

Weaving our Tapestry

Nunavut General Monitoring Plan (NGMP) Strategic Plan: 2010-2015



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Nunavut General Monitoring Plan
Nunavunmi Tamainni Takuurivangnikkut Parnaiyutaanni
Plan de surveillance générale du Nunavut



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Introduction

The Nunavut General Monitoring Plan (NGMP) is an ecosystemic and socio-economic environmental monitoring initiative that aims to support, facilitate and coordinate the collection, analysis, management and dissemination of information regarding the long-term state and health of the environment in Nunavut.

The Nunavut General Monitoring Plan (NGMP) is an ecosystemic and socio-economic environmental monitoring initiative that aims to support, facilitate and coordinate the collection, analysis, management and dissemination of information regarding the long-term state and health of the environment in Nunavut.

This initiative is an important piece of the Government of Canada's Action Plan to Improve the Northern Regulatory Regimes, which works to ensure the regulatory system functions in a more timely and efficient manner, allowing for sustainable resource development balanced with environmental protection. It is also a key component of the Nunavut Land Claims Agreement, which requires the Government of Canada to work with its Nunavut partners to collect and analyse information relating to the ecosystemic and socio-economic health of the territory.

A similar but independent program also exists in the Northwest Territories, called the Northwest Territories Cumulative Impact Monitoring Program (CIMP).

A coordinated, effective and rigorous ecosystemic and socio-economic environmental monitoring regime is critical for sustainable development in the Nunavut in order to:

- Understand and respond to changing environmental conditions at local, regional and territorial scales;
- Understand and mitigate the potential cumulative impacts of development activities on the ecosystemic and socio-economic environment;
- Improve the effectiveness and accountability of monitoring and resource management governance, policy development and land-use decision-making in Nunavut; and
- Improve the coordination, alignment and integration of environmental research and monitoring information.

The development of a robust environmental monitoring regime will provide significant benefits to Nunavut communities, industry, planners, government and decision-makers; however, achieving it will require significant changes in how all of these parties prioritize monitoring and collaborate in the collection, analysis and dissemination of information.

This five-year Strategic Plan for the NGMP (2010/11 – 2014/15), entitled *Weaving Our Tapestry*, outlines the NGMPs' mandate, vision, goals and milestones, performance management and governance. This strategic plan will serve as a prime management tool for the NGMP, and will provide a foundation for outreach and engagement with external partners, stakeholders and interested parties in the development of specific program elements, work plans and resources.

A compatible plan has also been developed for the CIMP.

Weaving our Tapestry presents a framework for ecosystemic and socio-economic monitoring in Nunavut. It is about bringing people together to collectively weave tapestries of credible monitoring information depicting the state and health of Nunavut's ecosystemic and socio-economic environment. Over time, these tapestries will serve to tell the Nunavut story of development and support informed decision-making.

The NGMP welcomes interested parties and stakeholders to join in its work.

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Nunavut Monitoring Mandate and Approach

NGMP Mandate

The Nunavut General Monitoring Plan (NGMP) collects, analyzes and reports information on the long-term conditions of Nunavut's environment, people, communities and economy.

General monitoring is an integral requirement of the Nunavut Land Claims Agreement (NLCA). Article 12.7.6 of the NLCA indicates that:

There is a requirement for general monitoring to collect and analyze information on the long term state and health of the ecosystemic and socio-economic environment in the Nunavut Settlement Area. Government, in co-operation with the Nunavut Planning Commission (NPC), shall be responsible for developing a general monitoring plan and for directing and coordinating general monitoring and data collection.

Aboriginal Affairs and Northern Development Canada (AANDC) is the lead federal department responsible for implementing the NGMP, as per this requirement. The NGMP is administered by the NGMP Secretariat, located within the AANDC Nunavut Regional Office, and is further supported by AANDC headquarters.

The work of the NGMP is guided by a steering committee comprised of AANDC, on behalf of the Government of Canada, along with the NPC, Nunavut Tunngavik Inc., and the Government of Nunavut.

