

## Part B: CUMULATIVE IMPACT MONITORING PROGRAM

### 8.0 CUMULATIVE IMPACT MONITORING PROGRAM

#### 8.1 EXPECTATIONS FOR CUMULATIVE IMPACT MONITORING

In 1992, the Government of Canada committed to the Gwich'in that a method to monitor cumulative impacts would be provided. Since then, similar commitments have been made to the Sahtu, Tlicho and, through the MVRMA, to all residents of the Mackenzie Valley. Today, thirteen years after the implementation of the Gwich'in claim, despite years of planning, a comprehensive cumulative impacts monitoring program has not been implemented and limited environmental baseline and cumulative impact data are available to decision makers in the NWT. During the same period, the level of development activity in the NWT has grown significantly and current trends are expected to continue well into the future.

The combined effects<sup>78</sup> of multiple activities are referred to as cumulative effects or impacts. These combined impacts may be significant even though the individual impacts of each action, when evaluated independently, are considered insignificant. Cumulative impacts therefore represent the most appropriate measure as to whether or not subsequent activities should be allowed to occur.

Although the incorporation of cumulative impacts is a relatively new development in regulatory processes, the concept is strongly integrated into the holistic environmental thinking of Aboriginal people. Such thinking places an emphasis on the sustainability of the total environment and on each of its interconnected parts.

The NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT, Revised Draft Five-Year Work Plan indicated that:

*NWT residents and other interested parties have long-standing concerns about the potential cumulative effects of resource development activities on the environment of the NWT. Many of these concerns relate to uncertainties about the effectiveness of government monitoring and management of natural resources, and the lack of coordination among existing environmental research and monitoring programs<sup>79</sup>.*

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<sup>78</sup> The terms impact and effect are used interchangeably

<sup>79</sup> NWT CIMP and Audit Working Group, 2005 NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT Revised Draft Five-Year Work Plan. March 16, 2005

Responsible environmental decision-making requires that projects be evaluated in the context of other past, current and reasonably foreseeable activities (i.e., the cumulative impacts of projects). This is recognized by the Land Claims Agreements and the MVRMA which require cumulative impacts on the environment to be monitored and to be considered in Environmental Assessments and Environmental Impact Reviews. Fulfillment of this requirement necessitates adequate resources, a detailed implementation strategy and a firm commitment to act on that strategy.

The need to consider cumulative impacts is heightened by current development pressures throughout the NWT. In particular, interest in mining has focused on diamonds in the eastern regions, while oil and gas activities, including a proposed gas pipeline, are dominant in the west. Furthermore, it is important to consider that existing and proposed developments are unevenly distributed throughout the territory. Exploration and development activity for oil and natural gas in the Cameron Hills, diamonds in the Slave Geological Province as well as natural gas near Colville Lake and in the Mackenzie Delta all represent examples of increased development density. However, progress in implementing cumulative impact monitoring programs in the NWT has been slow.

The foundation of cumulative impacts assessment is information which allows for the definition of a historic or current set of baseline conditions, and which includes regular observations to determine changes in those conditions. Monitoring may occur at a number of different levels (e.g., project-specific, local/community, regional, territorial, national, international) and for a number of different purposes<sup>80</sup>. This information needs to be of sufficient quality and quantity to support decisions about cumulative impacts with a reasonable degree of certainty. It also needs to be readily accessible for analysis and decision-making.

The Preliminary State of Knowledge Report<sup>81</sup> confirmed that there was little or no scientific baseline data in many cases. While there is a great deal of traditional knowledge about Valued Components (VCs), much of it is not recorded and it is not always used effectively in decision-making.<sup>82</sup>

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<sup>80</sup> NWT CIMP and Audit Working Group, 2005 NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT Revised Draft Five-Year Work Plan. March 16, 2005

<sup>81</sup> DIAND, 2005, A Preliminary State of Knowledge of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit. Final Draft, February 1, 2002, Updated February, 2005.

<sup>82</sup> NWT CIMP and Audit Working Group, 2005 NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT Revised Draft Five-Year Work Plan. March 16, 2005

## **8.2 LEGAL BASIS FOR THE CIMP**

Requirements for a method to monitor cumulative impacts are defined in the Land Claims Agreements and the MVRMA. In the case of the settled Land Claims Agreements, the terminology of the commitments is identical.<sup>83</sup>

*The legislation ... shall provide for a method of monitoring the cumulative impact of land and water uses on the environment in the Mackenzie Valley*<sup>84</sup>

In accordance with these commitments, a provision was included in the MVRMA (s. 146) for “the responsible authority..., subject to the regulations, [to] analyze data collected by it, scientific data, traditional knowledge and other pertinent information for the purpose of monitoring the cumulative impact on the environment of concurrent and sequential uses of land and water and deposits of waste in the Mackenzie Valley”.

