting beneficial or mitigating adverse socio-economic effects; 	16.4, 16.5, 17.4 17.5, 18.4, 18.5 19.4, 19.5, 20.4
	 actions, works, minimal disturbance footprint techniques, best available technology, corrective measures, or additions planned during the Project's various phases to eliminate or reduce the significance of adverse effects; 	20.5, 21.0, and 22.0
	 assessment of the effectiveness of the proposed technically and economically feasible mitigation measures; and 	
	identity of person or group responsible for the implementation of these measures and the system of accountability.	
	Summary of Environmental Mitigation	
	The EIS will summarise the mitigation measures, follow-up, and related commitments including:	
	 changes to components of the environment within federal jurisdiction; 	
11.1.2	 changes to the environment that would occur on federal or transboundary lands; 	Section 23.0
	 changes to the environment that are directly linked or necessarily incidental to federal decisions; 	
	 effects of changes to the environment on Aboriginal peoples; and 	
	effects of changes to the environment that are directly linked or necessarily incidental to federal decisions.	



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
	Measures to Address Effects on Aboriginal Rights	
	The EIS will describe the measures identified to mitigate the potential adverse effects of the Project on the potential or established Aboriginal and Treaty rights and related interests, including:	
	 specific suggestions raised by Aboriginal groups for mitigating the potential adverse effects of the Project on potential or established Aboriginal and Treaty rights and related interests; 	Sections 23.3, 17.4, 6.0
11.2	 environmental mitigation measures to address potential adverse effects on potential or established Aboriginal and Treaty rights and related interests; 	Appendix 6.4 Addendum I
	 any potential cultural, social, or economic effects or benefits to Aboriginal groups caused by the Project; 	(26 March 2014)
	where and how Aboriginal traditional knowledge or other Aboriginal views were incorporated into the mitigation of environmental effects of potential adverse effects on potential or established Aboriginal and Treaty rights and related interests; and	
	efforts undertaken to engage with Aboriginal groups as part of developing the information identified above.	
	Measures to Address Public Concerns	
	The EIS will describe the following:	
	 measures identified for addressing public concerns in relation to the Project; 	
11.3	 on-going and proposed consultations and information sessions with respect to the Project at the local, regional and provincial levels; 	Section 6.0 Appendices 6.1
	summary of discussions, indicate the methods used and their relevance, locations of the consultation and information sessions, the persons, and organizations consulted, the concerns raised, the extent to which this information was incorporated in the design of the Project and EIS, and the resultant changes; and	6.2, and 6.3
	efforts made to distribute Project information and to provide a description of information and materials that were distributed during the consultation process.	

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Section in Project Specific Guidelines	Requirement	Section in the Environmenta Impact Statement
	Follow-Up Program	
	The EIS will:	
	 describe the proposed Follow-up Program in sufficient detail to allow independent judgment on the likelihood that it will deliver the type, quantity, and quality of information required to reliably verify predicted effects and confirm the assumptions and effectiveness of the mitigation; 	
	include specific commitments that clearly describe how the proponent intends to implement them.	
	 include any contingency procedures or plans or other adaptive management provisions as a means of addressing unforeseen effects or correcting exceedances as required to comply or conform to benchmarks, regulatory standards, or guidelines; 	
11.4	monitor the implementation of mitigation measures resulting from Aboriginal consultation, including:	Section 21.3
	 verifying predictions of environmental effects with respect to Aboriginal peoples, as well as residual effects that could not be addressed within the context of the environmental assessment; 	
	 determining the effectiveness of mitigation measures as they relate to environmental effects with respect to Aboriginal peoples in order to modify or implement new measures where required; 	
	supporting the implementation of adaptive management measures to address previously unanticipated adverse environmental effects with respect to Aboriginal peoples or unanticipated adverse effects on Aboriginal rights;	
	 verifying measures identified to prevent and mitigate potential adverse effects of the Project on potential or established Aboriginal and Treaty rights; and 	
	providing information that can be used to improve or support future environmental assessments and Aboriginal consultation processes.	
	Proponent Commitments	
11.5	The EIS will describe the proponent commitments including environmental mitigation measures to address public and Aboriginal peoples concern and Follow-up Program elements.	Section 22.0



