

NWT Biodiversity Action Plan

-Update this information with each change

Draft 1 as published in Report 1 - NWT Biodiversity Action Plan

Appendix 3

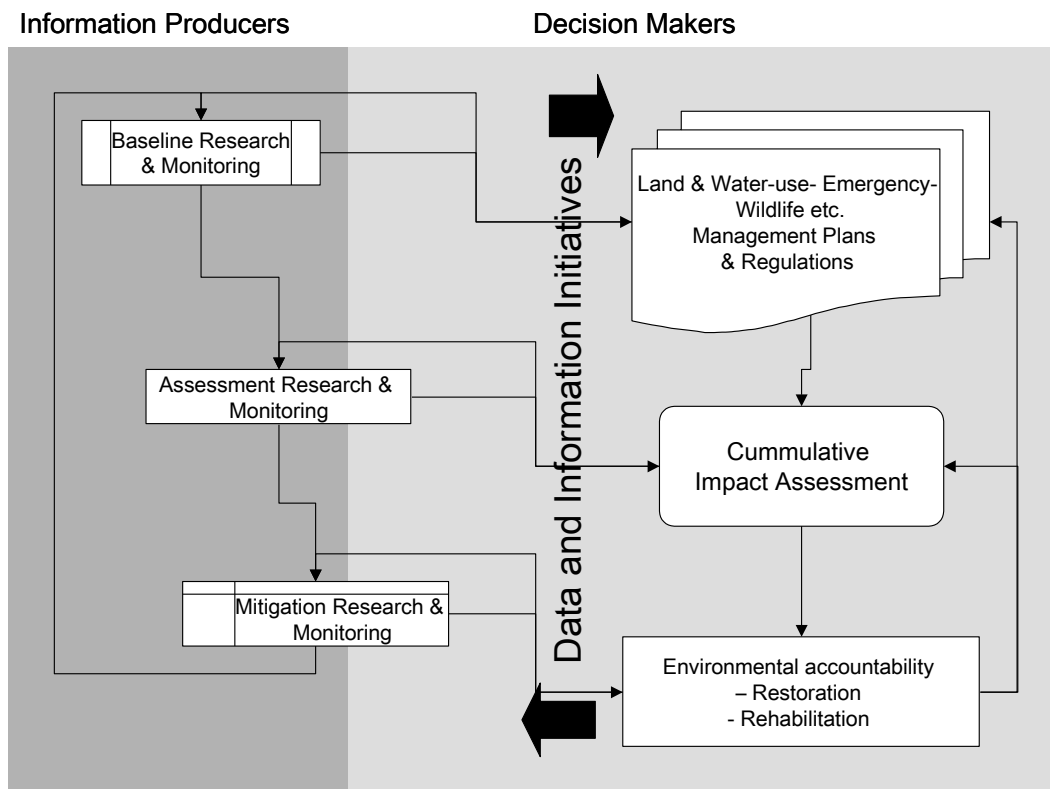
List of NWT tools available to help in Ecological management in an adaptive management context.

Each tool --programs, legislation, and agreements -- in the list is related to its appropriate box in the diagram on integrated adaptive management below. Arrows represent how information is usually shared between each box.

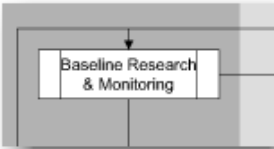

Information Producers mainly function as advisors to **Decision Makers**.

In addition, Decision Makers also will produce useful new information essential to **adapt** the research and monitoring protocols, which in turn may result in changes in plans, regulations, agreements etc. in tune with changes in the ecological system and changes in social expectations.

Simple Diagram of Integrated Adaptive Management



- See → Goal II in Report 1 for more information on ecological management in the NWT.
- See → Goal IV in Report 1 for more information on and a complete list of legislation related to biodiversity in the NWT.