By law, the NWT CIMP is to apply to the Mackenzie Valley as defined in the MVRMA. By design, the CIMP also includes the Inuvialuit Settlement Region<sup>85</sup> and the NWT portion of Wood Buffalo National Park. CIMP is to use a broad definition of the environment including biophysical, social, economic and cultural aspects of the NWT environment.

Section 150 of the MVRMA provides authority to the Governor in Council to make regulations respecting the collection and analysis of cumulative impacts information. To date, no regulations have been developed. The CIMP Secretariat has indicated that the intent is to have the CIMP fully implemented and working well before drafting such regulations. The 5-Year Work Plan for the CIMP and Audit identified the preparation of draft regulations as a task that will be conducted in the period between 2005 and 2010. Until such regulations come into force, INAC retains the role of Responsible Authority and is charged with ensuring the CIMP is designed and implemented in accordance with the Land Claim Agreements and the MVRMA. This absence of regulations was not viewed as impeding the CIMP implementation process.

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<sup>83</sup> It is anticipated that final agreements for unsettled claims in the NWT will include similar clauses.

<sup>84</sup> 24.1.4 - Gwich'in Comprehensive Land Claim Agreement (in effect 1992)  
25.1.4 - Sahtu Dene and Metis Comprehensive Land Claim Agreement in effect 1994)  
22.1.10 - Tlicho Agreement: Land Claim and Self-Government Agreement (in effect 2005)

<sup>85</sup> The Inuvialuit Final Agreement (IFA) does not specifically address cumulative impact monitoring and the MVRMA does not cover the IFA. Section 4 of the IFA does, however, state that the Inuvialuit are entitled to the rights and benefits of other citizens under any legislation, and that “where restructuring of the public institutions of government is considered for the Western Arctic Region, the Inuvialuit shall not be treated less favourably than any other native groups or native people with respect to the governmental powers and authority conferred on them.” On this basis, Inuvialuit participate as full members in the CIMP, as formalized in a Memorandum of Understanding signed in November 2003.

### **8.3 CIMP PARTICIPANTS**

**Key interested parties have been involved in the development of the CIMP, consistent with requirements under the MVRMA and the Land Claims Agreements that the process be consultative and participatory.**

Planning activities directed towards the fulfillment of cumulative impact monitoring commitments specified in the Gwich'in Claim occurred between 1993 and 1998. Participants in these planning activities included representatives from the Gwich'in Tribal Council, INAC and the Government of the NWT. Following the enactment of the MVRMA, a "trans-regional" approach to cumulative impacts was adopted and, in early 1999, a CIMP "Working Group" was established. The Working Group is now composed of representatives from the Dehcho, Gwich'in, Inuvialuit<sup>86</sup>, Sahtu, Tlicho, North Slave Metis Alliance, NWT Metis Nation, INAC and the Government of the NWT. The Akaitcho are not currently participating on the Working Group, but are copied on all correspondence related to the program. In addition to the members identified above, organizations with technical or operational interests and expertise in cumulative impact monitoring have been invited to join the Working Group as observers. Environment Canada, the Department of Fisheries and Oceans, and the MVEIRB have accepted such invitations.

Within INAC, the Environment and Conservation Division has assumed the lead role of the CIMP Program Coordinator. This division provides the CIMP Secretariat which supports the CIMP Working Group.

The Working Group concept is consistent with the co-management philosophy and the spirit of participation embodied in the MVRMA and the Land Claims Agreements which call for a "meaningful role" for Aboriginal people in any body established by legislation to carry out cumulative impacts monitoring. In this regard, the Working Group has a broad membership drawn from Aboriginal claimant groups, either as participants, or observers (Regional Aboriginal organizations choose whether to participate as members or observers), including Aboriginal groups in the Mackenzie Valley not presently party to a Land Claims Agreement and those not subject to the MVRMA (e.g., Inuvialuit). The design of the CIMP has been guided by the Working Group, incorporating feedback from various community consultations. Working Group decisions are made by consensus.

