Sherry Sian

From: Lionel Marcinkoski [marcinkoskil@inac-ainc.gc.ca]
Sent: Tuesday, July 29, 2003 3:31 PM
To: Fraser Fairman; Miki Promislow; Sherry Sian
Cc: Lorraine Seale
Subject: Comments on the Draft Terms of Reference on the DrybonesBay/Wool Bay areas for the four projects

Draft letter to MVEIRB re: Dry...

Good Afternoon!! Sherry attached is a letter from INAC - Lorraine Seale , on additional comments pertaining to the Draft Terms of Reference for Cumulative Effects Assessment of the Drybones Bay/Wool Bay area for the Four projects. The information forwarded is the most recent Draft of the CEAM Strategy and Framework and Regional Plan of Action for Cumulative Effects Assessment and Management for the Slave Geological Province. These draft plans may provided useful information for the proposed Cumulative Effects Assessment, of Mulit-projects .Indian and Northern Affairs Canada (INAC) requests that the enclosed documents be added to the public registries.

Please confirm if you recieved these 3 documents, Thanks Lionel

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Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

BOX 1500
YELLOWKNIFE NT X1A 2R3

Sherry Sian
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre, 5102-50th Avenue
Yellowknife NT X1A 2N7

Re: Addition to July 11, 2003 Comments on the Draft Terms of Reference and Schedule for the General Cumulative Effects Assessment of the Drybones Bay/ Wool Bay Area for the following four projects:

Consolidated Goldwin Ventures Inc. MV 2003C003
North American General Resources Corp. MV 2003C008
New Shoshoni Ventures Ltd. MV 2003C0016
Snowfield Development Corp. MV 2003C0023

Dear Ms. Sian,

Over the last two years, a multi-stakeholder Project Group with representatives from Nunavut and Northwest Territories Aboriginal, federal, and territorial governments, as well as industry, environmental, and co-management bodies has been developing a plan to assess and manage cumulative effects in the Slave Geological Province. Since this draft plan may provide useful information for the above noted Cumulative Effects Assessment, Indian and Northern Affairs Canada (INAC) requests that the enclosed documents be added to the public registries for the above mentioned developments. Enclosed are:

- Cumulative Effects Assessment and Management: Regional Plan of Action for the Slave Geological Province (NWT and Nunavut). Working Draft # 4,under review by the SGP Project Group and the NWT CEAM Steering Committee. Prepared by the SGP Project Group, Dec. 17, 2002.

- Cumulative Effects Assessment and Management: Regional Plan of Action for the Slave Geological Province (NWT and Nunavut). Working Draft # 4,under review by the SGP Project Group and the NWT CEAM Steering Committee. Prepared by the SGP Project Group, Dec. 17, 2002. Appendices.

- Cumulative Effects Assessment and Management: Regional Plan of Action for the Slave Geological Province (NWT and Nunavut). Working Draft # 4,under review by the SGP Project Group and the NWT CEAM Steering Committee. Prepared by the SGP Project Group, Dec. 17, 2002. Executive Summary.

This draft plan is currently being reviewed by a broad audience and is available on the NWT Cumulative Effects Assessment and Management (CEAM) Strategy and Framework website at www.ceamf.ca under "Reference." Comments or questions about this draft plan should be referred to:

Lorraine Seale
CEAM Secretariat
DIAND
Phone: 867-669-2590
Email: sealel@inac-ainc.gc.ca

Thank you,

Lionel Marcinkoski
Environmental Scientist
Environment and Conservation
Renewable Resources and Environment

Encl.

Cumulative Effects Assessment and Management:

Regional Plan of Action for the Slave Geological Province (NWT and Nunavut)

EXECUTIVE SUMMARY - REVISED WORKING DRAFT #4

Under review by the SGP Project Group and the NWT CEAM Steering Committee

December, 2002

Prepared by the
SGP Project Group

Indian and Northern Affairs Canada

Environment Canada

Cumulative Effects Assessment and Management (CEAM)

WORKING DRAFT #4

Regional Plan of Action for the Slave Geological Province (SGP): Executive Summary

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Under Review and Discussion

List of Acronyms

CEAM	Cumulative Effects Assessment and Management
CIMP	Cumulative Impact Monitoring Program
DIAND	Department of Indian Affairs and Northern Development
EA	Environmental Assessment
IMS	Information Management System
IQ	Inuit Qaujimajatuqangit (knowledge)
MVEIRB	Mackenzie Valley Environmental Impact Review Board
NGMP	Nunavut General Monitoring Program
NIRB	Nunavut Impact Review Board
NWT	Northwest Territories
SGP	Slave Geological Province
TK	Traditional Knowledge
VEC	Valued Ecosystem Component

Further information on the SGP Regional Plan of Action process or the CEAM Strategy and Framework in general is available from the CEAM Secretariat at http://www.ceamf.ca, e-mail ceam@inac.gc.ca, phone (867) 669-2590.

Cumulative Effects Assessment and Management (CEAM) WORKING DRAFT #4 Regional Plan of Action for the Slave Geological Province (SGP): Executive Summary

Introduction

The following is an executive summary of working draft #4 of the Cumulative Effects Assessment and Management (CEAM) Regional Plan of Action for the Slave Geological Province (SGP). ***Additional detailed information is found in the full Regional Plan of Action document and the appendices (both are provided as separate documents)[1].***

The SGP (located in western Nunavut and the eastern Northwest Territories [NWT] - see Figure 1) and surrounding area are largely undeveloped, but the scale and pace of development has increased significantly in the last decade and several major proposals are planned or underway. By developing a plan for dealing with potential cumulative effects[2], northerners can be proactive by managing development rather than responding to it.

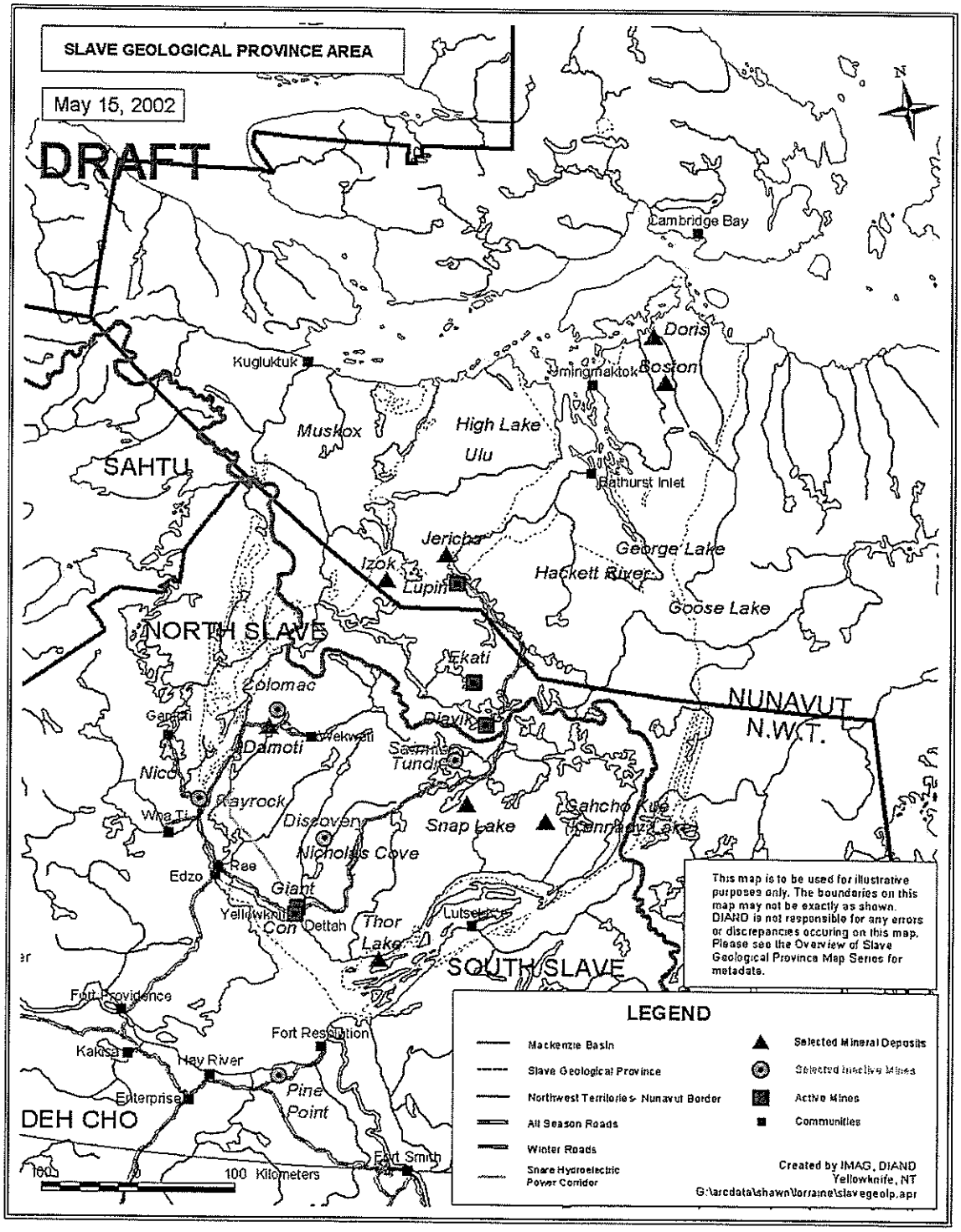
The multi-stakeholder 'SGP Project Group'[3] - with representatives from organizations in both Nunavut and the NWT – has been developing the Regional Plan of Action. Member organizations include:

- Akaitcho Territory Government (under discussion)
- Lutsel K'e Dene First Nation
- Yellowknives Dene First Nation (invitation extended)[4]
- North Slave Metis Alliance
- Dogrib Treaty 11 Council
- Kitikmeot Inuit Association
- Kitikmeot Hunters and Trappers Organization
- Nunavut Planning Commission
- DIAND – NWT and Nunavut Regions
- Environment Canada
- Government of the Northwest Territories
- Government of Nunavut
- NWT and Nunavut Chamber of Mines
- Environmental Non-Government Organizations

The membership of the SGP Project Group may need to be expanded as consultation on the Plan proceeds.

[1] Further information on the SGP Regional Plan of Action process or the CEAM Strategy and Framework in general is available from the CEAM Secretariat at http://www.ceamf.ca, e-mail ceam@inac.gc.ca, phone (867) 669-2590.
[2] 'Cumulative effects' can be defined as changes to the environment caused by the combination of past, present, and 'reasonably foreseeable' future actions. 'Environment' is broadly defined to include not only the natural or biophysical environment, but the social, economic and cultural aspects also. Not all cumulative effects are necessarily negative. Definitions for key terms are provided in the glossary at the end of the document.
[3] The Mackenzie Valley Environmental Impact Review Board and the Nunavut Impact Review Board are copied on all materials.
[4] An invitation has been extended to the Yellowknives Dene First Nation to participate as members on the SGP Project Group. At this time, no representative has been named.

Figure 1: Map of the SGP Area



The Action Plan document is organized as follows:

1. Introduction
2. Background to the Regional Plan of Action for the SGP
3. Purpose and Objectives of the Regional Plan of Action for the SGP
4. Environment and Human Activities in the SGP
5. CEAM Framework in the SGP
6. CEAM Gaps and Challenges
7. Recommendations and Actions for CEAM in the SGP

Additional detailed information is found in the appendices contained in a separate document accompanying the Regional Plan of Action. The appendices include:

A. SGP Project Group and NWT CEAM Strategy and Framework Steering Committee
B. Background to the Regional Plan of Action for the SGP
C. Environment and Human Activities in the SGP
D. Overview of SGP Area Draft Map Series (series available separately from the CEAM Secretariat)
E. CEAM Framework in the SGP (including a table of component status)
F. Summary Information for Key Organizations in the SGP
G. Gaps and Challenges

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Review and Discussion

Regional Plan of Action: Purpose and Objectives

The Regional Plan of Action for the SGP will 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 particular, the Regional Plan of Action will facilitate:

- Mechanisms to make well-informed decisions about the environment and human activities, particularly in cases involving transboundary issues;
- Systematic and coordinated approaches to cumulative effects assessment and management;
- Common principles and links between environmental management processes including land use planning, land and water management, cumulative impact monitoring, and environmental audit; and
- Improved certainty, clarity, efficiency, transparency and accountability of processes, roles and responsibilities at all levels.

The Regional Plan of Action cannot supersede Aboriginal/inherent and treaty rights, existing or future land claims and self-government agreements (including implementation obligations and commitments) or legislation. Where possible and practical the Regional Plan of Action will build on existing structures, policies, legislation, initiatives and tools (including Aboriginal/inherent and treaty rights, land claim and self-government agreements).

Recommendations and Actions for CEAM in the SGP

In the Regional Plan of Action, the SGP Project Group has proposed a number of draft recommendations and actions for wider consultation and discussion with others in Nunavut and the NWT. The Plan of Action identifies a number of initiatives intended to fill gaps, to increase the capacity of organizations and decision-making processes, and to strengthen / integrate the linkages between the components of the CEAM Framework in the SGP. The recommendations and actions focus on initiatives that will address

the priority gaps and needs with respect to CEAM in the SGP, building on the existing legal / policy framework and institutional arrangements.

Recommendations (medium- and long-term) and short-term actions[5] relating to the nine CEAM Framework components and to other broader gaps and challenges are presented in Table 1 below, using the following categories:

- Vision and Objectives
- Land Use Planning
- Baseline Studies and Monitoring
- Research
- Audit and Reporting
- Project-Specific Screening, EA and Review
- Regulation and Enforcement
- Information Management
- Coordination of the Regional Plan of Action and CEAM Activities
- Traditional Knowledge / Inuit Qaujimajatuqangit
- Community and Organizational Capacity Development

The Project Group has addressed a complex and critically important set of issues since their initial Elu Inlet discussion forum in the summer of 2001. The recommendations outlined below form the basis for a comprehensive strategy to establish an integrated approach to CEAM in the SGP, which will be the subject of consultations in both Nunavut and the NWT late in 2002 and early in 2003.

It is important to note that the draft Regional Plan of Action - in particular the table of recommendations and actions - is under review by the SGP Project Group and the larger NWT CEAM Steering Committee. It is presented as a draft for discussion, and does not necessarily represent the views of the individual organizations represented on the Project Group or Steering Committee or the Project Group/Steering Committee as a whole. The recommendations and actions in the table are intended to be 'advisory only' for the consideration of those organizations that are identified as 'proposed lead organizations' or 'other participants'.

Subsequent review and consultation as deemed appropriate by the organizations will occur, both within the Project Group/Steering Committee and its member organizations, and with the wider range of stakeholders in Nunavut and the NWT with an interest in CEAM. This is particularly true in the instances where organizations have been specifically identified as 'proposed lead organizations' in the recommendations and short-term actions.

[5] 'Short-term' is defined as the next two years (i.e., 2002 to 2004); medium-term is defined over a three to five-year period; long-term is five or more years. For each short-term action, the following information is presented in the full Regional Plan of Action document (but is not included in this executive summary): Proposed Lead Organization(s); Other Participants; Time Lines; Funding (Existing Budgets vs. 'New').

Table 1: Summary of Draft Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Specific Short-Term Actions
Vision and Objectives	1. Ongoing development, refinement, and implementation of the vision and objectives for CEAM in the SGP.	1.1 SGP Project Group and others to sustain discussions and consultations on the purpose and objectives of the Regional Plan of Action.
Land Use Planning	2. Establishment of land use planning processes in regions of the NWT within the SGP area of interest.	2.1 Establish regional land use planning processes for all lands in the NWT portion of the SGP.
	3. Establishment of a process or mechanism for coordinating land use planning in the NWT and Nunavut.	3.1 Encourage ongoing interaction amongst Nunavut and NWT organizations with responsibility for land use planning.
	4. Provision of support for the establishment of / ongoing land use planning activities in the SGP.	4.1 The provision of funding and expertise to ensure that planning processes operate efficiently and that interested parties can participate.
		4.2 Timely renegotiation of the *Nunavut Land Claims Agreement* implementation contract to ensure sufficient resources for the Nunavut Planning Commission.
		4.3 The identification and advancement of both cultural and ecological candidate areas under the NWT Protected Areas Strategy (PAS) in the NWT portion of the SGP.
	5. Timely approval of land use plans in the NWT and Nunavut.	5.1 Completion and approval of the West Kitikmeot Land Use Plan.
	6. Provision of information and planning tools to support regional land use planning, notably through research and monitoring.	(See recommended actions for 'Research', 'Monitoring', and 'Information Management', below).
Baseline Studies and Monitoring[6]	7. Timely implementation and coordination of the NWT Cumulative Impact Monitoring Program (CIMP) and the Nunavut Monitoring Program (NGMP), with adequate multi-year resourcing.	7.1 In the NWT, the implementation of cumulative impact monitoring that includes the confirmation of Valued Ecosystem Components (VECs) and indicators, preparation and implementation of cumulative impact monitoring plans, the funding of monitoring programs by the Responsible Authority, and the preparation and release of monitoring reports. Compatibility and coordination with the NGMP will be sought.

DRAFT Under Review and Discussion

[6] Includes monitoring of social, economic, and cultural aspects of the environment, in addition to natural/biophysical, using Traditional Knowledge/Inuit Qaujimajatuqangit or western science.

Table 1: Summary of Draft Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Specific Short-Term Actions
		7.2 In Nunavut, development and implementation of the NGMP to address a wider range of environmental components and indicators (and cumulative impacts in particular), seeking compatibility and coordination with the NWT CIMP.
		7.3 A review of the options with respect to: ▪ combining the two project-specific monitoring agencies (Ekati and Diavik diamond mines) into a single regional monitoring agency for these and future projects; ▪ the development and implementation of a regional environmental/cumulative effects monitoring (and research) framework for the SGP (e.g., as a successor to the West Kitikmeot Slave Study, an approach strongly endorsed by the West Kitikmeot / Slave Study Board) (see also recommendations 9 and 20); and ▪ how the plans and activities of the Bathurst Caribou Management Planning Committee might relate to the preceding, given that caribou management and related issues are a continuing priority.
	8. Standardized approaches to monitoring / reporting / data management by all parties (e.g., industry, governments, outfitters, other researchers) in the SGP.	8.1 Work toward agreement upon and use of consistent protocols for monitoring / reporting / data management by all parties to ensure effective coordination and integration of data focused on key indicators of environmental change.
Research	9. Implementation of a focused and coordinated CEAM research plan for the SGP.	9.1 The identification and confirmation of CEAM research questions.
		9.2 Develop an ecological framework to guide research and monitoring, considering the priority VECs and indicators (see also Actions 7.2 and 8.1)
		9.3 Research on carrying capacity, thresholds, and limits of acceptable change, and ways to implement these concepts in decision-making.
		9.4 Standardize research protocols (see Action 8.1).
	10. Use research findings to develop practical tools for use in regional CEAM.	None identified.

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Under Review and Discussion

Table 1: Summary of Draft Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Specific Short-Term Actions
Audit and Reporting	11. Implement environmental trend and management audits and reporting for the SGP (NWT and Nunavut).	11.1 Preparation of regular State of the Environment reports by the Nunavut Planning Commission and an NWT body.
		11.2 In the NWT, the timely implementation of the first independent environmental audit.
		11.3 Exploration of options for environmental audit functions in Nunavut.
	12. Timely implementation of audit recommendations.	None
Project-Specific Screening, EA and Review:	13. Implementation of a coordinated transboundary process to effectively address cumulative impact issues.	13.1 Development of a memorandum of understanding or other protocol between the Nunavut Impact Review Board (NIRB) and the Mackenzie Valley Environmental Impact Review Board (MVEIRB) dealing with the environmental assessment and review processes for projects with potential transboundary effects.
		13.2 Development of a memorandum of understanding or other protocol between the Nunavut Water Board and the Mackenzie Valley Land and Water Board dealing with the licencing of projects with potential transboundary effects.
		13.3 Understanding and clarification of the relationship between the screening, EA and review processes provided for in the *Akaitcho Interim Measures Agreement* (pre-screening), the *Tlicho (Dogrib) Agreement*, the *MVRMA*, the *Nunavut Land Claims Agreement*, and the *Canadian Environmental Assessment Act.*
	14. Guidance for cumulative effects assessment (CEA) in the context of project-specific screening and EA must be developed and/or finalized. The guidance should address transboundary effects.	14.1 The MVEIRB, in cooperation with other organizations involved in the environmental assessment process, should finalize its interim CEA guidelines.
		14.2 Development of CEA guidance for the NIRB process.
		14.3 Completion of Nunavut Planning Commission (NPC) criteria for identifying potential cumulative effects for use in conformity determination and implementation of associated software.

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Table 1: Summary of Draft Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Specific Short-Term Actions
	15. Increase the capacity of organizations participating in project-specific processes to contribute to cumulative effects assessment and management.	15.1 Develop tools and resources for all parties to deal more effectively with cumulative effects assessment and management.
		15.2 Develop intervenor funding programs for regulatory processes to increase the capacity of organizations to adequately deal with cumulative effects assessment and management (see also '16 and 17, Regulation and Enforcement', below).
Regulation and Enforcement	16. Regulatory boards and agencies with mandates in the SGP should strengthen their approaches to cumulative effects management.	16.1 Develop procedures and specific tools for cumulative effects management (e.g., through the use of terms and conditions of approval, monitoring requirements).
		16.2 Annual public reporting on number of land use permits and water licences in place, new permits and licences (see also 17.2 below).
	17. Organizations with jurisdiction in the SGP must strengthen their approaches to inspection and enforcement.	17.1 Improved frequency and quality of inspections.
		17.2 Annual public reporting on inspection and enforcement by agencies (including policies, procedures, criteria and performance indicators, enforcement measures and any legal actions related to enforcement) (see also 16.2 above).
		17.3 Enable community involvement in inspection processes.
		17.4 Ensure environmental audits (see '11. Audit and Reporting', above) address inspection and enforcement.
Information Management	18. Establish a comprehensive information management system (IMS) to support CEAM throughout the SGP.	18.1 Follow up on recommendations from the previous work on the development of an IMS (including the January 2001 CIMP/CEAM workshop; CIMP IMS options study).
		18.2 Develop and implement a coordinated approach for an IMS for use in CEAM in the SGP.
		18.3 Establish a home for the SGP IMS.
		18.4 Identify gaps in existing information inventories, and prepare a plan for filling the priority gaps (this latter aspect should be addressed within recommendation '9. Research', see above).

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Table 1: Summary of Draft Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Specific Short-Term Actions
Coordination of the Regional Plan of Action and CEAM Activities	19. A coordinated approach to ongoing implementation and review of the SGP Regional Plan of Action is needed.	19.1 Ongoing implementation and review of the SGP Regional Plan of Action.
	20. A fully operational regional monitoring approach in the SGP, subject to the ongoing discussions regarding options for regional monitoring, recognizing there may be a staged transition process (see Short-term Action 7.3, above).	20.1 Reach agreement on the preferred approach for project-specific oversight and regional environmental/ cumulative effects monitoring in the SGP, recognizing there may be a staged process (see Short-term Action 7.3, above).
	21. Integration of the SGP Regional Plan of Action with the NWT CEAM Framework and any Nunavut environmental management framework that may evolve.	None
Traditional Knowledge / Inuit Qaujimajatuqangit	22. Integration of TK/IQ into all aspects of the SGP Regional Plan of Action.	22.1 Support projects in areas such as the training of TK interpreters, capacity building, the identification of 'points of entry' for TK in communities, and inventories of existing resources, targeted at elements of the ecosystem under stress.
		22.2 Compilation of existing TK/IQ resources and information.
		22.3 Documenting the knowledge of elders and those on the land as soon as possible.
		22.4 Evaluate the recommendations from the CEAM TK workshop (December 2001) and implement as appropriate.
		22.5 Produce policy and procedural guidance for the inclusion of TK in all aspects of the Regional Plan of Action.
Community & Organizational Capacity Development	23. Enhance the capacity of communities and all organizations to deal with cumulative effects assessment and management.	23.1 Review and refine the capacity and training needs with respect to cumulative effects assessment and management, and suggest strategies to address them. 23.2 Increased funding to communities to identify and implement capacity development opportunities related to cumulative effects assessment and management. 23.3 Evaluate successful models, opportunities, and best practices for community capacity development related to cumulative effects assessment and management.

DRAFT Under Review and Discussion

Cumulative Effects Assessment and Management:

Regional Plan of Action for the Slave Geological Province (NWT and Nunavut)

WORKING DRAFT #4

Under review by the SGP Project Group and the NWT CEAM Steering Committee

December, 2002

Prepared by the
SGP Project Group

Indian and Northern Affairs Canada

Environment Canada

Cumulative Effects Assessment and Management (CEAM) WORKING DRAFT #4 Regional Plan of Action for the Slave Geological Province (SGP)

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Note: Additional detailed information is found in the appendices contained in a separate document accompanying the Regional Plan of Action. A brief stand-alone executive summary document has also been prepared. These documents can be obtained from the CEAM Secretariat, or from the CEAM website (www.ceamf.ca).

DRAFT Under Review and Discussion

List of Acronyms

AT8	Akaitcho Treaty 8
CARC	Canadian Arctic Resources Committee
CEAA	*Canadian Environmental Assessment Act*
CE	Cumulative effect
CEAM	Cumulative Effects Assessment and Management
CESD	Commissioner of the Environment and Sustainable Development (Office of the Auditor General)
CIMP	Cumulative Impact Monitoring Program
DIAND	Department of Indian Affairs and Northern Development
DSD	Department of Sustainable Development (Government of Nunavut)
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMAB	Environmental Monitoring Advisory Board
EMAN	Ecological Monitoring and Assessment Network
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
HRDC	Human Resources Development Canada
IEMA	Independent Environmental Monitoring Agency
IMA	Interim Measures Agreement
IMS	Information Management System
IRMA	Integrated Resource Management Assistance
IQ	Inuit Qaujimajatuqangit (knowledge)
LRTAP	Long-Range Transport of Atmospheric Pollutants
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	*Mackenzie Valley Resource Management Act*
NGMP	Nunavut General Monitoring Program
NLCA	Nunavut Land Claims Agreement
NIRB	Nunavut Impact Review Board
NPC	Nunavut Planning Commission
NTI	Nunavut Tunngavik Inc.
NWMB	Nunavut Wildlife Management Board
NWB	Nunavut Water Board
NWT	Northwest Territories
PAS	Protected Areas Strategy
PLANNER	Public Land-use Application Network Notification and Environmental Reporter
RWED	Resources, Wildlife and Economic Development (GNWT)
SGP	Slave Geological Province
TK	Traditional Knowledge
VEC	Valued Ecosystem Component
WKSS	West Kitikmeot / Slave Study

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Under Review and Discussion

Cumulative Effects Assessment and Management (CEAM) WORKING DRAFT #4 Regional Plan of Action for the Slave Geological Province (SGP)

1.0 Introduction

This is a revised version of the working draft Cumulative Effects Assessment and Management (CEAM) Regional Plan of Action for the Slave Geological Province (SGP; located in western Nunavut and the eastern Northwest Territories [NWT]).

