

5.0 The NWT CIMP

5.1 What is the NWT CIMP?

The NWT CIMP will develop and implement plans for monitoring the cumulative impact of land and water uses in the NWT. The program will support projects that fill gaps in existing monitoring, and will report on the state of the NWT biophysical and socio-economic environment. The NWT CIMP will be coordinated with existing monitoring and research activities, and will include traditional knowledge and western science. Communities will be involved throughout - in the design, implementation, interpretation, and reporting of the monitoring program.

This purpose statement is flexible enough for an NWT-wide approach, while remaining consistent with the Gwich'in, Sahtu, and Tłı̄chǫ land claims agreements, and the MVRMA.

Preliminary *objectives* for the NWT CIMP include the following:

1. To identify and monitor uses of land and water, and sources of cumulative impacts
2. To identify and fill priority monitoring gaps
3. To determine and report on trends in environmental quality
4. To coordinate with a number of organizations conducting or using cumulative impact research or monitoring in the NWT
5. To meet obligations under land claim agreements and the MVRMA
6. To provide information that will contribute to the NWT environmental Audit
7. To provide information to co-management bodies, government and others for use in making their decisions about environmental and resource management (e.g., land use planning, research, project screening/environmental assessment, regulation and enforcement)
8. To build capacity, particularly in NWT communities and regional organizations, to better enable full and effective participation in environmental monitoring processes and activities
9. To contribute to the NWT-wide Cumulative Effects Assessment and Management (CEAM) Strategy and Framework

The Working Group Terms of Reference (June 9, 1999) state the following guiding *principles* for the monitoring program:

- Community driven and relevant
- Balance of scientific and traditional knowledge
- Go slow
- Long-term timeframe
- Must adhere [to] and address land claims and legislation
- Communicate, educate, train
- Build on and link to existing programs and other initiatives

5.2 The “Valued Component” Approach

The Working Group has adopted a ‘valued component’ (VC) approach to determining what should be monitored. In plain language, the term VC refers to “elements of the environment that people think are important.” The Working Group has identified the following priority VCs, based on the 1998 Inuvik workshop, regional and community consultations, and Working Group meetings:

- Caribou
- Moose
- Land Mammals
- Marine Life
- Birds (land and marine)
- Water and Sediment Quality
- Water Quantity
- Air Quality
- Snow, Ground Ice, Permafrost
- Fish Habitat, Population, Harvest
- Fish Quality
- Vegetation
- Climate and Climate Change
- Human Health and Community Wellness

The monitoring of VCs will include both traditional knowledge as well as scientific approaches. Contaminants and biodiversity are elements that will need to be considered for many of these VCs.

With the assistance of the Working Group, government and co-management board staff and some community members, DIAND prepared a draft Preliminary State of Knowledge Report for the VCs (DIAND, 2002). The report contains a draft State of Knowledge Summary for each VC¹⁴ which includes:

- Status (baseline conditions) and trends
- Possible indicators
- Existing monitoring
- Gaps in knowledge and monitoring
- Recommendations to fill the gaps
- Sample monitoring projects

Preparation of the draft Preliminary State of Knowledge Report confirmed that there is little or no scientific baseline data in many cases. While there is a great deal of traditional knowledge about all of the VCs, much of it is not recorded, and it is not always effectively used in decision-making.

¹⁴ A draft state of knowledge summary for marine life is being jointly developed by the Department of Fisheries and Oceans and the Fisheries Joint Management Committee (FJMC) and will be added to the Preliminary State of Knowledge Report when available.

5.3 Community-Based Approach

Through consultations at the Working Group, government, regional, and community levels, the need for the NWT CIMP to be community based has emerged as a fundamental element of program design. The community-based character of the NWT CIMP is a key feature differentiating the program from many existing monitoring programs and initiatives.

From the outset, the Working Group has stated that the NWT CIMP will be 'community-based'. Communities will be involved throughout - in the design, monitoring, analysis/interpretation and reporting of traditional knowledge or science-based information. Such an approach may have several aspects. Monitoring could include not only Elders' Traditional Knowledge, but also the local knowledge and experience of those currently involved in harvesting and gathering. Monitoring may also involve community members in the collection, analysis/interpretation, and reporting of traditional knowledge or science-based information. School-based monitoring may be an important component. Community-based monitoring also focuses on the questions and issues of priority to the community itself; in this sense, the monitoring undertaken to address such concerns may not always be conducted by community members, or utilize traditional/local knowledge. For example – the monitoring of water or food contamination may be largely science-based, conducted by government organizations in cooperation with community or regional organizations. As noted above (Section 3.1), the Gwich'in Land Use Planning Board (2003) has recommended a two-pronged approach to community-based monitoring in the Gwich'in Settlement Area, in which the NWT CIMP both addresses community monitoring concerns and involves community members in the actual monitoring of those concerns.

