2025 Northwest Territories Environmental Audit

Final Report

Rapport final

Vérification environnementale 2025 des Territoires du Nord-Ouest

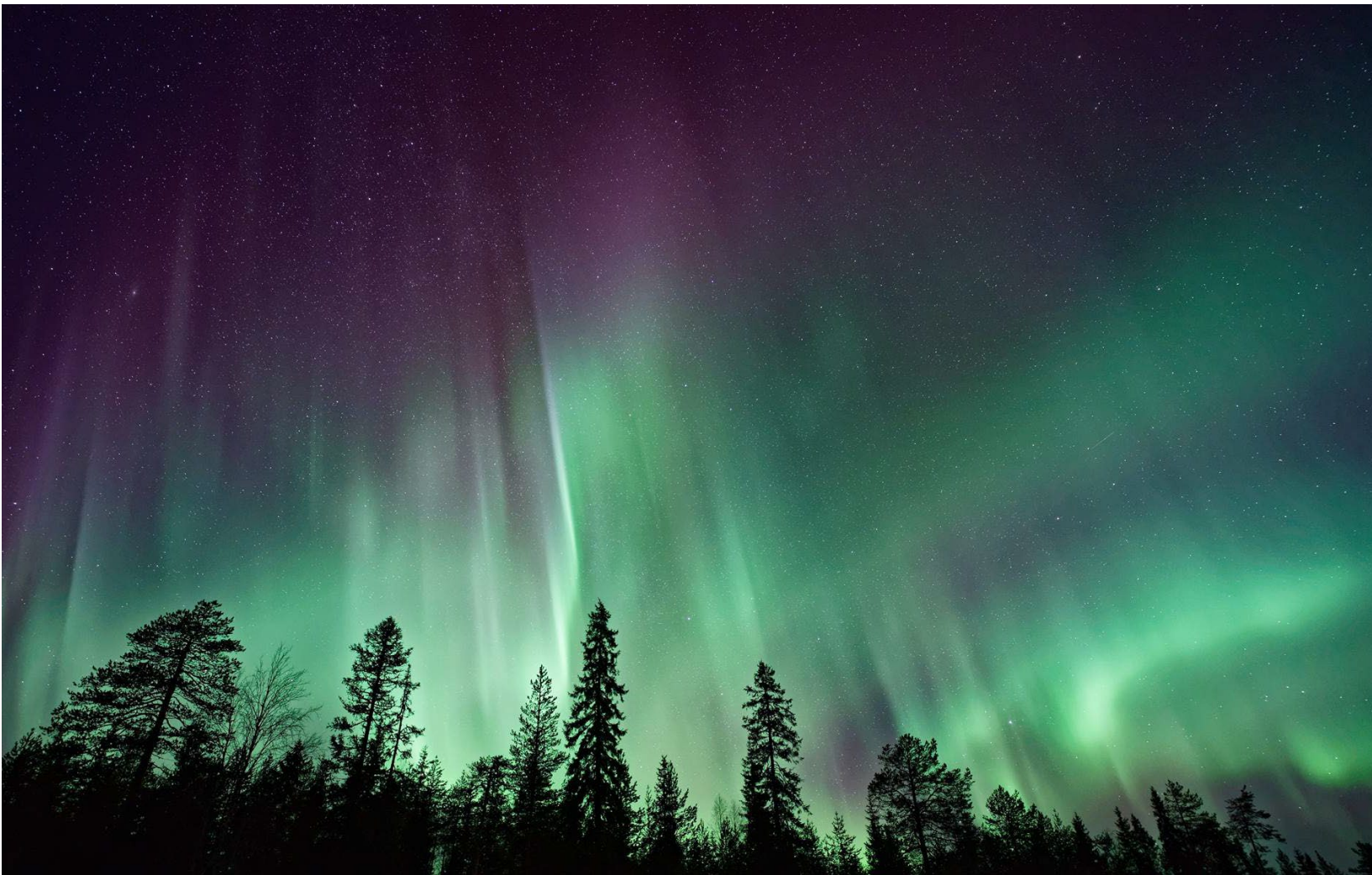
2025 Northwest Territories Environmental Audit