DRAFT
Under Review and Discussion

The Action Plan is organized as follows:

1. Introduction
2. Background to the Regional Plan of Action for the SGP
3. Purpose and Objectives of the Regional Plan of Action for the SGP
4. Environment and Human Activities in the SGP
5. CEAM Framework in the SGP
6. CEAM Gaps and Challenges
7. Recommendations and Actions for CEAM in the SGP

A separate executive summary document has also been prepared[1]. Additional detailed information is found in the appendices contained in a separate document accompanying the Regional Plan of Action. The appendices include:

A. SGP Project Group and NWT CEAM Strategy and Framework Steering Committee
B. Background to the Regional Plan of Action for the SGP
C. Environment and Human Activities in the SGP
D. Overview of SGP Area Draft Map Series (series available separately from the CEAM Secretariat)
E. CEAM Framework in the SGP (including a table of component status)
F. Summary Information for Key Organizations in the SGP
G. CEAM Gaps and Challenges

It is important to note that this revised document is currently under review by the SGP Project Group and the larger NWT CEAM Steering Committee. It is presented as a draft for discussion, and does not necessarily represent the views of the individual organizations represented on the Project Group or Steering Committee or the Project Group/Steering Committee as a whole. Subsequent review and consultation as deemed appropriate by the organizations will occur, both within the Project Group/Steering Committee and its member organizations, and with the wider range of stakeholders in Nunavut and the NWT with an interest in CEAM. The recommendations and actions it contains are intended to be 'advisory only' for the consideration of those organizations that are identified as 'proposed lead organizations' or 'other participants'.

[1] The executive summary and the appendices documents, or further information on the SGP Regional Plan of Action process or the CEAM Strategy and Framework in general, are available from the CEAM Secretariat at http://www.ceamf.ca, e-mail ceam@inac.gc.ca, phone (867) 669-2590.

2.0 Background to the Regional Plan of Action for the SGP

The SGP and surrounding area are largely undeveloped, but the scale and pace of development has increased significantly in the last decade and several major proposals are planned or underway. By developing a plan for dealing with potential cumulative effects[2], northerners can be proactive by managing development rather than responding to it. While the cumulative effects of development in the SGP have been of interest for some time, environmental assessments of mining projects in the 1990s served as the catalyst for the development of a framework for regional cumulative effects assessment and management in the NWT.

In December 1999, the Ministers of the Department of Indian Affairs and Northern Development (DIAND) and Environment Canada directed their departments to work cooperatively with northerners to develop a CEAM Strategy and Framework for the NWT, including a regional plan of action for the SGP (located in the NWT and Nunavut). A multi-stakeholder Steering Committee has prepared a CEAM Strategy and Framework, presented to the Ministers in April 2002. In the summer of 2001, members of the Steering Committee with interests in the SGP and representatives from other Nunavut organizations (the 'SGP Project Group'), met at Elu Inlet in western Nunavut to initiate development of the Plan of Action for the SGP. The organizations currently represented on the SGP Project Group are listed in Table 1[3]. Membership of the SGP Project Group may need to be expanded as consultation on the Plan proceeds.

Table 1: SGP Project Group Member Organizations[4]

• Akaitcho Territory Government (under discussion)	• Nunavut Planning Commission
• Lutsel K'e Dene First Nation	• DIAND – NWT and Nunavut Regions
• Yellowknives Dene First Nation (invitation extended)[5]	• Environment Canada
• North Slave Metis Alliance	• Government of the Northwest Territories
• Dogrib Treaty 11 Council	• Government of Nunavut
• Kitikmeot Inuit Association	• NWT and Nunavut Chamber of Mines
• Kitikmeot Hunters and Trappers Organization	• Environmental Non-Government Organizations

The Project Group has been guiding the development of a draft Regional Plan of Action for the SGP with funding from the NWT CEAM Strategy and Framework Steering Committee and a grant from Environment Canada's Northern Ecosystem Initiative. The NWT CEAM Steering Committee has supported the Project Group in developing the SGP Plan of Action. Members of the Steering Committee with direct regional interests in the SGP sit on the Project Group. The Project Group also includes organizations with regional interests that are not directly represented on the Steering Committee, in particular those from Nunavut. Additional organizations will become directly involved in shaping the Plan as work proceeds.

[2] 'Cumulative effects' can be defined as changes to the environment caused by the combination of past, present, and 'reasonably foreseeable' future actions. 'Environment' is broadly defined to include not only the natural or biophysical environment, but the social, economic and cultural aspects also. Not all cumulative effects are necessarily negative. Definitions for key terms are provided in the glossary at the end of the document.

[3] The SGP Project Group organizations and members, as well as the NWT CEAM Steering Committee organizations and representatives, are provided in Appendix A (the appendices to the Regional Plan of Action are contained in a separate document; additional contact information for current Project Group members is provided as part of Appendix F). Appendix B provides additional background on the NWT CEAM Strategy and Framework, and the development of the Regional Plan of Action for the Slave Geological Province.

[4] The Mackenzie Valley Environmental Impact Review Board and the Nunavut Impact Review Board are copied on all materials.

[5] An invitation has been extended to the Yellowknives Dene First Nation to participate as members on the SGP Project Group. At this time, no representative has been named.

In December 2001, a working draft of the Regional Plan of Action for the SGP was prepared. It was provided to the SGP Project Group and the NWT CEAM Steering Committee for review and comment. In January 2002, the Steering Committee organized a workshop to review the working draft NWT Cumulative Effects Assessment and Management Strategy and Framework. Two of the sessions at the workshop focused specifically on the SGP Regional Plan of Action. The Project Group and representatives of other organizations with interests in the SGP reviewed the December 2001 working draft of the Regional Plan of Action and provided their comments. These comments were incorporated into a revised working draft of the Plan that was issued in March 2002.

The March 2002 revised working draft Regional Plan of Action for the SGP was submitted to the Ministers of DIAND and Environment Canada as part of a 'final draft package' for the NWT CEAM Strategy and Framework. It was reviewed in detail by the Project Group at a June 2002 discussion forum at the Daring Lake Tundra Ecosystem Research Station (NWT) and subsequently revised in July 2002. This revised document reflects the comments provided by the Project Group and the NWT CEAM Steering Committee on that document.

The area of interest for the Regional Plan of Action includes the mainland West Kitikmeot area of Nunavut, the portion of the Northwest Territories north of Great Slave Lake to the Nunavut boundary, and surrounding communities[6] (see Figure 1). It is acknowledged that human activities within the SGP may have effects on communities and the environment (including the marine environment) beyond its boundaries. Conversely, activities located outside the SGP may have significant implications for the communities and environment within it. Political jurisdictional boundaries do not coincide directly with those of the SGP. As such the area of interest is not strictly limited to the geologically defined boundaries of the SGP. The area covers approximately 300 000 km^2 and includes both the Taiga Shield and Southern Arctic ecozones, as well as most of the range of the 350 000 member Bathurst caribou herd.

3.0 Purpose and Objectives of the Regional Plan of Action for the SGP

The SGP Project Group has developed the following purpose statement[7]:

> "The Regional Plan of Action for the Slave Geological Province will 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."

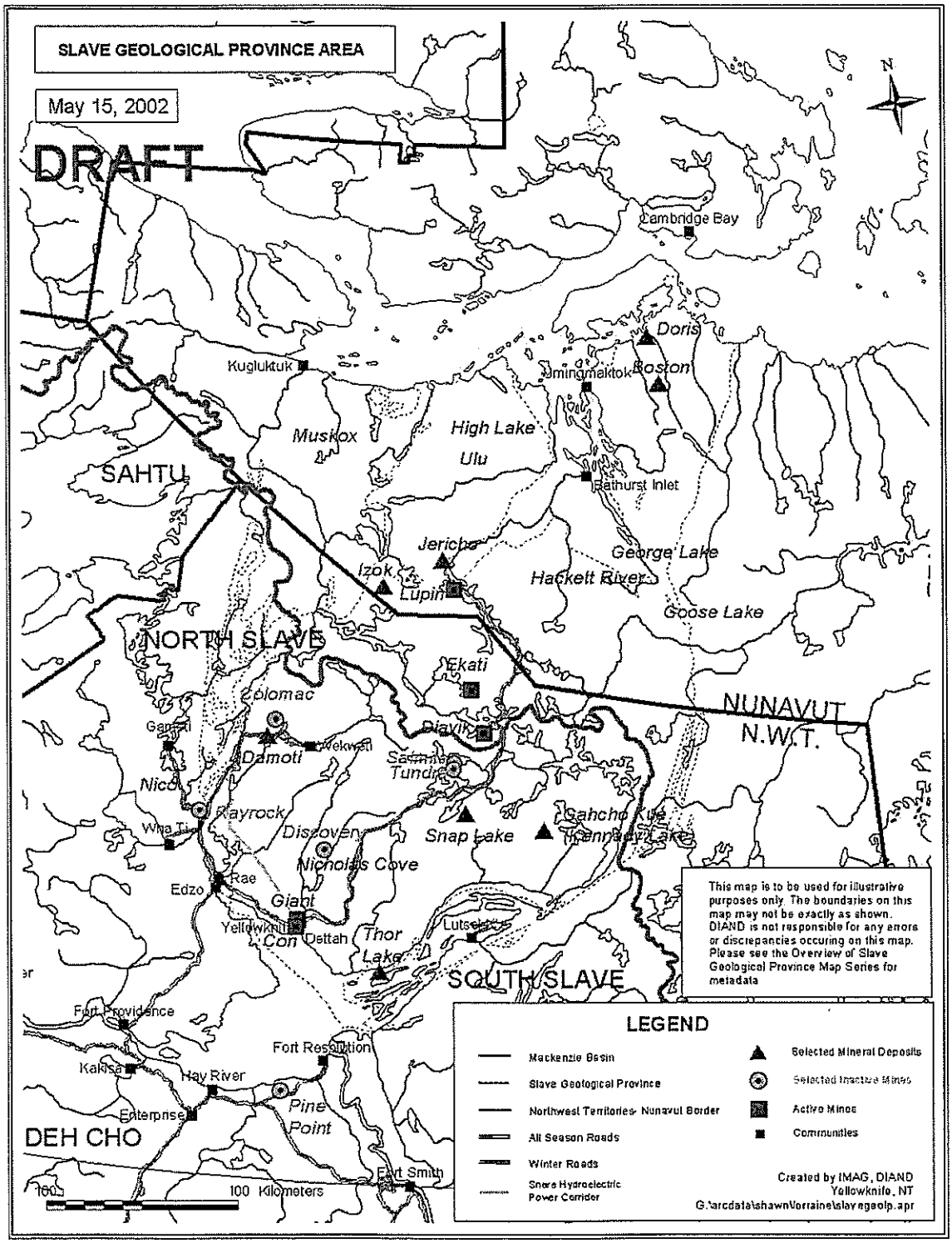
In particular, the Regional Plan of Action will facilitate:

- Mechanisms to make well-informed decisions about the environment and human activities, particularly in cases involving transboundary issues;
- Systematic and coordinated approaches to cumulative effects assessment and management;
- Common principles and links between environmental management processes including land use planning, land and water management, cumulative impact monitoring, and environmental audit; and
- Improved certainty, clarity, efficiency, transparency and accountability of processes, roles and responsibilities at all levels.

[6] In defining the area of interest, the project group noted that administrative/political boundaries are not the only frame of reference for CEAM issues; others include watersheds, ecological units, species populations/ranges, and geological formations.

[7] Appendix B (Section B.5) provides additional information on the purpose, principles, objectives and outcomes for the Regional Plan of Action for the SGP.

Figure 1: Map of the SGP Area



Principles to be used in the development and implementation of the Regional Plan of Action, and specific objectives, are also noted in Appendix B. Two important principles include the following: The Regional Plan of Action cannot supersede Aboriginal/inherent and treaty rights, existing or future land claims and self-government agreements (including implementation obligations and commitments) or legislation. Where possible and practical the Regional Plan of Action will build on existing structures, policies, legislation, initiatives and tools (including Aboriginal/inherent and treaty rights, land claim and self-government agreements).

Five steps for the development of the Regional Plan of Action for the SGP have been identified:

1. Development of an 'ideal' or desired CEAM Framework – *what are the key functions or activities that are necessary for effective CEAM in the SGP?*
2. Description of the current situation in the SGP in the context of the desired CEAM Framework – *how do existing legislation, agreements, and organizations contribute to CEAM in the SGP?*
3. Identification of the linkages and gaps in the current CEAM Framework - *how do the components fit together? What are the missing pieces or challenges that need to be addressed?*
4. Identifying parties with responsibilities related to CEAM – *which organizations have mandates/responsibilities relating to various CEAM Framework components?*
5. Facilitating and providing advice and encouragement regarding the filling of gaps, building of linkages, and integration of current processes relevant to CEAM – *what are the priority actions needed to effectively deal with CEAM on a regional, territorial and transboundary basis? Who should address them? What are the timelines and resources required?*

Under Review

4.0 Environment and Human Activities in the SGP[8]

Human activity in the SGP includes settlements and communities, traditional Aboriginal use, mineral exploration and development, infrastructure (existing and proposed), tourism, commercial hunting and fishing. The area is also affected by the long-range transport of atmospheric pollutants. Climate change is also a concern in the SGP. The SGP is largely undeveloped, but the scale and pace of development has increased significantly in the last decade and several major proposals are on the table. A series of maps is being produced as part of the Plan of Action, showing human activities and the environmental features in the SGP[9]. Much of the information needed for the map series already exists at a number of organizations, but needs to be collected and coordinated for the purposes of the Regional Plan of Action.

Some of the activities or stressors of particular interest with respect to cumulative effects in the SGP include:

- Diamond mining (e.g., EKATI™ and Diavik mines; proposed Jericho and Snap Lake mines) and exploration
- Base metal (e.g., copper, lead, zinc) and gold, mining and exploration (e.g., Izok Lake deposit, Lupin Gold mine, Doris and Ulu gold deposits)
- Proposed deep-sea port at Bathurst Inlet and a 300-km all-weather road linking the port to Contwoyto Lake on the Nunavut / NWT border
- Transportation (e.g., all-weather roads; winter roads [e.g., Tibbitt to Contwoyto]; air transport; marine)
- Climate change (e.g., effects on permafrost, plant and animal habitats, navigation of the Northwest Passage, and traditional activities)
- Long-range transport of atmospheric pollutants (LRTAP)

[8] Appendix C provides additional detail on the environment and human activities in the SGP.
[9] The NWT CEAM Secretariat is coordinating the ongoing production of the map series by DIAND, with data being provided by range of organizations in the NWT and Nunavut. The most recent draft set was produced in November 2002. Appendix D provides an overview of the map series. A revised map series, for distribution on CD and via the website, is to be prepared by DIAND in December 2002; it will include a revised wildlife map series to be coordinated by GNWT RWED.

- Contaminated sites (e.g., Giant mine, Colomac mine)
- Hydroelectric development (e.g., Snare River; Indin Lake proposal)
- Tourism/recreation
- Hunting, fishing, trapping (residents, subsistence, outfitting)
- Communities (e.g., housing, water supply, power, transportation, waste management)

Other stressors such as natural variability or fire may also influence the overall effects observed on the environment.

5.0 CEAM Framework in the SGP

The Project Group has agreed that the generic CEAM framework developed for the NWT framework can be adapted to reflect the specific circumstances in the SGP. The current context for CEAM in the SGP is described generally, and more specifically in terms of the framework components in Appendix E. Figure 2 shows some examples demonstrating how the current policy and legislative framework supports the individual components[10].

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In summary, the nine framework components are:

Vision and Objectives: Ultimately, decisions about development, cumulative effects and environmental management will have to reflect a broad vision and set of objectives. These may be articulated directly or indirectly in a number of ways by SGP residents, organizations and governments through political, policy and planning processes.

Land Use Planning: Land use plans define a broad 'vision' of the landscape, integrating social, cultural and economic values, and set the context for subsequent decision-making with respect to rights issuance, project review and regulation. The result should be a strategy and set of parameters for the orderly development of land uses. Land use plans may also identify specific tools such as thresholds or carrying capacities to guide decision-making.

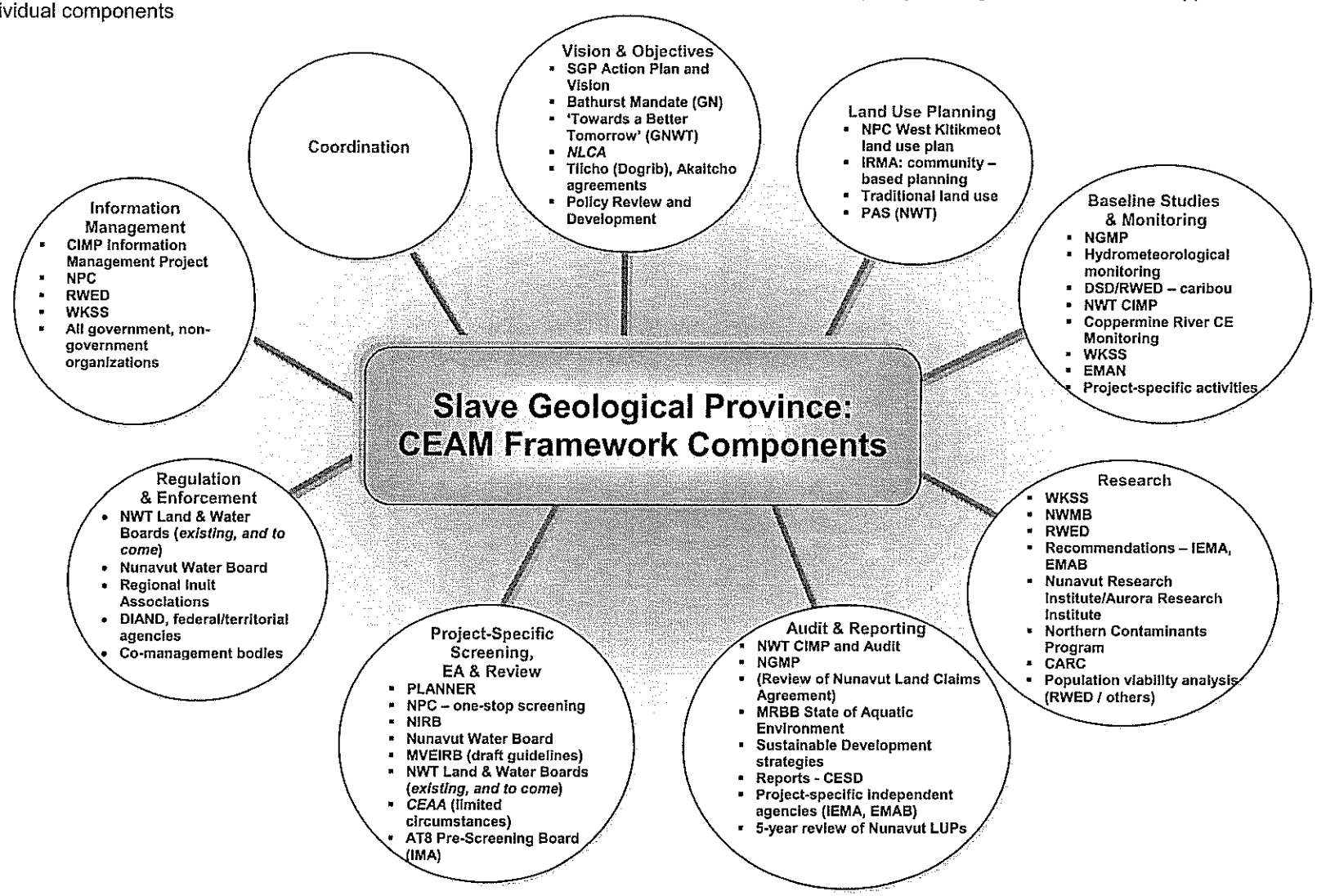
Baseline Studies and Monitoring: CEAM depends on the collection and analysis of information relating to historic or current 'baseline' conditions, trends in environmental quality, and the uses of land and water over time. Studies and monitoring may be territory-wide, regional or project-specific and may focus on factors such as the characteristics of environmental components and the effects of stressors.

Research: Applied research provides a specialized knowledge base to support and enhance decision-making relating to CEAM (e.g., determining thresholds, carrying capacity, cause and effect relationships, synergistic effects, etc.).

[10] A table showing the status of the CEAM Framework components in the SGP is included as part of Appendix E. Appendix F provides a list of acronyms for the key organizations with interests in the SGP, as well as a brief summary of their related mandate, contact person, and website addresses.

Figure 2: SGP CEAM Framework Components

The nine framework components are shown below, with *examples* demonstrating how the current policy and legislative framework supports the individual components



Audit and Reporting: The audit component is an accountability mechanism that provides periodic and systematic evaluations of the effectiveness of CEAM in the SGP. Cumulative effects audits should assess the overall state of the environment and examine environmental trends, the factors contributing to these trends, and their significance. Audits should focus as well on the effectiveness of cumulative impact monitoring and the ability of the regulatory regime to assess and manage cumulative effects. Responses to recommendations from previous audits should also be evaluated. The results of audits should be available to all interested parties.

Project-specific Screening, Environmental Assessment and Review: These are conducted as part of the processes described in the *Nunavut Land Claims Agreement (NLCA)*, the *Mackenzie Valley Resource Management Act (MVRMA)*, and the *Canadian Environmental Assessment Act (CEAA)*. Environmental Assessment (EA) and review processes require an assessment of cumulative effects. When projects or activities trigger environmental impact assessment (EIA), cumulative effects issues may be identified at any stage of the review process. The potential for cumulative effects identified during screening may result in referral for more detailed EA and review. EIA reports often address cumulative effects when recommending the approval or rejection of projects or activities. They may include recommendations or requirements for measures to mitigate adverse cumulative effects.

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Regulation and Enforcement: Regulation encompasses a broad spectrum of activities such as the issuance of resource rights (e.g., for minerals, oil and gas); land-use permits, water licences and harvest quotas. This component includes the approval processes for development or activities not subject to formal environmental assessment and review. Terms and conditions for project operations, monitoring requirements, and the standards and procedures for abandonment and reclamation may also be established through regulatory processes. All significant projects and activities in the NWT and Nunavut are subject to some form of regulation. The setting and enforcement of regulatory requirements are important practical means for managing cumulative effects.

Information Management: Information management in support of CEAM includes the collection, processing, storage and sharing of diverse types of information (qualitative and quantitative, including Traditional Knowledge [TK]/Inuit Qaujimajatuqangit [IQ]) from a wide variety of sources. Analysis and reporting of information occurs in the context of other framework components (e.g., audit and reporting; project-specific assessment; regulation and enforcement). Information users may include communities, project proponents, regulators, or non-government organizations. In the context of the Regional Plan of Action, the information obtained through research, monitoring, audit and reporting provides essential feedback and decision support to the other components (e.g., land use planning; project-specific screening, environmental assessment and review; regulation and enforcement).

CEAM Coordination: No one organization has the broad mandate for coordinating cumulative effects assessment and management either regionally or at a territorial level. Coordination on an inter-jurisdictional level can allow for some efficiencies of scale, reduced duplication of effort and process, and may allow for more effectively dealing with transboundary CEAM.

6.0 CEAM Gaps and Challenges

A number of gaps and challenges with respect to CEAM in the SGP have been identified and summarized relative to the CEAM Framework on a component-by-component basis[11]. The gaps and challenges are based on a review of:

[11] For additional detail, see Appendix G.

- Preliminary list of gaps and challenges identified by participants at the Elu Inlet discussion forum;
- A 'final draft' Blueprint for Implementing the CEAM Strategy and Framework in the NWT and its Regions, and other background work conducted for the Steering Committee;
- An analysis of the current context of the framework for CEAM in the SGP; and
- The findings of recent initiatives such as the West Kitikmeot / Slave Study (WKSS) Society's process to develop an interim plan for cumulative effects research and monitoring in the SGP.

Table 2 below summarizes the gaps and challenges identified with respect to CEAM Framework components in the Slave Geological Province. (These are also described in greater detail in Appendix G, Section G.2).

Table 2: Gaps and Challenges – CEAM Framework Components in the Slave Geological Province

Framework Component	Broader Gaps and Challenges
Vision and Objectives	• An overall explicit vision and objectives for the SGP, its regions or communities does not exist, and consensus as to the core elements of such a vision and objectives has not been developed.
Land Use Planning	• Land use plans have not been developed in the NWT portions of the SGP.
Baseline Studies and Monitoring	• No overall regional CE research and monitoring framework has been developed, with key questions to guide the collection, analysis and management of information relating to baseline and changing environmental conditions. • No comprehensive cumulative effects monitoring program has been implemented in either the Nunavut or NWT portions of the SGP. • Coordination of the many different types of monitoring activities in the SGP is needed.
Research	• There is no overall framework for regional CE research and monitoring in the SGP. • Specific areas of cumulative effects research needed include: development of thresholds and carrying capacities; cause and effects of environmental change; and contribution of natural variability. • There is a need for an integrated 'ecological approach' • There is a need to study predicted and observed effects (through monitoring, auditing and reporting) of industrial projects.
Audit and Reporting	• There is no 'state-of-the-environment' reporting system that collects information and evaluates it in terms of environmental trends, thresholds and carrying capacity. • The NWT Cumulative Impact Monitoring Program (CIMP) and Audit have yet to be implemented. • A periodic audit of the status of various components of the CEAM Framework in the SGP is needed. • There should be better coordination of environmental audit and reporting functions within the SGP.

Table 2: Gaps and Challenges – CEAM Framework Components in the Slave Geological Province	
Project-Specific Screening, Environmental Assessment and Review	• There is no formal mechanism for addressing potential transboundary effects of individual development proposals around the border between Nunavut and the NWT • Mechanisms must be developed for addressing the broad range of stressors contributing to cumulative effects, such as large/ small projects, communities/ municipalities, outfitting/ tourism, climate change, LRTAP, and natural variation. • There is a need to consolidate findings of previous studies and ongoing monitoring into a regional CEA.
Regulation and Enforcement	• There is a need to strengthen the components of the CEAM Framework in order to assist regulatory agencies in their efforts to address cumulative effects. • Consideration needs to be given to the cumulative effect of those activities not subject to screening or environmental impact assessment.
Information Management	• A comprehensive information management system (IMS) is needed to support CEAM throughout the SGP. • IMS development activities already underway in both the NWT and Nunavut will need to be further integrated.
Coordination of the Regional Plan of Action and CEAM Activities	• No one organization or regulatory process has overall authority for coordinating cumulative effects assessment and management either regionally or at a territorial level. • Coordination on an inter-jurisdictional level of functions associated with the SGP Regional Action Plan is needed.
Traditional Knowledge/ Inuit Qaujimajatuqangit	• More effort is needed to ensure that TK/ IQ and conventional science are both used as complementary sources of information in all of the components of the CEAM Framework in the SGP.
Community and Organizational Capacity Development	• It has not been determined how costs associated with resource needs for implementing the SGP Regional Plan of Action will be covered and allocated. • Education and employment training is needed in the communities. Training needs to be provided that allows for diversified employment opportunities.