Nunavut State of Environmental Monitoring

Ecosystemic and socio-economic monitoring information is integral to supporting informed decision-making and, ultimately, sustainable development in Nunavut. This information is used to meet a continuum of land use planning, project, policy, and program-specific needs. There are three general types of environmental monitoring in Nunavut:

- 1. Baseline Monitoring:** Monitoring to determine the state of the environment at a particular point in time. This monitoring is used to establish background or "baseline" levels of select parameters (ecosystemic and/or socio-economic in nature) against which environmental changes can be measured over time or natural variations can be determined.
- 2. Effects Monitoring:** Monitoring to determine changes to the status and trend of specific ecosystemic and/or socio-economic attributes or indicators (e.g., caribou populations, secondary school graduation rates). Effects monitoring may be project-based or cumulative, and focuses on changes to the environment resulting from human activities. Effects monitoring information is often conducted by government or industry proponents, and is informed by traditional knowledge holders.
- 3. Compliance Monitoring:** Monitoring to determine whether a facility/operation is in compliance with licensing and permitting conditions. Compliance monitoring is used to detect and correct violations



and provide evidence to support enforcement actions. Regulations and conditions are informed by what is known about the environment from long-term and effects monitoring. This monitoring is generally prescribed by regulators and delivered by proponents. Compliance is confirmed through inspection by the appropriate enforcement authority.

There are significant opportunities to build collective monitoring capacity in Nunavut through meaningful and lasting partnerships, by working together to report information on the long-term state and health of the Nunavut's ecosystemic and socio-economic environment. All three forms of monitoring in Nunavut would benefit from more effective collection, analysis and sharing of ecosystemic and socio-economic monitoring information.

NGMP Approach

The Nunavut General Monitoring Plan (NGMP) will serve to weave a tapestry of credible monitoring information that is illustrative of the overall state and health of Nunavut's environment. The tapestry will be woven with threads from many partners, and the picture that emerges will change over time as more and more threads are interwoven. Sometimes the trends revealed in this picture will be desirable, at other times undesirable.

The value of the picture that emerges will hinge upon the credibility of available data at any point in time. Stable and meaningful indicators are therefore needed to measure changes to the long-term state and health of Nunavut's environment. In support of this, the NGMP will provide a framework within which meaningful environmental monitoring can occur in Nunavut. Accordingly, this framework will be bound around that which is of environmental value to Nunavummiut; namely valued ecosystemic (VECs) and valued socio-economic components (VSECs) of Nunavut's environment. This framework is included under Appendix A.

The information that the NGMP collects with its partners will contribute to an enhanced knowledge base and understanding of how Nunavut's environment is changing. In doing so, NGMP will also play a significant part in telling the Nunavut story over time. Recognizing this role for general monitoring will also be central to Nunavut's ongoing development. Accordingly, NGMP should be regarded as an integral tool to support sustainable development in Nunavut.

Monitoring information that is collected must be accurate, reliable and available in formats that are useful and culturally appropriate for the full range of users. Fundamentally, the NGMP will be an accessible and beneficial source of information for Inuit, and be intuitive and easy to use. It will provide decision-makers with the information they need for meaningful and pro-active participation in integrated resource management and development of Nunavut. Accordingly, the NGMP will be active in seeking participatory partnerships with its wide range of stakeholders through ongoing outreach and engagement.

Community-based monitoring and collaboration will form a solid premise for the credibility of NGMP. As the NGMP will be part of the decision-support system to inform sound decisions and policies, and to take effective action in realizing the Territory's goals, the generation and validation of community-based goals, priorities and desired state of Nunavut's ecosystemic and socio-economic environment will be a necessary and ongoing participatory decision-making process. Over the long-run, general monitoring information will provide a basis for evaluating Nunavut's progress in reaching the desired collective ecosystemic and socio-economic state of the environment envisioned by Nunavummiut.

As the threads come together, the tapestry will come to life. Over time, Nunavut will need to ensure the emergent images and patterns within it are reflective of the desired state and health of its ecosystemic and socio-economic environment. Ultimately, monitoring and evaluation of our collective progress towards these targets will ensure the tapestry is woven in concordance with the wishes and aspirations of Nunavut.

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Nunavut Monitoring Mandate and Approach

Vision

The Nunavut General Monitoring Plan's (NGMP) long-term vision is to support sustainable development in Nunavut by monitoring and reporting on the long-term state and health of the ecosystemic and socio-economic environment in Nunavut. This vision is also complemented through supporting implementation of the Nunavut Land Claims Agreement (NLCA) and Aboriginal Affairs and Northern Development Canada's (AANDC) strategic outcome: *"Self-reliance, prosperity and well-being for the people and communities of the North."*

The NGMP's vision is based on a holistic view of the health and well-being of Nunavut's environment, which includes both ecosystemic and socio-economic components. The NGMP contributes to two key outcomes that are central to informing development decisions that influence the health and well-being of Nunavut's environment:

- (i) standardized and consolidated ecosystemic and socio-economic environmental monitoring data and information, and
- (ii) an accessible monitoring knowledge base (baseline and trend information) that informs and supports decision-making.