Actions	Lead Organizations	Stage ¹	Location	Goal	Start Year	End Year	Find more
 <p style="text-align: center;">Monitoring and research needed to detect and understand the natural variation in environmental conditions.</p>							
Northern Ecosystem Initiative - baseline research on climate change and impacts of major development	Government of Canada, Environment Canada	Beginning phase 2	Northern Canada	Fund research and development on climate change, contaminants, biodiversity, impacts of major development	1999	?	http://www.mb.ec.gc.ca/nature/ecosystems/nei-ien/dh00s00.en.html
NWT Biophysical Study - baseline research component	Government of the Northwest Territories, Department of Resources, Wildlife and Economic Development with many partners	Being developed	Mackenzie River valley	Fund baseline studies on natural variations to help predict impacts associated with oil/gas industry	2002	?	http://www.gov.nt.ca/RWED/mog/downloads/oilgas_update_nov2002.pdf
Mackenzie Valley Cumulative Impact Monitoring Program (MVCIMP) - Valued ecosystem component (VEC) program	Government of Canada, Indian and Northern Affairs and NWT CIMP Working Group	5-year Work Plan Drafted	NWT with focus on Gwich'in and Sahtu SA; eventual focus on Mackenzie Valley	Implement community-based impact monitoring required pursuant to the SDMLCA and GCLCA and as a requirement of MVRMA	2002	2007 for review	http://www.ceamf.ca/08/CIM/08_CimpReference.htm See Audit component in the Environmental Accountability section below.
Actions	Lead Organizations	Stage ¹	Location	Goal	Start Year	End Year	Find more
 <p style="text-align: center;">Monitoring and research needed to understand the effects of development on the environment.</p>							
West Kitikmeot Slave Study	many partners	Closed	Slave Geological region	Study impacts associated with diamond industry	1994	2001	http://www.wkss.nt.ca/
Beaufort Region Environmental Assessment and Monitoring Program (BREAM)	Government of Canada, Indian and Northern Affairs and many partners	Closed	Beaufort Sea	Offshore environmental ecosystems monitoring, and research on oil spills scenarios	1990	1994	www.aina.ucalgary.ca/scripts/minisa.dtl/144/hipro/e/
NWT Biophysical Study - assessment research component	Government of the Northwest Territories, Department of Resources, Wildlife and Economic Development with many partners	Being developed	Mackenzie River valley	Fund studies on impacts associated with oil/gas industry	2002	?	http://www.gov.nt.ca/RWED/mog/downloads/oilgas_update_nov2002.pdf

Northern Ecosystem Initiative - assessment research on impacts of major development	Government of Canada, Environment Canada	Beginning phase 2	Northern Canada	Fund research and development on climate change, contaminants, biodiversity, impacts of major development	1999	?	http://www.mb.ec.gc.ca/nature/ecosystems/nei-ien/dh00s00.en.html
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Actions	Lead Organizations	Stage¹	Location	Goal	Start Year	End Year	Find more
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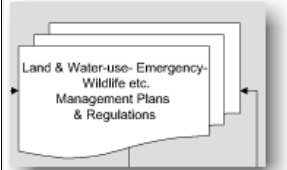
Monitoring and research needed to understand how the effects of development on the environment could be reduced.

Northern Ecosystem Initiative - mitigation research on climate change, and impacts of major development	Government of Canada, Environment Canada	Beginning phase 2	Northern Canada	Fund research and development on climate change, contaminants, biodiversity, impacts of major development	1999	2005?	http://www.mb.ec.gc.ca/nature/ecosystems/nei-ien/dh00s00.en.html
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Environmental Studies Research Funds (ESRF)	Government of Canada (Natural Resources Canada and Indian and Northern Affairs); Implementation as part of the Canada Petroleum Resources Act - Environmental Studies Research Fund Regions Regulations administrated by Board: federal government, the Canada-Newfoundland Offshore Petroleum Board, the Canada-Nova Scotia Offshore Petroleum Board, the oil and gas industry, and members of the general public.	Implementation	Crown lands in the Northwest Territories, Nunavut or Sable Island, or submarine areas, not within a province, in the internal waters of Canada, the territorial sea of Canada or the continental shelf of Canada.	Funds research program including "environmental and social studies designed to assist in the decision-making process related to oil and gas exploration and development on Canada's frontier lands". Funds are provided through levies on frontier lands paid by interested holders such as the oil and gas companies".	1983 (Funds); 1987 (Legislated)	Indefinite	http://www.esrfunds.org/
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Program of Energy Research and Development (PERD)	Natural Resources Canada, Office of Energy Research and Development, and other federal departments	Implementation	Canada	Fund, among others, mitigation research on offshore and northern oil and gas, environmental and safety issues, improvements in sustainable development of communities, energy-efficient Industry R &D, and support for Canadian energy sector's response to impacts of climate change enhanced natural uptake of greenhouse gas.	1983	?	http://www2.nrcan.gc.ca/es/oerd/english/View.asp?x=659
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Actions	Lead Organizations	Stage¹	Location	Goal	Start Year	End Year	Find more
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Specific tools to regulate, plan and manage human actions on ecosystems.