Under Review

7.0 Recommendations and Actions for CEAM in the SGP

The recommendations and actions developed by the SGP Project Group and outlined below are based on:

- An assessment of the current state of the nine components of the CEAM Framework in the SGP
- An initial draft Blueprint for Implementing the CEAM Strategy and Framework that has been prepared by the NWT CEAM Steering Committee (March 2002b – under review and revision), and
- A review of revised working draft #3 of the Regional Plan of Action (July, 2002) by the SGP Project Group and the NWT CEAM Steering Committee.

The Regional Plan of Action identifies a number of initiatives intended to fill gaps in the Framework, to increase the capacity of organizations and decision-making processes, and to strengthen / integrate the linkages between the components of the CEAM Framework. The recommendations and actions focus on initiatives that will address the priority gaps and needs with respect to CEAM in the SGP, building on the existing legal / policy framework and institutional arrangements.

Recommendations (medium- and long-term) and short-term actions[12] relating to the nine Framework components and to other broader gaps and challenges are presented in Table 3, using the following categories:

- Vision and Objectives
- Land Use Planning
- Baseline Studies and Monitoring
- Research
- Audit and Reporting
- Project-Specific Screening, EA and Review
- Regulation and Enforcement
- Information Management
- Coordination of the Regional Plan of Action and CEAM Activities
- Traditional Knowledge / Inuit Qaujimajatuqangit
- Community and Organizational Capacity Development

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For each short-term action, the following information is presented:

- Proposed Lead Organization(s)[13]
- Other Participants
- Time Lines
- Funding (Existing Budgets vs. 'New')

The Project Group developing the Regional Plan of Action for the SGP, as well as the NWT CEAM Steering Committee, have addressed a complex and critically important set of issues since the initial Elu Inlet discussion forum in the summer of 2001. A number of gaps and challenges related to CEAM in the SGP have been identified, and a set of objectives and short-term recommendations to address them has been proposed for further consultation and discussion. The recommendations outlined below form the basis for comprehensive strategy to establish an integrated approach to CEAM in the SGP, which will be the subject of consultations in both Nunavut and the NWT early in 2003.

As noted in Section 1, it is important to note that this revised document – in particular Table 3 - is under review by the SGP Project Group and the larger NWT CEAM Steering Committee. It is presented as a draft for discussion, and does not necessarily represent the views of the individual organizations represented on the Project Group or Steering Committee or the Project Group/Steering Committee as a whole. The recommendations and actions contained in the table are intended to be 'advisory only' for the consideration of those organizations that are identified as 'proposed lead organizations' or 'other participants'.

Subsequent review and consultation as deemed appropriate by the organizations will occur, both within the Project Group/Steering Committee and its member organizations, and with the wider range of stakeholders in Nunavut and the NWT with an interest in CEAM. This is particularly true in the instances where organizations have been specifically identified as 'proposed lead organizations' in the recommendations and short-term actions presented in Table 3.

[12] 'Short-term' is defined as the next two years (i.e., 2002 to 2004); medium-term is defined over a three to five-year period; long-term is five or more years.

[13] As is the case for the entire Regional Plan of Action, the 'Proposed Lead Organizations' are to be the subject of further discussion and consultation amongst the Project Group as well as organizations throughout Nunavut and the NWT. The suggestions in Table 3 are based on discussions at the 2002 meeting of the SGP Project Group.

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
Vision and Objectives	1. Ongoing development, refinement, and implementation of the vision and objectives for CEAM in the SGP.	1.1 SGP Project Group and others to sustain discussions and consultations on the purpose and objectives of the Regional Plan of Action.	SGP Project Group	Organizations in NWT and Nunavut	December 2002	Existing
Land Use Planning	2. Establishment of land use planning processes in regions of the NWT within the SGP area of interest.	2.1 Establish regional land use planning processes for all lands in the NWT portion of the SGP.	Aboriginal governments	Government of the Northwest Territories (GNWT)/ DIAND	2002 – 2004	Existing and New
	3. Establishment of a process or mechanism for coordinating land use planning in the NWT and Nunavut.	3.1 Encourage ongoing interaction amongst Nunavut and NWT organizations with responsibility for land use planning.	SGP Project Group	Organizations in NWT and Nunavut	2002 – 2004	Existing
	4. Provision of support for the establishment of / ongoing land use planning activities in the SGP.	4.1 The provision of funding and expertise to ensure that planning processes operate efficiently and that interested parties can participate.	DIAND – Claims Implementation and Aboriginal governments	Organizations in NWT and Nunavut	2002 – 2004	Existing and New
		4.2 Timely renegotiation of the *Nunavut Land Claims Agreement* implementation contract to ensure sufficient resources for the Nunavut Planning Commission (NPC).	DIAND – Claims Implementation, Nunavut Tunngavik Inc. (NTI) and Government of Nunavut (GN)	Organizations in Nunavut	2002 – 2004	Existing and New

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		4.3 The identification and advancement of both cultural and ecological candidate areas under the NWT Protected Areas Strategy (PAS) in the NWT portion of the SGP.	Communities	PAS Advisory Committee, Sponsoring organizations	2002 - 2004	Existing and New
	5. Timely approval of land use plans in the NWT and Nunavut.	5.1 Completion and approval of the West Kitikmeot Land Use Plan.	NPC	DIAND/ Government of Nunavut	2003	Existing
	6. Provision of information and planning tools to support regional land use planning, notably through research and monitoring.	(See recommended actions for 'Research', 'Monitoring', and 'Information Management', below).				
Baseline Studies and Monitoring[14]	7. Timely implementation and coordination of the NWT Cumulative Impact Monitoring Program (CIMP) and the Nunavut Monitoring Program (NGMP), with adequate multi-year resourcing.	7.1 In the NWT, the implementation of cumulative impact monitoring that includes the confirmation of Valued Ecosystem Components (VECs) and indicators, preparation and implementation of cumulative impact monitoring plans, the funding of monitoring programs by the Responsible Authority, and the preparation and release of monitoring reports. Compatibility and coordination with the NGMP will be sought.	DIAND/ CIMP Working Group	Organizations in the NWT	2002-2004	Existing and New

[14] Includes monitoring of social, economic, and cultural aspects of the environment, in addition to natural/biophysical, using Traditional Knowledge/Inuit Qaujimajatuqangit or western science.

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		7.2 In Nunavut, development and implementation of the NGMP to address a wider range of environmental components and indicators (and cumulative impacts in particular), seeking compatibility and coordination with the NWT CIMP.	DIAND, Government of Nunavut in cooperation with NPC	Organizations in Nunavut	2002-2003	New (claims impleme ntation)

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		7.3 A review of the options with respect to: ▪ combining the two project-specific monitoring agencies (Ekati and Diavik diamond mines) into a single regional monitoring agency for these and future projects; ▪ the development and implementation of a regional environmental/cumulative effects monitoring (and research) framework for the SGP (e.g., as a successor to the West Kitikmeot Slave Study, an approach strongly endorsed by the WKSS Board) (see also recommendations 9 and 20); and ▪ how the plans and activities of the Bathurst Caribou Management Planning Committee might relate to the preceding, given that caribou management and related issues are a continuing priority.	DIAND	Independent Environmental Monitoring Agency (IEMA), EMAB, WKSS member organizations, industry and others	2002-2003 (for an agreement on the nature of the regional agency)	Existing (current fiscal year); may need 'new' in subsequent fiscal year.

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Under Review by the SGP Project Group and CEAM SC

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
	8. Standardized approaches to monitoring / reporting / data management by all parties (e.g., industry, governments, outfitters, other researchers) in the SGP.	8.1 Work toward agreement upon and use of consistent protocols for monitoring / reporting / data management by all parties to ensure effective coordination and integration of data focused on key indicators of environmental change.	Multiple leads (will vary with Valued Ecosystem Component [VEC]); Nunavut Wildlife Management Board (NWMB) and GNWT (RWED) to develop for wildlife and vegetation	Industry	2002- 2004	Existing
Research	9. Implementation of a focused and coordinated CEAM research plan for the SGP.	9.1 The identification and confirmation of CEAM research questions.	WKSS Board	Organizations in the NWT and Nunavut	2002	Existing
		9.2 Develop an ecological framework to guide research and monitoring, considering the priority VECs and indicators (see also Actions 7.2 and 8.1)	RWED and Department of Sustainable Development (DSD)	Organizations in the NWT and Nunavut	2002 - 2003	Existing
		9.3 Research on carrying capacity, thresholds, and limits of acceptable change, and ways to implement these concepts in decision-making.	CEAM Steering Committee/ Observers	Organizations in the NWT and Nunavut[15]	2002 - 2004	Existing and New

[15] The Canadian Arctic Resources Committee (CARC) has expressed particular interest in continuing their work in this field of research.

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		9.4 Standardize research protocols (see Action 8.1).	Multiple leads (will vary with VEC); NWMB and GNWT (RWED) to develop for wildlife and vegetation	Nunavut Research Institute, Aurora Research Institute	2002 - 2003	Existing
	10. Use research findings to develop practical tools for use in regional CEAM.	None identified.				
Audit and Reporting	11. Implement environmental trend and management audits and reporting for the SGP (NWT and Nunavut).	11.1 Preparation of regular State of the Environment reports by the Nunavut Planning Commission and an NWT body.	In Nunavut: DIAND, Government of Nunavut in cooperation with NPC (To be confirmed) In the NWT: DIAND and the NWT CIMP Responsible Authority	Organizations in the NWT and Nunavut	Nunavut – every five years (2003); NWT – annually (to be confirmed)	Existing and New
		11.2 In the NWT, the timely implementation of the first independent environmental audit.	DIAND / CIMP Working Group	Organizations in the NWT	2003	Existing and New

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		11.3 Exploration of options for environmental audit functions in Nunavut.	DIAND in cooperation with NPC	Organizations in Nunavut	2004	New
	12. Timely implementation of audit recommendations.	None				
Project-Specific Screening, EA and Review:	13. Implementation of a coordinated transboundary process to effectively address cumulative impact issues.	13.1 Development of a memorandum of understanding or other protocol between the Nunavut Impact Review Board (NIRB) and the Mackenzie Valley Environmental Impact Review Board (MVEIRB) dealing with the environmental assessment and review processes for projects with potential transboundary effects.	MVEIRB and NIRB	Canadian Environmental Assessment Agency	2004	Existing
		13.2 Development of a memorandum of understanding or other protocol between the Nunavut Water Board (NWB) and the Mackenzie Valley Land and Water Board (MVLWB) dealing with the licencing of projects with potential transboundary effects.	NWB, MVLWB		2002-2003	Existing
		13.3 Understanding and clarification of the relationship between the screening, EA and review processes provided for in the *Akaitcho Interim Measures Agreement* (pre-screening), the *Tlicho (Dogrib) Agreement*, the *MVRMA*, the *Nunavut Land Claims Agreement*, and the *Canadian Environmental Assessment Act.*	DIAND		2004	Existing

Under Review for Discussion Purposes Only

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
	14. Guidance for cumulative effects assessment (CEA) in the context of project-specific screening and EA must be developed and/or finalized. The guidance should address transboundary effects.	14.1 The MVEIRB, in cooperation with other organizations involved in the environmental assessment process, should finalize its interim CEA guidelines.	MVEIRB	Organizations in the NWT	2003	Existing
		14.2 Development of CEA guidance for the NIRB process.	NIRB	Organizations in Nunavut	2003	Existing
		14.3 Completion of NPC criteria for identifying potential cumulative effects for use in conformity determination and implementation of associated software.	NPC	DIAND and other organizations in Nunavut	Prototype software 2002	Existing
	15. Increase the capacity of organizations participating in project-specific processes to contribute to cumulative effects assessment and management.	15.1 Develop tools and resources for all parties to deal more effectively with cumulative effects assessment and management.	SGP Project Group	Organizations in Nunavut and NWT	2002 - 2004	Existing and New
		15.2 Develop intervenor funding programs for regulatory processes to increase the capacity of organizations to adequately deal with cumulative effects assessment and management (see also '16 and 17, Regulation and Enforcement', below).	DIAND	Co-management and regulatory boards in NWT and Nunavut	2003	Largely New

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
Regulation and Enforcement	16. Regulatory boards and agencies with mandates in the SGP should strengthen their approaches to cumulative effects management.	16.1 Develop procedures and specific tools for cumulative effects management (e.g., through the use of terms and conditions of approval, monitoring requirements).	Regulatory agencies	N/a	2003	Existing and new
		16.2 Annual public reporting on number of land use permits and water licences in place, new permits and licences (see also 17.2 below).				
	17. Organizations with jurisdiction in the SGP must strengthen their approaches to inspection and enforcement.	17.1 Improved frequency and quality of inspections.	Enforcement agencies	N/a	2003	Existing and new
		17.2 Annual public reporting on inspection and enforcement by agencies (including policies, procedures, criteria and performance indicators, enforcement measures and any legal actions related to enforcement) (see also 16.2 above).	Enforcement agencies	N/a	2003	Existing
		17.3 Enable community involvement in inspection processes.	Enforcement agencies and communities	N/a	2003	Existing and new
		17.4 Ensure environmental audits (see '11. Audit and Reporting', above) address inspection and enforcement.	CIMP Working Group/ Auditor	N/a	2002/03	Existing and new

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
Information Management	18. Establish a comprehensive information management system (IMS) to support CEAM throughout the SGP.	18.1 Follow up on recommendations from the previous work on the development of an IMS (including the January 2001 CIMP/CEAM workshop; CIMP IMS options study).	SGP Project Group		2002	Existing
		18.2 Develop and implement a coordinated approach for an IMS for use in CEAM in the SGP.	SGP Project Group		Develop 2002/03; implement 2004	Existing and new
		18.3 Establish a home for the SGP IMS.	SGP Project Group (regional monitoring agency??[16])		2004	Existing and new
		18.4 Identify gaps in existing information inventories, and prepare a plan for filling the priority gaps (this latter aspect should be addressed within recommendation '9. Research', see above).	SGP Project Group, WKSS Board, CIMP Working Group (regional monitoring agency??[16])	Organizations in the NWT and Nunavut	2002-2004	Existing and new

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[16] DIAND, in cooperation with a number of partners and stakeholders, held a workshop in November 2002 to explore the possible development of a Single Regional Environmental Monitoring Agency ('Single Regional Agency') for SGP. At the workshop, it was agreed that options with respect to possible approaches for project-specific oversight and regional environmental/ cumulative effects monitoring in the SGP would be described in a discussion paper, and that further consultation is required.

Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
Coordination of the Regional Plan of Action and CEAM Activities	19. A coordinated approach to ongoing implementation and review of the SGP Regional Plan of Action is needed.	19.1 Ongoing implementation and review of the SGP Regional Plan of Action.	SGP Project Group	Organizations in the NWT and Nunavut	2004	Existing and new
	20. A fully operational regional monitoring approach in the SGP, subject to the ongoing discussions regarding options for regional monitoring, recognizing there may be a staged transition process (see Short-term Action 7.3, above).	20.1 Reach agreement on the preferred approach for project-specific oversight and regional environmental/cumulative effects monitoring in the SGP, recognizing there may be a staged process (see Short-term Action 7.3, above).	DIAND	Organizations in Nunavut and the NWT	2004	Existing
	21. Integration of the SGP Regional Plan of Action with the NWT CEAM Framework and any Nunavut environmental management framework that may evolve.	None				
Other Recommendations and Actions						
Traditional Knowledge / Inuit Qaujimajatuqangit	22. Integration of TK/IQ into all aspects of the SGP Regional Plan of Action.	22.1 Support projects in areas such as the training of TK interpreters, capacity building, the identification of 'points of entry' for TK in communities, and inventories of existing resources, targeted at elements of the ecosystem under stress.	DIAND, EC, Aboriginal organizations and communities		Start in 2002 - 2003	Existing and new

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
		22.2 Compilation of existing TK/IQ resources and information.	DIAND, EC, Aboriginal organizations and communities		Ongoing	Largely existing
		22.3 Documenting the knowledge of elders and those on the land as soon as possible.	DIAND, EC, Aboriginal organizations and communities		Ongoing	Largely new
		22.4 Evaluate the recommendations from the CEAM TK workshop (December 2001) and implement as appropriate.	DIAND, EC, Aboriginal organizations and communities		Evaluate in 2002; ongoing implementation	Largely new
		22.5 Produce policy and procedural guidance for the inclusion of TK in all aspects of the Regional Plan of Action.	To be determined		To be determined	Largely new

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Table 3: Recommendations and Actions for CEAM in the SGP

Framework Component/ Broader Gaps and Challenges	Recommendations: Medium and Long-Term	Short-Term Actions				
		Specific Action	Proposed Lead Organizations	Other Participants	Time Lines	Funding (Existing Budgets vs. 'New')
Community & Organizational Capacity Development	23. Enhance the capacity of communities and all organizations to deal with cumulative effects assessment and management.	23.1 Review and refine the capacity and training needs with respect to cumulative effects assessment and management, and suggest strategies to address them. 23.2 Increased funding to communities to identify and implement capacity development opportunities related to cumulative effects assessment and management. 23.3 Evaluate successful models, opportunities, and best practices for community capacity development related to cumulative effects assessment and management.	To be determined	DIAND, EC, GN, GNWT, regions, Human Resources and Development Canada (HRDC), educational institutions in NWT and Nunavut (e.g., Nunavut Arctic College, University of the Arctic)	2002 - 2003	Largely new

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Glossary

Adaptive Management: An approach to impact management that acknowledges an uncertain understanding of environmental dynamics; it links flexible management and decision-making to the results of research and monitoring.

Cumulative effects: In a 'non-project-specific' context, can be defined as changes to the environment caused by the combination of past, present, and 'reasonably foreseeable' future actions. 'Environment' is broadly defined to include not only the natural or biophysical environment, but the social, economic and cultural aspects also. Not all cumulative effects are necessarily negative. The term 'cumulative effect' is often used interchangeably with 'cumulative impact'.

'Cumulative effects' are not defined in the *MVRMA*, the *Nunavut Land Claims Agreement*, or the *Canadian Environmental Assessment Act*. Cumulative environmental effects are not defined in the Mackenzie Valley Environmental Impact Review Board's September 2000 Interim Guide 'Addressing Cumulative Environmental Effects in Environmental Assessments under the *MVRMA*'. However, direction is provided as to the scope of cumulative effects to be considered by project proponents (*emphasis added)*:

> "...cumulative impact that is likely to result from the development *in combination with other developments*" (MVRMA, Section 117 (2) (a)) (note: the MVEIRB's September 2000 Interim Guide does direct the proponent to consider past, existing and 'future' developments and human activities in the CEA; however, the consideration of 'future' developments may not be consistent with Section 117 of the *MVRMA*).

In a project-specific context, cumulative effects have been defined as:

- "....changes to the environment that are caused by an action in combination with other past, present or future human activities. The effects might be harmless by themselves, but they accumulate over time, coming from one or more sources, and can damage important resources, ecosystems, or human communities." (Nunavut Planning Commission, 'Cumulative Effects Action Plan' in *Land and Water* Fall 2001)
- "....can include any effect which results from effects of a project when combined with those of other past, existing and future projects and activities". (Nunavut Impact Review Board, website)
- "...changes to the environment that are caused by an action in combination with other past, present and future human actions." (CEA Working Group/AXYS, 1999)

Cumulative effects assessment: An assessment of the incremental effects of an action on the environment when the effects are combined with those from past, existing and future actions (CEA Working Group/AXYS, 1999). The process of systematically analyzing and assessing cumulative effects (often in the context of a specific proposal or project; however, CEA may also be conducted on a regional basis, with no reference to any specific individual project or development).

Cumulative effects monitoring: The collection and analysis of baseline and longitudinal information to determine changes in the environment resulting from multiple sources. May relate to social, economic, and cultural aspects of the environment, in addition to natural/biophysical, using Traditional Knowledge/Inuit Qaujimajatuqangit or western science.

Cumulative effects management: There are two aspects to cumulative effects management: 'prevention' through planning, design and mitigation, and 'adaptive management' - the incorporation of information from monitoring and assessment into decision-making processes. These decisions may occur at different stages of development, from land use planning, rights issuance, through to screening, environmental assessment, regulation and reclamation of individual projects.

Environment: broadly defined to include social, economic, cultural, in addition to natural/biophysical aspects.

Inuit Qaujimajatuqangit: "what has always been known" or "what (Inuit) must or have to know". Inuit knowledge, insight and wisdom that is gained through experience, shared through stories, and passed from one generation to the next. IQ includes a finely tuned awareness of the ever-changing relationship between land, the weather, wildlife and the spiritual world.

Traditional Knowledge: A cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living things (including humans) with one another and with their environment. Further, TK is an attribute of societies with historical continuity in resource use practices. Other terms include 'indigenous knowledge', 'local knowledge', traditional ecological knowledge', 'indigenous science', and ' ecological wisdom'.

Valued Ecosystem Component (VEC): VECs are aspects of the environment that are considered important, on the basis of economic, social, cultural, community, ecological, legal or political concern. They provide a focus for the collection and reporting of monitoring information. A VEC is not an indicator in itself, although impacts on or trends in some characteristic of a VEC may be used as an indicator. For example, caribou may be chosen as a VEC, although the caribou are not an indicator in themselves (e.g., the indicator may be caribou body fat).

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Cumulative Effects Assessment and Management:

Regional Plan of Action for the Slave Geological Province (NWT and Nunavut)

Appendices

WORKING DRAFT #4

Under review by the SGP Project Group and the NWT CEAM Steering Committee

December, 2002

Prepared by the
SGP Project Group

Indian and Northern Affairs Canada

Environment Canada

Cumulative Effects Assessment and Management (CEAM)
WORKING DRAFT #4
Regional Plan of Action for the Slave Geological Province (SGP)

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These appendices are a supplement to the Regional Plan of Action document; in addition, a brief stand-alone executive summary has also been prepared. These documents, or further information on the SGP Regional Plan of Action process or the CEAM Strategy and Framework in general, are available from the CEAM Secretariat at http://www.ceamf.ca, e-mail ceam@inac.gc.ca, phone (867) 669-2590.

List of Acronyms

ASTIS	Arctic Science and Technology Information System
AT8	Akaitcho Treaty 8
CAPP	Canadian Association of Petroleum Producers
CARC	Canadian Arctic Resources Committee
CEAAg	Canadian Environmental Assessment Agency
CEAA	*Canadian Environmental Assessment Act*
CE	Cumulative effect
CEAM	Cumulative Effects Assessment and Management
CEAM SC	Cumulative Effects Assessment and Management Steering Committee
CESD	Commissioner of the Environment and Sustainable Development (Office of the Auditor General)
CIMP	Cumulative Impact Monitoring Program
DDMI	Diavik Diamond Mines Inc.
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian Affairs and Northern Development
DSD	Department of Sustainable Development (Government of Nunavut)
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMAB	Environmental Monitoring Advisory Board
EMAN	Ecological Monitoring and Assessment Network
ENGO	Environmental non-governmental organization
GIS	Geographic Information System
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
HRDC	Human Resources Development Canada
HTO	Hunters and Trappers Organization
IEMA	Independent Environmental Monitoring Agency
IMA	Interim Measures Agreement
IMS	Information Management System
IRMA	Integrated Resource Management Assistance
IPG	Institution of Public Government
IQ	Inuit Qaujimajatuqangit (knowledge)
IRMA	Integrated Resource Management Assistance
ISR	Inuvialuit Settlement Region
KIA	Kitikmeot Inuit Association

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LRTAP	Long-Range Transport of Atmospheric Pollutants
LUP	Land Use Plan
MPAS	Marine Protected Areas Strategy
MRBB	Mackenzie River Basin Board
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVL&WB	Mackenzie Valley Land and Water Board
MVRMA	*Mackenzie Valley Resource Management Act*
NCP	Northern Contaminants Program
NED	Nunavut Environmental Database
NEI	Northern Ecosystem Initiative
NGMP	Nunavut General Monitoring Program
NGOs	Non-government Organizations
NLCA	Nunavut Land Claims Agreement
NIRB	Nunavut Impact Review Board
NPC	Nunavut Planning Commission
NRCan	Natural Resources Canada
NRTEE	National Round Table on the Environment and the Economy
NTI	Nunavut Tunngavik Inc.
NWMB	Nunavut Wildlife Management Board
NWB	Nunavut Water Board
NWT	Northwest Territories
POPs	Persistent organic pollutants
PAS	Protected Areas Strategy
PLANNER	Public Land-use Application Network Notification and Environmental Reporter
RWED	Resources, Wildlife and Economic Development (GNWT)
SGP	Slave Geological Province
TFA	Tlicho (Dogrib) Final Agreement
TK	Traditional Knowledge
VEC	Valued Ecosystem Component
WLWB	Wek'èezhìi Land and Water Board
WRRB	Wek'èezhìi Renewable Resources Board
WKSS	West Kitikmeot / Slave Study

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Appendix A: SGP Project Group / NWT CEAM Strategy and Framework Steering Committee

The SGP Project Group has been guiding the development of the draft Regional Plan of Action for the SGP with funding from the NWT CEAM Strategy and Framework Steering Committee and a grant from Environment Canada's Northern Ecosystem Initiative. The NWT CEAM Steering Committee has been facilitating the development of the SGP Plan of Action, with those members with direct regional interests having a higher degree of involvement through the Project Group. However, it has been recognized that other organizations with regional interests that are not directly represented on the Steering Committee, in particular those from Nunavut, must be directly involved. The organizations currently represented on the SGP Project Group are listed below. The membership of the Project Group may need to be expanded as consultation on the Plan proceeds. The NWT CEAM Strategy and Framework Steering Committee organizations and members are subsequently listed.

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SGP Project Group[1]

Organization	Representative
1. Akaitcho Territory Government (under discussion)	Maurice Boucher
2. Lutsel K'e Dene First Nation	Albert Boucher; August Enzoe (alternate)
3. Yellowknives Dene First Nation[2]	No Representative Currently Named
4. North Slave Metis Alliance	Kris Johnson; Bob Turner (alternate)
5. Dogrib Treaty 11 Council	Jolene Huskey
6. Kitikmeot Inuit Association	Stanley Anablak
7. Kitikmeot Hunters and Trappers Organization	Philip Kadlun
8. Nunavut Planning Commission	Luke Coady; Peter Wilson (alternate)
9. DIAND – NWT and Nunavut Regions	David Livingstone (NWT), Glen Stephens (Nunavut); Janice Traynor (alternate)
10. Environment Canada	Laura Johnston
11. Government of the Northwest Territories	Steven Matthews; Jane McMullen (alternate)
12. Government of Nunavut	c/o Earle Baddaloo; Rinaldo Girard and John Morrison, alternates
13. NWT and Nunavut Chamber of Mines	Brenda Kuzyk (DDMI); Jane Howe (BHP Billiton) (alternate)
14. Environmental Non-Government Organizations	Shelagh Montgomery; Kevin O'Reilly (alternate)

[1] The Mackenzie Valley Environmental Impact Review Board and the Nunavut Impact Review Board receive copies of all Project Group materials.
[2] An invitation has been extended to the Yellowknives Dene First Nation to participate as a member on the SGP Project Group.