Final Report

PREPARED FOR
Government of the Northwest Territories

DATE
August 1, 2025

REFERENCE
0712197



DOCUMENT DETAILS

DOCUMENT TITLE	2025 Northwest Territories Environmental Audit
DOCUMENT SUBTITLE	Final Report
PROJECT NUMBER	0712197
Date	August 1, 2025
Version	04
Author	ERM Canada
Client name	NWT Environmental Audit Secretariat Climate Change, Cumulative Impacts and Knowledge Division Environment and Climate Change Government of the Northwest Territories

EXECUTIVE SUMMARY

The *Mackenzie Valley Resource Management Act* (MVRMA) sets out the legal requirement and framework for environmental audits to be conducted in the Mackenzie Valley at least every five years. The Audit is also an obligation of the Sahtú, Gwich'in, and Tłı̨chǫ Land Claim Agreements. Previous Environmental Audits have been completed in 2005, 2010, 2015, and 2020.

The objective of the 2025 Northwest Territories (NWT) Environmental Audit was to conduct a territory-wide environmental audit that includes both the Mackenzie Valley and the Inuvialuit Settlement Region (ISR), and to make suggestions for improvement in the areas of:

a) The availability and use of barren-ground caribou trend information in the NWT that is required to make decisions
b) The effectiveness of cumulative impact monitoring in NWT
c) The effectiveness of regulatory regimes in the Mackenzie Valley, and
d) Responses of parties to the previous Audit.

As the last NWT Environmental Audit was completed in 2020, the review period for this Audit covers 2020 to 2025.

The independent Audit Team followed Audit criteria and lines of inquiry on which to focus the research and evidence collection. The Team was guided by the Audit Steering Committee (ASC), made up of representatives from First Nations and Métis in the NWT, the Inuvialuit, and the territorial and federal governments. The Team conducted a document review, a public survey, as well as surveys and interviews with key informants, including regulators and other NWT representatives [boards, Government of the Northwest Territories (GNWT), industry, Government of Canada (GoC), Indigenous Governments and Indigenous Organizations (IGIOs) and non-governmental organizations (NGOs)].

The Audit findings demonstrate that there continues to be progress in many areas, with some ongoing challenges and gaps. Additional details are provided below.

The Availability and Use of Barren-Ground Caribou Trend Information in the NWT that is Required to Make Decisions

The Audit Team found that there is good coverage of data/information across trends of interest for barren-ground caribou. Across government publications reviewed, the most studied trends of interest were herd productivity, population abundance, seasonal range/habitat use, and harvest management. Across academic publications reviewed, the most studied trends of interest were seasonal range/habitat use, habitat condition, climate change, and land use. The most studied barren-ground herd was the Bathurst herd, and the least studied was the Tuktoyaktuk Peninsula herd. Trend analysis is available for most trends of interest, and significant trends were detected. Gaps exist in information necessary to evaluate the consequences of environmentally or culturally significant trends detected. Traditional Knowledge (TK)-based monitoring information is available, and organizations stressed the importance of respecting TK in monitoring approaches. The 2025 Audit includes seven (7) recommendations related to this topic.

The Effectiveness of Cumulative Impact Monitoring in NWT

The Audit Team found that there were several advancements since the previous Audit, but there remain some persistent gaps, largely due to resource and capacity constraints. The Cumulative Impact Monitoring Framework was finalized in early 2025, which helps describe the approaches used by the NWT Cumulative Impact Monitoring Program (CIMP) to prioritize and analyse cumulative impacts but is limited in its applicability across the NWT. Cumulative impact monitoring information is most needed in areas with high development potential; development-specific (e.g., linear) and regional approaches may be best suited to address cumulative impact monitoring information gaps. The 2025 Audit includes five (5) new recommendations related to this topic, with four (4) 2020 recommendations carried forward.