The effective participation of communities in the NWT CIMP and Audit requires that community members and organizations have sufficient capacity to participate, and the Working Group has therefore identified building capacity in environmental monitoring and management as an objective of the NWT CIMP and a work plan task for the RA.

5.4 NWT CIMP – Work Plan Tasks

In order to achieve the purpose and objectives for the NWT CIMP described above, a number of tasks or actions will be necessary. This section describes each task/outcome/deliverable; lead organizations and timing for each are provided in Section 6.0.

5.4.1 Task 1: Operation of the RA/ NWT CIMP and Audit Working Group

Until DIAND establishes the permanent RA, the Minister of DIAND, in partnership with the NWT CIMP and Audit Working Group, will continue to coordinate the activities for the NWT CIMP. The Working Group/RA will be responsible for planning and implementing the monitoring program, facilitating communications and consultations, and holding an annual general meeting of the Working Group. A Secretariat will be provided to support the Working Group, and ultimately the RA, in the implementation of the NWT CIMP. This task includes periodic meetings and teleconferences of the Working Group/RA, as well as administering financial arrangements and reporting to the public.

Representatives from the Gwich'in, Sahtu, Tłı̄chǫ and other regions have seats on the Working Group, enabling full participation in WG activities.

- **Key outcome/deliverable: Operation of the organizational structures to plan, implement, and report on the NWT CIMP.**

5.4.2 Task 2: Development of a Permanent Responsible Authority

During the initial five-year planning period (2005-2010), DIAND, in partnership with the CIMP and Audit Working Group, will work to develop terms of reference for the Responsible Authority for the program. Representatives from the Sahtu, Gwich'in and Tłı̄chǫ and other regions will have full participation in this process.

- **Key outcome/deliverable: Establishment of a permanent Responsible Authority.**

5.4.3 Task 3: Establishment and Operation of Valued Component Advisory Groups

The Working Group/RA may appoint external advisory groups and retain independent experts to help with planning as it relates to monitoring priority Valued Components within the regions of the NWT. This task includes periodic meetings and teleconferences of the external advisory groups.

- **Key outcome/deliverable: Establishment and operation of the technical advisory expertise needed to implement the NWT CIMP.**

5.4.4 Task 4: Monitoring and Research Programs

This task consists of two components:

- Development of cumulative impact monitoring plans
- Review/support of monitoring / research projects

Cumulative Impact Monitoring Plans

The RA will develop and implement Five-Year Cumulative Impact Monitoring Plans for the NWT. These plans will coordinate the effective and efficient collection, analysis and dissemination of scientific data, TK, and other information for the purposes of cumulative impact monitoring. The plans will address elements of the monitoring program that can be addressed by existing monitoring activities conducted by others, as well as identify the gaps that will be filled by the NWT CIMP itself. Some flexibility will be required to accommodate changing priorities, capacities and projects of partner organizations and programs.

Throughout the development of the NWT CIMP, the Working Group has noted the importance of having community-based monitoring programs, and the need to build capacity in the communities as well as in regional organizations involved in monitoring. Broadly defined, capacity refers to the ability of communities and regions to make and participate in informed decisions about resource management in their areas. Capacity-building measures can include but are not limited to training, education, and ensuring adequate numbers and continuity of staff. As noted above, the Gwich'in Implementation Plan (Government of Canada, Government of the Northwest Territories and Gwich'in Tribal Council, 1992) observes that training opportunities may be associated with potential employment related to cumulative impact monitoring.

The implementation of the NWT CIMP will include measures to increase community and regional capacity with respect to both traditional knowledge and science. The RA will promote the inclusion of capacity-building measures in monitoring and research projects supported by the NWT CIMP, and will incorporate capacity-building as appropriate in consultation, communication, and education activities. In addition, the RA will provide funding and other support to new or existing projects and programs that build capacity related to monitoring, particularly at the community and regional level. The approach to involving communities will need to reflect the unique circumstances in each region.

The draft State of Knowledge summaries (see Section 5.2, above) will form the basis of the RA's first Five-Year Cumulative Impact Monitoring Plan for the NWT. The Working Group and other stakeholders have reviewed the summaries, and DIAND has presented the summaries at NWT CIMP community consultations in 2002 and 2003, but the summaries require additional regional and community input. The RA will develop the first and subsequent Five-Year Cumulative Impact Monitoring Plans in consultation with RA member organizations and communities.