NWT CEAM Steering Committee Members[3]

	Organization	Representative
1.	Gwich'in Tribal Council	To be confirmed
2.	Inuvialuit Settlement Region - Inuvialuit Game Council	Richard Binder
3.	North Slave Metis Alliance	Kris Johnson
4.	Northwest Territory Metis Nation (formerly South Slave Metis Tribal Council)	Danny Beck
5.	Akaitcho Territory Government	Maurice Boucher
6.	Dogrib Treaty 11 Council	Jolene Huskey
7.	Deh Cho Land Use Planning Committee	Colin Beddoes
8.	Environmental Non-Governmental Organizations - Canadian Arctic Resources Committee	Shelagh Montgomery
9.	Mining Industry (NWT and Nunavut Chamber of Mines) - Diavik Diamonds Inc.	Brenda Kuzyk
10.	Oil and Gas Industry - Canadian Association of Petroleum Producers	Shira Mulloy
11.	Government of the Northwest Territories - Resources, Wildlife and Economic Development	Jane McMullen
12.	Government of the Northwest Territories - Resources, Wildlife and Economic Development	Steven Matthews
13.	Canada - Dept of Indian Affairs and Northern Development	David Livingstone
14.	Canada - Environment Canada	Laura Johnston
15.	Mackenzie Valley Environmental Impact Review Board	Vern Christensen

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NWT CEAM Steering Committee Observers

	Organization	Representative
1.	Government of Nunavut - Department of Sustainable Development	c/o Earle Baddaloo
2.	Kitikmeot Inuit Association - Kitikmeot Hunters and Trappers Organization	Philip Kadlun
3.	Kivalliq Inuit Association	Luis Manzo

[3] The Sahtu Secretariat Inc. (SSI) advised the CEAM Secretariat January 30, 2001 that it will not be participating in CEAM SC meetings until further notice. SSI continues to receive copies of all SC materials.

NWT CEAM Steering Committee Alternates[4]

Organization	Representative
1. Mining Industry (NWT and Nunavut Chamber of Mines) Alternate - BHP Billiton	Jane Howe
2. Oil and Gas Industry Alternate - TransCanada Pipelines Ltd. for Canadian Energy Pipeline Association	Karen Etherington
3. ENGO Alternate - Canadian Parks and Wilderness Society	Jennifer Morin
4. Inuvialuit Settlement Region / Inuvialuit Game Council	Alisha Chauhan, Robin Fonger
5. Mackenzie Valley Environmental Impact Review Board	Alan Ehrlich
6. North Slave Metis Alliance	Bob Turner

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NWT CEAM Steering Committee Support

Terriplan Consultants	Andy Swiderski - Facilitator
	Vicki McCulloch
NWT CEAM Secretariat:	
DIAND	Lorraine Seale, Robin Staples, Ryan Crago
Environment Canada	Mike Fournier

[4] All CEAM SC member and observer organizations are free to name alternate representatives. Those listed here are alternates who regularly attend SC meetings.

Appendix B: Background to the Regional Plan of Action for the SGP

B.1 NWT CEAM Strategy and Framework

The Slave Geological Province (SGP) and surrounding area are largely undeveloped, but the scale and pace of development has increased significantly in the last decade and several major proposals are planned or underway. By developing a plan for dealing with potential cumulative effects[5], northerners can be proactive by managing development rather than responding to it. While the cumulative effects of development in the SGP have been of interest for some time (e.g., ESSA 1994, Bernard et al 1995), environmental assessments of mining projects in the 1990s served as the catalyst for the development of a framework for cumulative effects assessment and management in the Northwest Territories (NWT), as well as a Regional Plan of Action for the SGP (located in the NWT and Nunavut), as described below.

The Comprehensive Study Report for the Diavik Diamonds Project (DIAND et. al., June 1999) concluded that "a regional cumulative effects assessment and management framework is required to consider existing and potential impacts from all development in the Slave Geological province to support sound decision-making and adaptive management. While not a condition of the Diavik project approval, the framework should be developed in cooperation with Diavik and other developers in the regional study area, governments, aboriginal organizations and interested non-government organizations." In sending the Diavik project to the regulatory phase, the Minister of the Environment made a commitment to the development of a regional cumulative effects management framework. Subsequently, the Department of Indian Affairs and Northern Development (DIAND) held a three-day workshop in December 1999 in Yellowknife as part of a commitment by to bring together stakeholders to work toward a better understanding of cumulative effects and their assessment and management. A Working Group was formed to prepare a Work Plan for the development of a Cumulative Effects Assessment and Management (CEAM) Framework for the NWT; the Work Plan was submitted April 13, 2000. Following submission of the Work Plan, a Steering Committee[6] (with essentially the same membership as the Working Group, including representatives from Aboriginal organizations, industry, environmental non-governmental organizations [ENGOs], the Mackenzie Valley Environmental Impact Review Board [MVEIRB] and the federal and territorial governments) began the development of the CEAM Framework. The scope and schedule for the tasks outlined in the Work Plan were later modified to reflect the level of funding received for CEAM Framework development.

A status report on the development of the NWT CEAM Framework was submitted to the federal Ministers[7] in April 2001. Drafts of the CEAM Strategy[8] and Framework, as well as a draft regional plan of action for the Slave Geological Province (SGP) were prepared in late 2001/early 2002. A stakeholder workshop was held in Yellowknife January 29 and 30, 2002 to review the draft materials prior to revision and submission to the Ministers by April 2002. At the workshop, there was general agreement that regional plans of action should be developed for areas where there is support for such initiatives. Work on the

[5] 'Cumulative effects' can be defined as changes to the environment caused by the combination of past, present, and 'reasonably foreseeable' future actions. 'Environment' is broadly defined to include not only the natural or biophysical environment, but the social, economic and cultural aspects also. Not all cumulative effects are necessarily negative. Definitions for key terms are provided in the glossary at the end of the Regional Plan of Action document.
[6] A list of NWT CEAM Steering Committee organizations and members is provided as Appendix A.
[7] The Federal Minister of Indian Affairs and Northern Development, and the Minister of the Environment.
[8] The Steering Committee has determined that both a 'Strategy' and a 'Framework' will be developed and submitted to the Ministers.

plans of action is just beginning, and will involve partnership at the regional level (and with Nunavut in the case of the SGP)[9]. .

B.2 Regional Plans of Action – An Overview

A December 6, 1999 Press Release from the federal Ministers announcing the CEAM initiative stated:

"In response to these development pressures, the Department of Indian Affairs and Northern Development and Environment Canada are committed to developing a broad -based cumulative effects assessment and management framework for the NWT, and specific programs of action for the Deh Cho region and Slave Geological Province. The framework and programs of action will incorporate consideration of scientific and traditional knowledge, and encompass both ecological and socio-economic effects".

The Press Release also addressed linkages to the broader territorial framework currently being developed for the NWT: *"To be efficient and practical, linkages among the territorial framework, regional action plans and national programs are required to avoid duplication and to build on existing and planned initiatives.... The programs of action for the Deh Cho region and Slave Geological Province will fit into the broader framework, and include specific activities to address the particular development pressures facing the two regions".*

Five steps for the development of the Regional Plan of Action for the SGP have been identified[10]:

1. Development of an 'ideal' or desired CEAM Framework – *what are the key functions or activities that are necessary for effective CEAM in the SGP?*
2. Description of the current situation in the SGP in the context of the desired CEAM Framework – *how do existing legislation, agreements, and organizations contribute to CEAM in the SGP?*
3. Identification of the linkages and gaps in the current CEAM Framework - *how do the components fit together? What are the missing pieces or challenges that need to be addressed?*
4. Identifying parties with responsibilities related to CEAM – *which organizations have mandates/responsibilities relating to various CEAM Framework components?*
5. Facilitating and providing advice and encouragement regarding the filling of gaps, building of linkages, and integration of current processes relevant to CEAM – *what are the priority actions needed to effectively deal with CEAM on a regional, territorial and transboundary basis? Who should address them? What are the timelines and resources required?*

There are a number of important ongoing initiatives relevant to the development of the Regional Plan of Action for the SGP. For example, the West Kitikmeot / Slave Study Society recently completed a series of workshops to develop an interim plan for cumulative effects research and monitoring in the SGP. Following a public hearing in May 2002, the Nunavut Planning Commission is currently revising a draft land use plan for the West Kitikmeot Region (February 2002). The multi-stakeholder Bathurst Caribou Management Planning Committee, with representation from organizations in the NWT and Nunavut, is currently working toward the development of a ten-year management plan for the herd and its habitat (DIAND et. al., 2000). Project-specific monitoring agencies have been formed for both the BHP EKATI™ ('Independent Environmental Monitoring Agency' - IEMA) and Diavik ('Environmental Monitoring Advisory Board – EMAB) diamond mines. Recent discussions by various levels of government, industry and communities are indicating a movement toward a single regional monitoring agency in the SGP that

[9] The CEAM Secretariat prepared draft discussion papers (January 22, and July 25, 2001) on the Regional Action Plans, describing their purpose, and possible core elements, objectives, and structure. At the workshop, it was suggested that plans of action be developed for the Deh Cho and Beaufort Sea-Mackenzie Delta area.
[10] These steps have been modified from those developed for the NWT CEAM Strategy and Framework, to reflect the findings at the Elu Inlet discussion forum in the summer of 2001 (see Section B.4.1 below).

would be responsible for many (but not all) of the functions currently carried out by project-specific agencies. A workshop to further explore this option was held in November 2002. These and other initiatives have to be reflected and considered in the Regional Plan of Action.

B.3 SGP – Area of Interest

Figure B-1 is a map of the Slave Geological Province (SGP) and surrounding area. Broadly speaking, the area of interest for the Regional Plan of Action includes the mainland West Kitikmeot area of Nunavut, the portion of the Northwest Territories north of Great Slave Lake to the Nunavut boundary, and surrounding communities[11]. It is acknowledged that human activities within the SGP may have effects on communities and the environment (including the marine environment) beyond its boundaries. Conversely, activities located outside the SGP may have significant implications for the communities and environment within it. Political jurisdictional boundaries do not coincide directly with those of the SGP. As such the area of interest is not strictly limited to the geologically defined boundaries of the SGP.

The area covers approximately 300 000 km^2 and includes both the Taiga Shield and Southern Arctic ecozones, as well as most of the range of the 350 000 member Bathurst caribou herd.

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B.4 Process for Development of the Regional Plan of Action for the SGP

B.4.1 Meetings to Date

An initial discussion forum was held July 30 to August 1 2001 at the Elu Inlet Lodge (in western Nunavut) to bring together key parties/interests from the relevant jurisdictions to explore the concept of developing such a plan of action, by building on existing processes and initiatives in both Nunavut and the NWT[12]. The parties shared ideas and brainstormed on:

1. What the SGP Regional Plan of Action might be, and how it could benefit the various parties with an interest in CEAM.

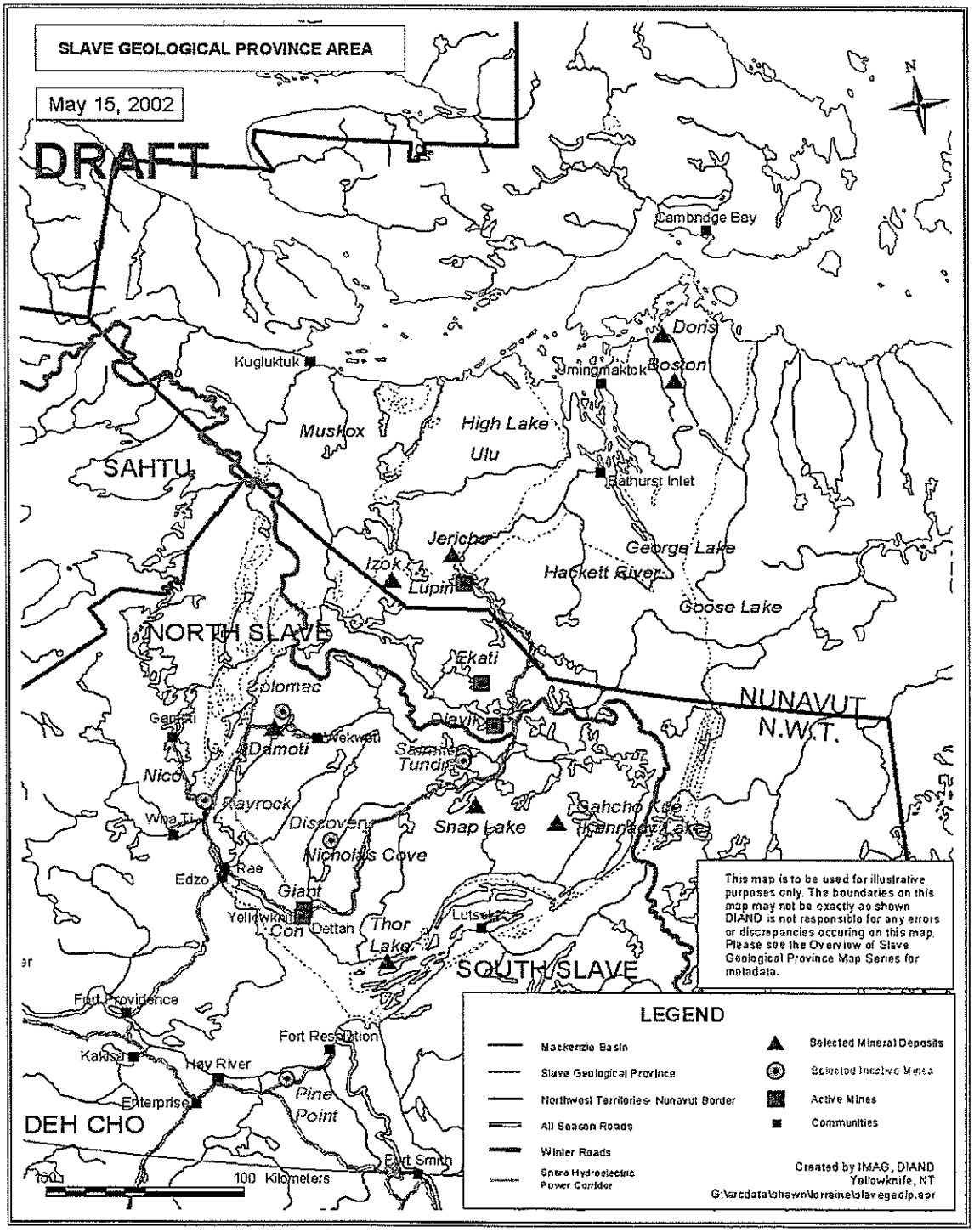
2. Current development activities and pressures in the SGP, as well as relevant current and future CEAM initiatives that might contribute to the Plan of Action.

3. A blueprint for the cooperative development of a Regional Plan of Action for the SGP - which may link / enhance transboundary opportunities and initiatives; essentially - "who, what, when".

[11] In defining the area of interest, the project group noted that administrative/political boundaries are not the only frame of reference for CEAM issues; others include watersheds, ecological units, species populations/ranges, and geological formations.

[12] Details of these meetings and the discussions can be obtained from the NWT CEAM Secretariat, through Lorraine Seale, DIAND, (867) 669-2590, sealel@inac.gc.ca.

Figure B-1: Map of the SGP Area



The 'SGP Project Group'[13], with representation from Nunavut and NWT organizations, has been guiding the development of the draft Regional Plan of Action for the SGP with funding from the NWT CEAM Strategy and Framework Steering Committee and a grant from Environment Canada's Northern Ecosystem Initiative (NEI). The NWT CEAM Steering Committee has supported the Project Group in developing the SGP Plan of Action. Members of the Steering Committee with direct regional interests in the SGP sit on the Project Group. The Project Group also includes organizations with regional interests that are not directly represented on the Steering Committee, in particular those from Nunavut. Additional organizations will become directly involved in shaping the plan as work proceeds.

In December 2001, a working draft of the Regional Plan of Action for the SGP was prepared. It was provided to the SGP Project Group and the NWT CEAM Steering Committee for review and comment. In January 2002, the Steering Committee organized a workshop to review the working draft NWT Cumulative Effects Assessment and Management Strategy and Framework. Two of the Working Group sessions at the workshop focused specifically on the SGP Regional Plan of Action. The Project Group and representatives of other organizations with interests in the SGP reviewed the December 2001 working draft of the Regional Plan of Action and provided their comments. These comments were incorporated into a revised working draft of the Plan that was issued in March 2002.

The March 2002 revised working draft Regional Plan of Action for the SGP was submitted to the Ministers of DIAND and Environment Canada as part of a 'final draft package' for the NWT CEAM Strategy and Framework. It was reviewed in detail by the Project Group at a June 2002 discussion forum at the Daring Lake Tundra Ecosystem Research Station (NWT) and subsequently revised in July 2002. This revised document reflects the comments provided by the Project Group at that meeting, and subsequent review by the Project Group and the CEAM Steering Committee.

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B.4.2 Important Milestones for Development of the Regional Plan of Action

Table B-1 outlines important milestones in the development of the Regional Plan of Action for the SGP.

Table B-1: Important Milestones for the Development of the Regional Plan of Action for the SGP

July 30- August 1, 2001	Discussion forum at Elu Inlet Lodge
October 10-12, 2001	Discussion of Regional Plan of Action with NWT CEAM Steering Committee/NPC at SC meeting in Inuvik
December 2001	Initial Draft Plan submitted to the Northern Ecosystem Initiative, the NWT Steering Committee, and SGP Regional Plan of Action Project Group
December 2001 to March 2002	Consultation with Nunavut and NWT stakeholders on draft Regional Plan of Action for the SGP to obtain feedback on recommendations
January 29 & 30, 2002	Presented initial draft Regional Plan of Action at NWT CEAM Stakeholder workshop and obtained feedback from participants. At the workshop, the SGP Project Group met during two working sessions to review the draft Plan and the recommendations.
April 2002	Presented Revised Working Draft Regional Plan of Action for the SGP to Ministers of DIAND and Environment Canada as part of NWT CEAM Strategy and Framework

[13] Appendix A identifies current SGP Project Group membership. Additional detailed contact information for current Project Group members is provided in Appendix F.

Table B-1: Important Milestones for the Development of the Regional Plan of Action for the SGP	
June 4 –6, 2002	Discussion forum for SGP Project Group at Daring Lake Tundra Ecosystem Research Station – review of March Revised Working Draft Regional Plan of Action for the SGP and discussion of 'next steps'
July 2002	Working Draft #3 of the SGP Regional Plan of Action, based on comments at the Daring Lake discussion forum; revised map series – DIAND (note: revised wildlife map series to be coordinated by NWT RWED; to be completed December 2002)
Fall/Winter 2002	Preparation of materials for use in consultations
November 19, 2002	Teleconference of SGP Project Group
December 2002	Formal distribution of Working Draft #4 of the Regional Plan of Action, with offer for meetings/consultations – to wide range of organizations in the NWT and Nunavut. Preparation of revised map series for distribution on CD and via website.
Winter 2002 - 03	Consultation with co-management bodies, Aboriginal leaderships, federal/territorial governments, communities and others in the NWT and Nunavut
January 21, 2003	Teleconference of the SGP Project Group
Early 2003	'Final' SGP Regional Plan of Action, based on consultations
2003 onward	Implementation of the Regional Plan of Action for the SGP

B.5 Purpose, Principles, Objectives and Outcomes - Regional Plan of Action for the SGP

Under Review

The SGP Project Group has talked about the purpose of the Regional Plan of Action, the ways in which it should be developed and implemented, what it should achieve, and the products that will be produced. These discussions are summarized below in sections relating to the Regional Plan of Action's:

- Purpose;
- Principles;
- Objectives; and
- Outcomes/Products

B.5.1 Purpose

The SGP Project Group has developed the following purpose statement:

> "The Regional Plan of Action for the Slave Geological Province will 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 particular, the Regional Plan of Action will facilitate:

- Mechanisms to make well-informed decisions about the environment and human activities, particularly in cases involving transboundary issues;
- Systematic and coordinated approaches to cumulative effects assessment and management;
- Common principles and links between environmental management processes including land use planning, land and water management, cumulative impact monitoring, and environmental audit; and

- Improved certainty, clarity, efficiency, transparency and accountability of processes, roles and responsibilities at all levels.

B.5.2 Principles

The development and implementation of the Regional Plan of Action for the SGP will be guided by the following principles[14]:

1. The Regional Plan of Action cannot supersede Aboriginal/inherent and treaty rights, existing or future land claims and self-government agreements (including implementation obligations and commitments) or legislation.

2. Where possible and practical the Regional Plan of Action will build on existing structures, policies, legislation, initiatives and tools (including Aboriginal/inherent and treaty rights, land claim and self-government agreements).

3. Development of the Regional Plan of Action will be led by a multi-stakeholder Project Group with representation from both Nunavut and the NWT (including some representatives from the NWT CEAM Strategy and Framework Steering Committee), with information made available to all interested parties.

4. Partnership is crucial for consultation, communication and education, and for the effective use of resources (funding, staff, expertise) in developing and implementing the Regional Plan of Action.

5. In the context of the Regional Plan of Action, 'environment' is broadly defined to include not only the natural or biophysical environment, but the social, economic and cultural aspects also.

6. The Regional Plan of Action will respect and apply western science and Traditional Knowledge (TK)/ Inuit Qaujimajatuqangit (knowledge) (IQ), the "precautionary principle" and the adaptive management approach.

B.5.3 Objectives

The Regional Plan of Action will[15]:

1. Describe the CEAM Framework for the Slave Geological Province;

2. Provide a common set of terms and definitions for CEAM;

3. Describe the current context in terms of framework components (roles, responsibilities and accountabilities);

4. Describe the links between Framework components in the context of the current regime;

5. Identify the gaps in the current regime relative to the Framework components;

[14] These principles have been adapted from those developed for the NWT CEAM Strategy and Framework, to reflect the findings at the Elu Inlet discussion forum in the summer of 2001.
[15] These objectives have been modified from those developed for the NWT CEAM Strategy and Framework, to reflect the findings at the Elu Inlet discussion forum in the summer of 2001.

6. As part of the Strategy provided to Ministers, co-management bodies and others with a role in the assessment and management of CEs in the SGP:

   - Propose solutions to fill the gaps (e.g. research, policy, legislation, etc.)
   - Identify ways to improve transboundary environmental monitoring, assessment, and permitting activities with respect to CEs
   - Encourage the development of an integrated information management system(s) in support of "state-of-the environment" reporting and the setting of research priorities.
   - Provide recommendations and advice on needed policy and scientific research priorities, e.g., development of thresholds, carrying capacity, etc. on a territorial/regional level.
   - Provide recommendations and advice on how to integrate and/or consider cumulative effects management principles in land use planning and other regional environmental management initiatives.
   - Develop an implementation plan/mechanism, including ideas with respect to funding needs.
   - Provide recommendations on how to integrate TK / IQ of elders and communities into the assessment and management of cumulative effects.
   - Recommend ways to focus and coordinate the many current and proposed future CEAM activities and efforts currently underway by a number of organizations in both the NWT and Nunavut.

7. Involve consultation, communication and education with a wide range of stakeholders in the NWT and Nunavut on all the above.

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B.5.4 Regional Plan of Action Outcomes / Products

The March 2002 revised working draft of the Regional Plan of Action for the SGP produced by the Project Group was submitted to the Ministers in April 2002. At the earlier January stakeholder workshop, the Project Group concluded that there was still significant consultation and discussion needed on the draft plan before it could be finalized. These consultations will need to occur both within the Project Group, and with other organizations in Nunavut and the NWT with an interest in cumulative effects assessment and management.

The Regional Plan of Action is an advisory document to Federal and territorial government agencies and other organizations (e.g., co-management bodies) with mandates related to CEAM[16]:

- Examining the framework components as they apply in the SGP and the organizations with relevant mandates/roles and responsibilities (Appendix E)
- Identifying gaps and challenges with respect to the current CEAM regime in the SGP (Appendix G)
- Recommending actions to address priority gaps and challenges and to improve or establish linkages amongst the organizations with mandates related to CEAM (Section 7.0 of the Regional Plan of Action). These might relate to:
  - Need for new/amended policy, legislation and environmental strategies
  - Coordination mechanisms (including institutional arrangements)
  - CEAM guidance
  - Information management
  - The role of TK/IQ, elders and communities
  - Thresholds/carrying capacity
  - Research and monitoring programs

[16] The Ministers and the other organizations (e.g., co-management bodies) with mandates related to CEAM will ultimately be responsible for the implementation of the Regional Action Plan. Recommendations regarding the role of the Project Group in the ongoing development and eventual implementation of the Plan will be considered by the Ministers in the context of the Regional Plan of Action following submission of the final plan in 2003.

  - Dealing with transboundary cumulative effects (including communications and consultation protocols)
  - Capacity development (including human, information, and financial resources)
  - Consultation, communication and education
  - Interim measures for use while long-term solutions are identified and implemented
- Identifying the responsible parties in a position to implement the recommended actions, and the associated funding mechanisms/resource requirements (financial and 'in-kind')

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Appendix C: Environment and Human Activities in the SGP

C.1 SGP Environment

The following description of the human and physical environment is taken from the 'Updated State of Knowledge Report of the West Kitikmeot and Slave Geological Province' (Sly et al., May 2001).

C.1.1 Human Environment

The area extends across the northern boreal forest and into the tundra, from Great Slave Lake north to the coast of the Arctic Ocean (see Appendix B, Figure B-1). The Slave Geological Province extends into both Nunavut and the NWT. It covers a vast area of land and water in and around the West Kitikmeot sub-region of Nunavut, and the North and South Slave regions in the NWT. The area has been occupied and used by Aboriginal peoples for thousands of years but until little more than 200 years ago, the presence of Europeans was negligible. The earliest forms of European influence were related to the fur trade and the establishment of trading posts. In more recent times religious institutions, governments and the mineral industry have shaped development in the area. In particular, this has been through the establishment of churches and schools, fixed communities, roads, operating mines, hydroelectric dams and other forms of infrastructure. The communities in the SGP range in size from less than 100 to more than 17,000 (Yellowknife).

The Inuit, Dene and Metis of the area continue to travel widely over the land, and traditional place names reflect Aboriginal use and habitation of the area over a very long period of time. Hunting, trapping, fishing and other on-the-land activities are widely practiced by most Aboriginal residents. Snowmobiles, aircraft, vehicles and boats are now used more often than the more traditional dog teams, canoes and foot travel. Non-Aboriginal residents, most in Yellowknife, also participate in many of the same activities. Aboriginal people using the area include the Dogrib people of Rae-Edzo, Wha Ti, Rae Lakes (Gameti) and Wekweti (Snare Lake), the Yellowknives of Dettah and Yellowknife (including Ndilo), the Chipewyan of Lutsel K'e, and the Inuit of Kugluktuk, Umingmaktuk, Bathurst Inlet and Cambridge Bay. The locations of these communities are shown in Figure B-1 (Appendix B, p. B-4).

All of the SGP area is subject to Aboriginal land claims, some of which are currently in negotiation. The Nunavut Final Agreement resulted in the establishment of the territory of Nunavut on April 1, 1999, dividing the SGP roughly in two. The Nunavut boundary largely follows the tree line with some areas of overlap with other claimant groups. The Dogrib Treaty 11 Council has signed a Final Agreement (2002) for a claim over much of the southwest portion of the SGP, and an interim measures agreement (2001) has been reached with respect to claims by the Akaitcho Territory Government covering the southeast of the SGP area.