Land & Water use

Land and Water use permitting system in the Gwich'in SA	Gwich'in Land and Water Board	In force	Gwich'in Settlement Area	"regulates the use of land and water"	1998	Indefinite	http://infosource.gc.ca/Info_1/GLWB-e.html
Land and Water use permitting system in the Sahtu SA	Sahtu Land and Water Board	In force	Sahtu Settlement Area	"regulates the use of land and water"	1998	Indefinite	http://www.slwb.com/

Plans

NWT Emergency Plan	Government of the Northwest Territories and many partners	Implementation	NWT	"Provide policy and guidance where GNWT agencies and their partners support local emergency operations, and meet a collective responsibility to provide a prompt and coordinated response management for territorial emergencies".	1998?	Indefinite	http://www.maca.gov.nt.ca/Publications/Acrobat/Emergency_plan/Contents.pdf
Protected Area Strategy	Many partners	Implementation	NWT	"provide a context for specific action items and commitments to facilitate the establishment of protected areas"	1999	Indefinite	http://www.gov.nt.ca/RWED/pas/
Gwich'in Land Use Plan	Gwich'in Land Use Planning Board	Final, under review	Gwich'in Settlement Area	Develop and implement a land use plan for the Gwich'in Settlement Area with responsibilities under the Gwich'in Comprehensive Land Claim Agreement and the Mackenzie Valley Resource Management Act (Part 2).	1998	?	http://www.gwichinplanning.nt.ca/
Sahtu Land Use Plan	Sahtu Land Use Planning Board	Drafted, under review	Sahtu Settlement Area	"develop and implement a land use plan for the Sahtu Settlement Area"... with responsibilities under the ..."Sahtu Dene and Metis Comprehensive Land Claim Agreement (Section 25.2) and the Mackenzie Valley Resource Management Act (Part 2)".	1998	?	http://www.sahtulanduseplan.com/index.html
Deh Cho Land Use Plan	Deh Cho Land Use Planning Committee	Being drafted	Deh Cho territory	"guide the development of the plan and ensure proper consultation and communication is occurring with all relevant parties" with responsibilities under the Deh Cho First Nations Interim Measures Agreement.	2001	?	http://www.dehcholands.org/home.htm
Community Conservation Plans (Aklavik Holman Inuvik Paulatuk Sachs Harbour Tuktoyaktuk)	Implemented under recommendation of Inuvialuit Renewable Resource Conservation and Management Plan (1988), which was prepared by Wildlife Management Advisory Council (NWT) and the Fisheries Joint Management Committee (FJMC); in partial fulfillment of obligations	Implementation	Inuvialuit Settlement Region	"Provide guidance in the planning (not a legally binding document) and describes strategies to address five goals on"...important wildlife habitat and harvesting areas, land use decisions and management of cumulative impacts, educational initiatives, general wildlife	2000 (Updated)	Regularly Updated	http://www.bmmda.nt.ca/downloads.htm

	under the Inuvialuit Final Agreement.			management, measures for species of concern, cooperative and consistent approach to renewable resource management.			
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Renewable Resource Management

Advice, plan and implementation of decisions on Renewable Resource management in the Inuvialuit Settlement Region	Wildlife Management Advisory Council (NWT) and Fisheries Joint Advisory Council	In place	Inuvialuit Settlement Region	Provide main legislated tool for the co-management of renewable resource in the ISR.	1984	Indefinite	www.fimc.ca
Advice, plan and implementation of decisions on Renewable Resource management in the Gwich'in Settlement Region	Gwich'in Renewable Resource Board	In place	Gwich'in Settlement Area	Provide main legislated tool for the co-management of renewable resource in the GSA.	1994	Indefinite	www.grrb.ca
Advice, plan and implementation of decisions on Renewable Resource management in the Sahtu Settlement Region	Sahtu Renewable Resources Board	In place	Sahtu Settlement Area	Provide main legislated tool for the co-management of renewable resource in the SSA.	1993	Indefinite	www.srrb.ca
Advice, plan and implementation of decisions on Renewable Resource management in Wek'èezhii' (Tlicho Land).	Wek'èezhii Renewable Resources Board	To be established	Wek'èezhii'	Provide main legislated tool for the co-management of renewable resource in the Wek'èezhii'			