Activities

To achieve these outcomes, the Nunavut General Monitoring Plan (NGMP) will be active in four main areas:

1. Facilitating governance and partnerships

The NGMP will take a creative, collaborative and coordinated approach to aligning monitoring activities in Nunavut. It will guide and support partnerships that involve collaboration among diverse partners to align, coordinate and integrate ecosystemic and socio-economic monitoring objectives and activities. This includes establishing governance and formalizing collaborative activities through negotiating agreements, such as Memorandums of Understanding (MOUs), with key decision-makers and information providers.

The collection of information for the NGMP will be driven by a set of key questions and priorities within an overarching general monitoring valued component framework. The NGMP Steering Committee, with support from the NGMP Secretariat, will develop the framework and identify key questions in consultation with its constituencies, the Partner Advisory

Group and Expert Advisory Teams. Through this process, monitoring priorities will be defined by key information users and providers, with monitoring being designed and delivered by experts and community-based organizations.

2. Supporting, facilitating and coordinating the collection, analysis and synthesis of information regarding the long-term state and health of the eco-systemic and socio-economic environment in Nunavut

The NGMP will work with diverse information providers to establish baseline information and adopt shared monitoring protocols for collecting, managing, analyzing, sharing and reporting information. Nunavut general monitoring will have due regard for community, regional, territorial, national and international contexts, including both qualitative (e.g. Traditional Knowledge/Inuit Qaujimajatuqangit) and quantitative information.

The NGMP's key questions and priorities will provide insight into which monitoring indicators and protocols will be best suited to measure the long-term state and health of the respective valued components. With refined and meaningful Nunavut general monitoring indicators, information will be collected from various organizations by the NGMP Secretariat. Where significant information gaps exist, select gap-filling, data development and/or capacity building investments will be considered. NGMP will provide this targeted funding through a periodic request for proposals (RFP) process.

3. Developing and maintaining an information management system

The NGMP will work to improve data compatibility, accessibility and analysis by developing and maintaining a centralized, online information management system (IMS). The IMS will consolidate monitoring information from disparate sources, facilitate access to data for analysis, and provide an ongoing inventory of who is monitoring which valued components and who has what monitoring information.

4. Reporting and communicating

The NGMP will disseminate information to decision-makers and the general public by developing and distributing reports and publications. This includes producing a comprehensive State of the Nunavut Environment report every five years, as well as annual Summary of Knowledge reports. These reports will address environmental changes and trends. The NGMP will also engage with decision-makers to ensure that monitoring information is available to inform decision-making.

Goals

The table below presents the NGMP’s five-year program goals by activity area. These were jointly developed with CIMP and reflect the high degree of collaboration between the two programs.

Key objectives and milestones for each goal are presented in the following section.

Table 1: Program Five Year Goals

Activity Area	Five Year Goals
Facilitate governance and partnerships	<ol style="list-style-type: none"> 1. Governance and management structures are established and functioning effectively. 2. Monitoring networks are formally established and functioning effectively. 3. Key monitoring information needs and priorities are identified and adopted.
Support the collection, analysis, management and synthesis of information	<ol style="list-style-type: none"> 4. Environmental monitoring protocols have been developed and tested for all priority Valued Component areas. 5. Baseline information has been established for all priority Valued Component areas. 6. Funding is distributed to priority monitoring initiatives that build community capacity and fill key knowledge gaps.
Develop and maintain an information management system	<ol style="list-style-type: none"> 7. Environmental monitoring information is centrally accessible online through an information management system.
Report and communicate	<ol style="list-style-type: none"> 8. Key information on environmental monitoring is reported annually, and contributes to the quality and timeliness of management decisions.

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Objectives and Milestones

GOAL 1: Governance and management structures are established and functioning effectively

Key Objectives:

- Develop and implement five-year Strategic Plan
- Develop and establish Steering Committee, Expert Advisory Teams, Constituency Committees and the Partner Advisory Group
- Develop and establish annual and five-year meeting and planning cycles for governance and advisory bodies
- Staff and operate the Nunavut General Monitoring Plan (NGMP) Secretariat

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none"> • Develop 5-Year Strategic Plan • Review proposed governance structures 	<ul style="list-style-type: none"> • Finalize 5-Year Strategic Plan • Update all governance structures • Establish Steering Committee • Establish PAG and Constituency Committees • Initiate establishment of Expert Advisory Teams • Finalize meeting and planning cycles 	<ul style="list-style-type: none"> • Conduct annual governance and planning meetings • Expert Advisory Teams established • NGMP Secretariat fully staffed 	<ul style="list-style-type: none"> • Annual governance • Program efficiency and effectiveness review 	<ul style="list-style-type: none"> • Annual governance • Program evaluation • Initiate development of next 5 Year Strategic Plan

GOAL 2: Monitoring networks are formally established and functioning effectively

Key Objectives:

- Develop and sign Memorandums of Understanding (MOUs) with key collaborators, such as parties to the Nunavut Land Claims Agreement (NLCA), land claims-based institutions, communities, public, government (federal, territorial) and private monitoring and research programs and organizations.
- Develop and implement stakeholder communications and engagement plans.