C.1.2 Physical Environment

The SGP includes large parts of two of Canada's major ecozones: the Taiga Shield and the Southern Arctic, with the tree line running northwest to southeast between them. Permafrost underlies most of the area. Although tree cover is extensive in the southern part of the region, there has been little commercial forestry other than some small firewood operations and local sawmills. The density of roads is relatively light. More than half of these are ice roads over frozen lakes and land that are usable for less than a third of the year.

Barren ground caribou are present throughout the SGP, and most belong to the Bathurst Caribou herd that roams freely, calving, migrating and wintering throughout the area and beyond. In addition, there are Grizzly Bears, Muskoxen, Gray Wolves, Moose and a variety of furbearers. Populations of migratory waterfowl, shorebirds, and songbirds spend the summer months throughout the SGP. Many of the lakes and rivers also support significant fisheries. The largely pristine environment and abundance of wildlife have attracted tourists and sportsmen. These visitors support an important tourism and outfitting industry, and the 'Northern Lights' have become a special attraction.

There are no large protected areas within the SGP, although the Thelon Game Sanctuary and Queen Maud Gulf Migratory Birds Sanctuary adjoin its eastern edge. The area has a few small Territorial Parks and several campgrounds. Various organizations have defined special areas with the SGP as being worthy of consideration for protection. Most are to be considered in the process of land claim agreements. The NWT Protected Areas Strategy in also intended to provide a means for coordinating and evaluating proposals for protected areas.

C.2 Human Activities in the SGP

Human activity in the SGP includes settlements and communities, traditional Aboriginal use, mineral exploration and development, infrastructure (existing and proposed), tourism, commercial hunting and fishing. The area is also affected by the long-range transport of atmospheric pollutants. Climate change is also a concern in the SGP. The SGP is largely undeveloped, but the scale and pace of development has increased significantly in the last decade, there has been a staking rush in Nunavut this past spring, and several major proposals are on the table. The location of selected mineral deposits, inactive and active mines are shown in Figure B-1 (Appendix B, p. B-4). Some of the activities or stressors of particular interest with respect to cumulative effects in the SGP include:

- Diamond mining (e.g., EKATI™ and Diavik mines; proposed Jericho and Snap Lake mines) and exploration
- Base metal (e.g., copper, lead, zinc) and gold, mining and exploration (e.g., Izok Lake deposit, Lupin Gold mine, Doris and Ulu gold deposits)
- Proposed deep-sea port at Bathurst Inlet and a 300-km all-weather road linking the port to Contwoyto Lake on the Nunavut / NWT border
- Transportation (e.g., all-weather roads; winter roads [e.g., Tibbitt to Contwoyto]; air transport; marine)
- Climate change (e.g., effects on permafrost, plant and animal habitats, navigation of the Northwest Passage, and traditional activities)
- Long-range transport of atmospheric pollutants (LRTAP)
- Contaminated sites (e.g., Giant mine, Colomac mine)
- Hydroelectric development (e.g., Snare River; Indian Lake proposal)
- Tourism/recreation
- Hunting, fishing, trapping (residents, subsistence, outfitting)
- Communities (e.g., housing, water supply, power, transportation, waste management)

However, other stressors such as natural variability or fire may also influence the overall effects observed on the environment.

Appendix D: Overview of Slave Geological Province Area Draft Map Series

D.1 Background

The NWT CEAM Secretariat and DIAND are coordinating the production of a series of maps addressing physical, socio economic and political features relevant to the Regional Plan of Action for the Slave Geological Province. The maps were prepared using existing information only, with valuable contributions and suggestions from a range of organizations in the NWT and Nunavut.

GNWT RWED is coordinating the production of the maps related to wildlife. In discussions with RWED, it was recognized that data on wolverine was highly site specific, and data for moose and muskox are largely dispersed, so these species are not included on the wildlife maps at this time.

The most recent draft set of maps was produced in November 2002. A revised map series, including metadata for each map, will be prepared by DIAND in December 2002 for distribution on CD and via the CEAM website (www.ceamf.ca). The maps have been prepared primarily for use by the CEAM Steering Committee and SGP Project Group, but are also available for general use within DIAND and northern partners, including other government departments, boards and institutions of public government, regional Aboriginal organizations, communities, industry, non-government organizations, and other members of the public.

for review only

The maps are labelled 'Draft' to acknowledge that many of the source data are subject to change and revision. Comments and questions about the map series are welcome although DIAND has no immediate plans to revise the maps. Questions or comments may be addressed to the CEAM Secretariat at 867-669-2590, or e-mail at ceam@inac.gc.ca, or to Arthur Boutilier, Mackenzie Valley Land Use Planning Coordinator for DIAND, at 867-669-2596, or by e-mail at boutiliera@inac.gc.ca.

D.2 Descriptions of Individual Maps

The base map includes lakes and rivers, community locations, the geological boundary of the Slave Geological Province, land claim regions, and existing all-weather roads.

Map 1a — Watersheds
- Shows watersheds for the NWT and Nunavut – data originally at a scale of 1:2,000,000.

Map 1b — Transboundary Watersheds
- Based on joint DIAND-Nunavut Planning Commission mapping project

Map 2a — Landforms – Digital Elevation
- Includes esker locations

Map 2b — Landforms, Vegetation and Climatology – Remote Sensing
- Shows vegetation classification based on detailed analysis of satellite images
- Includes inset sample map of predicted temperature increases due to climate change

Map 2c — Permafrost
- Shows degrees of surficial permafrost

Map 3 Caribou (title to be confirmed)

Map 4 Wolves (title to be confirmed)

Map 5 Grizzly Bears (title to be confirmed)

Map 6 Known Traditional Use Areas/Archeological and Historic Areas and Sites

- Displays known traditional travel routes and archaeological sites in the West Kitikmeot and archaeological sites in the NWT for which data are available. Data are displayed so as not to reveal exact locations.

Map 7 Selected Ecological and Cultural Areas

- Shows existing legislated protected areas and other selected areas of interest.
- For the NWT portion of the SGP, candidate areas and areas of interest under the NWT Protected Areas Strategy are also shown.
- For the Nunavut portion of the SGP, the Nunavut Planning Commission provided the following statement:: "The Nunavut Planning Commission is currently working on the West Kitikmeot land use plan; once the plan has been approved by government, any rules, actions and recommendations which could affect special ecological and cultural areas can be referenced on the map. A revised version of the Draft West Kitikmeot Land Use Plan is currently available upon request. For updates on the progress of Land Use Planning in Nunavut, please contact the Nunavut Planning Commission or view the website at www.npc.nunavut.ca."

Map 8 Ecoregions

- Displays boundaries of ecozones and ecoregions. Ecozones define on a sub-continental scale the broad mosaics formed by the interaction of macroscale climate, human activity, vegetation, soils, geological and physiographic features of the landscape. Ecoregions are subdivisions of the ecozones characterized by distinctive large-order landforms or assemblages of regional landforms, vegetation, soils, water, and regional human activity patterns and uses.
- Shows National Marine Conservation Area Natural regions for the Arctic Ocean.

Map 9 Land Claims and Self-Government

- Shows Inuit owned subsurface and surface rights in Nunavut, and interim subsurface and surface land withdrawal under the Tlicho [Dogrib] Agreement.
- The Dogrib Treaty 11 Council, the Akaitcho Territory Government, the Northwest Territory Metis Nation, the North Slave Metis Alliance, and the Deh Cho First Nations are involved in land claim and self-government discussions and negotiations. Final land ownership and boundaries have not yet been determined in these areas.

Map 10 Contaminated Sites and Abandoned Mines

- Key sites of interest are labelled.

Map 11 Bedrock Geology

Map 12 Development Activities

- Shows surface and subsurface land dispositions and water licenses for mineral exploration and development, human settlement, tourism and outfitting, and existing and proposed infrastructure.
- Key sites of interest are labelled.

Appendix E: CEAM Framework in the SGP

A generic CEAM framework has been developed for the NWT. The Project Group has agreed that the generic framework can be adapted to reflect the specific circumstances in the SGP. The current context for CEAM in the SGP can be described generally (Section E.1), and more specifically in terms of the framework components (Section E.2).

E.1 General Context for CEAM in the SGP

In the SGP within NWT and Nunavut, as in other jurisdictions, the assessment and management of cumulative effects present ongoing challenges. A resurgence in resource exploration and development, particularly diamond mining, and associated infrastructure development and proposals, has brought questions about cumulative environmental effects to the table. The environmental assessment process for large individual projects has become the focus of broader debates over regional/territorial land use and environmental management, as there are few or no regionally-based opportunities to address cumulative effects of development (an exception may be regional land use planning in the West Kitikmeot). Project proponents and regulatory agencies are left in the position of having to address cumulative effects that may result in large part from the decisions and actions of other parties.

The evolving regulatory and governance context in both Nunavut and the NWT will have major implications for the development and implementation of the Regional Plan of Action. Two key factors are the ongoing processes for land claims negotiation (in the NWT) and implementation (in Nunavut), and the devolution of federal government responsibilities to territorial / Aboriginal governments and various co-management boards / Institutions of Public Government (IPGs) in the NWT and Nunavut. The Nunavut Land Claims Agreement (*NLCA*) (1993) includes provisions for Inuit involvement in wildlife management, land use planning, development review, and water management, amongst other things. In the NWT portion of the SGP, there are several different processes underway with respect to land claims. In September 2002, a Final Agreement was reached between the Dogrib Treaty 11 Council, the federal and territorial governments. The Akaitcho First Nations, the Governments of Canada and the Northwest Territories signed an Interim Measures Agreement in June 2001.

Aboriginal organizations in the eastern parts of the NWT (including the Dogrib, North Slave Metis Alliance, and Akaitcho First Nations) have expressed concern about the jurisdiction of the *MVRMA* in their regions. Akaitcho has stated its view that the *Act* does not apply in their territory. The *MVRMA* provides for the development of regional land use plans (for only the Gwich'in and Sahtu settlement areas), a regional cumulative impact monitoring program, an environmental impact assessment process, and an environmental audit system[17]. Under the *MVRMA*, boards of Public Government have been established to provide for an integrated and coordinated system of land and water management in the Mackenzie Valley. For the SGP portions of the NWT, the Mackenzie Valley Land and Water Board, and the Mackenzie Valley Environmental Impact Review Board are of primary interest. As these boards have come into existence only relatively recently, there is relatively little experience in terms of either how they carry out their mandates, or how they will coordinate with corresponding bodies in Nunavut (i.e., the Nunavut Water Board, the Nunavut Review Board). In addition, the nature of the boards will evolve as

[17] The *MVRMA* defines the Mackenzie Valley as "...that part of the Northwest Territories bounded on the south by the 60th parallel of latitude, on the west by the Yukon Territory, on the north by the Inuvialuit Settlement Region, as defined in the Agreement given effect by the *Western Arctic (Inuvialuit) Claims Settlement Act,* and on the east by the Nunavut Settlement Area, as defined in the *Nunavut Land Claims Agreement Act*, but does not include Wood Buffalo National Park." (i.e., most of the NWT, with the exception of Wood Buffalo National Park and the [ISR] Settlement Region).

land claim negotiations are completed. For example, there are provisions in the Tlicho (Dogrib) Final Agreement for the establishment of the Wek'èezhìi Land and Water Board. The Akaitcho IMA allows for a pre-screening process, whereby the Akaitcho Dene First Nations will receive notice of, and have opportunity to comment on, applications for various licences, permits, land leases and transfers under the authority of the Federal and territorial government. The *MVRMA* will have to be amended to reflect the outcomes of land claims processes.

In addition, there are several other factors contributing to the general context for CEAM in the SGP. The SGP is a large geographic area with a dispersed population, and a range of different values and historic/traditional land uses that must be balanced somehow. There is a continuing trend to a mixed economy, with less reliance on traditional or subsistence activities. Finally, there is a certain level of cynicism and 'burn-out' amongst various parties from past as well as current competing activities and initiatives that will have to be overcome for the successful development and implementation of the Regional Plan of Action.

E.2 SGP CEAM Framework Components – Current Context

The nine CEAM Framework components are shown in Figure E-1, with *examples* demonstrating how the current policy and legislative structure supports the individual components. The current context for each component is described briefly below. A series of tables reporting the status of the CEAM Framework in the NWT and in the SGP have also been developed (NWT Steering Committee, March 2002a). The table for the SGP is included as Table E-1. Table E-1 has been developed to provide a summary of the status of the CEAM Framework components in the SGP, identifying the various relevant mechanisms, organizations, and authorities. Intended as a starting point for discussion, it is anticipated that the detailed content of the table will be the subject of review and comment by the Project Group and others. A list of the acronyms used is provided at the end of the table. Appendix F provides a list of acronyms for the many of the organizations identified in Table E-1, as well as a brief summary of their related mandate, contact person, and website addresses.

Figure E- 1: SGP CEAM Framework Components

The nine framework components are shown below, with *examples* demonstrating how the current policy and legislative framework supports the individual components

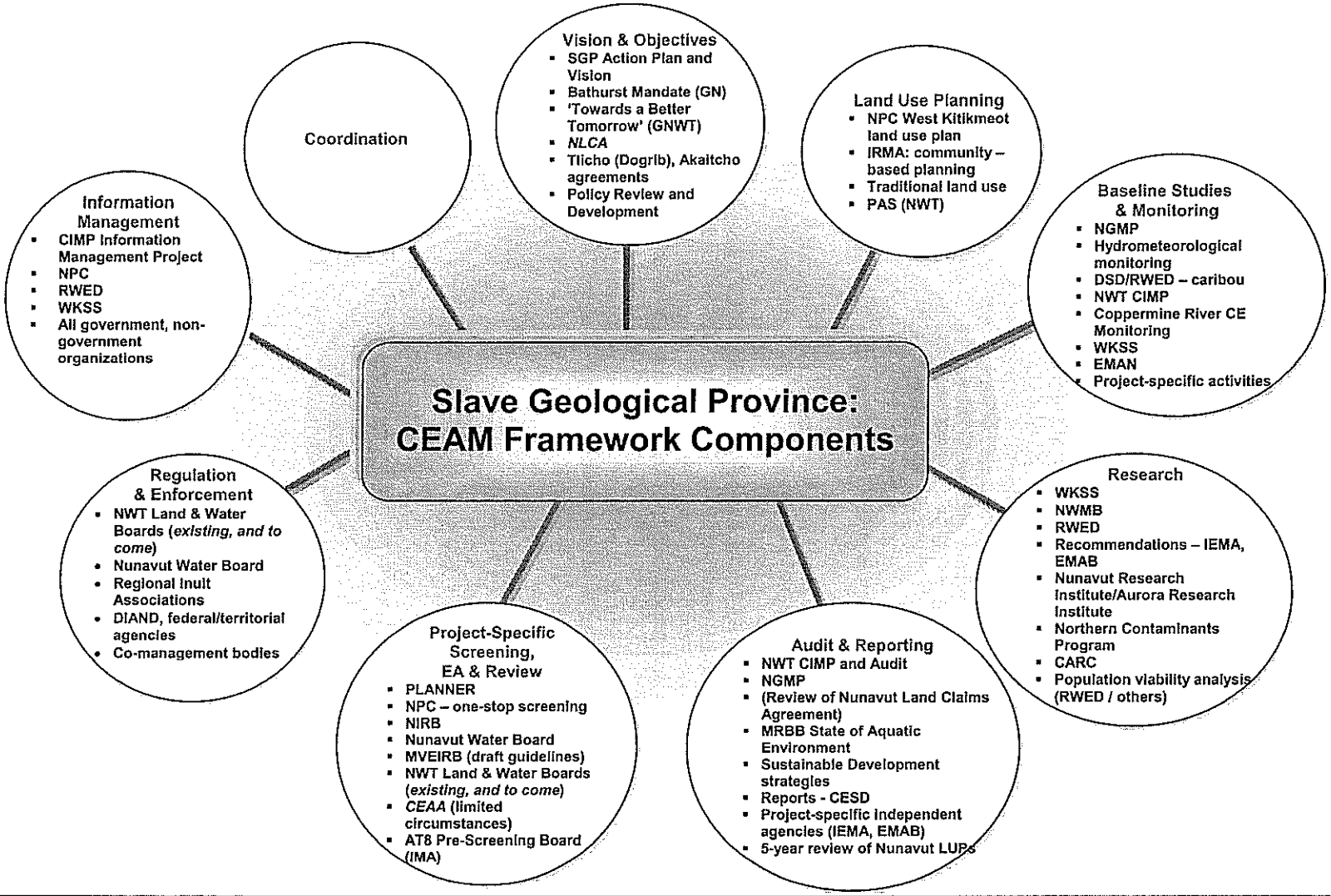

Table E- 1: Status of CEAM Framework Components in the SGP

	COMPONENT	*CURRENT STATUS*		*WHO*	*WHO*	*WHO IMPLEMENTS /*	*AUTHORITY*[18]
		MECHANISM	*PRODUCT*	*COORDINATES?*	*DECIDES?*	*PARTICIPATES?*	
1	Vision & Objectives			Department of Indian Affairs & Northern Development (DIAND)? Government of the Northwest Territories (GNWT), Government of Nunavut (GN), Nunavut Planning Commission (NPC)?		Dogrib Treaty 11 Council, North Slave Metis Alliance (NSMA), Akaitcho Territory Government (ATG), Kitikmeot Inuit Association (KIA), Nunavut Tunngavik Inc (NTI), ENGOs	Dogrib Comprehensive Land Claim and Self Government Final Agreement; Akaitcho Territory Framework Agreement (ATFA); Akaitcho Interim Measures Agreement (AIMA); South Slave Metis Framework Agreement; Nunavut Land Claims Agreement (NLCA)
2	Land Use Planning	partial	initiated for Dogrib owned lands West Kitikmeot (Draft Plan February 2002)	Dogrib Treaty 11 Council NPC			TFA s.22.5.1 (LUP) TFA s.15 (Parks) TFA s.16 (Protected Areas) NLCA A. 11.3 NWT Protected Areas Strategy

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Under Review and Discussion

[18] Authority may derive from legislation/statutes, agreements, memorandums of understanding, or policies.

Table E- 1: Status of CEAM Framework Components in the SGP

COMPONENT		CURRENT STATUS		WHO	WHO	WHO IMPLEMENTS /	AUTHORITY[18]
		MECHANISM	PRODUCT	COORDINATES?	DECIDES?	PARTICIPATES?	
3	Baseline Studies & Monitoring	multiple	multiple	DIAND, GN, NPC		IEMA and EMAB, DIAND, WKSS Society or successor, NSMA, Dogrib Treaty 11 Council, ATG, KIA, NPC, EC, DFO, RWED, MRBB, Industry, CIMP-WG	MVRMA Part 6 Mackenzie River Basin Agreement Diavik and BHP Environmental Agreements WKSS Society or successor TFA S.22.1.10 to 12 NLCA A. 12.7 NWT Wildlife Act
4	Research	multiple	multiple	WKSS Society or successor, DIAND, industry, RWED, Nunavut Wildlife Management Board (NWMB), Department of Sustainable Development (DSD), CARC/ENGOs		IEMA and EMAB, WKSS Society or successor, DIAND, EC, DFO, RWED, Wek'èezhii Renewable Resources Board (WRRB)[19], MRBB, Industry, Universities, Hunters and Trappers Organizations (Nunavut), Land and Environment Committees (NWT), Aurora Research Institute, Nunavut Research Institute, Caribou Management Boards, CEAAg	Environmental Agreements WKSS Society or Successor TFA Chapter 12 & 13 NLCA A.5 NWT Wildlife Act

DRAFT
Under Review and Discussion

[19] The WRRB is anticipated under the Dogrib Final Agreement. It is not yet in existence.

Table E- 1: Status of CEAM Framework Components in the SGP

COMPONENT		CURRENT STATUS		WHO COORDINATES?	WHO DECIDES?	WHO IMPLEMENTS / PARTICIPATES?	AUTHORITY[18]
		MECHANISM	PRODUCT				
5	Audit & Reporting	multiple	multiple	DIAND, Independent Auditor (NWT)/ CIMP-WG, IEMA and EMAB, MRBB, NPC	Minister of DIAND (Part 6 MVRMA)	Independent auditor (Part 6, MVRMA), GNWT, IEMA, EMAB MRBB, WKSS Society or successor	MVRMA Part 6 TFA s. 22.2.10 to 22.2.12 BHP and Diavik Environmental Agreements Mackenzie River Basin Agreement NLCA A. 37.3.3 (5-year review of land claim implementation), A.12.7 (NGMP)

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Table E- 1: Status of CEAM Framework Components in the SGP

	COMPONENT	*CURRENT STATUS*		*WHO*	*WHO*	*WHO IMPLEMENTS /*	*AUTHORITY*[18]
		MECHANISM	*PRODUCT*	*COORDINATES?*	*DECIDES?*	*PARTICIPATES?*	
6	Project- Specific Screening, Environmental Assessment & Review	multiple	multiple	MVLWB and NWB MVEIRB and NIRB, NPC, CEAA Regulatory Authorities	Minister of DIAND	MVLWB, NWB, MVEIRB, NIRB, other Regulatory Authorities, GN, GNWT, NPC, Aboriginal organizations, industry, ENGOs	MVRMA Part 4 & 5 TFA s.22.2 ATIMA prescreening process CEAA NLCA A.12
7	Regulation/ Permitting	multiple	multiple	MVLWB (WLWB), NWB, NWMB, DIAND, DFO, GNWT		WLWB, WRRB[20], MVLWB, Hunters and Trappers Organizations (local), Kitikmeot Hunters and Trappers Organization (regional), NWMB, NTI	MVRMA Part 4; TFA s.22.3. (WLWB); TFA s. 12.1 (WRRB); TFA s.25 (consultation); TLUR, NWT Waters Act, FA, CEPA, CWA, NWT Water Act, GNWT laws, Nunavut Waters and Surface Rights Tribunal Act
	Enforcement	multiple	multiple	DIAND, DFO, EC, GNWT, Government of Nunavut		DIAND, DFO, EC, GNWT (…)	See above, 'regulation and permitting'

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Under Review and Discussion

[20] The WLWB and the WRRB are anticipated under the Tlicho (Dogrib) Final Agreement. They are not yet in existence.

Table E- 1: Status of CEAM Framework Components in the SGP

COMPONENT		CURRENT STATUS		WHO	WHO	WHO IMPLEMENTS /	AUTHORITY[18]
		MECHANISM	PRODUCT	COORDINATES?	DECIDES?	PARTICIPATES?	
8	Information Management	multiple		DIAND, NPC	N/A	DIAND, MVEIRB, MVLWB, NIRB, NPC, NWB, NWMB, WRRB, WLWB, EC, DFO, industry, GN, GNWT, others…	
9	CEAM Coordination	under development		SGP Project Group[21] - Slave Geological Province Regional Plan of Action - to be determined		Project Group Organizations and others - to be determined	TFA s.22.1.2, MVRMA S.140 – 142, S.107, NLCA A.10 P.4, A.13 P.6, A.13 P.10

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[21] The SGP Project Group currently has representation from the Lutsel K'e Dene First Nation (Akaitcho Territory), the North Slave Metis Alliance, the Dogrib Treaty 11 Council, Kitikmeot Inuit Association, Kitikmeot Hunters and Trappers Organization, the Nunavut Planning Commission, the Department of Indian Affairs and Northern Development – NWT and Nunavut Regions, Environment Canada, Government of the Northwest Territories, Government of Nunavut, NWT and Nunavut Chamber of Mines, and Environmental Non-Government Organizations. An invitation has been extended to the Yellowknives Dene First Nation to participate as a member on the SGP Project Group.

List of Acronyms

ATG	Akaitcho Territory Government
AIMA	Akaitcho Interim Measures Agreement
CARC	Canadian Arctic Resources Committee
CEAAg	Canadian Environmental Assessment Agency
CEAA	Canadian Environmental Assessment Act
CEAM SC	Cumulative Effects Assessment and Management Steering Committee
CEPA	Canadian Environmental Protection Act
CIMP	Cumulative Impact Monitoring Program
CIMP-WG	Cumulative Impact Monitoring Program Working Group
CWA	Canadian Wildlife Act
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian Affairs and Northern Development
DSD	Department of Sustainable Development (Nunavut)
EC	Environment Canada
EMAB	Environmental Monitoring Advisory Board (Diavik Diamond Mine)
EMAN	Ecological Monitoring and Assessment Network
ENGO	Environmental non-governmental organization
FA	Fisheries Act
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
HTO	Hunters and Trappers Organization
IEMA	Independent Environmental Monitoring Agency (EKATI diamond mine)
IMA	Interim Measures Agreement
KIA	Kitikmeot Inuit Association
MRBB	Mackenzie River Basin Board
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVL&WB	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resource Management Act
NLCA	Nunavut Land Claims Agreement
NIRB	Nunavut Impact Review Board
NPC	Nunavut Planning Commission
NSMA	North Slave Metis Alliance
NTI	Nunavut Tunngavik Inc.
NWMB	Nunavut Wildlife Management Board
NWB	Nunavut Water Board
NWT	Northwest Territories
RWED	Resources, Wildlife and Economic Development (GNWT)
SGP	Slave Geological Province
TFA	Tlicho (Dogrib) Final Agreement
TLUR	Territorial Land Use Regulations
WKSS	West Kitikmeot / Slave Study
WLWB	Wek'èezhii Land and Water Board
WRRB	Wek'èezhii Renewable Resources Board

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Under Review and Discussion

E.2.1 Vision and Objectives

Probably the least tangible of the components, this essentially involves a statement of the 'big picture' future for the SGP. Ultimately, decisions about development, cumulative effects and environmental management will have to reflect an explicit vision and set of objectives. These may be articulated directly or indirectly in a number of ways, through the participation of NWT and Nunavut residents, organizations and governments in political, policy and planning processes such as:

- Land claims/self-government agreements and negotiations (i.e., *NLCA*, Tlicho (Dogrib) Final Agreement, Akaitcho Interim Measures Agreement)
- Devolution from the federal government to territorial/Aboriginal governments and co-management bodies
- Economic development or environmental management strategies and policies
- Environmental guidelines, standards and regulation
- Identification of thresholds and carrying capacities
- Identification of Valued Ecosystem Components (VECs)
- Land use planning (see separate component, below)

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Under Review and Discussion

The vision and objectives are a collaborative view, recognizing that there may be a number of perspectives regionally, that may change over time, and that objectives may have to be set at a number of levels.

In a broad sense, the vision and objectives for the SGP's future are determined primarily by:

- The people of the NWT and Nunavut
- Co-management boards
- Aboriginal and Inuit governments and organizations
- The Governments of Nunavut and the NWT
- The federal government

The vision and objectives are also determined and influenced by many other parties (e.g., non-government organizations (NGOs), and industry) through participation in various processes.

The negotiation and implementation of land claims (i.e., *NLCA*, Tlicho (Dogrib) Final Agreement, Akaitcho Interim Measures Agreement) in the various regions of the SGP continue to provide an important foundation for resource management decisions. Negotiations, agreements and related legislation include provisions for environmental assessment, monitoring, land use planning, resource management, ownership of land, and self-government, all of which in turn have implications for the assessment and management of cumulative environmental effects.