Renewable Resources Legislation

See → Goal IV for more information

NWT Wildlife Act	Government of the Northwest Territories, Department of Resources, Wildlife and Economic Development	In force, and under revision	NWT	Provide GNWT with tools to manage wildlife in the NWT	1988	Indefinite	http://www.lex-nt.ca/loi/index.html
NWT Forest Management Act	Government of the Northwest Territories, Department of Resources, Wildlife and Economic Development	In force, and under revision	NWT	Provide GNWT with tools to manage forest in the NWT	1987	Indefinite	http://www.lex-nt.ca/loi/index.html
Migratory Birds Convention Act	Government of Canada, Environment Canada	In force	Canada	"implement the...Migratory Birds Convention (1929)... by protecting migratory birds and nests."	1994	Indefinite	http://laws.justice.gc.ca/en/M-7.01/
Fisheries Act	Government of Canada, Department of Fisheries and Oceans	In force	Canada	Protect fish and fish habitat	1985	Indefinite	http://laws.justice.gc.ca/en/F-14/
Species at Risk Act	Government of Canada, Environment Canada, Department of Fisheries and Oceans, Parks Canada	Royal Assent	Canada	"prevent Canadian indigenous species, subspecies and distinct populations of wildlife from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, to encourage the management of other species to prevent them from becoming at risk."	2002	Indefinite	http://www.speciesatrisk.gc.ca/index_e.cfm

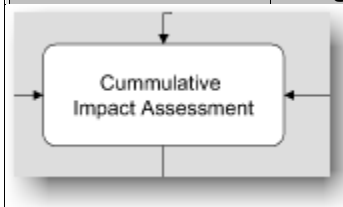
NWT proposed Species at Risk Act	Government of the Northwest Territories, Department of Resources, Wildlife and Economic Development	Proposed, under consultation	NWT	Provide GNWT with tools to prevent species from becoming extirpated or extinct because of human activities in the NWT	?		http://www.nwtwildlife.rved.gov.nt.ca/legislation/Species%20at%20Risk.pdf
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Resource Legislation

See → Goal IV for more information

Canada Petroleum Resources Act	Government of Canada, Indian and Northern Affairs	In force	Crown lands in the Northwest Territories, Nunavut or Sable Island, or submarine areas, not within a province, in the internal waters of Canada, the territorial sea of Canada or the continental shelf of Canada.	"governs the allocation of Crown lands to the private sector, tenure to the allocated rights, and the setting and collection of royalties."	1985	Indefinite	http://www.ainc-inac.gc.ca/oil/index_e.html ; http://laws.justice.gc.ca/en/C-8.5/
Canada Oil and Gas Operations Act	National Energy Board.	In force	Crown lands in the Northwest Territories, Nunavut or Sable Island, or submarine areas, not within a province, in the internal waters of Canada, the territorial sea of Canada or the continental shelf of Canada.	"regulates the industrial activities with respect to resource conservation, environmental protection and safety of workers."	1985	Indefinite	http://laws.justice.gc.ca/en/O-7/
Territorial Lands Act and Public Lands Grants Act: Canada Mining Regulations	Government of Canada, Indian and Northern Affairs	In force	Crown lands in the Northwest Territories, except in National Parks, land claim settlement areas, and other exceptions	"Administration and disposition of minerals belonging to (the Crown) under all lands forming part of the NWT"	1985	Indefinite	http://laws.justice.gc.ca/en/T-7/C.R.C.-c.1516/text.html

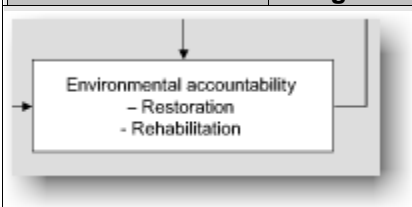
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Formal tools to help during cumulative impact assessments: legislations and agreements.

Mackenzie Valley Resource Management Act (MVRMA)	Government of Canada, Indian and Northern Affairs	In force	NWT south of Inuvialuit Settlement Region and excluding Wood Buffalo National Park	MVRMA requires project-specific cumulative effects assessment and management	1998	Indefinite	http://laws.justice.gc.ca/en/M-0.2/
Canadian Environmental Assessment Act (CEAA)	Government of Canada, Canadian Environmental Assessment Agency	In force	Inuvialuit Settlement Region	CEAA requires project-specific cumulative effects assessment and management	1992	Indefinite	http://laws.justice.gc.ca/en/C-15.2/
Gwich'in Land Claim Settlement Act	Government of Canada, Indian and Northern Affairs	In force	Gwich'in Settlement Area		1992	Indefinite	
Sahtu Dene and Metis Land Claim Settlement Act	Government of Canada, Indian and Northern Affairs	In force	Sahtu Settlement Area		1993	Indefinite	
Western Inuvialuit Land Claim Settlement Act	Government of Canada, Indian and Northern Affairs	In force	Inuvialuit Settlement Region		1984	Indefinite	