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none"> • Identify and initiate engagement with key collaborators 	<ul style="list-style-type: none"> • Develop MOU templates • Develop communications plan • Develop stakeholder / collaboration map 	<ul style="list-style-type: none"> • Negotiate and sign MOUs (ongoing) 	<ul style="list-style-type: none"> • Negotiate and sign MOUs 	<ul style="list-style-type: none"> • Negotiate and sign MOUs • Review and update MOU template and approach

GOAL 3: Key monitoring information needs and priorities are identified and adopted

Key Objectives:

- Develop and finalize Valued Components (VC) framework, including the identification of key indicators
- Conduct decision-maker needs assessment and identify priorities
- Develop the NGMP Monitoring Blueprint for priority VCs (in collaboration with the NWT CIMP for relevant transboundary valued components) to inform research and reporting

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none"> • Develop VC framework 	<ul style="list-style-type: none"> • Finalize VC framework • Conduct decision-maker needs assessment 	<ul style="list-style-type: none"> • Develop Monitoring Blueprint 	<ul style="list-style-type: none"> • Update Monitoring Blueprint on an annual basis 	<ul style="list-style-type: none"> • Update Monitoring Blueprint on an annual basis • Develop plan for decision-maker engagement in next five year cycle

GOAL 4:

Environmental monitoring protocols have been developed and tested for all priority Valued Component areas

Key Objectives:

- Build awareness and capacity with collaborators
- Work with key partners to develop and formalize monitoring protocols
- Support the development and implementation of monitoring plans and guidelines

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none"> • Develop a Nunavut monitoring data and capacity gap analysis 	<ul style="list-style-type: none"> • Finalize a Nunavut monitoring data and capacity gap analysis • Work with partners on developing and implementing monitoring plans for priority VCs • Develop, test and refine indicators for priority VCs 	<ul style="list-style-type: none"> • Develop monitoring protocols • Work with partners on developing and implementing monitoring plans for priority VCs • Develop, test and refine indicators for priority VCs 	<ul style="list-style-type: none"> • Develop monitoring protocols • Work with partners on developing and implementing monitoring plans for priority VCs • Develop, test and refine indicators for priority VCs 	<ul style="list-style-type: none"> • Adopt protocols for Monitoring Blueprint priority VCs • Develop, test and refine indicators for priority VCs

GOAL 5:


Baseline information has been established for all priority Valued Component areas

Key Objectives:

- Conduct inventory of Nunavut monitoring data to identify existing information and current information sources
- Conduct gap analysis of monitoring data against the NGMP's Valued Component framework
- Collect information relevant to the NGMP's key questions and priorities

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none">Identify/summarize knowledge on current information sources (relevant monitoring and research programs, indicators, data quality assurance/control), particularly those relevant to the NGMP questions	<ul style="list-style-type: none">Finalize identification / summary of knowledge on current information sources, particularly those relevant to the NGMP questionsIdentify key questions, issues and priority monitoring gaps (ongoing)	<ul style="list-style-type: none">Identify key questions, issues and priority monitoring gapsInventory and collect information relevant to NGMP key questions and priorities (ongoing)	<ul style="list-style-type: none">Identify key questions, issues and priority monitoring gapsInventory and collect information relevant to NGMP key questions and priorities	<ul style="list-style-type: none">Identify key questions, issues and priority monitoring gapsInventory and collect information relevant to NGMP key questions and priorities

GOAL 6: 
Funding is distributed to priority monitoring initiatives that build community capacity and fill key knowledge gaps

Key Objectives:

- Direct, manage and administer an periodic Request for Proposals (RFP) process to allocate funds to support monitoring activities and develop community capacity

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none">Administer / distribute investments in monitoring	<ul style="list-style-type: none">Develop NGMP interim guidelines for proposal submissionsAdminister / distribute investments in monitoring	<ul style="list-style-type: none">Administer / distribute investments in monitoring	<ul style="list-style-type: none">Administer / distribute investments in monitoring	<ul style="list-style-type: none">Administer / distribute investments in monitoring