The Government of Nunavut has developed its 'Bathurst Mandate' (2000), which describes its vision for the future with respect to healthy communities, simplicity and unity, self-reliance, and continuing learning. Business plans and activities of various government departments will work toward achieving a number of objectives outlined in the Mandate. 'Nunavut Prospects', a report by the Conference Board of Canada (2001), outlines Nunavut's mixed economy and its recent performance, and its future outlook (including mining and tourism). Nunavut is currently consulting on its economic development strategy.

In the year 2000, the GNWT issued a response ('Securing our Future') to the Economic Strategy ('Common Ground') developed by the Economic Strategy Panel. A Non-Renewable Resource Development Strategy ('Towards a Better Tomorrow') was also released. Each of these documents deals with (amongst other things) the need to monitor cumulative impacts of development, and to clarify regulatory and consultation processes associated with development approvals.

DIAND released its second Sustainable Development Strategy in February 2001, which includes the development of the NWT CEAM Strategy and Framework, and the NWT Cumulative Impact Monitoring Program (CIMP) and associated regulations under the *MVRMA*, as actions to be taken to meet its commitments North of 60. The National Round Table on the Environment and Economy (NRTEE) released its 'Aboriginal Communities and Non-Renewable Resource Development: State of the Debate' report in June 2001. Focused on the NWT, it makes a wide-ranging set of recommendations about dealing with non-renewable resource development in the future. These recommendations relate to cumulative effects management, the investment climate for non-renewable resource development, capacity building, consultation, and the long-term sustainability of Aboriginal communities.

E.2.2 Land Use Planning

Land use plans represent a broad 'vision' of the landscape, integrating environmental, social, cultural and economic values, and set the context for subsequent decision-making with respect to rights issuance, project review and regulation. The result should be a strategy and set of parameters for the orderly development of land uses. Land use plans may also identify specific tools such as thresholds or carrying capacities to guide decision-making.

DRAFT for discussion

In the North Slave area of the NWT, land use planning activities for Dogrib-owned lands are in the very early stages. The Tlicho (Dogrib) Final Agreement (TFA) (Section 22.5.1) contains provisions for government to establish a mechanism for the preparation, approval and implementation of a land use plan for the rest of the settlement area (other than Dogrib lands, established national parks, and lands within community boundaries). Other related initiatives include the NWT Protected Areas Strategy[22] and DFO's Marine Protected Areas Strategy. In the South Slave area of the SGP within the NWT, community-based land use planning activities have occurred as part of the Interim Resource Management Assistance (IRMA) initiative. It is likely that the outcome of the Akaitcho Territory Government claims negotiation process will include provisions with respect to land use planning activities in the region. Land has also been withdrawn for a proposed national park in the East Arm of Great Slave Lake.

Article 11(3) of the *NLCA* provides for land use plans in Nunavut. The Nunavut Planning Commission (NPC) has prepared a revised draft land use plan for the West Kitikmeot region of Nunavut, based on comments from a range of stakeholders (Nunavut Planning Commission, 2002a). Informal public hearings were held in Cambridge Bay in May 2002; the plan is currently under revision and is expected to be submitted to the Ministers of DIAND and DSD in early 2003 for final approval.

E.2.3 Baseline Studies and Monitoring

CEAM depends on the collection and analysis of information relating to historic or current 'baseline' conditions, trends in environmental quality, and the uses of land and water over time. Studies and monitoring may be territory-wide, regional or project-specific and may focus on factors such as the characteristics of environmental components and the effects of stressors. Monitoring may occur at a number of organizational and geographic levels, and for a number of purposes, including:

- Regionally-based monitoring initiatives, some specifically related to cumulative effects assessment and management (e.g., NWT CIMP[23]; Coppermine River Cumulative Effects Monitoring Program)

[22] There are two 'areas of interest' that have been identified within the SGP as part of the PAS: Mohwi Trail (Dogrib Treaty 11 Council) and Waters of Desnedhe Che (Lutsel K'e). Areas of interest have the formal support of communities and/or regional organizations; however, there are no definitive boundaries and no restrictions on land access as a result of being identified through the NWT PAS.

[23] Currently under development, the territory-wide NWT CIMP will include the NWT portion of the SGP.

- Project-specific monitoring (e.g., establishment of pre-project baselines; verification of impact predictions; operational compliance and effects monitoring)
- Baseline and trend analysis for environmental components (e.g., for air, water, vegetation, wildlife and socio-economic indicators by various territorial/federal departments, for example, the Nunavut General Monitoring Program), community health (e.g., Lutsel K'e community monitoring study) or contaminants (e.g., Northern Contaminants Program (NCP)), projects conducted as part of the West Kitikmeot / Slave Study [WKSS]
- Effects of specific types of stressors
- Evaluation of cause-effect relationships

Some of these activities relate specifically to CEAM; others have been developed primarily for other purposes. Baseline studies and monitoring may utilize both TK/IQ and conventional science. The GNWT has noted the need to monitor the biophysical and socio-economic environments in the context of cumulative effects assessment and management as part of its Non-Renewable Resource Strategy for the NWT (November 2000).

Project-specific 'watch-dog' agencies (i.e., Independent Environmental Monitoring Agency [BHP EKATI™ diamond mine]; Environmental Monitoring Advisory Board [Diavik diamond mine]) have been formed in response to recent mine developments in the NWT[24]. Their mandates include reviewing the environmental effects (including cumulative effects) of these projects (see also Section E.2.5, below; Kennett 2001b). Recent discussions by various levels of government, industry and communities are considering movement toward a single regional monitoring agency in the SGP that could be responsible for many (but not all) of the functions currently carried out by project-specific agencies. A workshop to further explore this option was held in November 2002.

Following completion of its five-year mandate, the West Kitikmeot / Slave Study Society recently facilitated the development of an interim plan for cumulative effects research and monitoring in the SGP (Terriplan / IER 2001a, 2001b). The WKSS Board is providing funding for selected studies to continue, and is finalizing study questions related to cumulative effects in the study area that might be addressed by a regional monitoring agency. An updated 'State of Knowledge' report for the SGP (Sly et. al., 2001) and a final study report (West Kitikmeot/Slave Study Society 2001b) have been issued.

The *Mackenzie Valley Resource Management Act* (*MVRMA*) (Part 6, Section 146) requires the development of a program to monitor the cumulative impacts of land and water uses on the environment in the Mackenzie Valley (which includes the North and South Slave regions of the NWT that lie within the SGP). A Working Group is currently directing the development of an NWT-wide Cumulative Impact Monitoring Program (CIMP). The proposed approach is consistent with, and builds on, the general requirements of the MVRMA in providing for an NWT-wide program. The CIMP will collect information (both scientific data and traditional knowledge) for monitoring the cumulative impact of land and water uses in the NWT. The CIMP will fill monitoring gaps, and report on the state of the environment in the NWT using the full range of information sources. Communities will be involved throughout - in the design, implementation, interpretation, and reporting of the monitoring program. The Dogrib Treaty 11 Council and North Slave Metis Alliance are members of the Working Group[25]. The Tlicho (Dogrib) Final Agreement includes provision for the development of a cumulative impact monitoring program.

The Nunavut General Monitoring Program (NGMP) is intended to identify changes in the long-term state and health of the West Kitikmeot region, and act as an "early-warning system" for changes in the environment. The monitoring program addresses obligations made under the *NLCA* (Article 12.7). However, it does not specifically address cumulative effects.

[24] Article 4.11 of the Diavik environmental agreement requires review of the EMAB in terms of its ongoing relationship with IEMA and the CEAM Strategy and Framework in 2002. These discussions have been initiated, and are ongoing.
[25] The Akaitcho Territory Government has recently withdrawn from the Working Group, pending resolution of issues related to the general application of the *MVRMA* and their ongoing land claim negotiation process.

E.2.4 Research

Applied research provides a specialized knowledge base to support and enhance decision making with respect to CEAM (e.g., determining thresholds, carrying capacity, 'cause and effect' relationships, synergistic effects etc.). Traditionally, research has been conducted by federal (e.g., DIAND, Environment Canada, DFO) and territorial government departments/agencies (e.g., RWED, Aurora Research Institute), as well as academic institutions (e.g., universities). Increasingly, Aboriginal governments/ organizations/ communities and partnership organizations (e.g., West Kitikmeot /Slave Study Society, Nunavut Wildlife Management Board, caribou management boards) have taken responsibility for research on a regional basis in the SGP. Industry has also played a greater role in contributing to this type of knowledge, largely as a result of specific resource development projects in the NWT; this work may be conducted either pre- or post-project approval. Non-governmental organizations are also becoming more involved in research; for example, the Canadian Arctic Resources Committee recently completed a report on the theory and practice of using carrying capacity and thresholds in environmental management (MacLeod Institute, 2002). Both TK/IQ and conventional science can contribute to research efforts. The Tuktu and Nogak Project is a community-driven effort to collect and share IQ of caribou and calving areas in the Bathurst Inlet area of the Kitikmeot region of Nunavut (Thorpe et. al., 2002).

The Aurora Research Institute (ARI) is in the process of updating its research agenda for the NWT; its original Northern Research Agenda was produced in 1996. A needs assessment survey was conducted in the fall of 2001 with community groups, industry, researchers working in the North, and government agencies to contribute to this process[26]. The revised agenda will help set future priorities for research in the NWT. The Nunavut Research Institute (NRI) produced the Nunavut Research Agenda in 1997.

The West Kitikmeot / Slave Study Society has completed a series of workshops to develop an interim plan for cumulative effects research and monitoring in the SGP (see Section E.2.3 above; Terriplan/IER 2001a, b, and c), and is finalizing study questions related to cumulative effects in the study area that might be addressed by a regional monitoring agency.

Work is being undertaken by RWED evaluating the utility of cumulative effects assessment tools for the Bathurst caribou herd. With funding from the Canadian Environmental Assessment Agency, NSERC and industry, RWED is also working with the University of Alberta on the application of population viability analysis techniques to caribou, grizzly, wolverine and wolf interactions in the SGP, particularly in the areas surrounding the EKATI™ and Diavik diamond mines. Projects on the roles of TK, communities and elders have been funded in part by the CEAM Strategy and Framework initiative (Lutsel K'e Dene First Nation [Lutsel K'e Dene First Nation 2001] and Dogrib Treaty 11 Council [e.g., Barnaby, 2000; Waehdoo Naowo Ko. 2000]).

Phase I of the Northern Contaminants Program (NCP) (1991-1997) focused on determining the main sources of contaminants and their transport pathways and fate in the Arctic, as well as their levels and spatial and temporal distribution within Arctic ecosystems and humans. Phase II (1999 - 2003) is focused on expanding human health research, developing effective community dialogue, and continuing work on international agreements to control contaminants.

Other initiatives include research programs on cumulative effects assessment and management in the North, such as Environment Canada's Cumulative Effects Management Framework Project (under the Northern Ecosystem Initiative) (e.g., Environment Canada, 2000). The Canadian Environmental Assessment Agency has also sponsored research on the development of models for regional environmental effects frameworks that will be relevant to environmental assessments of specific projects

[26] ARI also periodically publishes research compendiums summarizing research licences/permits issued in the NWT (e.g., ARI, 1999). Separate compendiums for Nunavut have been developed by the Nunavut Research Institute (e.g., for 2000 - http://pooka.nunanet.com/~research/).

planned for the region, particularly with respect to cumulative effects (e.g., Boulden et. al., 2001).

E.2.5 Audit and Reporting

The audit component is an accountability mechanism that provides periodic and systematic evaluations of the effectiveness of CEAM in the SGP. Cumulative effects audits should assess the overall state of the environment and examine environmental trends, the factors contributing to these trends, and their significance. Audits should focus as well on the effectiveness of cumulative impact monitoring and the ability of the regulatory regime to assess and manage cumulative effects. Responses to recommendations from previous audits should also be evaluated. The results of audits should be available to all interested parties. In the context of the Regional Plan of Action for the SGP, the audit and reporting component would include activities to:

i) determine trends in environmental quality, factors contributing to change, and their significance (this would include 'state-of-environment' reporting)
Ii) evaluate the status / effectiveness of the implementation of the Regional Plan of Action itself, as well as regional monitoring programs (e.g., the NGMP, CIMP)
iii) review the effectiveness of the regulation of development – the ability to prevent, assess and manage cumulative effects
iv) review the responses to recommendations of previous environmental audits
v) report the results of the audit to all interested parties

Part 6 of the *MVRMA* envisions such an audit and reporting system for the Mackenzie Valley, which includes the North Slave and South Slave regions of the NWT. The NWT CIMP Working Group is currently developing a framework for the implementation of an NWT environmental monitoring program and audit. The proposed approach is consistent with, and builds on, the general requirements of the MVRMA in providing for an NWT-wide program. The independent environmental audit will evaluate and review at least once every five years:

- Trends in environmental quality, contributing factors, and the significance of trends;
- The effectiveness of the NWT CIMP;
- The effectiveness of environmental management processes and the organizations responsible for them in the NWT; and
- The response to any recommendations of previous environmental audits.

The *MVRMA* and the Tlicho (Dogrib) Final Agreement provide for an environmental audit. The Working Group is preparing draft terms of reference for the initial audit for consultation later in 2002/early in 2003. The audit is to be completed by the end of 2003. A preliminary 'State of Knowledge report' for VECs has been prepared as part of the CIMP (Indian and Northern Affairs Canada, 2002).

The *NLCA* does not have a specific provision for an environmental audit.

The West Kitikmeot / Slave Study Society first prepared a 'State of Knowledge' report for the WKSS Study Area (which includes the SGP and communities surrounding it) in 1999 (Sly et. al., 1999). The report was updated in May 2001. The reports bring together and interpret written knowledge on the area to the beginning of the WKSS in 1996. The reports provide a 'big picture' of the area and its people, some understanding of the changes that are occurring, and identify areas of incomplete understanding where further research is required. The revised report (May 2001) addresses the period ending December 2000.

The Mackenzie River Basin Board has a mandate to prepare a 'State of the Aquatic Ecosystem Report' for the Mackenzie River basin by 2003 (the aquatic ecosystem has been broadly defined to include "interacting components of air, land, water and living organisms including humans, that relate to the water resources of the Mackenzie Basin"). The Basin includes part of the North Slave and South Slave regions

of the NWT.

Independent environmental monitoring organizations have been set up for the BHP EKATI™ diamond mine (the Independent Environmental Monitoring Agency (IEMA]) and the Diavik diamond mine (the Environmental Monitoring Advisory Board [EMAB]). The mandates of these organizations are outlined in the environmental agreements for the projects (Government of Canada et. al, 1997, 2000), but three principal functions can be identified: community/company liaison (communication and issue identification/resolution); review of monitoring plans, programs and findings; and a monitoring function related to assessing compliance with regulatory obligations and the overall effectiveness of environmental management. There has been discussion about the merits of having a single regional agency perform at least some of these functions, rather than a proliferation of project-specific entities (e.g., IEMA, 2001a and b; Kennett, 2001b; West Kitikmeot Slave Study Society 2001a). Options for such an approach were discussed at a workshop in November 2002.

The implementation of the *NLCA* (1993) is to be reviewed every five years (the next review will cover the period 1999 to 2003). This provides an opportunity to independently review progress with respect to implementation of aspects of the agreement such as those relating to land use planning (Article 11), the NGMP (Article 12.7), impact assessment (Article 12), water management (Article 13), and wildlife (Article 4).

DRAFT Discussion

At the federal level, the Commissioner of the Environment and Sustainable Development has a mandate to make the government accountable for greening its policies, operations and programs. Twenty-five federal departments and agencies are required to prepare sustainable development strategies; the first were tabled in 1997; the second round in February 2001 (e.g., DIAND, 2001). The Commissioner monitors the extent to which departments have implemented the action plans and met the objectives outlined in their strategies (e.g., Commissioner of the Environment and Sustainable Development, 2001). DIAND's Strategy includes the development of the NWT CEAM Strategy and Framework, and the CIMP and associated regulations under the *MVRMA*, as actions to be taken to meet its commitments North of 60. The Commissioner also assists the Auditor General in auditing environmental and sustainable development issues.

E.2.6 Project-Specific Screening, Environmental Assessment and Review

Project-specific screenings, environmental assessments and reviews are conducted as part of the processes described in the *Nunavut Land Claims Agreement*, the *MVRMA*, and the *Canadian Environmental Assessment Act (CEAA)*. Project-specific assessments of individual development proposals have served as the focus of cumulative effects assessment and management discussions in the NWT and Nunavut to date. EA and review processes require an assessment of cumulative effects. When projects or activities trigger environmental impact assessment (EIA), cumulative effects issues may be identified at any stage of the review process. The potential for cumulative effects identified during screening may result in referral for more detailed EA and review. EIA reports often address cumulative effects when recommending the approval or rejection of projects or activities. They may include recommendations or requirements for measures to mitigate adverse cumulative effects.

In the Mackenzie Valley (which includes the North and South Slave regions of the NWT), the *MVRMA* Part 5 environmental impact assessment process has replaced that of the *Canadian Environmental Assessment Act (CEAA)* under all but a few very specific circumstances[27]. The *MVRMA* process involves up to three stages: preliminary screening, environmental assessment (EA), and environmental impact review. Federal and territorial government departments and agencies in their roles as Regulatory Authorities under the *MVRMA*, as well as the land and water boards established under the *MVRMA*, may

[27] These would include projects deemed to be in the national interest or in cases of transboundary projects and/or effects.

conduct preliminary screenings, and may refer development proposals to the MVEIRB for EA. The cumulative impacts of the development are one of the factors to be included in an EA or impact review. In practice, preliminary screeners have considered cumulative impacts in their evaluations. The MVEIRB makes recommendations with respect to approval to the Minister of DIAND, who coordinates federal government review and response through responsible ministers. Joint environmental impact review processes may be established in specific circumstances (e.g., in cases of 'national interest', transboundary effects).

Under the Tlicho (Dogrib) Final Agreement, the Dogrib First Nation Government will have representation on the MVEIRB. The Board will be required to consult with the Dogrib before completing an assessment of a project on Dogrib lands. The Final Agreement also contains provisions whereby a project proposal that would otherwise be exempt from assessment may be assessed by the MVEIRB if it is considered of 'special environmental concern' by reason of its cumulative effects or otherwise. The Final Agreement also contains provision for joint review panels, or Dogrib representation on the *CEAA* panel, in cases where a *CEAA* public review of a proposal is to be conducted.

The Akaitcho Interim Measures Agreement (IMA) (June 2001) provides for a 'pre-screening' process whereby the Akaitcho Dene First Nation will receive earliest possible notice of applications for various licences, permits, land leases and transfers, and have the opportunity to provide comments on the environmental, cultural, spiritual and economic effects of the proposals. Details of this process are currently being negotiated.

In Nunavut, the Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB) have responsibilities related to project-specific screening and environmental assessment/review. An authorizing agency[28] will receive an application for a land use permit, water licence etc., and ensure that all screening information is properly included in the application. Where regional land use plans are in place, the NPC screens proposals in terms of their conformity with applicable land use plans[29]. In considering the various development applications it reviews during the screening process, the NPC considers the potential cumulative effects. In the absence of an approved land use plan, the authorizing agency forwards the proposal to the NIRB. NIRB then distributes the proposal for comment, screens the proposal to determine if there is potential for significant impact (including consideration of cumulative effects), and determines whether a review is required under Part 5 or 6 of Article 12 of the *NLCA*. NIRB's determination on the screening is made to the Minister of DIAND. Two review options are available to the Minister: a review by a NIRB panel, or a review by a panel under the *Canadian Environmental Assessment Act*[30]. The *CEAA* applies in Nunavut, but the *NLCA* processes are used to fulfil *CEAA* obligations. DIAND and other federal agencies with a regulatory role in Nunavut are responsible for ensuring that *CEAA* requirements are met.

The NPC has developed a 'one-window' on-line approach for land use applications that is linked to its GIS. When fully implemented, PLANNER (Public Land-use Application, Network, Notification and Environmental Reporter) will allow proponents to complete applications over the Internet. The project location can then be compared with over 150 layers of information in the GIS (e.g., wildlife ranges, harvest areas, archaeological sites, contaminated sites etc.) – which provides assistance in evaluating potential cumulative effects. This report is sent to the project proponent, and is also available for use by

[28] A government department, a Designated Inuit Organization, or regulatory board (e.g., federal or territorial government departments, Regional Inuit Associations, Nunavut Water Board, etc.) that has a regulatory responsibility or is a landowner in the Nunavut Settlement Area and is responsible for issuing a permit, lease, license or other authorizations.

[29] The NPC has developed a customized software application to enable it to do conformity determinations in an integrated, consistent, efficient and transparent manner (NPC, 2002b). The software can also test for cumulative effects that may result from a proposed project and other projects in the area.

[30] While the *Canadian Environmental Assessment Act* still applies in Nunavut, there is a need for harmonization and clarification of the *CEAA* process relative to that of the NIRB under the *NLCA*. Practice has been that federal authorities have sought to have *CEAA* requirements met through NIRB review processes.

the regulatory agencies. The PLANNER system also provides for an automatic notification of the appropriate agencies based on the specific characteristics of the application; similarly, PLANNER allows the project proponent and agencies to track the regulatory progress of an application over the Internet. Third parties do not have access to PLANNER application information.

A number of organizations (including federal government departments/ agencies, industry associations, non-governmental organizations, and the Mackenzie Valley Environmental Impact Review Board) have, or are in the process of, developing discussion papers and guidance on cumulative effects assessment. Many of these same organizations also play various roles in individual project-specific environmental assessment processes in the SGP. Project-specific assessments will also involve other parties at a regional level (e.g., Aboriginal governments and communities, co-management boards, caribou management boards). The recently completed five-year review of the *CEAA* found that cumulative effects assessment is one of the most important methodological challenges in EA. The subsequent proposed bill (March 2001) to implement proposed changes to the *CEAA* recognizes the value of regional studies in assessing cumulative effects and streamlining project assessments. The Canadian Environmental Assessment Agency (CEAAg) proposes to work with federal departments to refine cumulative effects guidance further, and to serve as a clearinghouse for sharing ideas on best practices and case studies.

DRAFT Under Review and Discussion

The environmental agreements for recently approved diamond mining projects in the NWT include provisions for the ongoing consideration of cumulative impacts. Project-specific effects monitoring can make a contribution to CEAM efforts at a regional level[31]

E.2.7 Regulation and Enforcement

'Regulation' in the context of the Regional Plan of Action encompasses a broad spectrum of activities, including issuance of resource rights (e.g., for minerals, oil and gas), land use permits, water licences, and harvest quotas. This component includes the approval processes for development or activities not subject to formal environmental assessment and review. Enforcement of regulatory requirements or conditions of approval is one tool available for the management of cumulative effects. Terms and conditions for project operations, monitoring requirements, and the standards and procedures for abandonment and reclamation may also be established through regulatory processes. All significant projects and activities in the NWT and Nunavut are subject to some form of regulation. The management of cumulative effects depends on the capacity of the regulatory regime to fulfil its obligations for establishing and enforcing regulatory requirements and specific conditions of approval.

The devolution of federal government responsibilities to territorial / Aboriginal governments and various co-management boards in Nunavut and the NWT has resulted in a changing regulatory environment, differing from region to region.

Rights issuance processes such as those used for mining result in private sector interests in lands and resources, and set the stage for investment and planning that in some cases leads to resource development (Kennett and Donihee, 2001). The primary rights issuance processes in the NWT and Nunavut include:

- The 'free entry' system for mineral rights authorized under the *Canadian Mining Regulations*[32], [33];

[31] For example, monitoring of projects such as the BHP EKATI™ diamond mine (approved under the former Environmental Assessment and Review Process) and for the Diavik diamond mine (approved under the *Canadian Environmental Assessment Act*).
[32] For Crown lands in Nunavut, DIAND administers mineral rights and land use activities. For Inuit-owned lands, access to lands must be obtained from the Regional Inuit Association; mineral rights are held by either DIAND or NTI (NTI 2000).

- Competitive bidding for oil and gas rights as mandated by the *Canadian Petroleum Resources Act*[34]
- On Aboriginal- or Inuit-owned lands, rights issuance systems established under land claim agreements.

With the implementation of the *MVRMA*, the Mackenzie Valley Land and Water Board (MVLWB) deals with transboundary, inter-regional or projects in areas outside the Gwich'in and Sahtu settlement areas or ISR, e.g., the North Slave and South Slave regions of the NWT. The MVLWB is now responsible for land use permits and water licences, which in the past were regulatory functions of DIAND and the NWT Water Board, respectively. Under the Tlicho (Dogrib) Final Agreement, the Wek'èezhìi Land and Water Board (WLWB) shall be established to regulate land and water uses in the settlement area. The Nunavut Water Board (NWB) is responsible for the use, management and regulation of water in the Nunavut Settlement Area (*NLCA*, Article 13). The *Nunavut Waters and Surface Rights Tribunal Act* received royal assent in April 2002.

Federal and territorial government departments participate in the review of land use permit and water licence applications and in environmental assessment processes. Applications for licences, permits to the MVLWB undergo preliminary screening as to their potential to result, amongst other things, in 'significant adverse impacts' or high levels of public concern. If such potential impacts are identified, the development is referred to the MVEIRB[35].

DRAFT for discussion

As part of the NIRB screening process, various agencies comment on applications that have been submitted to the NWB. The Regional Inuit Associations (including the Kitikmeot Inuit Association) have surface title to Inuit-owned lands, and administer access through Land Use Licences and Surface Leases. Where subsurface title is held by the Inuit, it is vested in NTI.

Under Review

Authorities with jurisdiction to grant licences, permits, leases or interests related to the use of land and water in the areas will have to conduct their activities and operations in accordance with any approved land use plans (in the West Kitikmeot, the land use plan is still in a draft form; there are no approved land use plans in the North Slave or South Slave regions of the NWT).

In the areas of the NWT without settled land claims, RWED is responsible for wildlife management. Claims organizations and communities often have wildlife-related committees that address wildlife issues on a regional or community-basis. The Tlicho (Dogrib) Final Agreement (C. 12) provides for the establishment of the Wek'èezhìi Renewable Resources Board (WRRB) to manage wildlife in the settlement area. The Nunavut Wildlife Management Board (NWMB) is responsible for wildlife management and the provision of advice relating to wildlife to government and co-management bodies (*NLCA* Article 5). Data collection for the five-year Nunavut Wildlife Harvest Study was completed in 2001. The Study will be used in making wildlife management decisions, and in setting quotas or limits on harvesting. The NWMB coordinates its activities with the Kitikmeot Hunters and Trappers Organization, which oversees hunting and trapping at the local and regional level. The multi-stakeholder Bathurst Caribou Management Planning Committee, with representation from organizations in the NWT and Nunavut, is currently developing a 10-year management plan for the herd and its habitat (DIAND et. al., 2000). The plan may include the development of a management board, which would provide advice to resource management agencies in the NWT and Nunavut. Ongoing consultations are occurring, with a draft management plan to be prepared in 2003.