The Effectiveness of Regulatory Regimes in the Mackenzie Valley

There have been incremental positive changes with respect to the effectiveness of the regulatory regimes in the Mackenzie Valley. Some gaps and issues persist, but there were no new significant issues identified. The Audit Team found consistent themes with the previous Audit (2020), including insufficient capacity / inadequate resources to participate in the co-management system, insufficient regulatory processes to address social, cultural, and economic concerns, industry concern with duplicative / costly approval processes for small-scale exploration, and continued challenges associated with resource management in regions without settled land claims. Overall, there is largely confidence in how impacts are regulated in the Mackenzie Valley. The 2025 Audit includes thirteen (13) new recommendations related to this topic, with eight (8) 2020 recommendations carried forward and one (1) 2015 recommendation carried forward.

Responses of Parties to the Previous Audit

The Audit Team found that there was an adequate response to eight (8) of forty (40) recommendations made in the 2020 Audit Report, with seventeen (17) partially implemented and fifteen (15) outstanding. Of these, nineteen (19) are still applicable and are recommended to be carried forward. Of the four (4) 2015 recommendations found to be outstanding in the 2020 Audit, there is one (1) partially implemented and three (3) outstanding recommendations, with one (1) 2015 recommendation to be carried forward.

SOMMAIRE

La *Loi sur la gestion des ressources de la vallée du Mackenzie* (LGRVM) instaure l'obligation légale de réaliser une vérification environnementale dans la vallée du Mackenzie au moins tous les cinq ans, et définit le cadre juridique à l'intérieur duquel cette vérification doit être menée. La vérification constitue également une obligation en application des ententes sur les revendications territoriales du Sahtú, des Gwich'in et des Tłı̨chǫ. Les vérifications environnementales précédentes ont été réalisées en 2005, en 2010, en 2015 et en 2020.

La vérification environnementale des TNO de 2025 s'appliquait à l'échelle territoriale, y compris dans la vallée du Mackenzie et la Région désignée des Inuvialuits (RDI), et visait à proposer des améliorations sur les points suivants :

a) la disponibilité et l'utilisation des données sur les tendances du caribou de la toundra aux TNO qui servent à la prise de décisions;
b) l'efficacité de la surveillance des effets cumulatifs aux TNO;
c) l'efficacité du cadre réglementaire dans la vallée du Mackenzie;
d) les réponses des parties aux recommandations de la vérification précédente.

Étant donné que la dernière vérification environnementale des TNO a été réalisée en 2020, la période visée par la présente vérification s'étend de 2020 à 2025.

L'équipe de vérification indépendante est restée fidèle aux critères de vérification et aux champs d'enquête qui ont servi de base aux recherches et à la collecte d'éléments probants. L'équipe a été guidée par le Comité directeur de vérification (CDV), composé de représentants des Premières Nations et des Métis des TNO, des Inuvialuits et des gouvernements territorial et fédéral. L'équipe a effectué une étude des documents, mené un sondage auprès du public ainsi que des sondages et des entrevues auprès d'informateurs clés, notamment des organismes de réglementation et d'autres représentants des TNO [conseils, gouvernement des Territoires du Nord-Ouest (GTNO), industrie, gouvernement du Canada, gouvernements et organisations autochtones et organisations non gouvernementales].

D'après les constatations de la vérification, des progrès continuent à être enregistrés dans de nombreux domaines, même si des difficultés et des lacunes persistent. Des détails complémentaires sont donnés ci-dessous.