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<sup>86</sup> The Inuvialuit Final Agreement (IFA) does not specifically address cumulative impact monitoring and the MVRMA does not cover the IFA. Section 4 of the IFA does, however, state that the Inuvialuit are entitled to the rights and benefits of other citizens under any legislation, and that "where restructuring of the public institutions of government is considered for the Western Arctic Region, the Inuvialuit shall not be treated less favourably than any other native groups or native people with respect to the governmental powers and authority conferred on them." On this basis, Inuvialuit participate as full members in the CIMP, as formalized in a Memorandum of Understanding signed in November 2003.

The approach used by the Working Group has been highly collaborative. This process is inherently positive in that it facilitates the incorporation of a wide variety of perspectives, particularly those provided by Regional Aboriginal representatives.

#### **8.4 OVERVIEW OF CIMP ACTIVITIES**

**With the exception of a relatively modest investment in monitoring and capacity-building projects, the majority of effort and financial resources expended by the CIMP Working Group have been directed towards program development, not program implementation. As a decision-support and feedback mechanism, the absence of a fully implemented CIMP compromises the ability of participants in the system to make informed environmental management decisions.**

The CIMP Working Group has met on more than 45 occasions over the past 6 years via teleconference or in face-to-face meetings. During this time, the majority of effort appears to have been directed towards collaborative activities such as meetings, workshops and planning sessions intended to support the development of a consensus, community-based monitoring program. Investments have also been directed towards consultants to assist in the design of the program.<sup>87</sup> The value of these efforts and investments must ultimately be measured by the extent to which they have contributed to the design of an effective program.

Since its inception in 1999, the Working Group has focused on the design of the NWT CIMP and Audit<sup>88</sup>. Towards this end, the Working Group has conducted or funded a number of related activities, including:

- draft five-year work plan for the NWT CIMP and Audit;
- final Terms of Reference for the NWT Audit;
- discussion of the principles to be addressed in drafting regulations under section 150 of the MVRMA and development of a draft implementation framework;
- regional and community consultations;
- identification of priority Valued Components and development of draft state of knowledge reports;
- background research on monitoring and auditing programs;
- support for monitoring and capacity-building projects;

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<sup>87</sup> The costs incurred by the CIMP program are supportive of this assertion. Between 2000 and 2004, approximately 70% of the expenditures on the CIMP were directed towards Working Group costs (meetings, travel, regional consultations and communication) and consultants. This estimate does not include the costs incurred by INAC through the CIMP Secretariat (approximately two full-time equivalents). It should, however, be noted that the estimate includes Working Group expenditures that were directed towards the development of the CIMP and the NWT Environmental Audit (e.g., developing the Terms of Reference for the Audit).

<sup>88</sup> The preparation of the Terms of Reference for the NWT Environmental Audit, selection of the independent auditor and Audit facilitation has been undertaken by a Sub-Committee of the CIMP Working Group.

- Information Management System Options Study;
- the NWT CIMP - Tariuq (Ocean) Monitoring Inventory;
- liaison with related research and monitoring programs, including presentations and briefings; and,
- development of communications materials and workshops.

Despite these activities, thirteen years after the signing of the Gwich'in claim and seven years after the MVRMA came into force, there is limited evidence to suggest that the CIMP is fulfilling its primary objective of ensuring that information necessary to make informed decisions on cumulative impacts is available. With the exception of a relatively modest investment in monitoring and capacity-building projects, the majority of effort and financial resources expended by the Working Group have been directed towards program development. The monitoring and capacity building projects that have occurred to date have fulfilled only a very small portion of the identified need<sup>89, 90</sup>.

This is a critical shortcoming. The CIMP is an “essential component of the integrated resource management system established by the MVRMA”.<sup>91</sup> As a decision-support and feedback mechanism, the absence of a fully implemented CIMP compromises the ability of participants in the system to make informed decisions about resource use and environmental management. In general, the lack of an implemented CIMP impacts the effectiveness of decision-making processes as well as the decisions themselves.

During Audit meetings, representatives from claimant organizations, communities, Boards, government, NGOs and industry all expressed support for a program that serves as a focal point for the collection and analysis of information on cumulative impacts. However, this support is accompanied by a widespread frustration in the lack of progress that has been made in the implementation of the CIMP. In particular, lack of progress in implementing the CIMP has been, and continues to be of concern to Aboriginal groups:

*In the five-year review of the Gwich'in land claim implementation agreement, lack of progress on the development and implementation of the CIMP was identified as a concern (1997). The Gwich'in review noted that “The GTC and GNWT have expressed concern with communications on CIMP to date. Delay in CIMP development from DIAND may impose costs to the regulatory regime in the GSA [Gwich'in Settlement Area] once MVRMA legislation is passed.” Gwich'in and Sahtu organizations continue to express*

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<sup>89</sup> Over the past five years, approximately one-third of the total CIMP Working Group budget has been directed towards a total of 55 monitoring and capacity building initiatives (excluding the implementation of the 2005 Audit). Average funding per initiative was approximately \$12,000.