In collaboration with the Tariuq (Ocean) Monitoring Program coordinated by the Department of Fisheries and Oceans, the Working Group has developed the CIMP-Tariuq Inventory. The inventory is a metadatabase of monitoring activities in the NWT and will be useful to the RA in identifying gaps in existing monitoring.

The Five-Year Cumulative Impact Monitoring Plans will take into account:

- Land and water uses and deposits of waste – the sources of cumulative impacts
- The issues of concern to communities
- Priority gaps in existing monitoring information
- The need to coordinate on a continuing basis with other programs and initiatives to determine how best to fill the gaps.

The Five-Year Cumulative Impact Monitoring Plans will also include:

Description of VCs and Indicators

- A description of the valued components (VCs) and indicators to be monitored
- The rationale for selecting each in terms of relevance to decision-makers and stakeholders involved in environmental and resource management in the NWT
- An explanation of whether each VC and indicator will be monitored across the NWT as a whole, through regional, community-based or project-specific programs, or through one or more transboundary monitoring programs

Description of Monitoring Objectives and the Priority-Setting Process

- A description of the specific monitoring objectives to be addressed through the plan
- A discussion of how priorities for cumulative impact monitoring should be established among VCs and indicators and among regions within the NWT, including a discussion of how community concerns should be addressed
- A description of existing NWT-wide, regional, project-specific, community-based and transboundary monitoring programs and initiatives that come within the ambit of the overall cumulative impact monitoring plan
- A discussion of the relationship, if any, between the plan and any other monitoring programs or initiatives within the NWT or in transboundary regions that are not formally linked to the plan
- An assessment of the availability of baseline information relating to each of the priority VCs and indicators

- A discussion of information gaps and the measures to be taken to fill those gaps
- A discussion of the criteria and priorities for monitoring programs to be supported by the RA in order to fill information gaps relating to cumulative impacts
- An explanation of how the plan achieves efficiencies, avoids duplication, and coordinates or consolidates the separate monitoring programs and initiatives of the various members of the RA so as to establish a unified cumulative impact monitoring program
- An explanation of how the plan responds to recommendations relating to cumulative impact monitoring that were made in previous environmental audits [not applicable to the Five-Year Cumulative Impact Monitoring Plan for 2005-2010]

Traditional and Scientific Knowledge

- A discussion of the roles of scientific and traditional knowledge in filling information gaps and contributing to the implementation of the plan

Implementation Plan

- A description of how responsibility for implementing the plan will be shared among the Secretariat and the members of the RA
- A discussion of how thresholds and measures of environmental carrying capacity may be relevant to cumulative impact monitoring conducted pursuant to the plan
- A discussion of reporting and information dissemination procedures for data and analysis relating to the VCs and indicators being monitored pursuant to the plan
- A discussion of how the RA will contribute to improving the collection, management and dissemination of information relating to cumulative environmental impact monitoring
- A discussion of procedures and time lines for periodic reviews and modifications of the plan, particularly relating to changes in monitoring priorities among VCs, indicators and regions
- A budget for the plan, including administrative costs and the costs of RA-supported research and monitoring

The draft plan shall be subject to consultation with RA members and the public prior to being made final.

- ***Key outcome/deliverable: Five-year monitoring plans to guide the RA/Secretariat activities during the five-year planning cycles.***

Review/Support of Monitoring / Research Projects

The core activity of the RA will be reviewing and supporting new or existing monitoring activities that fill the priority gaps identified in the Five-Year Cumulative Impact Monitoring Plan. In developing the Five-Year Cumulative Impact Monitoring Plan, the RA will develop criteria for identifying monitoring activities eligible to receive funding from the NWT CIMP. Potential criteria identified by Working Group representatives to date include capacity-building and the meaningful involvement of community members; respect for and use of both scientific and traditional knowledge; the sharing of results with communities, resource management decision-makers, the public, and other interested parties; and the encouragement of partnership projects supported by several organizations. The criteria will have particular regard to monitoring programs proposed by local, community and regional organizations. The RA will also develop processes for allocating funding, and will likely use a Request for Proposals (RFP) approach. The frequency of the RFPs will vary, as monitoring activities and priorities change over time,

and in response to changes in other organizations' monitoring activities.

Although the focus of the NWT CIMP is on monitoring activities, the RA may also choose to conduct or sponsor research that contributes to fulfilling the NWT CIMP objectives. Examples include the investigation of indicators, thresholds and measures of environmental carrying capacity. Appendix D provides additional information on how research and monitoring activities are related to and support one another.