Disponibilité et utilisation des données sur les tendances du caribou de la toundra aux TNO servent à la prise de décisions

L'équipe de vérification a constaté que les données et les informations relatives aux tendances dignes d'intérêt pour le caribou de la toundra sont bien documentées. Dans l'ensemble des publications gouvernementales examinées, les tendances les plus étudiées étaient la productivité des hardes, l'abondance de la population, l'aire de répartition saisonnière, l'utilisation de l'habitat et la gestion des prélèvements. Dans l'ensemble des publications universitaires examinées, les tendances d'intérêt les plus étudiées étaient l'aire de répartition saisonnière et l'utilisation de l'habitat, l'état de l'habitat, les changements climatiques et l'utilisation des terres. La harde la plus étudiée était celle de Bathurst, et la moins étudiée était celle de la péninsule de Tuktoyaktuk. Les tendances dignes d'intérêt ont pour la plupart fait l'objet d'une analyse et certaines tendances

significatives ont été détectées. On observe des lacunes dans les informations nécessaires pour évaluer les conséquences que peuvent avoir les tendances significatives sur le plan environnemental ou culturel qui ont été détectées. Des informations issues des connaissances traditionnelles (CT) sont disponibles, et les organisations ont souligné l'importance de respecter ces connaissances dans les approches de surveillance. La vérification de 2025 comprend sept recommandations liées à ce sujet.

Efficacité de la surveillance des effets cumulatifs aux TNO

L'équipe de vérification a constaté plusieurs progrès depuis la vérification précédente, mais certaines lacunes persistent, principalement en raison de contraintes en matière de ressources et de capacités. Le Cadre de surveillance des effets cumulatifs a été finalisé au début de 2025. Il aide à décrire les approches utilisées par le Programme de surveillance des effets cumulatifs (PSECTNO) pour hiérarchiser et analyser les effets cumulatifs, mais son applicabilité à l'ensemble des TNO demeure limitée. Les informations sur la surveillance des effets cumulatifs sont surtout nécessaires dans les zones à fort potentiel de mise en valeur. Toutefois, des approches axées sur la mise en valeur (p. ex. linéaires) et régionales pourraient mieux convenir pour combler les lacunes en matière d'information sur la surveillance des effets cumulatifs. La vérification de 2025 comprend cinq nouvelles recommandations liées à ce sujet, et quatre recommandations de 2020 ont été reconduites.

Efficacité du cadre réglementaire dans la vallée du Mackenzie

Des changements positifs progressifs ont été observés en ce qui concerne l'efficacité du cadre réglementaire dans la vallée du Mackenzie. Certaines lacunes et certains problèmes persistent, mais aucun nouveau problème important n'a été relevé. L'équipe de vérification a constaté des thèmes récurrents par rapport à la vérification précédente (2020), notamment : un manque de capacités et de ressources pour participer au système de cogestion; l'insuffisance de processus réglementaires pour répondre aux préoccupations sociales, culturelles et économiques, ainsi qu'aux préoccupations de l'industrie concernant les processus d'approbation redondants et coûteux pour l'exploration à petite échelle; ainsi que les enjeux persistants liés à la gestion des ressources dans les régions où les revendications territoriales n'ont pas été réglées. Dans l'ensemble, la réglementation des effets dans la vallée du Mackenzie inspire une grande confiance. La vérification de 2025 comprend treize nouvelles recommandations liées à ce sujet, huit recommandations de 2020 ayant été reconduites et une recommandation de 2015 ayant aussi été reconduite.

Réponses des parties aux recommandations de la vérification précédente

L'équipe de vérification a constaté que huit des quarante recommandations formulées dans le rapport de vérification de 2020 avaient fait l'objet d'une réponse adéquate, que dix-sept avaient été partiellement mises en œuvre et que quinze restaient en suspens. Parmi celles-ci, dix-neuf sont toujours d'actualité et il est recommandé de les reconduire. Sur les quatre recommandations de 2015 qui étaient encore en suspens lors de la vérification de 2020, une a été partiellement mise en œuvre et trois sont encore en suspens, et une de 2015 doit être reconduite.

CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym	Long Form
ACCWM	Advisory Committee for Cooperation on Wildlife Management
AEMP	Aquatic Effects Monitoring Program
ASC	Audit Steering Committee
CARMA	CircumArctic Rangifer Monitoring and Assessment
CBM	Community-Based Monitoring
CIM	Cumulative Impact Monitoring
CIMP	Cumulative Impact Monitoring Program
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CLCA	Comprehensive Land Claims Agreement
DFO	Department of Fisheries and Oceans Canada
EA	Environmental Assessment
ECC	Department of Environment and Climate Change (formally known as Environment and Natural Resources)
ECCC	Environment and Climate Change Canada
GLUPB	Gwich'in Land Use Planning Board
GLWB	Gwich'in Land and Water Board
GNWT	Government of the Northwest Territories
GoC	Government of Canada
GRRB	Gwich'in Renewable Resources Board
IGIO	Indigenous Governments and Indigenous Organizations
IK	Indigenous Knowledge
INAC	Indigenous and Northern Affairs Canada (formally known as Indian and Northern Affairs Canada)
IRMA	Interim Resource Management Assistance
IRRA	Inspection Reporting and Assessment
ISR	Inuvialuit Settlement Region
ITI	Department of Industry, Tourism and Investment
LUP	Land Use Plan
LUPB	Land Use Planning Board

Acronym	Long Form
LWB	Land and Water Board
MDS	Mineral Development Strategy
MRA	*Mineral Resources Act*
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
MVOD	Mackenzie Valley Operational Dialogue
MVRMA	*Mackenzie Valley Resource Management Act*
NGO	Non-Governmental Organization
NPFP	Northern Participant Funding Program
NRCan	Natural Resources Canada
NRI	Northern Regulatory Initiative
NWT	Northwest Territories
NWT CIMP	NWT Cumulative Impact Monitoring Program
RA	Responsible Authority
RISC	Resources Information Standards Committee
RRB	Renewable Resources Board
SEA	Socio-Economic Agreement
SLUPB	Sahtú Land Use Planning Board
SLWB	Sahtú Land and Water Board
TG	Tłı̨chǫ Government
TK	Traditional Knowledge
VEC	Valued Ecosystem Components
WLWB	Wek'èezhìi Land and Water Board
WRRB	Wek'èezhìi Renewable Resources Board

INTRODUCTION

CONTEXT

LEGAL BASIS FOR THE NWT ENVIRONMENTAL AUDIT

The Gwich'in, Sahtú and Tłı̨chǫ Agreements[1] set out provisions that together create an integrated system of land and water co-management in the Mackenzie Valley. These Agreements also provide for independent, periodic environmental audits to be conducted in the Mackenzie Valley. The provisions are given effect through (implementing) the *Mackenzie Valley Resource Management Act* (MVRMA). The MVRMA applies to all areas within the Northwest Territories (NWT), except the Inuvialuit Settlement Region (ISR) and Wood Buffalo National Park.

Part 6 of the MVRMA sets out the legal requirements and framework for the environmental audits. Environmental audits are to be: initiated by the responsible Minister (delegated to the Government of the Northwest Territories' [GNWT] Department of Environment and Climate Change [ECC][2]) at least every five years; completed by an independent body; based on terms of reference developed in consultation with the Gwich'in and Sahtú First Nations, the Tłı̨chǫ Government and the Government of Canada (GoC); and made publicly available. The terms of reference are based on Section 148(3) of the MVRMA,[3] which requires environmental audits to include:

a) an evaluation of information, including information collected or analyzed under section 146, in order to determine trends in environmental quality, potential contributing factors to changes in the environment and the significance of those trends
b) a review of the effectiveness of methods used for carrying out the functions referred to in section 146
c) a review of the effectiveness of the regulation of uses of land and water and deposits of waste on the protection of the key components of the environment from significant adverse impact, and
d) a review of the response to any recommendations of previous environmental audits.

The Audit of the ISR is focused exclusively on Section 148(3) (a), (b) and (d) only.

Under Section 149 of the MVRMA, subject to any other federal or territorial law, the Audit Team had the authority to obtain from any board established by the MVRMA or from any department or agency of the federal or territorial government, any information in the possession of the board, department or agency that is required for the performance of the functions of the Responsible Authority (RA) or person under this Part.