GOAL 7:

Environmental monitoring information is centrally accessible online through a Northern Environmental Monitoring System (NEMS)

Key Objectives:

- Establish a fully functional information management system, referred to as the “NEMS”, (integrating environmental monitoring information from the NGMP and the NWT CIMP)

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<ul style="list-style-type: none"> • Development of NEMS high-level requirements and regional approaches 	<ul style="list-style-type: none"> • Develop an interim NGMP website that will provide links to key information sources, and status reports on development of the NGMP • Undertake NEMS needs assessment 	<ul style="list-style-type: none"> • Design NEMS, including concept, data standards, technological infrastructure, procedural and technological approaches/ methodology, implementation plan 	<ul style="list-style-type: none"> • Test and maintain NEMS, with support to key clients (ongoing) 	<ul style="list-style-type: none"> • Implement NEMS; continual clientele support, enhancements and improvements following implementation

GOAL 8:

Key information on environmental monitoring is reported annually and contributes to the quality and timeliness of management decisions

Key Objectives:

- Establish annual Summary of Knowledge (SoK) reporting
- Coordinate and develop a Nunavut State of the Environment (SoE) report
- Establish the NGMP annual reporting system

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
	<ul style="list-style-type: none"> • Design and draft the first annual NGMP SoK report on environmental monitoring in Nunavut; issue report in 2012 • Prepare and collect data for Nunavut SoE reporting (ongoing) • Produce annual NGMP report documenting activities, progress on implementation, investment budget, accomplishments and future plans 	<ul style="list-style-type: none"> • Update SoK reports, based on known information/ current understanding; summarize known monitoring activities/ research, current state/trends, knowledge and capacity gaps, future monitoring plans/ recommendations • Prepare and collect data for SoE reporting • Produce annual NGMP report 	<ul style="list-style-type: none"> • Update SoK reports • Prepare and collect data for SoE reporting • Produce annual NGMP report 	<ul style="list-style-type: none"> • Update SoK reports • Produce the first comprehensive SoE report for Nunavut • Produce annual NGMP report, including a report on the delivery of the five year strategic plan

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Governance

The Nunavut General Monitoring Plan's (NGMP) governance model and approach, presented in Figure 1 below, illustrates the NGMP's role as a facilitator and coordinator of monitoring activities.

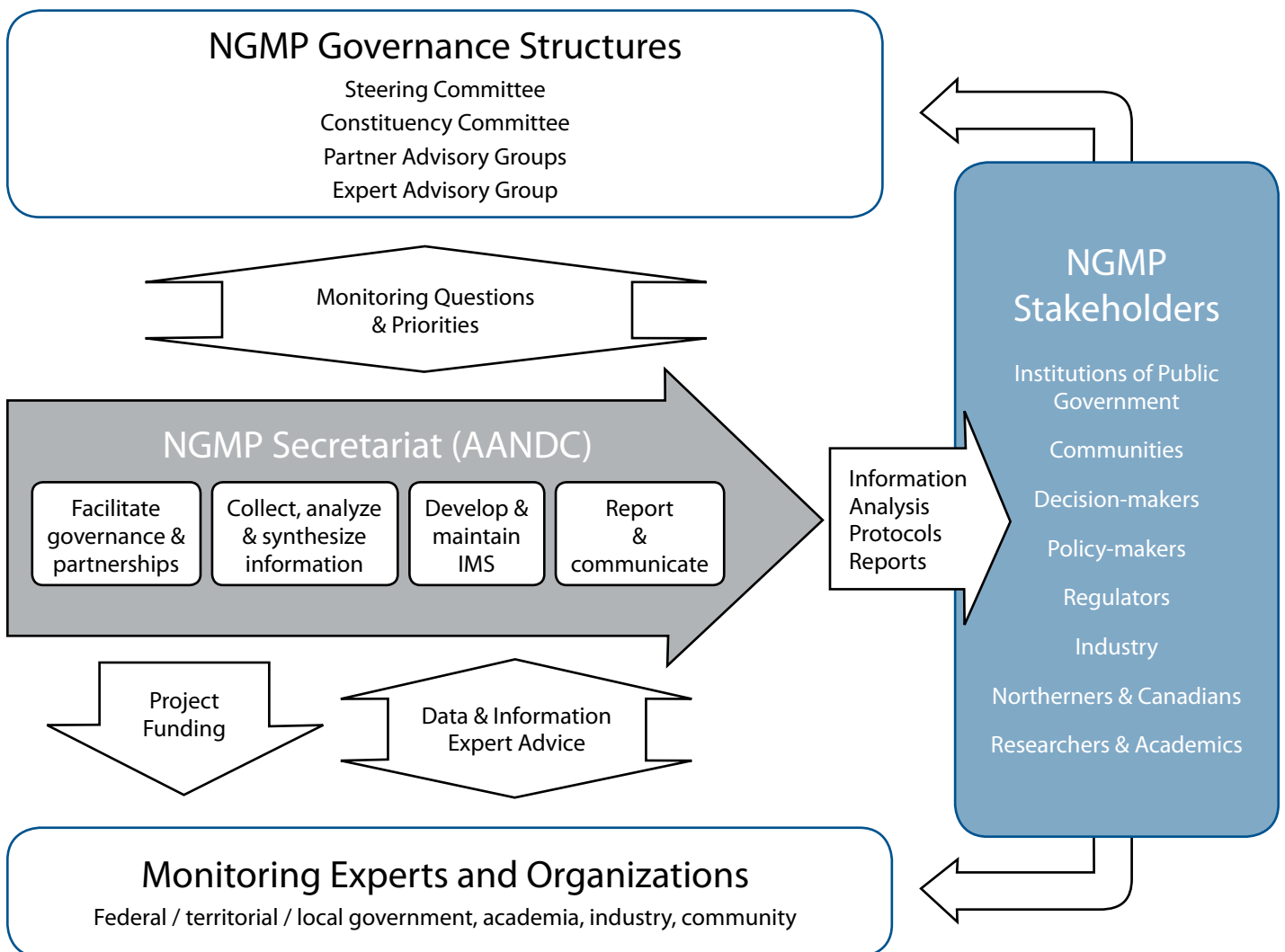
Aboriginal Affairs and Northern Development Canada (AANDC) is the lead federal department responsible for implementing the NGMP, which it does through its Nunavut Regional Office and with support from its Headquarters.