In all stages of the funding process, the RA and Secretariat will need to maintain close liaison with other monitoring programs and initiatives to facilitate coordination of activities and avoid duplication. Members of the RA may be funding or in-kind partners in many of the monitoring and research activities funded by the NWT CIMP.

- **Key outcome/deliverable: funding and implementation of specific cumulative impact monitoring and research projects that fill the identified gaps, according to specified criteria and priorities, using a rigorous proposal evaluation process and funding procedure.**

5.4.5 Task 5: Workshops and Training

Throughout the development of the NWT CIMP, the Working Group has noted the importance of having a community-based monitoring program, and the need to build capacity in the communities as well as in regional organizations involved in monitoring. Broadly defined, capacity refers to the ability of communities and regions to make and participate in informed decisions about resource management in their areas. Capacity-building measures can include but are not limited to training, education, and ensuring adequate numbers and continuity of staff. As noted above, the Gwich'in Implementation Plan (Government of Canada, Government of the Northwest Territories and Gwich'in Tribal Council, 1992) observes that training opportunities may be associated with potential employment related to cumulative impact monitoring.

The implementation of the NWT CIMP will include measures to increase community and regional capacity with respect to both traditional knowledge and science. The RA will promote the inclusion of capacity-building measures in monitoring and research projects supported by the NWT CIMP, and will incorporate capacity-building as appropriate in consultation, communication, and education activities. In addition, the RA will provide funding and other support to new or existing projects and programs that build capacity related to monitoring, particularly at the community and regional level. The approach to involving communities will need to reflect the unique circumstances in each region.

Throughout the program, DIAND will continue to provide opportunities for Aboriginal people and community members to participate in training and workshops related to environmental or cumulative impact monitoring. Participants will be provided the opportunity to apply for support to enrol in scheduled workshops or training courses that may be delivered by government departments or agencies, or other organizations in or outside the NWT.

- **Key outcome/deliverable: training and workshop opportunities for Aboriginal people and community members, related to environmental or cumulative impact monitoring.**

5.4.6 Task 6: Information Management, Synthesis and Reporting

Information Management and Synthesis

The NWT CIMP will provide for information management and sharing through an NWT-wide network. A range of types of information (e.g., metadata, geospatial data, monitoring and research information, reports/publications; including both traditional knowledge and scientific information) will contribute to the NWT CIMP. An effective information management system (IMS) will be needed¹⁵, requiring cooperation amongst government departments and agencies, co-management bodies, Aboriginal governments and organizations, and others in an effort to improve the collection, cataloguing, storage and dissemination of monitoring data and information. The Working Group funded the Gwich'in Tribal Council and Map Insight to conduct a study for the 'Identification of Options for the Development of an Information Management System for the CIMP' (April 2002). The final report provided suggestions on the options for information management that will be taken by the RA. These will need to be reviewed in terms of the state of information management in the NWT generally and within individual organizations / networks in particular. The RA will maintain the NWT CIMP website (<http://www.nwtcimp.ca/>) as part of a broader strategy for communication and education and as part of the information sharing system, while accommodating the needs of those without internet access.

- **Key outcome/deliverable: Website with links to listing of CIMP-funded projects, and links to other networks**

Reporting

The RA will report on its activities and findings in a variety of formats, languages and venues to address the needs of different audiences. RA members will consult and communicate with their constituencies, and will advise the Secretariat on approaches to communication. The RA and Secretariat will communicate regularly with community and regional organizations, with advice from RA members. In addition, the projects supported by the NWT CIMP will be required, at a minimum, to report results to the communities in the regions in which they operate.

The RA will issue periodic reports:

- Annual RA Reports
- Annual and final reports on the individual monitoring programs and capacity-building projects funded by the RA (these reports will be written by those conducting the projects)
- State-of-the-Environment (SOE) Reports:
 - Annual SOE Summary Reports
 - Periodic Comprehensive SOE Monitoring Reports

Annual RA Reports

The annual RA reports are intended to summarize the activities and finances of the RA, and would contain:

¹⁵ The Working Group has funded several other initiatives in this regard, e.g., Gwich'in georeferencing project (Map Insight 2000), a January 2002 workshop (IER/Terriplan March 2001), and, in collaboration with the Department of Fisheries and Oceans, the development of the CIMP-Tariug Inventory of monitoring activities (http://www.geoarctic.com/apps/tariug/WebTariug_ie.php).