[1] Unless indicated otherwise, the term "Agreements" refers collectively to the settled Land Claims within the NWT outside of the ISR, including the Gwich'in Comprehensive Land Claim, the Sahtú Dene and Métis Comprehensive Land Claim Agreement and the Tłı̨chǫ Land Claims and Self-Government Agreement.
[2] Delegation Instrument
[3] MVRMA

OBJECTIVES OF THE 2025 ENVIRONMENTAL AUDIT

The objective of the 2025 NWT Environmental Audit was to conduct a territory-wide environmental audit that includes both the Mackenzie Valley and the ISR, and to make suggestions for improvement in the areas of:

a) *The availability and use of barren-ground caribou trend information in the NWT that is required to make decisions*
b) *The effectiveness of cumulative impact monitoring in NWT*
c) *The effectiveness of regulatory regimes in the Mackenzie Valley, and*
d) *Responses of parties to the previous Audit.*

As the last NWT Audit was conducted in 2020, the review period for this Audit covers 2020 to 2025.

The term "environment" is defined in Section 2 of the MVRMA as "The components of the Earth and includes:

a) land, water and air, including all layers of the atmosphere
b) all organic and inorganic matter and living organisms, and
c) the interacting natural systems that include components referred to in paragraphs (a) and (b)."

AUDIT SCOPE

GEOGRAPHIC BOUNDARY

The Audit covered the geography of the NWT (Figure 0-1). While most aspects examined as a part of the Audit will be applicable to the entire NWT, the Mackenzie Valley and the ISR, the regulatory regimes aspect only considers the Mackenzie Valley. Although the MVRMA does not apply to the ISR, the ISR is included in the Audit because environmental monitoring and cumulative impact monitoring activities occur across the territory.

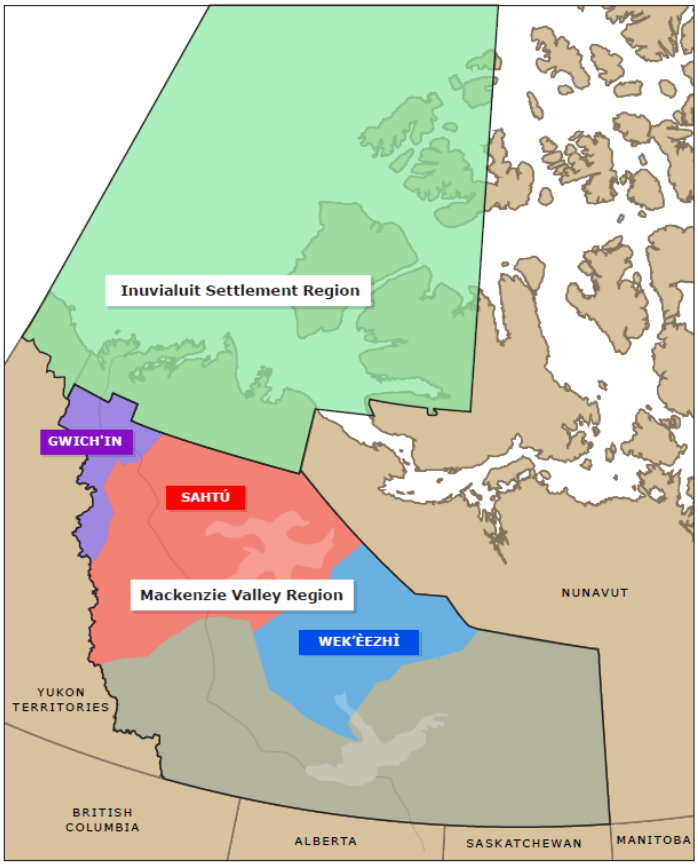


FIGURE 0-1: GEOGRAPHIC SCOPE OF THE ENVIRONMENTAL AUDIT

AUDIT CRITERIA, PROCESS AND METHODOLOGIES

The NWT environment is influenced by economic development projects both within the NWT and from nearby jurisdictions and increasingly influenced from large-scale phenomena such as climate change. The fifth NWT Environmental Audit focuses on:

a) *The availability and use of barren-ground caribou trend information in the NWT that is required to make decisions (MVRMA Section 148 (3)(a)).*
b) *The effectiveness of cumulative impact monitoring in NWT (MVRMA Section 148 (3)(b)).*
c) *The effectiveness of regulatory regimes in the Mackenzie Valley (MVRMA Section 148 (3)(c)).*
d) *Responses of parties to the previous Audit (MVRMA Section 148 (3)(d)).*