Several initiatives have been initiated in response to the relatively complex and evolving regulatory environment in the NWT and Nunavut (see also 'Coordination', S. E.2.9). In the fall of 2000, a new business group - the Northern Organization for Responsible Development - was formed, seeking clearer

[33] The *Canadian Mining Regulations* are currently under review. Potential amendments may result in a requirement for consideration of land use considerations in the administration of mineral rights.
[34] Although oil and gas development is not currently a pressure in the SGP area of interest, there is significant interest in the Beaufort Sea/Mackenzie Delta to the west, and to the north in the Arctic Islands of Nunavut.
[35] See also discussion above in S. E.2.6 with respect to Project-specific Assessments.

rules and procedures for development in the north. DIAND's Mineral Development Division has prepared a 'Guide to Mineral Development in the Northwest Territories' (January 2002). The NPC's PLANNER database provides a 'one-window' approach to development applications in Nunavut, and also allows proposals to be evaluated in terms of existing environmental information included in the NPC's GIS (see S. E.2.6 above).

E.2.8 Information Management

Information management includes the collection, processing, storage and sharing of diverse types of information (qualitative and quantitative [data, reports, mapping], including TK/IQ) from a wide variety of sources. Analysis and reporting of information occurs in the context of other framework components (e.g., audit and reporting; project-specific assessment; regulation and enforcement). Information users may include communities, project proponents, regulators, and non-government organizations. In the context of the Regional Plan of Action, the information obtained through research, monitoring, audit and reporting provides essential feedback and decision support to the other components (e.g., land use planning; project-specific screening, environmental assessment and review; regulation and enforcement).

Part 6 of the *MVRMA* (Section 149) provides authority for the collection of information from territorial and federal government boards, departments and agencies for the purposes of the CIMP or the audit. In January of 2001, a workshop on information management for both the NWT CIMP and the NWT CEAM Strategy and Framework was held. A draft workshop report was issued in March (IER/Terriplan, 2001), and a Task Group was developed with representation from both initiatives to develop a terms of reference for an information management system. Recently, the Gwich'in Tribal Council and MapInsight completed an analysis of options for an information management system for the CIMP.

The NPC's PLANNER database provides a 'one-window' approach to development applications in Nunavut, and also allows proposals to be evaluated in terms of existing environmental information included in the NPC's GIS (see S. E.2.6 above). The Nunavut Environmental Database (NED) is a subset of the Arctic Institute of North America's Arctic Science and Technology Information System (ASTIS) database[36]. NED is maintained for the Nunavut Planning Commission by selecting ASTIS records about Nunavut. In September 2001, NED contained over 15,280 records. The NPC is also developing a data-sharing co-operative concept – the 'Nunavut Resource Centre'. The Centre will encourage public agencies in Nunavut to share in the creation, use, and maintenance of GIS datasets at the least possible cost, while encouraging citizens, educational institutions, and government agencies easy access to data for non-commercial purposes.

Increasingly, Aboriginal groups in the SGP are using GIS to manage traditional knowledge information (e.g., Naonaiyaotit TK Project; Tuktu and Nogak Project; Dogrib Waèhdoò Naowoò Kò, Lutsel K'e Dene First Nation).

E.2.9 CEAM Coordination

In the NWT, no one organization or regulatory process has overall authority for the full set of components of the CEAM Framework, either regionally or at a territorial level, let alone for the transboundary SGP. In Nunavut, the NPC has a coordinating role, as does the NIRB. However, in both Nunavut and the NWT, a range of organizations or regulatory processes has some responsibility for CEAM. Coordination on an inter-jurisdictional level can allow for some efficiencies of scale, reduced duplication of effort and process, and may allow for more effectively dealing with transboundary CEAM.

[36] http://136.159.147.171/scripts/minisa.dll?HOME

Many of the institutions established under the *Nunavut Land Claims Agreement* have the authority to cooperate regarding transboundary matters with corresponding institutions established in the NWT for environmental impact assessment, land/water/wildlife management, and land use planning (Kennett, 2001a).

There are a number of initiatives related to coordination of environmental management, if not specifically CEAM, in the Slave Geological Province. Although the West Kitikmeot / Slave Study ended in March 2001, the WKSS Society, a partnership of Aboriginal, government and industry organizations, recently facilitated the development of an interim plan for CE research and monitoring in the SGP. An important element of the work to date on the plan is the agreement on the need to coordinate and focus the activities of a number of groups currently involved in research and monitoring (Terriplan/IER 2001a, 2001b). A regional monitoring agency responsible for examining not only the impacts of specific projects such as the BHP and Diavik diamond mines, but also for implementing an integrated regional program of research and cumulative impact monitoring (as provided for in the NWT CIMP), could meet this need. The Independent Environmental Monitoring Agency for the BHP EKATI™ diamond mine and the Environmental Monitoring Advisory Board for the Diavik diamond mine, and others, are actively considering options for such a regional agency (see for example, Independent Environmental Monitoring Agency 2001; Kennett 2001b; West Kitikmeot Slave Study Society, 2001). A workshop to further explore options in this regard was held in November 2002.

The Mackenzie River Basin Board has a mandate for coordination, issue resolution and exchange of information between existing water management institutions in each of the six signatory territorial, provincial and federal parties to the Mackenzie River Basin Transboundary Waters Master Agreement (1997) (the Basin extends into the SGP).

Under Review for Discussion

Appendix F: Summary Information for Key Organizations in the SGP

Table F-1 provides a list of acronyms for the key organizations with interests in the SGP, as well as a brief summary of their related mandate, contact person, and website addresses. Descriptions of the mandates have been taken from published materials on organizational websites.

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
ATG	Akaitcho Territory Government	Aboriginal government representing Dene of Treaty 8 in the South Slave region of the NWT. The Member First Nations are the Yellowknives Dene First Nation (Dettah and Ndilo), Deninu K'ue First Nation (Fort Resolution), Salt River First Nation (Fort Smith), Smith's Landing First Nation (Fort Smith) and Lutsel K'e First Nation (Lutsel K'e).	Marilyn Sanderson, Executive Director Maurice Boucher (under discussion)*	Tel: (867) 394-3313 Fax: (867) 394-3413 atgovt@ssimicro.com Tel: (867) 394-4335 Fax (867) 394-3413 frewc@fortresolution.com	http://www.akaitchoterritory.com/
		Akaitcho Communities:	Lutsel K'e Dene First Nation[37]: Albert Boucher* August Enzoe (alternate)	Tel: (867) 370-3051 Fax: (867) 370-3010	

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[37] An invitation has also been extended to the Yellowknives Dene First Nation to participate as a member on the SGP Project Group.

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
CARC	Canadian Arctic Resources Committee	Founded in 1971, the Canadian Arctic Resources Committee (CARC) is an independent public interest organization with a northern mandate. With a membership from across Canada and a Board composed of business and community leaders and academic and professional specialists, CARC promotes solutions to issues in the Canadian and the circumpolar North. It develops nationally and internationally recognized programs of issue and policy analysis, public information, and advocacy. CARC presently has offices in Ottawa and Yellowknife.	Shelagh Montgomery. Cumulative Effects Program Manager*	Tel: (867) 873-4715 Tel: (867) 920-2685 smontgomery@theedge.ca	http://www.carc.org

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Under Review and Discussion

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
CEAAg	Canadian Environmental Assessment Agency	The Canadian Environmental Assessment Act and its regulations are the legislative basis for the federal practice of environmental assessment. The legislation ensures that the environmental effects of projects involving the federal government are carefully considered early in the project's planning stages. The CEAAg supports federal departments and agencies in their application of the Act. CEAAg reports directly to the Minister of the Environment and operates independently of all federal departments and agencies. Assists federal departments and agencies with EA; does research and development; provides administrative support to independent mediators and panels; ensures public participation in EA process.	Paul Scott, Director, Pacific and Northern Region	Tel: 604-666-2434 Fax: 604-666-6990 ceaa.pacific@ceaa.gc.ca	http://www.ceaa-acee.gc.ca/index_e.htm
CEAM SC	Cumulative Effects Assessment and Management Steering Committee	At the request of the federal Minister of DIAND and the Minister of the Environment, a multi-stakeholder Steering Committee[38] (with representatives from Aboriginal organizations, industry, environmental non-governmental organizations [ENGOs], the Mackenzie Valley Environmental Impact Review Board [MVEIRB] and the federal and territorial governments) began the development of an NWT CEAM Strategy and Framework in 2000. Drafts of the CEAM Strategy and Framework, as well as a draft regional plan of action for the Slave Geological Province (SGP) were prepared in late 2001/early 2002. Final documents are expected late in 2002/early 2003.	Lorraine Seale, DIAND CEAM Secretariat	Tel: (867) 669-2590 Fax: (867) 669-2701 sealel@inac.gc.ca or ceam@inac.gc.ca	http://www.ceamf.ca/

[38] A list of NWT CEAM Steering Committee organizations and members is provided as Appendix A.

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
			Mike Fournier Environment Canada CEAM Secretariat	Tel: (867) 669-4743 Fax: (867): 873-8185 mike.fournier@ec.gc.ca	
CIMP-WG	Cumulative Impact Monitoring Program Working Group	The CIMP Working Group (with membership from Aboriginal, federal and territorial governments) is currently directing the development of an NWT-wide Cumulative Impact Monitoring Program (CIMP). The CIMP will collect information (both scientific data and traditional knowledge) for monitoring the cumulative impact of land and water uses in the NWT. The CIMP will fill monitoring gaps, and report on the state of the environment in the NWT using the full range of information sources. The Working Group is also preparing draft terms of reference for the initial NWT environmental audit for consultation later in 2002. The audit is to be completed by the end of 2003.	Lorraine Seale CIMP Coordinator	Tel: (867) 669-2590 Fax: (867) 669-2701 sealel@inac.gc.ca or cimp@inac.gc.ca	Temporary site: http://199.247.124.123/ceam/08_CIM/index.htm
DFO	Department of Fisheries and Oceans	DFO is responsible for policies and programs in support of Canada's economic, ecological and scientific interests in oceans and inland waters; for the conservation and sustainable utilization of Canada's fisheries resources in marine and inland waters; for leading and facilitating federal policies and programs on oceans; and for safe effective and environmentally sound marine services responsive to the needs of Canadians in a global economy.	Marc Lange	Tel: (867) 669-4912 Fax: (867) 669-4941 langem@dfo-mpo.gc.ca	http://www.dfo-mpo.gc.ca/home-accueil_e.htm

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
DIAND	Department of Indian Affairs and Northern Development	DIAND's role in the North is extremely broad and includes settling and implementing land claims, negotiating self-government agreements, advancing political evolution, managing natural resources, protecting the environment and fostering leadership in sustainable development.	David Livingstone* Glen Stephens* Janice Traynor	Tel: (867) 669-2647 Fax: (867) 669-2707 livingstoned@inac.gc.ca Tel: (867) 975-4549 Fax: (867) 975-4560 stephensg@inac.gc.ca Tel: (867) 975-4554 Fax: (867) 975-4560 traynorj@inac.gc.ca	http://www.ainc-inac.gc.ca/nt/intro_e.html
DRT11	Dogrib Treaty 11 Council	Aboriginal government representing Dene of Treaty 11 in the North Slave region of the NWT. Dogrib communities include Rae-Edzo, Wha Ti, Rae Lakes (Gameti) and Wekweti (Snare Lake).	Violet Camsell-Blondin – Executive Director Jolene Huskey*	Tel: (867) 392-6381 Fax: (867) 392-6389 vblondin@tlicho.com Tel: (867) 392-6381 Fax: (867) 392-6389 jhuskey@tlicho.com	http://www.dogrib.ca/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
DSD	Department of Sustainable Development (Government of Nunavut)	There are four fundamental DSD responsibilities: • Good science, and environmental stewardship • Community economic development and capacity building • Application of Inuit Qaujimanituqangit • DSD's obligations under the *NLCA* Areas of mandate include: • Sustainable development through good science and Inuit Qaujimanituqangit ▪ Parks and tourism ▪ Wildlife ▪ Minerals, oil and gas ▪ Fisheries and sealing ▪ Community economic development ▪ Environmental protection	Earle Baddaloo*	Tel: (867) 975-5910 Fax: (867) 975-5980 ebaddaloo@gov.nu.ca	http://www.gov.nu.ca/Nunavut/English/departments/DSD/
EC	Environment Canada	Environment Canada's mandate is to preserve and enhance the quality of the natural environment, including water, air and soil quality; conserve Canada's renewable resources, including migratory birds and other non-domestic flora and fauna; conserve and protect Canada's water resources; carry out meteorology; enforce the rules made by the Canada - United States International Joint Commission relating to boundary waters; and coordinate environmental policies and programs for the federal government (Department of Environment Act).	Laura Johnston*	Tel: (867) 669-4725 Fax: (867) 873-8185 laura.johnston@ec.gc.ca	http://www.ec.gc.ca/envhome.html

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ("*" indicates SGP Project Group Member)	Phone # / e-mail address	Website
EMAB	Environmental Monitoring Advisory Board (Diavik Diamond Mine)	The Advisory Board, established in accordance with the terms of the Diavik Environmental Agreement, enables Aboriginal and Northern stakeholders to participate in the environmental monitoring of the Diavik Project. The Environmental Monitoring Advisory Board has representation from the Dogrib Treaty 11 Council, Lutsel K'e Dene Band, Yellowknives Dene First Nation, North Slave Metis Alliance, Kitikmeot Inuit Association, Government of Nunavut, Government of Northwest Territories, Government of Canada, Diavik Diamond Mines.	To Be Confirmed. Executive Director	Tel: (867) 766-3682; Fax: (867) 766-3693 emab1@arcticdata.ca	N/a Diavik: http://www.diavik.ca/
EMAN	Ecological Monitoring and Assessment Network	EMAN-North is a network for the coordination of ecological monitoring in northern Canada. Environment Canada is working in the three northern territories and northern Manitoba in close partnership with many agencies and programs to develop this network. The EMAN-North steering committee includes representatives of seven federal government agencies, three territorial government agencies, two northern research institutes, and university researchers.	Leslie Wakelyn, EMAN-North Coordinator (NWT/Nunavut)	Tel: (867) 669-4768 Fax: (867) 873-8185 leslie.wakelyn@ec.gc.ca	http://www.emannorth.ca/
GN	Government of Nunavut	Territorial government of Nunavut (see also DSD, Department of Sustainable Development). The 'Bathurst Mandate Pinasuaqtavut: that which we've set out to do' was finalized in August1999 at Bathurst Inlet. It outlines the GN's objectives for a five-year period and a vision of Nunavut in the year 2020. Four priorities are identified: ▪ Health Communities ▪ Simplicity and Unity ▪ Self Reliance ▪ Continuing Learning			http://www.gov.nu.ca/Nunavut/

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Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
GNWT	Government of the Northwest Territories	Territorial government of the Northwest Territories (see also RWED, Resources, Wildlife and Economic Development). "Towards a Better Tomorrow" (March 2000) sets out: ▪ A vision for the NWT's future ▪ Priorities needing attention ▪ Goals to be targeted, and ▪ Strategies for achieving the goals			http://www.gov.nt.ca/
KHTA	Kitikmeot Hunters and Trappers Association	The KHTA consists of representatives from each Hunters and Trappers Organization in the region. The KHTA manages the harvesting of wildlife by members of HTOs in the region and regulates harvesting practices and techniques. The KHTA allocates and enforces regional basic needs levels and adjusts these as necessary by making reallocations between HTOs. The regional HTAs report to the Nunavut Wildlife Management Board.	Philip Kadlun*	Tel.: (867) 982-4207 Fax: (867) 982-4047	N/a
KIA	Kitikmeot Inuit Association	The objectives of the Kitikmeot Inuit Association (KIA), under the Nunavut Land Claims Agreement (NLCA) are to defend, preserve and promote social, cultural and economic benefits to Inuit of the Kitikmeot Region. Under the direction, control and accountability of KIA, both the Kitikmeot Corporation (KC) and the Kitikmeot Economic Development Commission (KEDC) have been delegated the responsibility of promoting economic development in the region. KIA Issues land use permits for Inuit Owned Land in the region.	Jack Kaniak, Lands Manager	Tel: (867) 982-3310 Fax: (867) 982-3311 jkaniak@polarnet.ca	http://www.polarnet.ca/polarnet/kia.htm http://www.polarnet.ca/kedc/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
			Stanley Anablak*	Tel: (867) 982-3310 Fax: (867) 982-3311 sanablak@polarnet.ca	
IEMA	Independent Environmental Monitoring Agency (EKATI diamond mine)	IEMA was created to ensure that the Ekati™ mine meets the conditions set forth for its environmental approval. Established as part of the site's Environmental Agreement, the Agency has several tasks: ▪ reviewing and commenting on the design of monitoring and management plans and the results of these activities; ▪ monitoring and encouraging the integration of traditional knowledge of the nearby Aboriginal peoples into the mine's environmental plans; ▪ acting as an intervenor in regulatory processes directly related to environmental matters involving the Ekati™ mine and its cumulative effects; ▪ bringing concerns of the Aboriginal peoples and the general public to the Ekati™ mine and government; ▪ keeping 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.	Manager; To Be Confirmed	Tel: (867) 669-9141 Fax: (867) 669-9145 monitor@yk.com	IEMA: http://www.monitoringagency.net/ Ekati™ mine: http://ekati.bhpbilliton.com/index.asp

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
MRBB	Mackenzie River Basin Board	Canada, British Columbia, Alberta, Saskatchewan, the Northwest Territories and Yukon (the governments with jurisdiction to manage water and the environment in the Mackenzie River Basin) have signed the Mackenzie River Basin Transboundary Waters Master Agreement. It came into effect in July 1997. The Mackenzie River Basin Board was established to implement the agreement. The board has 13 members representing the Federal Government, the provinces & territories. The Board is not a regulatory or licensing board, & has no legal or policy basis to regulate resource use in any of the jurisdictions. The Board's key responsibilities are to: ▪ Provide a forum for communication, coordination, information exchange, ▪ Considering the needs and concerns of Aboriginal people ▪ Recommend uniform objectives or guidelines for the quality and quantity of the water resources ▪ Encourage consistent monitoring programs ▪ Monitor the progress of implementing the bilateral water management agreements ▪ Reviewing the Master Agreement ▪ Submit a report on the state of the aquatic ecosystem by 2003 to the federal, provincial and territorial Ministers, and ▪ Carry out studies and investigations, as required	Jack Van Camp, Executive Director	Tel: (867) 872-2375 Fax: (867) 872-2385 jack.vancamp@ec.gc.ca	http://www.mrbb.ca/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
MVEIRB	Mackenzie Valley Environmental Impact Review Board	The Mackenzie Valley Environmental Impact Review Board (MVEIRB) is responsible for conducting environmental assessments of developments that are referred to it. The Canadian Environmental Assessment Act (CEAA) no longer applies in the Mackenzie Valley, except in very specific situations. The Review Board will recommend ways to protect the environment from impacts caused by a development. It can also recommend to the Minister of Indian Affairs and Northern Development that a development be rejected because the impacts are too great. Although it gets it's funding from the federal government and is subject to federal Treasury Board guidelines, it is not considered as part of the federal or territorial government. The Review Board does not issue permits or licences itself. This is left to the various government departments or the land and water boards. However, it may make recommendations, which are attached to those permits or licences.	Vern Christensen - Executive Director[39]	Tel: (867) 766-7055 Fax: (867) 766-7074 VChristensen@mveirb.nt.ca	http://www.mveirb.nt.ca/

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[39] The MVEIRB is copied on all SGP Regional Plan of Action materials.

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
MVL&WB	Mackenzie Valley Land and Water Board	The objective of the MVLWB is to "regulate the use of land and waters and the deposit of waste so as to provide for the conservation, development and utilization of land and water resources in a manner that will provide optimum benefit to the residents of the settlement areas and of the Mackenzie Valley and to all Canadians (section 58, of the Mackenzie Valley Resource Management Act)." The Mackenzie Valley Land and Water Board (MVLWB) has three main functions: 1. Processing transboundary land use and water use applications in the Mackenzie Valley, 2. Ensuring consistency in the application of the legislation throughout the Mackenzie Valley, and 3. Issuing land use permits and water licenses outside settled land claim areas in the Mackenzie Valley	Bob Wooley – Executive Director	Phone: (867) 669-0506 Fax: (867) 873-6610 bwooley@mvlwb.com	http://www.mvlwb.com/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ("*" indicates SGP Project Group Member)	Phone # / e-mail address	Website
NIRB	Nunavut Impact Review Board	The NIRB was established in1996 as an institution of public government with responsibilities for the environmental assessment of projects in the Nunavut Settlement Area (NSA) as described in the Nunavut Land Claim Agreement (NLCA). For a proponent to develop a project in Nunavut, certain authorizations are required for the use of land and water. However, before an agency can authorize the use of land or water in the NSA, the Nunavut Impact Review Board (NIRB) may be required to assess the ecological and socio-economic impacts of the project proposal, to determine whether the project should proceed to development, and if so, under what conditions. NTI nominates four board members, while the territorial government nominates two, and the Government of Canada, one.	Stephanie Briscoe – Executive Director[40]	Tel.: (867) 983-2593 Fax: (867) 983-2594 Sbriscoe@polarnet.ca nirb@polarnet.ca	http://www.polarnet.ca/nirb/ http://aulak.polarnet.ca/nirb/

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[40] The NIRB is copied on all SGP Regional Plan of Action materials.

Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
NPC	Nunavut Planning Commission	NPC's main function is to develop land use plans, policies and objectives that guide resource use and development throughout Nunavut, with an emphasis on protecting and promoting the existing and future well-being of the residents and communities of the Nunavut Settlement Area. It should be noted that the term "land use" also includes water, wildlife and offshore areas. NTI nominates four board members, while the territorial government nominates two, and the Government of Canada, one.	Luke Coady – Executive Director*	Tel: (867) 983-2730 Fax (867) 983-2732 lcoady@npc.nunavut.ca npc@npc.nunavut.ca	http://npc.nunavut.ca/
NSMA	North Slave Metis Alliance	The Alliance was registered as a non-profit society on Nov 22, 1996. The NSMA's primary mandate is to represent the direct descendents of Metis who used and occupied land in the North Slave Region of the Northwest Territories (NWT) prior to 1921. The NSMA has the following objectives: ▪ To negotiate, ratify and implement a land and resource agreement which will be founded on principles of self-government, and ▪ To promote and enhance the educational, economic, social and cultural development of it's members in the North Slave Region, Treaty 11 Area, in a beneficial fashion.	Bob Turner, Manager of Land and Resources Kris Johnson*	Tel: (867) 873-9176 Fax: (867) 669-7442 bobz@nsma.net Tel: (867) 873-9176 Fax: (867) 669-7442 kris@nsma.net	http://www.nsma.net/home.htm

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
NTI	Nunavut Tunngavik Inc.	NTI was set up as a private corporation in 1993, to ensure that promises made in the Nunavut Land Claims Agreement are carried out. NTI is responsible for advancing and protecting Inuit interests in the creation of the Nunavut Territory in 1999 by assuring that the terms of the Nunavut Political Accord are lived up to. NTI's Board meets regularly in different Nunavut communities to debate issues and make decisions on implementation of the Nunavut Land Claims Agreement, safeguarding the environment, advancing and protecting Inuit interests and rights, as well as business development and numerous other matters in the Nunavut settlement area including a pension plan for Elders, and a Support Program for Inuit hunters.	Cathy Towtongie, President	1-888-646-0006 Tel: (867) 975-4900 Fax: (867) 975-4949 cathyt@nunanet.com	http://www.tunngavik.com/
NWB	Nunavut Water Board	The Nunavut Water Board (NWB) has responsibility for, and power over, the regulation, use, and management of water in the Nunavut Settlement Area. With the exception of domestic or emergency use of waters, no person may use water or dispose of waste into water without the approval of the NWB. NTI nominates four board members, while the territorial government nominates two, and the Government of Canada, one.	Philippe di Pizzo, Executive Director	Tel: (867) 360-6338 Fax: (867) 360-6369 nwbexec@polarnet.ca	http://ipg.nunavut.ca/ipg/nwb/ http://planner.nunavut.ca/ipg/nwb/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
NWMB	Nunavut Wildlife Management Board	The NWMB is the main instrument of wildlife management in the Nunavut Settlement Area (NSA), a district that covers almost all of the territory of Nunavut. The NWMB was created under the *Nunavut Land Claims Agreement* (*NLCA*) as an Institution of Public Government (IPG). Overseeing the conservation of all wildlife within the territory of Nunavut, the NWMB is creating a management system that complements Inuit harvesting rights while ensuring a long-term, healthy, renewable resource economy. Regional Wildlife Organizations, representing Hunters and Trappers Organizations in Nunavut, report to NWMB. NTI and the three Regional Inuit Associations nominate one NWMB board member each, while the territorial government nominates one and three Canadian government departments (Department of Indian Affairs and Northern Development, Environment Canada, Department of Fisheries and Oceans) nominate one each.	Jim Noble, Executive Director	Tel: (867) 979-6962 Fax: (867) 979-7785 jnoble@nwmb.com	http://www.nwmb.com/
NWT & N CM	NWT and Nunavut Chamber of Mines	The NWT & Nunavut Chamber of Mines serves companies operating in the NWT and Nunavut, has been the voice of the Northern mining and exploration industry since 1967. Its goals are to promote the industry and the North to Northerners, Canadians, and the world at large. It continues to speak out on industry concerns and issues. It advises governments, investors, the media, schools and Universities, and the public on industry positions and initiatives.	Mike Vaydik; General Manager	Tel:(867) 873-5281 Fax:(867) 920-2145 mvaydik@ssimicro.com	http://www.miningnorth.com/

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
			Brenda Kuzyk, DDMI*	Tel: (867) 669-6508 Fax:(867) 669--9293 Brenda.kuzyk@diavik.com	
RWED	Resources, Wildlife and Economic Development (GNWT)	The Department of Resource, Wildlife and Economic Development promotes economic self-sufficiency and growth through the sustainable development of natural resources and enhances the creation of new, sustainable opportunities in the traditional and wage economies. RWED is responsible for the following seven core functions: ▪ Environmental Protection ▪ Forest Management ▪ Minerals, Oil and Gas ▪ Parks and Tourism ▪ Investment and Economic Analysis ▪ Wildlife and Fisheries ▪ Diamond Projects	Steven Matthews*	(867) 873-7775 (867) 873-0293 Steven_Matthews@gov.nt.ca	http://www.gov.nt.ca/RWED/index.html

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Table F- 1: Summary of Information for Key Organizations in the SGP

Organization Acronym	Full Organization Name	Mandate	Contact Person ('*' indicates SGP Project Group Member)	Phone # / e-mail address	Website
WKSS	West Kitikmeot / Slave Study	The West Kitikmeot Slave Study Society was made up of nine founding Partners representing organizations and agencies with a legitimate vested interest in the WKSS area (approximating the SGP). The formation of WKSS was announced in1994 in a joint statement by DIAND and RWED. They were concerned about increased development activity in the West Kitikmeot/Slave Study area and the lack of adequate information. WKSS was initiated to provide an information base to support sound resource management decisions and to examine the short-term and long-term effects of development. The Study officially began on April 1st, 1996 for an expected initial term of five years. By March 2001 the WKSS Partners had developed a proposal to hold workshops with a broader range of stakeholders for the purpose of proposing a new, interim research and monitoring agenda and management structure which would cover the transition period between the wind-up of WKSS and the operation of a permanent monitoring program in the WKSS area.	John McCullum – Study Director		http://www.wkss.nt.ca/index.htm

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Appendix G: CEAM Gaps and Challenges

G.1 Introduction

Factors to be considered with respect to the identification of gaps and challenges, and the recommendations and actions to address them, are listed in Section G.2. A number of gaps and challenges with respect to CEAM in the SGP have been identified and summarized below relative to the CEAM Framework on a component-by-component basis (Section G.3). These are based on a review of:

- Preliminary list of gaps and challenges identified by participants at the Elu Inlet discussion forum;
- A 'final draft' Blueprint for Implementing the CEAM Strategy and Framework in the NWT and its Regions (March 2002b), and other background work conducted for the Steering Committee;
- An analysis of the current context of the framework for CEAM in the SGP; and
- The findings of recent initiatives such as the WKSS process to develop an interim plan for cumulative effects research and monitoring in the SGP.