The NGMP will work with its network of monitoring experts and organizations to support the collection, analysis, management and reporting of ecosystemic and socio-economic environmental monitoring information.

Key monitoring questions and priorities will be identified by the Steering Committee based on input from NGMP's governance structure.

Monitoring information will be disseminated to stakeholders through the NGMP Secretariat, website and Information Management System.

Figure 1: The NGMP Governance Model and Approach



The key governance elements of NGMP are described in more detail below:

NGMP Steering Committee	The NGMP is governed by a Steering Committee, with representation from the Government of Canada (represented by the AANDC Nunavut Regional Office); Government of Nunavut (represented by Executive and Intergovernmental Affairs and the Department of Environment); the Nunavut Planning Commission; and Nunavut Tunngavik Incorporated. The Steering Committee provides high-level oversight and direction for the NGMP and determines monitoring questions and priorities in collaboration with other stakeholders.
Constituency Committees	It is envisioned that each Steering Committee member will establish its own “constituency committee” from within the organizations he/she represents. These committees will, in turn, provide advice to the Steering Committee through the representative member. For example, AANDC will establish and lead a Federal Advisory Committee to coordinate the input of federal government departments into the NGMP Steering Committee.
Partner Advisory Groups	Partner Advisory Groups will be comprised of non-Steering Committee organizations, such as non-governmental organizations, research institutions, academia and industry. These partners will provide insight and advice regarding the needs and priorities of organizations and constituencies that are not directly represented on the Steering Committee.
NGMP Secretariat	The NGMP Secretariat is comprised of five staff members who support the Steering Committee, manage the governance and partnership structures, data collection and reporting functions, and ultimately implement the NGMP. The NGMP Secretariat will work closely with the Nunavut Planning Commission to support common operational interests in general monitoring.
Expert Advisory Groups	Expert Advisory Groups will be organized as needed based on the NGMP’s themes, valued components, indicators, monitoring questions and/or geographic focus areas. They will be comprised of subject matter experts and may include members from government departments, academia, industry, community members, or independent experts. Teams would include individuals possessing direct experience with or due regard for Traditional Knowledge/Inuit Qaujimajatuqangit. These teams will include representatives from the diverse organizations who will be providing monitoring information to NGMP.