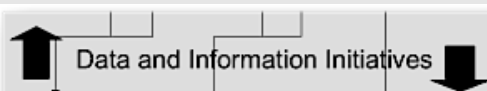
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Formal tools to help the public review the effectiveness of mitigation, restoration, and rehabilitation measures: Agreements and Audits.

BHP Environmental Monitoring Agreement	Independent Environmental Monitoring Agency	In Place	Area near BHP EKATI TM diamond mine	"review and comment on the design of monitoring and management plans and the results of these activities and on integration of traditional knowledge; act as an intervener in regulatory processes directly related to environmental matters involving the Ekati Diamond mine™ and its cumulative effects; bring concerns of the Aboriginal peoples and the general public to the Ekati Diamond Mine™ and government; keep Aboriginal peoples and the public informed about Agency activities and findings; and, writing an Annual Report with recommendations that require the response of BHPB and/or government. "	1997	Indefinite	http://www.monitoringagency.net/
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Diavik Environmental Agreement	Environmental Monitoring Advisory Board	In Place	Area near Diavik diamond mine	"facilitate the use of integrated, holistic and cooperative approaches to monitoring, management and regulation of the Diavik Diamond Project."	2001	Indefinite	http://www.diavik.ca/html/body_emab.html
Mackenzie Valley Cumulative Impact Monitoring Program (MVCIMP) - Audit	Government of Canada	To be initiated	NWT south of Inuvialuit Settlement Region and excluding Wood Buffalo National Park	Provide an independent and mandatory evaluation of the integrated management system as required under MVRMA	2005	?	
Actions	Lead Organizations	Stage¹	Location	Goal	Start Year	End Year	Find more

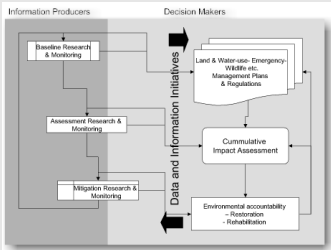


General tools to help gather and share information and data amongst all organizations involved in cumulative impact assessment and adaptive management.

Arctic Science and Technology Information System (ASTIS)	Arctic Institute of North America, University of Calgary	Continuing	Northern Canada	Institute's mandate is to "advance the study of the... Arctic through the natural and social sciences, the arts and humanities and to acquire, preserve and disseminate information on physical, environmental and social conditions in the North". ASTIS archives and store studies results and reports related to science and technology in northern Canada	1945 (Institute)	?	http://www.ucalgary.ca/AINA/index.html
Northern Information Network	Government of Canada, Indian and Northern Affairs	Continuing	Northern Canada	"encourages information sharing about the Yukon, the Northwest Territories and Nunavut for more effective decision making in the areas such as resource management and economic development."	1999 (new site)	Indefinite	http://esd.inac.gc.ca/nin/
Northern Ecological Management and Assessment Network (EMAN - North) - Information Centre	Government of Canada, Environment Canada and many partners	Development	Northern Canada	Information Centre "to provide a central access point for long-term ecological monitoring information"	1997 (EMAN-North); 1999 (IC)	Indefinite	www.emannorth.ca & http://www.eman-rese.ca/eman/program/about.html
Beaufort Mackenzie Mineral Development Area	Government of the Northwest territories, Minerals, Oil & Gas Division, The Joint Secretariat - Inuvialuit Renewable Resource Committees and the Inuvialuit Land Corporation.	Continuing	Inuvialuit Settlement Region	"bring together resource information for the Inuvialuit Settlement Region (ISR) in the Northwest Territories... (in the form of) a comprehensive Internet guide to the geology, infrastructure, environmental data, development processes, and economic studies in the ISR".	1999	Indefinite	http://www.bmmda.nt.ca/default.htm
Public Registry	Mackenzie Valley Environmental Impact Review Board	Continuing	NWT south of Inuvialuit Settlement Region and excluding Wood Buffalo	"Notices and documents about environmental assessments and preliminary Screenings" in Mackenzie Valley	1998	Indefinite	http://www.mveirb.nt.ca/MVposts.html

			National Park				
Fort Liard Ressources Directory	Government of the Northwest territories, Minerals, Oil & Gas Division	Continuing	Fort Liard Area	"compile information on the physical environment, resource interests, and land uses in the area"	1999	Indefinite	http://www.liardresources.nt.ca/default.htm

Actions	Lead Organizations	Stage¹	Location	Goal	Start Year	End Year	Find more
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General and formal tools to help define the process of adaptive management and cumulative impact assessment at the NWT level and at regional levels.