<sup>90</sup> Once fully implemented, projected CIMP spending for monitoring and capacity building is approximately 17 times its current level.

<sup>91</sup> NWT CIMP and Audit Working Group, *2005 NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT Revised Draft Five-Year Work Plan*. March 16, 2005

*their view of the need for sufficient funding for the development and timely implementation of the NWT CIMP and Audit (e.g., in the annual reports for 2001/2002 and 2002/2003 on claims implementation).<sup>92</sup>*

### **8.5 CIMP IMPLEMENTATION CONSIDERATIONS**

**The current 5-Year Draft Work Plan provides a high-level vision for the CIMP and presents a framework of what it will do; however, it needs to more specifically address how the program will be implemented. In the absence of a detailed, operational plan, it is difficult to ascertain the extent to which the Draft Work Plan is capable of fulfilling its mandate.**

While the Land Claims Agreements and the MVRMA require the monitoring of cumulative impacts, these documents are silent on the processes that are to be used to meet this need. Guidance would be beneficial in fulfilling these requirements. In undertaking our review, we expected appropriate guidance would be provided by: 1) a strategic vision; and 2) a detailed implementation plan. Responsibility for these critical CIMP components rests with the Working Group.

In addition to other activities, a major focus of the Working Group has been the preparation of a Work Plan for the CIMP. This plan is presented in the “Revised Draft Five-Year Work Plan” for the CIMP and Audit (March, 2005). The 5-Year Work Plan presents a strategic vision for the CIMP which, on review, was found to be consistent with requirements under the MVRMA and Land Claims:

*When implemented, the NWT CIMP will provide resources to help fill gaps in current environmental monitoring, report on the state of the NWT environment and the cumulative impacts of land and water uses and deposits of waste and encourage community-based monitoring and capacity building.<sup>93</sup> – emphasis added*

The goal for the CIMP is admittedly challenging; the geographic scope of the NWT, the breadth of the environmental components and the complex regime within which it is to operate must all be taken into account. To effectively respond to these challenges, a comprehensive, clearly articulated plan that provides detailed operational strategies is necessary.

A functional operational plan for the CIMP should describe in detail the analytical, decision-making and data management processes that will be used to undertake a wide variety of tasks. Based on the scope and importance of the CIMP, we expected that the Work Plan would provide a comprehensive, “ready to implement” strategy that is capable of addressing considerations such as:

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<sup>92</sup> Ibid

<sup>93</sup> Ibid

- Interface between the CIMP and other components of the MVRMA system;
- The systematic selection of valued components;
- Logical processes to identify program priorities and allocate available resources;
- The design, population and use of a comprehensive data management system;<sup>94</sup>
- Tracking and incorporating information from existing studies;
- Systematic identification of data gaps;
- Quality assurance, quality control and selection of performance criteria;
- Routine and systematic analysis of data, identification of cumulative impacts and evaluation of trends;
- Identification of programmatic resource gaps;
- Establishing guidelines for CIMP contributors and users;
- Program performance assessment and revision;
- Communications and reporting.

The Working Group has done an effective job in identifying these requirements in the Revised Draft Five-Year Work Plan; however, the current Work Plan offers very limited guidance on how these requirements will be met. In this regard, the Work Plan constitutes a high-level planning document and not an operational plan. While the Work Plan provides a vision for the CIMP and describes a conceptual framework of what it will do, it fails to answer the more difficult question of how the program will be implemented. In the absence of a detailed plan, it is difficult to ascertain the extent to which the Work Plan is capable of fulfilling its mandate.

While it is acknowledged that one of the operational principles of the CIMP Working Group, as specified in its Terms of Reference, was to “Go slow” to ensure that the CIMP is capable of meeting the needs and expectations of all participants, the length of the collaborative process has come at a cost. Specifically, during the period in which the Working Group was preparing its Work Plan, numerous projects were approved without the benefit of a systematic evaluation of cumulative impacts. Similarly, based on the current status of the CIMP and its Work Plan, we have limited confidence that the program will be capable of providing useful input to the MVRMA system within the next several years.