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Stakeholder Engagement and Collaboration

Development in Nunavut is governed by an integrated resource management regime established under the Nunavut Land Claims Agreement (NLCA). Responsibilities related to the integrated resource management system include:

- Wildlife management (Article 5)
- Land and resource management institutions (established under Article 10)
- Land use planning (Article 11)
- Management of development impacts (Article 12)
- Water management (Article 13)
- Natural Resource Development (Article 27)

Other development responsibilities/activities related to the NLCA include:

- Inuit Employment within Government (Article 23)
- Government Contracts (Article 24)
- Nunavut Social Development Council (Article 32)

Together, these articles under the NLCA form the broad institutional basis in which ecosystemic and socio-economic development occurs in Nunavut. As multiple parties to

the NLCA share co-management responsibilities for implementing various articles of the agreement, Nunavut-wide monitoring, via the Nunavut General Monitoring Plan (NGMP), must inform and support the implementation of NLCA responsibilities of government, the Institutions of Public Government (IPGs), Nunavut Tunngavik Inc. and the regional Inuit organizations. Co-management of development in Nunavut needs co-monitoring. To achieve this, collaboration will be a common and key thread in the success of general monitoring in Nunavut.

The NGMP will formalize collaborative monitoring and information-sharing relationships with key partners and organizations through Memorandums of Understanding (MOU) and other tools. Joint MOU will also be established with parties common to the NGMP and the Northwest Territories Cumulative Impact Monitoring Program where partners are common to both regions. As the NGMP will have limited funding to support these activities, partners are encouraged to align and optimize their monitoring activities to their existing organizational mandates, co-management responsibilities, and ultimately, to the broader environmental monitoring mandate of the NGMP as established in the NLCA.

Areas of partner collaboration will include, but not be limited to, those highlighted in the table below.

Table 2: Areas of Collaboration

Area of Collaboration	NGMP Secretariat Role (AANDC)	Role of Monitoring Collaborators
Governance Structures	Establish and manage the governance and partnership structures. Coordinate and present Government of Canada positions on governance structures.	Participate in meetings and planning cycles and provide input and advice on strategic plans and other documents.
Identification of monitoring questions and priorities	Facilitate the identification of monitoring questions and priorities by hosting meetings and providing relevant information. Produce a Monitoring Blueprint that summarizes priorities and questions.	Participate in activities (e.g. workshops, meetings) to help identify monitoring questions, priorities and knowledge and capacity gaps.

Area of Collaboration	NGMP Secretariat Role (AANDC)	Role of Monitoring Collaborators
Monitoring protocols for data collection, analysis and reporting	Foster production of compatible and meaningful approaches to monitoring, analyzing, information-sharing and reporting general monitoring information.	Policy and technical staff participate in the identification, development, review and revision of monitoring protocols through online and in-person meetings. Commit to using the protocols in monitoring work (e.g., through internal policy and/or prescribing license conditions).
Coordination and implementation of monitoring activities	Coordinate and guide the design and implementation of monitoring programs to meet identified priorities.	Commit to aligning and coordinating monitoring priorities and activities with the shared priorities and questions of NGMP.
Capacity building	Support the capacity development of partners in pursuit of supporting the NGMP's mandate.	Key parties to the NLCA will consistently champion the NGMP, and participate in ongoing capacity-building initiatives to ensure the successful operation of Nunavut general monitoring.
Quality and accessibility of information	Design and maintain a centralized monitoring information management system that will link data sources and facilitate access to monitoring reporting.	Commit to: <ul style="list-style-type: none"> i) adhering to shared and common data quality standards and protocols; ii) publishing information (data, reports, etc.) in an accessible and compatible format; and iii) making information available through the NGMP information management system and reports.
Reports and publications	Report monitoring information to decision-makers and community members through Annual Summary of Knowledge and Five-Year State of the Nunavut Environment Reports, as well as other documents (e.g. technical reports, newsletters).	Contribute to the NGMP's Annual Summary of Knowledge and Five-Year State of the Nunavut Environment Reports as subject matter experts, authors and/or technical reviewers. Contribute to and/or produce other relevant reports and documents.
Periodic Nunavut Request for Proposals	Direct, manage and administer the periodic Request For Proposal process to fund monitoring activities that address key monitoring priorities and questions.	Support administration of RFP process (e.g. review of proposals). Apply for funding in partnership with communities to undertake monitoring initiatives that will contribute to the NGMP's objectives. Review monitoring project reports to ensure quality of data and methods.

Sustaining Nunavut Environmental Monitoring

The NGMP has a broad mandate for territory-wide ecosystemic and socio-economic environmental monitoring. This mandate encompasses a wide range of interwoven valued ecosystemic and socio-economic components. Many diverse groups have roles and responsibilities related to the management of the state and health of Nunavut's valued components; as such, the NGMP focuses on opportunities to work with its partners to achieve collective monitoring requirements and objectives under the NLCA.