“ Fitting it all together”¹

Territorial-wide process

Cumulative Effects Assessment and Management CEAM-NWT (NWT wide) ¹	Government of Canada and partners in a Working Group (Work Plan) and Steering Committee (Framework)	Framework & Blueprint (Completed), Implementation plan (Being developed)	NWT excluding Wood Buffalo National Park	"identify activities, milestones and resource requirements for the development of a (CEA) framework" and provide for an agreed basis for CEA in the Mackenzie Valley.	1999	2002 (Framework) 2003 (Blueprint 2003)	http://www.ceamf.ca
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Regional processes

CEAM - Regional Work Plan (Slave Geological Province)	Government of Canada and partners in a SGP Project Group & Steering Committee	Under review	Slave Geological Province	"make recommendations to decision-makers to facilitate the protection of ecological integrity, the building of sustainable communities (including social and economic dimensions), and responsible economic development within a sound environmental management framework" in the Slave Geological Province.	2001	2002	http://www.ceamf.ca
CEAM - Regional Work Plans (Deh Cho Region)	Government of Canada and partners in a DC Project Group & Steering Committee	Initiated	Deh Cho region	Aim to be determined: Would make recommendations to decision-makers to facilitate the protection of ecological integrity, sustainable development of communities, within a sound environmental management framework in the Deh Cho Region	2002	?	http://www.ceamf.ca

Project-specific processes

Cumulative Impact guidelines for screening and pre-review of developments in the ISR	Environmental Impact Screening Committee (EISC)	In Place	Area near any development screened in the Inuvialuit Settlement	Screen all activities in the ISR, except those on private land, that meet the definition of a development according	1998	Indefinite	http://www.bmmda.nt.ca/downloads.htm
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			Region	to the IFA.			
Cumulative impact procedures for public review of development requiring environmental impact assessment in the ISR	(Inuvialuit) Environmental Impact Review Board	In Place and Updated	Area near any development under environmental review in the Inuvialuit Settlement Region	Conduct Environmental Review of all development in the ISR that was screened and referred by EISC	1997, 2002 (updated)	Indefinite	http://www.bmmda.nt.ca/default.htm
Cumulative impact cooperation plan for assessment review of pipeline development projects in the Mackenzie Valley including the ISR	Northern Pipeline Environmental Impact Assessment and Regulatory Chairs' Committee	In Place	Area near any proposed natural gas pipeline in the NWT	"Cooperation Plan outlines, in principle, how the parties would coordinate their response to any proposal to build a major natural gas pipeline through the Northwest Territories."	2002	?	http://www.mveirb.nt.ca/MVPWG/MVPWG.html

In conjunction with the formal work of CEAM – NWT, organizations have produced reports to provide examples on how adaptive management and Cumulative IA processes could be formalized in the NWT and in different regions of the NWT. Two of these examples can be found in

- **Northern Ecosystem Initiative – Regional approaches to managing effects in Canada's North**, *Lead org.*: Government of Canada, Environment Canada, AXYS Environmental Consulting Ltd & Canadian Institute of Resources Law. *Stage*: Completed and available as an example Northern Canada. One model used as an example by the Mackenzie Valley CEAM Steering Committee, 2000,
Find more: http://www.ceamf.ca/ceam_documents/NEI_CEMF_Paper_Nov_1_00.pdf
- **Cumulative Effects Assessment Generic Framework - Example for the Slave Geological Province**, *Lead org.*: Canadian Arctic Resources Committee & Macleod Institute for Environmental Analysis. *Stage*: Completed and available as an example for Northern Canada with detail example for the Slave Geological Province. Provides a conceptual basis for designing a CEA. One model used as an example by the Mackenzie Valley CEAM Steering Committee. 1999.

Find more: <http://www.carc.org/new/Final%20Generic%20Framework.PDF>;
http://www.ceamf.ca/ceam_documents/Regional_Approaches_to_Managing_CE_March_2000.pdf