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Specific recommendations and actions for addressing the priority gaps and challenges are provided in Section 7.0 of the Regional Plan of Action.

G.2 Factors for Consideration

There are a number of factors to be considered with respect to the identification of gaps and challenges, and the recommendations and actions to address them. These include the following:

- As described in Appendix E, there are a number of initiatives recently completed or underway in the SGP that are relevant to CEAM. These include the WKSS, the NGMP, NWT CIMP, the activities of project-specific monitoring agencies and the movement toward a single regional monitoring agency, and the NWT CEAM Strategy and Framework. Increasingly, the organizations that are involved in them are seeking clarity on their relationship to one another, potential overlaps, and avoiding duplication of effort.
- The uncertainty associated with the timing and outcome of land claims processes in the NWT presents challenges in terms of each of the individual components of the CEAM Framework, and thus the implementation of the Regional Plan of Action.
- Organizations may be constrained in terms of what they can and cannot do with respect to CEAM by their mandates/policies.
- It is necessary to consider the potential effects of globalization on CEAM in the North. For example, the North American Free Trade Agreement (NAFTA) may have implications for the application of environmental protection legislation, standards and guidelines.
- The pace of development is market-driven – and can therefore be unpredictable and volatile; this in turn affects the geographic and temporal scope of cumulative effects.
- Project proponents may distinguish project-specific effects that are cumulative (i.e., that result from the interaction of their particular development with other activities) from those changes that are naturally occurring or that are caused by other sources. Other parties are interested in the 'big picture' or overall state of the environment (often regardless of the specific source of effect). Not all environmental effects are 'cumulative' in a strict or 'regulatory' sense. As a result, there are differing understandings of what cumulative effects are, and a range of expectations as to how they should be assessed and managed.

- It is important to deal with all Aboriginal interests in the SGP, recognizing that more than one group may be associated with a particular region (for example, in the North Slave Region, both the Dogrib and North Slave Metis Alliance (NSMA) have interests and must be part of the development and implementation of the Regional Plan of Action).

G.3 Gaps and Challenges – CEAM Framework Components

G.3.1 Vision and Objectives

At this time, there is no overall, 'big picture' explicit vision and objectives for the Slave Geological Province, its regions or communities. These are needed to provide a context for guiding decisions about economic development and environmental management. Ultimately, decisions about development, cumulative effects and environmental management will have to reflect a broad vision and set of objectives that may be articulated directly or indirectly in a number of ways, through the participation of NWT and Nunavut residents, organizations and governments in political, policy and planning processes, notably through land claim and self-government agreements, land use planning, and the development of regional strategies (see detail in S Appendix E, S. E.2.1). There needs to be consensus around the core elements of such a vision and the set of objectives that come from it.

Under Review and Discussion

G.3.2 Land Use Planning

Under Review and Discussion

Land use plans represent a broad 'vision' of the landscape, integrating social, cultural and economic values, and set the context for decision-making with respect to rights issuance, project screening/ assessment/ review, and regulation. As described in Appendix E, S.E.2.2, the absence of land use plans (draft or approved) in the NWT portions of the SGP presents a fundamental challenge with respect to CEAM. In the West Kitikmeot region, a draft land use plan was reviewed at public hearings in May 2002, is currently undergoing revision, and is expected to be submitted to the Ministers of DIAND and DSD in early 2003. Land use planning activities in the Nunavut and NWT portions of the SGP should be coordinated, and mechanisms established to improve linkages between regional land use planning and broader initiatives such as the NWT Protected Areas Strategy (PAS).

G.3.3 Baseline Studies and Monitoring

In order for CEAM to be effective, information relating to baseline environmental conditions, and trends over time, as well as the uses of land and water must be collected, analyzed and managed. A number of organizations are involved in related activities in the SGP (see Appendix E, S. E.2.3). However, there is no overall CEAM research and monitoring framework that articulates the key questions to be asked to guide these activities, to focus on priorities and decision-making needs. Specifically, the information that is generated must link (via adaptive management) to policy development, regulation/enforcement, and environmental management decisions. Both TK/IQ and conventional science can make contributions in this regard. Priorities and decision-making needs may vary on a regional basis within the SGP. Processes such as the development/implementation of the CIMP in the NWT, and the WKSS initiative to develop an interim plan for cumulative effects research and monitoring in the SGP should result in some progress in that respect.

The environmental baseline and monitoring information (particularly from 'other developments' in the case of project-specific CEA) needed to assist in the prediction, assessment, and management of cumulative effects may not exist or be readily accessible to project proponents, government agencies, and/or communities. Barriers to accessibility to existing information need to be identified and strategies

developed for overcoming them (see also 'Project-specific Screening, EA and Review', Section G.3.6, and 'Information Management, Section G.3.8 below).

Comprehensive cumulative effects monitoring programs have yet to be implemented in either the Nunavut or NWT portions of the SGP. DIAND's Coppermine River Cumulative Effects Monitoring Program is an initial step in this regard. Implementation of the NWT CIMP, and refinement of the NGMP to consider cumulative effects, would result in the provision of information needed to contribute to a 'feedback and decision support mechanism' for the remaining components of the CEAM framework that brings together research, monitoring, state-of-the-environment reporting and the auditing of environmental management processes and institutions. In its June 2001 report, the National Round Table on the Environment and Economy recommended that the Government of Canada allocate annual funding over a five-year period to the CIMP (at a cost of $3 million annually), and to five-year audits, including state-of –of the environment reporting. Sufficient funding and human resources is needed to permit the effective and efficient implementation of cumulative impact monitoring pursuant to both the CIMP and the NGMP. Coordination of monitoring activities in the SGP is needed to ensure that the findings present an accurate reflection of overall cumulative impact, acknowledging potential differences in the priority issues and indicators in the regions.

DIAND, in cooperation with a number of partners and stakeholders, held a workshop in November 2002 to explore the possible development of a Single Regional Monitoring Agency ('Regional Monitoring Agency') for SGP. At the workshop, it was agreed that options with respect to possible approaches for project-specific oversight and regional environmental/ cumulative effects monitoring in the SGP would be described in a discussion paper, and that further consultation is required. Development of a regional monitoring agency for the SGP could address a number of the issues that have been identified with respect to the institutional aspects of monitoring, including:

- providing a home for the regional aspect of the Responsible Authority for the CIMP on the NWT side of the SGP
- the amalgamation of the existing project-specific monitoring agencies into a regional monitoring agency that incorporates their mandates to the extent possible (as described for example, in IEMA 2001a and 2001b, Kennett 2001b, WKSS Society 2001a)
- the vehicle for the implementation of work on the study questions related to cumulative effects research and monitoring currently being developed by the WKSS Board
- serving as the 'champion' for the implementation of the CEAM Regional Plan of Action for the SGP.

Other potential functions of a regional monitoring agency are discussed in the Regional Plan of Action and its appendices(i.e., S. G.3.9 and the Regional Plan of Action for the SGP, Table 3). Should the development of such an approach proceed, design of a regional monitoring agency should take into account the lessons learned from predecessors and other partnership organizations in the NWT and Nunavut.

G.3.4 Research

As noted above with respect to monitoring, there is no overall framework for CEAM research and monitoring in the SGP. The WKSS initiative to develop an interim plan for cumulative effects research and monitoring should result in some progress in this regard. Some of the specific preliminary findings with respect to research included the following (see Terriplan/IER 2001a, b, c for more detail):

- Greater understanding of the resilience, or ability to buffer change, is needed for all species and for ecosystems. Thresholds and carrying capacities (which can themselves change over time) need to be studied and established in order to make better decisions about the potential effects of development. "How much is too much?"
- It is now time to go beyond describing 'what' is happening, and to move to understanding 'why' change occurs. A better understanding of 'cause and effect' is needed, as well as the relative effects of 'natural' and 'man-made' changes; and of the influence of various stressors (e.g., climate change, forest fires, industrial activity, recreational hunting/fishing, subsistence / traditional activities, community expansion, infrastructure development etc.).
- There is a need to take a 'big-picture' ecological approach, in addition to looking at species in isolation from each other and their environment. There is recognition that understanding change over the long term in complex systems will take many years of effort.
- There is a need to examine the potential contribution/limitations of various predictive cumulative effects modeling tools that are being developed in terms of their potential application in the SGP. If such tools are to be used, there will be associated information needs.

The identification and confirmation of CEAM research questions (at territorial and regional levels) through consultation with stakeholders, and the funding of a coordinated implementation of a research plan to address them, is needed. Socio-cultural, as well as biophysical, research needs must be addressed. Both TK/IQ and western science need to make contributions. An integrative 'regional' approach to the use of TK/IQ, drawing on Dene, Metis and Inuit sources, would be useful. This has been done in other contexts, e.g., the Hudson Bay project on caribou and environmental change.

The National Round Table on the Environment and Economy (June 2001) recommended that the WKSS partners provide the funding needed to ensure that the research undertaken by the WKSS to support cumulative effects assessment and monitoring continues during the interim period following the end of the WKSS mandate (April 2001) and the establishment of a successor organization or initiative.

There is a need to study predicted effects (CEA) and observed effects (monitoring, audit and reporting) of industrial projects. Another area requiring additional work relates to 'best practices' (e.g., techniques for reducing/overlapping footprints; 'intensity' of development; mitigation measures) for CEAM in the SGP and other jurisdictions - what has worked in practice, what has not, and why?

G.3.5 Audit and Reporting

At this time, there is no 'state-of-the-environment' reporting system that collects monitoring information and evaluates it in terms of environmental trends and thresholds or carrying capacity, for use in decision-making. The wide range of information that is collected must be analyzed and reported if a link is to be made to policy development and decision-making. Part 6 of the *MVRMA* provides for this type of evaluation and reporting, but the NWT CIMP and audit have yet to be implemented. The project-specific monitoring agencies for the BHP EKATI™ and Diavik projects do prepare annual reports on their individual projects, but these are not intended as regional state-of-the-environment reports.

A periodic audit of the effectiveness of the various components of the CEAM Framework in the SGP (see Appendix E, S.E.2.5 above) is also needed in order to ensure that objectives are met and that adaptation to new challenges occurs. The audit provided for in Part 6 of the MVRMA and the Dogrib Final Agreement could fulfil (at least to a large extent) such a function in the NWT portion of the SGP. In its June 2001 report, the National Round Table on the Environment and Economy recommended that the Government of Canada allocate funding for five-year audits, including state-of –of the environment reporting, in the NWT. However, there is no corresponding audit function in Nunavut. If possible, existing frameworks should be utilized for this purpose. For example, the five-year review of the *NLCA*

implementation, or periodic reviews of regional land use plans may provide opportunities for a limited form of critical evaluation or audit to occur. However, this is not the primary function of these types of review.

Ultimately, there must be coordination of environmental audit and reporting functions within in the SGP to ensure an integrated approach that would ensure that results can be used to improve CEAM in the SGP. Sufficient funding and human resources are needed to permit the effective and efficient implementation of audit and reporting across the SGP. All information related to the audit must be publicly available, and there must be mechanisms in place to ensure that organizations respond to the recommendations made in each audit.

G.3.6 Project-Specific Screening, Environmental Assessment and Review

The project-specific environmental assessment processes under both the *MVRMA* and the *NLCA* are relatively new and there is little experience with them at this time - both in terms of their procedures and effectiveness, as well as how the MVEIRB/NIRB coordinate and interact with other boards and government agencies involved in cumulative effects assessment and management in their jurisdictions, and in the transboundary context. Specifically, concerns have been raised about how the potential transboundary effects of individual development proposals in the vicinity of the border between Nunavut and the NWT will be addressed (e.g., GeoNorth 1999). At this time, there is no formal mechanism for doing so, although there are provisions within the *MVRMA* (e.g., S. 107, S. 140-142) and the *NLCA* (e.g., A. 10, P. 4: A. 13, P.6) for coordination of processes where transboundary effects are possible. This is further complicated as the *CEAA* still applies in Nunavut and in the NWT under limited circumstances. This will present an initial challenge in dealing with CEA on a project-specific basis in the SGP.

There is a need for clear guidance from regulators to project proponents, government review agencies, resource managers, communities and others as to their expectations with respect to cumulative effects assessment and management in the context of project-specific CEA. This could relate to scoping, the level of effort required, identification of VECs, determination of significance, and the roles and responsibilities of different parties. Such guidance should result in more efficient processes, as well as mutual expectations and understanding for stakeholders. While the MVEIRB has issued draft guidance on CEA, this has not occurred in Nunavut. The Canadian Environmental Assessment Agency has developed a practitioners guide to CEA (Cumulative Effects Assessment Working Group and AXYS Environmental Consulting Ltd., 1999).

Tools need to be developed to allow all of the organizations with roles in project screening, environmental assessment and review to work together to address cumulative impact issues in their processes, particularly transboundary issues. The human and financial resources necessary to provide for effective CEA and participation in these processes must be provided. This would result in a significant enhancement of the ability of organizations to prepare CEAs of a high quality.

The focus to date has been on large industrial development projects, but cumulative effects also result from abandoned/contaminated sites, government/municipal initiatives (e.g., infrastructure development), exploration, and a number of smaller-scale developments and activities that are not subject to formal impact assessment (e.g., 'community sprawl', hunting, tourism outfitting). Other stressors, including climate change, persistent organic pollutants (POPs) and natural environmental processes/variation, have effects on the environment that contribute to overall cumulative change. How can the full range of activities be considered in CEAM? Mechanisms must be developed whereby the broad range of stressors (e.g., large/small projects; communities/ municipalities; outfitting/tourism; climate change; LRTAP; natural variation) contributing to cumulative effects can be addressed in CEAM. Consistent approaches are needed for dealing with the cumulative effects of activities, whether related to municipal / infrastructure development, the mining industry, other industrial development, tourism/outfitting or federal

and territorial government activity.

With each new environmental assessment, the project proponent's CEA starts as a 'blank slate'. There is a need to bring together or consolidate the findings of previous studies and ongoing monitoring into a regional CEA. This speaks to the need for a 'feedback and decision support mechanism' that brings together research, monitoring, state-of-the-environment reporting and the auditing of environmental management processes and institutions. Utilizing information management systems, the feedback mechanism would then provide input to other framework components (e.g., land use planning, project-specific screening, environmental assessment and review, regulation and enforcement), as well as to the overall assessment of cumulative effects at a regional (as opposed to project-specific) level. Each new project-specific CEA would then be considered in that context, building upon all of the work that has preceded it.

G.3.7 Regulation and Enforcement

The regulatory framework in the NWT and Nunavut is constantly evolving; many of the decision-making and environmental management systems in place are relatively new and untested. CEAM represents an additional challenge for organizations that have much broader mandates to fulfill. Strengthening the components of the CEAM Framework (e.g., land use planning, and the feedback/decision support mechanisms (i.e., baseline studies and monitoring, research, audit and reporting, information management) should help regulatory agencies in their efforts to address cumulative effects. A fully functional CEAM Framework should also allow a shift in emphasis from the assessment and management of cumulative effects to the policy and planning measures that can minimize the potential of them occurring in the first place (e.g., use of terms and conditions; enhanced inspection and enforcement; consideration of cumulative effects during rights issuance/exploration). Consideration also needs to be given to the cumulative effect of those activities not subject to screening or environmental impact assessment (e.g., exploration, harvesting). In addition, there is a perception that there are discrepancies in the application of regulatory standards to industry, government and municipalities; the management of cumulative effects will be hampered if government and municipalities are not held to the same high standards as industry.

G.3.8 Information Management

In recent years, the importance of information management within and between individual public and private organizations, and for the purposes of sharing information amongst organizations and the public, has grown markedly. While the need for access to information grows, there are many challenges to be faced, including: system compatibility, confidentiality/access limitations, diverse user needs, organizational capacity, standards for data / metadata, duplication of effort, and human / financial resource limitations. There are large volumes of different types of information (e.g., regulatory processes for specific projects, reports/documents, diverse kinds of environmental monitoring data, TK/IQ) to be managed. Much of the information generated as part of the various framework components will be relevant to activities undertaken in other components. A comprehensive set of information management tools is needed that can be accessed by a range of user groups. However, this will require leadership, support and cooperation from a number of levels of government and others providing/needing information. The multi-jurisdictional nature of the SGP adds to the complexity of the situation.

The establishment of a comprehensive information management system (IMS) is needed to support CEAM throughout the SGP. IMS development activities are already underway in both the NWT (e.g., NWT CIMP, CIMP/CEAM information management workshop in January 2001) and Nunavut (e.g., NED, PLANNER, Nunavut Resource Centre). An IMS for the SGP will need to address further the level of integration needed to deal with information sharing between Nunavut / NWT. A strategy for information

management in the SGP would include:

- A systematic identification and cataloguing of existing baseline and monitoring data, and other information relevant to CEAM in the SGP (see S. G.3.3 'Baseline Studies and Monitoring', and G.3.4 'Research', above)
- The establishment of terms of reference, setting out the key components of the system, the roles and responsibilities of the parties involved in its operation, and the procedures for cataloguing and distributing information
- A mechanism for decision makers and other interested parties to identify the key data and information needs that must be met by the IMS, so that it will effectively support decision making relating to CEAM;
- Specific protocols dealing with standards for data and metadata and with confidentiality issues relating to commercially sensitive information and intellectual property rights;
- A set of principles and guidelines regarding the incorporation of TK/IQ within the IMS;
- A mechanism linking the IMS with cumulative impact monitoring and environmental auditing functions;
- A data sharing agreement among the principal government departments and agencies, Aboriginal organizations, private companies, academic institutions, environmental non-governmental organizations and other parties that generate and use data relevant to CEAM in the SGP;
- An assessment of overall needs for technical expertise, hardware and software, so that economies of scale in these areas can be realized across the SGP; and
- A communication and information dissemination strategy to insure that information relevant to CEAM is available to the full range of users, including individuals and organizations in communities who may not have easy access to specialized expertise or equipment (this may also occur in the context of 'reporting', see S. G.3.5, above).

Under Review

G.3.9 Coordination of the Regional Plan of Action and CEAM Activities

There is no one organization or mechanism in place to coordinate CEAM across the Nunavut/NWT boundary. Within the NWT, and to some extent in Nunavut[41], no one organization or regulatory process has overall authority for coordinating cumulative effects assessment and management either regionally or at a territorial level. In some cases, the evolving roles of organizations have resulted in 'turf wars' – both geographic, and in terms of roles and responsibilities. However, each organization or regulatory process has some responsibility for CEAM. Coordination on an inter-jurisdictional level can allow for some efficiencies of scale, reduced duplication of effort and process, and may allow for more effectively dealing with transboundary issues. Some of the possible functions associated with coordination of the Regional Plan of Action include[42]:

- Multi-jurisdictional coordination of CEAM activities in the SGP, or with respect to transboundary CEAM
- Linkages with the range of organizations (at the regional, territorial or federal level) involved in implementation, and their processes
- Consultation, communication and education with respect to CEAM in the SGP portions of Nunavut and the NWT
- Leadership in terms of the identification of gaps and priorities, and development of strategic recommendations to address them (see Appendix B, S. B.5.3)
- Identification and resolution of issues or disputes

[41] In Nunavut, the Nunavut Planning Commission does have a broad coordinating role with respect to land use planning and development screening.
[42] The NWT CEAM Steering Committee is still considering the functions associated with CEAM Framework coordination (NWT CEAM Steering Committee, March 2002), and possible institutional options, as outlined in a draft discussion paper (CEAM Secretariat, January 24, 2001).

- Information management
- Audit and reporting (including annual 'report cards' on the implementation of the Regional Plan of Action)
- Facilitation of the 'big picture' vision and objectives

It is important to avoid the creation of a new layer of bureaucracy to oversee implementation of the Regional Plan of Action in the SGP. Coordination of existing bodies and leadership at the SGP level may be the most effective way of ensuring that the CEAM Framework operates as an integrated system, particularly in the transboundary areas. For example, current discussions about the evolution towards a single regional monitoring agency (see Appendix E, S. E.2.3, above) should be continued.

Design of a regional monitoring agency should take into account the lessons learned from predecessor/other partnership organizations. Such a body could:

- Provide a home for the regional aspect of the Responsible Authority for the CIMP on the NWT side of the SGP
- Amalgamate the existing project-specific monitoring agencies into a regional monitoring agency that incorporates their mandates to the extent possible (as described for example, in IEMA 2001a and 2001b, Kennett 2001b, WKSS Society 2001a)
- Be the vehicle for the implementation of work on the study questions related to cumulative effects research and monitoring currently being developed by the WKSS Board
- Serve as the 'champion' for the implementation of the CEAM Regional Plan of Action for the SGP.
- Address the ongoing need for communication, coordination and collaboration among interested parties to identify and address gaps and priority issues relating to CEAM
- Provide a vehicle for strengthening linkages among the components of the CEAM Framework
- Provide a vehicle for consultation and education relating to CEAM
- Provide a venue for interested parties to address transboundary aspects of CEAM in the SGP
- Liaise with territorial/other regional bodies implementing the NWT CEAM Strategy and Framework or other regional plans of action
- Provide a means of bringing together interested parties to address issues of mutual concern

G.4 Broader Gaps and Challenges

G.4.1 Traditional Knowledge/Inuit Qaujimajatuqangit

There has been progress in terms of a better understanding of TK /IQ and the contribution it can make to CEAM. However, more effort is needed to see that TK/IQ and conventional science are both used as complementary sources of information in all of the components of the CEAM Framework in the SGP. The effective application and use of TK/IQ for the purposes of CEAM faces several challenges (see for example, Barnaby and Emery, 2001; Barnaby 2000), including the following:

- TK/IQ is held by a limited number of individuals; there is not the capacity to meet current demands – training of TK/IQ researchers and interpreters is needed so that individuals involved in land use planning, monitoring, inspection etc. can use this knowledge in their work.
- There are a limited number of interpreters who can bridge the gap between conventional science and TK/IQ
- The absence of standing advisory bodies that can provide guidance on the use of TK/IQ to industry, government and others that can benefit from it
- Lack of agreement on the quality and nature of TK/IQ that will be shared with government / industry, as well as amongst communities
- The relatively fast pace and technical orientation of development processes, and the demands they place on communities

- Few models or guidelines demonstrating how TK/IQ can be used in the CEAM Framework components[43]. The evolving planning, monitoring, regulatory and environmental management regime in the SGP, particularly in the areas where land claims are not yet settled, contributes to the complexity of developing models / guidelines for using TK/IQ.
- The need to develop mechanisms whereby those who are on the land now can report the changes that they see based on their experience, and the tools to understand why changes are occurring
- Limited capacity among non-Aboriginal peoples to understand how to use traditional knowledge in the scientific framework of CEAM activities
- The need for improved accountability on the part of all parties (industry, government, Aboriginal peoples) to use TK/IQ appropriately, provide means of verifying the accuracy of TK/IQ, and demonstrating how the knowledge was collected/ verified/ used
- Issues of intellectual property rights
- Logistical issues associated with the documentation/management of TK information
- Lack of an integrative 'regional' approach to the use of TK/IQ, drawing on Dene, Metis and Inuit sources

An approach should be developed to integrate TK/IQ into all components of the CEAM Framework. Partnership will be required to effectively use TK/IQ to identify, understand and manage cumulative effects.

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Discussion
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G.4.2 Community & Organizational Capacity Development

Resources (e.g., financial, leadership, and staffing) will be required to implement the Regional Plan of Action. This presents a challenge not only to the communities, but also to Aboriginal and government organizations. Will these resources be 'new' or reallocated from other areas? It may be necessary to build additional capacity in order to participate effectively, keeping abreast of knowledge, processes and initiatives. Some feel there is not a lack of resources, but a need to focus existing resources on priority needs. How will the costs associated with regional CEAM be allocated amongst various parties?

It has been noted that by encouraging youth to get involved in CEAM-related activities, such as research and monitoring, the potential for future capacity is enhanced if they choose to follow associated career paths[44]. The Canadian Polar Commission (2001) reports that in 1998, only 197 students from the NWT, and 50 from Nunavut, were receiving assistance for post-secondary education.

While the reality is that jobs are needed for the residents of the SGP, it is also desirable to diversify the types of opportunities that will be available. Employment and training should be encouraged not only for the skilled labour forces of industrial projects, but more broadly in service, management and professional capacities for industry, government and communities (e.g., health care, teaching etc.). For example, environmental monitoring/management is an area where demands will increase in the future. There is a need to "ensure the vitality and relevance of traditional culture in an increasingly industrial world" (Lutsel K'e Dene First Nation, 2001). To achieve this, training will have to address not only the conventional skill sets needed for participation in the wage economy, but also the skills and knowledge needed to bring TK/IQ into a widening range of professions. Over the longer term, diversification will result in more sustainable economic development, as well as increased community capacity. Residents will be able to stay in the north while working at valued jobs that contribute to sustainable community development.

[43] Guidance developed for other jurisdictions can be reviewed for its relevance in a northern context, and modified as appropriate to reflect the experience of the Aboriginal people in the SGP.
[44] See for example, the five recommendations of the National Round Table on the Environment and Economy (2001) related to community capacity building; the more general need for capacity development is addressed in, for example, the Government of Nunavut's 'Bathurst Mandate' [2000].

The capacity of all organizations to deal with CEAM will have to be strengthened through a variety of means. A strategy for assessing and addressing the capacity-related needs of communities, Aboriginal organizations, Institutions of Public Government, and federal/territorial government organizations with respect to CEAM must be developed. The strategy will have to consider the financial, human resource, knowledge and other constraints to effective participation in CEAM processes. Training that will contribute to long-term sustainable community development through diversified opportunities must be implemented.

There are successful models that should be evaluated for use elsewhere, e.g. the Lutsel K'e Land and Environment Centre. Training programs have been developed for community monitoring programs. There has been success with speakers doing presentations on environmental monitoring and management at high school and college level classes.

The SGP Project Group has noted that it may be necessary to consult with organizations having more expertise with respect to community and organizational capacity development. There are opportunities for capacity development activities throughout the CEAM Framework and in the Regional Plan of Action itself. While many organizations have interests in community and organizational capacity development, the lead or coordinating organization is not immediately evident. Further discussion is needed in this regard.

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Under Review and Discussion