**Recommendation 49:**      **The Working Group should make the development and implementation of a detailed, operational work plan, which clearly identifies and addresses monitoring needs, an immediate priority. The preparation of the plan should provide for involvement of interested parties without unduly delaying the process; plan preparation and review should**

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<sup>94</sup> It is noted that a ‘data warehouse’ (Information Management System) is currently being designed through the NWT CEAM Strategy and Framework initiative.



occur in tandem. The implementation plan should be subjected to periodic reviews and amendments as operational experience is obtained.

## **8.6 FUNDING OF CIMP**

**While 5-year funding needs have been estimated by the CIMP Working Group, the adequacy of this funding can be fully assessed only in the course of program implementation.**

Funding for implementation of the CIMP has been allocated within the “Claims Envelope” but accessing these funds through the Treasury Board for a five-year period has, according to the CIMP Secretariat, proved to be challenging. The funding process and lack of long-term, multi-year funding was also described as a limiting factor in the ability of the CIMP Working Group to support activities that require advance planning and continuity (e.g., field studies). The submission of an application for long-term program implementation funding is, we are told, imminent:

*... the Federal government’s obligations regarding the NWT CIMP and Audit extend in perpetuity, and ongoing long-term funding will be necessary.<sup>95</sup>*

The Draft Five-Year Work Plan has assumed for discussion purposes that \$3.1 million per year for Years 1 through 3, \$3.7 million for Year 4 (Audit Year) and \$3.1 million for Year 5 is needed for implementation of the NWT CIMP (total of \$16.1 million for the entire NWT); however, given the lack of specific monitoring requirements within the CIMP Work Plans, no assessment can be made on the adequacy of the identified budget estimate or for long-term funding needs.

**Recommendation 50:            Given that CIMP activities will extend in perpetuity, a source of long-term, stable funding will be required, with periodic reviews to account for changing program needs.**

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<sup>95</sup> NWT CIMP and Audit Working Group, 2005 NWT Cumulative Impact Monitoring Program (CIMP) and Audit – An Environmental Monitoring Program and Audit for the NWT Revised Draft Five-Year Work Plan. March 16, 2005

## **8.7 OTHER CONSIDERATIONS**

**The CEAM Strategy, Framework and Blueprint have the potential to make valuable contributions to the evaluation of cumulative effects. However, the absence of land use plans and the CIMP are significant gaps in the CEAM Strategy and Framework. This is limiting the ability of participants in environmental management processes to effectively consider and act on issues involving cumulative effects.**

Once implemented, information provided by the CIMP will play an important role in decision-making involving cumulative impacts. In addition, there are other components of the environmental management regime that also need to be in place and effectively coordinated to ensure cumulative impacts are given appropriate consideration. The Cumulative Effects Assessment Management (CEAM) Blueprint is intended to provide a coordinated approach between these components.

The CEAM Strategy and Framework process was led by a steering committee made up of representatives from Aboriginal organizations, industry, environmental non-governmental organizations, the federal and territorial governments and the Mackenzie Valley Environmental Impact Review Board. The steering committee's plan for the implementation of the CEAM Strategy and Framework is outlined in its document: "A Blueprint for Implementing the Cumulative Effects Assessment and Management Strategy and Framework in the NWT and its Regions" (July 2004).

It should be noted that the CEAM Strategy and Framework is not specifically required by legislation but instead was an initiative spurred by the Diavik Comprehensive Study Report. It consolidates the existing components and activities of the environmental management regime that relate to cumulative impacts and attempts to fill the gaps.

The CEAM Framework consists of nine components that capture the key functions necessary for the integrated evaluation of cumulative impacts. These components are: Vision and Objectives; Land Use Planning; Baseline Studies and Environmental Monitoring; Research; Audit and Reporting; Project-Specific Screening; Environmental Assessment and Review; Regulation and Enforcement; Information Management; and Coordination. Many of these components are addressed elsewhere in this document (e.g., CIMP, land use planning, Environmental Assessment, regulation and enforcement). For this reason, we have limited our discussion of the CEAM Strategy and Framework to a high level review.

The CEAM Blueprint has the potential to be effective in that it clearly identifies the "Specific Actions" that need to be taken to ensure the environmental management regime adequately considers cumulative impacts. It also assigns lead organizations to the implementation of each action. If fully implemented, the Blueprint appears to be sufficiently comprehensive and detailed to achieve its desired objective.

Progress is being made on some of the actions identified in the Blueprint but many important initiatives have lagged behind. Specifically, the absence of land use plans and the CIMP are significant deficiencies that are compromising the ability of the parties to effectively consider and act on issues involving cumulative effects. Discussions and recommendations related to these deficiencies have been provided elsewhere in this report.