- A summary of the activities conducted and supported pursuant to each of the RA's functions, i.e., monitoring and research programs; workshops and training; and information management, synthesis and reporting
- A summary of NWT CIMP management and administration activities;
- A discussion of measures to address any relevant recommendations from the NWT Audit;
- A comprehensive, audited financial/budget statement; and
- Any other information the RA considers appropriate.

The content of the Annual RA Report would not duplicate the content of the Annual SOE Summary Report. Each report would be cross-referenced to the other as appropriate.

Annual SOE Summary Reports

Annual summary reports are intended to provide annual updates on the RA's implementation of its Five-Year Cumulative Impact Monitoring Plans, and would contain:

- A review of the implementation to date of the cumulative impact monitoring plan;
- A summary of monitoring projects supported by the RA and of the results obtained from those programs;
- A discussion of any trends or significant changes in the state of VCs or indicators that were detected through the analysis of monitoring data during the year, drawing on information generated by NWT CIMP and by other monitoring activities;
- A discussion of any indications from the monitoring program of emerging questions/issues relating to cumulative impacts within the NWT, drawing on information generated by NWT CIMP and by other monitoring activities;
- A discussion of measures to address any relevant recommendations from the NWT Audit; and
- Any other information that the RA considers appropriate.

Comprehensive SOE Monitoring Reports

Comprehensive SOE monitoring reports are intended to provide monitoring information for use in preparing the terms of reference for environmental audits and in conducting the audits. The comprehensive monitoring reports would be prepared by the CIMP and Audit Secretariat once every five years and would include the items addressed in the annual SOE summary report (see above) with the addition of the following discussions:

- A summary of the data and other information relating to cumulative impacts that have been collected to date pursuant to the plan;
- The results of data analysis and other information relating to cumulative impacts that has been conducted to date pursuant to the plan;
- The contribution to cumulative impact monitoring made by the monitoring programs supported by the RA;
- Any significant gaps in cumulative impact monitoring that have been identified by the RA;
- Any opportunities to improve the monitoring of cumulative impacts within the NWT that have been identified by the RA and any actions taken by the RA in this regard;
- Measures taken by the RA to address recommendations from previous environmental audits; and
- Any other information that the RA considers appropriate, for example, questions that the RA thinks the Auditor should consider in an upcoming Audit.

The comprehensive monitoring report would replace the Annual SOE Summary Report in the year it is produced (see Section 7.0 for a schedule of key outcomes and deliverables).

Drafts of these reports will be reviewed by RA members. The RA will conduct consultation and communication activities related to the final versions of these reports. These reports will be provided to the Minister of DIAND, who may table them in Parliament. The reports will be publicly available, in hard copy and via the internet on the NWT CIMP website.

- **Key outcome/deliverable: reports documenting the RA activities and the NWT CIMP findings and activities at various points in the five-year planning cycle**

5.5 Proposed NWT CIMP Budget

For the purposes of discussion, the following assumptions have been made with respect to the budget for the NWT CIMP. Approximately \$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 \$16.2 million for the entire NWT; work to date has focussed on designing the program). DIAND (and subsequently the RA) will transfer much of this budget as 'grants and contributions' to regional and community or other eligible organizations to conduct monitoring and related capacity-building programs. The amount of the budget to be used for administration will be limited to a ceiling of 15% - 20% of the total NWT CIMP budget, in order that as much funding as possible may be allocated to monitoring, capacity building, and related activities. It should be noted that the budget estimate does not include 'in-kind' contributions from the organizations that will be represented on the RA, or organizations making contributions to monitoring programs.

5.6 Evaluation Tools and Mechanisms – NWT CIMP

As noted above, the RA will provide its annual reports on its activities and finances to the Minister of DIAND for tabling in Parliament (this procedure is also followed by the boards established under the *MVRMA*, as directed in S. 28 of the *MVRMA*). The RA will also make these reports available to the public.

The primary evaluation tool for the CIMP will be the periodic independent, public Audit (as per S. 148 of the *MVRMA*; see also S. 4. below). The final Terms of Reference for the NWT Audit (NWT CIMP and Audit Working Group, April 2004) provide direction to the independent auditor to consider, amongst other things, "the effectiveness of methods that are used for carrying out the functions referred to in section 146 of the *MVRMA* and similar functions within the ISR and the NWT as a whole".

As noted above, the RA and Secretariat will conduct communications and consultation on its key planning documents and reports and as part of initiatives to improve coordination among monitoring activities. These consultations will provide an opportunity for stakeholders to provide their comments on the effectiveness of the NWT CIMP process, and the activities of the RA and Secretariat. Any groups established to advise the RA may also provide the RA with evaluative feedback.