The Audit Team followed a set of Audit criteria and lines of inquiry on which to focus the research and evidence collection. The definitions of each are described on Table 0-1 below.

TABLE 0-1: AUDIT CRITERIA, LINE OF INQUIRY AND POTENTIAL KEY SOURCES DEFINITIONS

Criteria	Line of Inquiry	Potential Key Sources
The "activity" or "output" that the Audit Team collected evidence to compare against.	The questions the Audit Team sought to answer under each of the criteria.	Sources of information from which to draw conclusions, such as documents, records, interviews, and questionnaires.

The Team was guided by the Audit Steering Committee (ASC), made up of representatives from First Nations and Métis in the NWT, the Inuvialuit, and the territorial and federal governments. The ASC selected the environmental components examined for each Part of the Audit. The 2025 Audit criteria and lines of inquiry are provided in Appendix A. Specific approaches to the four parts of the Audit are outlined below.

THE AVAILABILITY AND USE OF BARREN-GROUND CARIBOU TREND INFORMATION IN THE NWT THAT IS REQUIRED TO MAKE DECISIONS

The Audit Team conducted an audit of environmental trends for the following barren-ground caribou herds: Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst, and Tuktoyaktuk Peninsula. Team members gathered key trend information for caribou from scientific, local, and Traditional Knowledge (TK), where available, to determine the quality of the trend information. The Audit Team considered potential contributing factors to any changes in barren-ground caribou in the NWT, the significance of those trends, and any gaps in the availability of information. To supplement a review of documents, the Audit Team also gathered perspectives through the public survey, and questionnaires and/or interviews of relevant boards, GNWT departments, federal departments, Indigenous Governments and Indigenous Organizations (IGIOs), industry, and non-governmental organization (NGOs).

THE EFFECTIVENESS OF CUMULATIVE IMPACT MONITORING IN NWT

The Audit Team conducted an audit of the effectiveness of cumulative impact monitoring methods used by the various organizations with environmental monitoring responsibilities across the NWT. Using the criteria outlined in Appendix A, the Audit Team analyzed the various cumulative impact monitoring methods used in the NWT to assess the effectiveness of these methods. As a component of this analysis, the Audit Team considered whether any changes to methods have taken place since the previous Audit and whether these changes constitute improvements to the effectiveness of monitoring cumulative impacts in the NWT. The key components of the environment considered when reviewing the effectiveness of cumulative impact monitoring methods were caribou, fish, and water, as identified in the Terms of Reference for the Audit.

The Audit Team collected information through a document review, the public survey, and questionnaires and/or interviews of relevant boards, GNWT departments, federal departments, IGIOs, industry, and NGOs.

THE EFFECTIVENESS OF REGULATORY REGIMES IN THE MACKENZIE VALLEY

The Audit considered the effectiveness of the regulatory regime in protecting components of the environment from significant adverse impacts, including impacts to: air, caribou and other wildlife, community wellness, fish, landscape and habitat, and water.

The review of the regulatory regime focused on the following sub-components:

- Regulatory scope
- Engagement and consultation
- Land use plans (LUPs)
- Comprehensive Land Claims Agreements (CLCA)
- Adequacy of resources
- Outcome of regulatory decisions
- Compliance and enforcement

To address the criteria under this component of the Audit, the Audit Team used a variety of approaches to gather evidence, including document review, a public survey, and questionnaires and/or interviews of relevant boards, GNWT departments, federal departments, IGIOs, industry, and NGOs.