Table 1: Co	1: Concordance Table to Identify Where the Project Specific Guidelines are Met in the Environmental Impact Statement (continued)		
Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement	
12.0	RESIDUAL EFFECTS		
12.1	Residual and Cumulative Environmental Effects		
12.1.1	Residual Environmental Effects The EIS will describe the residual environmental effects of the Project on the biophysical and human environments after having established technically and economically feasible mitigation measures.	Sections 8.5, 10.5, 11.6.2, 12.6.2, 13.5, 14.6.2, 15.6.2, 17.6.2, 18.6.2, 19.6.2, and 20.6.2	
12.1.2	Cumulative Environmental Effects The EIS will describe the Project's cumulative effects (i.e., changes to the environment due to the Project combined with the existence of other works or other past, present and reasonably foreseeable physical activities).	Sections 11.6.3, 12.6.3, 14.6.3, 15.6.3, 17.6.3, 18.6.3, 19.6.3, and 20.6.3	
12.1.3	Summary of Residual Environmental Effects The EIS will summarize the residual environmental effects (including cumulative environmental effects) identified in relation to the categories of environmental effects specified in Sections 10.1.2 and 10.1.3: changes to components of the environment within federal jurisdiction; changes to the environment that would occur on federal or transboundary lands; changes to the environment that are directly linked or necessarily incidental to federal decisions; effects of changes to the environment that are directly linked or necessarily incidental to federal decisions; effects of changes to the environment that are directly linked or necessarily incidental to federal decisions;	Section 23.0	
12.2	Outstanding Aboriginal issues The EIS will describe the potential adverse effects on potential or established Aboriginal and Treaty rights and related interests that have not been fully mitigated as part of the environmental assessment and associated consultations with Aboriginal groups.	Section 23 Addendum I (26 March 2014)	

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Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
13.0	SIGNIFICANCE DETERMINATION	-
13.1	Significance of Adverse Environmental Effects	
	Methodology	
	The EIS will describe:	Sections 8.6, 9.6, 10.6, 11.6, 12.6, 13.6, 14.6 15.6, 16.6, 17.6 18.6, 19.6, and 20.6
	the significance of the residual environmental effects (including cumulative environmental effects) that are considered adverse; and	
	the criteria used to assign significance ratings to any predicted adverse effects.	
	The following elements should be used in determining the significance of residual effects:	
13.1.1	magnitude;	
	geographic extent;	
	duration and frequency;	
	reversibility;	
	ecological and social context; and	
	existence of environmental standards, guidelines, or objectives for assessing the effect.	
	Where significant adverse effects are identified, the EIS will set out the probability (likelihood) that they will occur, and describe the degree of scientific uncertainty related to the data and methods used within the framework of its environmental analysis.	
13.1.2	Summary of Significant Adverse Environmental Effects	
	The EIS will summarise the significant adverse environmental effects identified in relation to the categories of environmental effects specified in Sections 10.1.2 and 10.1.3:	
	 changes to components of the environment within federal jurisdiction; 	Section 23.0
	 changes to the environment that would occur on federal or transboundary lands; 	
	 changes to the environment that are directly linked or necessarily incidental to federal decisions; 	
	 effects of changes to the environment on Aboriginal peoples; and 	
	effects of changes to the environment that are directly linked or necessarily incidental to federal decisions.	



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement
14.0	SUMMARY TABLES	
	 The EIS will contain a series of tables summarizing the following: potential environmental effects, adverse effects on potential or established Aboriginal and Treaty rights and related interests, and public concerns; proposed mitigation measures and commitments by the proponent to address potential effects on environment, Aboriginal rights, public concerns, and Follow-up Program; 	Sections 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4 (Table 17.4-1), 18.4, 19.4, 20.4, 22
	potential residual and cumulative environmental effects and the significance of the residual environmental effects; outstanding Aboriginal issues and outstanding public concerns;	Sections 8.5, 9.5, 10.5, 11.5, 12.5, 13.5, 14.5, 15.5, 16.5, 17.5, 18.5, 19.5, 20.5
	 comments from the public and proponent responses to these comments; 	Section 6.0
	 comments from Aboriginal groups and individuals and proponent responses to these comments; and 	
	relationship of the identified VCs to Aboriginal groups' potential or established Aboriginal and Treaty rights and related interests.	Sections 6, 7.2.1.1, 21 and 23 Addendum I (26 March 2014)
15.0	BENEFITS TO CANADIANS	
15.1	Changes to the Project Since Initially Proposed The EIS will include a summary of the changes that have been made to the Project since originally proposed, including the benefits of these changes to the environment, Aboriginal people, and the public.	Section 1.1
15.2	Benefits of the Project The EIS will include a section describing the predicted environmental, economic, and social benefits of the Project. This information will be considered in assessing the justifiability of the significant adverse environmental effects, if necessary.	Section 1.5



Section in Project Specific Guidelines	Requirement	Section in the Environmental Impact Statement	
16.0	MONITORING PROGRAM AND ENVIRONMENTAL MANAGEMENT PLANS		
	 The EIS will describe the monitoring program including the following: monitoring activities at all stages of the Project; proponent's proposed commitment to implementing these activities; resources provided for this purpose; and key information such as contacts, protocols, measured parameters, deadlines, intervention in case of non-compliance of legal requirements and production of monitoring reports. A common and preferred approach in implementing a monitoring program is through the development of an Environmental Management Plan.	Sections 21.0 and 22.0	