Sustaining Nunavut environmental monitoring is paramount for meaningful and sustainable development in Nunavut. The following are key considerations for managing expectations and sustaining the success of the NGMP:

- **The NGMP's key role is to improve the coordination, alignment and accessibility of environmental monitoring activities and information.** Partnerships, communication and information sharing are central to supporting this role.
- **The success of the NGMP is dependent on collaboration.** Communities, the federal government, territorial government, Nunavut Tunngavik Inc., Institutions of Public Government and industry all have mandates and/or interest in environmental monitoring. The NGMP is dependent on their active collaboration to collect, analyze, share and disseminate information. Effective, mutually beneficial partnerships are particularly important given the high stakeholder expectations for NGMP.
- **The NGMP has funding for specific, targeted monitoring activities.** Aboriginal Affairs and Northern Development Canada (AANDC) is responsible for managing the program, but cannot directly conduct or

- fund all relevant comprehensive long-term monitoring activities itself. Funding will be allocated by AANDC in consultation with the NGMP Steering Committee and based on recommendations from the respective program governance parties. Funding will support projects that address key monitoring questions and priorities and meet funding eligibility criteria.
- **The NGMP is an information provider, not a decision-maker.** The use of data and information reported through NGMP for decision-making purposes will be determined by the end-users. The NGMP will strive to maximize its relevance by engaging regularly with decision-makers in an effort to provide information that meets their needs.
- **The NGMP will identify a subset of key monitoring needs and priorities, key questions and associated valued component areas to focus on for the first five years.** It will also establish the structures, partnerships and systems needed for program management. Following this approach, it is anticipated that the subsequent five years of program development will focus on scaling up activities to encompass the program's full mandate.



Appendix A: NGMP Valued Components

Table 1: List of NGMP Valued Ecosystemic Components (VECs)

Theme	VEC	Theme	VEC
Freshwater	Surface Water Quality Sediment Quality Water Quantity Hydrology Groundwater Freshwater Ecosystem	Freshwater Fish	Fish Habitat Fish Populations Fish Harvest Fish Health / Quality Species at Risk
Freshwater Invertebrates	Phytoplankton, Zooplankton and benthic invertebrates	Snow and Ice	Snow Ground Ice and Permafrost Sea Ice Lake Ice
Marine Coastal and Offshore Environment	Marine water quality Marine sediment Coastal processes and seabed Bathymetry Marine Ecosystem Polynya	Marine Fish	Fish Habitat Fish Populations Fish Harvest Fish Health / Quality Species at Risk
Marine Invertebrates	Harvest species – clams and mussels and shrimp Other marine invertebrates	Marine Mammals	Seals (ringed, bearded, harp, harbour) Whales (Number of species – beluga, bowhead etc.) Walrus Narwhal Species at Risk
Avian Wildlife	Number of species (harvest species, breeding birds, waterfowl, raptors, seabirds) Breeding Birds - Ptarmigan - Shorebirds - Passerines (Songbirds) Waterfowl and Waterbirds - Loons - Swans, Geese and Ducks - Sea Ducks Raptors Seabirds Species at Risk	Terrestrial Wildlife	Caribou Musk Ox Wolverine Polar Bear Grizzly Bear Wolves Foxes Rabbit/Hare Small mammals (muskrat, Arctic ground squirrel) Species at risk
Landforms and Soils	Landforms Soil Terrestrial Ecosystem	Geology	Bedrock, surficial, geochemical, geophysical

Theme	VEC	Theme	VEC
Vegetation	Vegetation Species at Risk	Insects /Invertebrates	To be confirmed
Climate and Weather	Weather/ Meteorology	Air Quality	Greenhouse Gas emissions Other Air Quality Parameters
Noise	Atmospheric Noise Levels Marine Noise Levels		

Table 2: List of NGMP Valued Socio-Economic Environmental Components (VSECs)

Theme	VEC	Theme	VEC
People	Demographics Health & Well-being Food security Education & Training Housing Crime Energy Use Other	Economy	Employment Economic Activity
Cultural Practices	Inuit Language Traditional Activities & Skills See also 'Traditional Use Areas, Table 3		

Table 3: List of NGMP Valued List of Activities/Uses of Land and Water

Themes		
Land Use Planning	Resource Development	Parks and Protected Areas
Tourism & Recreation	Energy Production and Supply	Military Activities
Land Ownership	Municipal Infrastructure	Contaminated Sites
Traditional Use Areas	Transportation Infrastructure & Activity	Research Facilities
Heritage and Archaeological Sites	Communications Infrastructure	Paleontological Sites



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Nunavut General Monitoring Plan
Nunavunmi Tamainni Takuurivangnikkut Pamaiyautaanni
Plan de surveillance générale du Nunavut



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