REVIEW OF RESPONSES TO PREVIOUS RECOMMENDATIONS

The Audit Team focused on recommendations and responses included in the 2020 Audit to determine what progress has been made since 2020. The Audit Team considered the clarity of the recommendation and any changes to the regulatory or operating environment that would impact the ability of regulators / decision-makers to address the recommendation, as well as impact the applicability of the recommendation. We also considered what progress has been made on any outstanding recommendations from the 2015 Audit (as identified in the 2020 Audit).

QUALITATIVE APPROACH

The Audit Team conducted qualitative information gathering through a public survey, organizational questionnaires,[4] and interviews of / with Audit informants. Table 0-2 below outlines the engagement results for each of the three approaches.

[4] The Audit Team has deliberately used the term "survey" for the public survey and "questionnaire" for the organizational questionnaire to more clearly delineate between the results of the engagement approaches. We recognize that they are both technically surveys.

TABLE 0-2: ENGAGEMENT RESULTS FOR EACH OF THE QUALITATIVE RESEARCH APPROACHES

Approach	Engagement Results
Public Survey (summarized in Appendix B)	Sixty-one (61) unique responses
Questionnaires sent to interested parties[5] in the Mackenzie Valley and the ISR (summarized throughout)	Forty (40) responses total from GNWT, IGIOs, NGOs, co-management boards, the federal government, and industry and industry associations
Interviews, using tailored interview guides (results summarized throughout)	Thirty-two (32) interviews held with 33 organizations, representing GNWT (ECC & ITI), co-management boards, industry, GoC (ECCC, CIRNAC, and DFO), IGIOs, and NGOs

REPORT STRUCTURE

The 2025 NWT Environmental Audit is organized in four main parts, supported by references and appendices:

- Part 1: The Availability and Use of Barren-Ground Caribou Trend Information in the NWT that is Required to Make Decisions
- Part 2: The Effectiveness of Cumulative Impact Monitoring in the NWT
- Part 3: The Effectiveness of Regulatory Regimes in the Mackenzie Valley
- Part 4: The Adequacy of Responses to Previous Audit Recommendations

Each sub-part of this Audit Report describes what the Audit Team examined, why it is important, and what was discovered during the Audit.

The Appendices include:

- Appendix A: 2025 NWT Environmental Audit Criteria and Lines of Inquiry
- Appendix B: 2025 Public Survey Results Summary
- Appendix C: Caribou Trends Analysis Details
- Appendix D: 2025 Audit Recommendations and Responses

NOTE ON PREVIOUS RECOMMENDATIONS

Most of the recommendations from the previous Audit (2020) are either outstanding or have been partially implemented, while there remain three (3) outstanding recommendations from the 2015. These recommendations are detailed in Part 4 of this Audit report, with reference to relevant 2020 and 2015 recommendations in Parts 2 & 3. Appendix D provides all the new 2025 recommendations as well as recommendations from the 2020 and 2015 Audits that the Audit Team recommend are carried forward.

[5] The list of interested parties was included in the Request for Proposals for the NWT Environmental Audit and is a comprehensive list of organizations who have responsibilities or interests with respect to the NWT environment. Requests to complete the questionnaire were sent to this long list of organizations (over 250).

1. PART 1: THE AVAILABILITY AND USE OF BARREN-GROUND CARIBOU TREND INFORMATION IN THE NWT THAT IS REQUIRED TO MAKE DECISIONS

Section 148(3)(a) of the MVRMA requires an Audit to include "an evaluation of information, including information collected or analyzed under Section 146, in order to determine trends in environmental quality, potential contributing factors to changes in the environment and the significance of those trends." For the 2025 Audit, the Audit Steering Committee (ASC) requested the Auditor focus its environmental trends evaluation on the following barren-ground caribou herds:

- Bathurst
- Bluenose-East
- Bluenose-West
- Cape Bathurst, and
- Tuktoyaktuk Peninsula.

For each of the audited caribou herds, we explored the availability of data/information rooted in both western and TK forms of expertise. We identified available technical reports and academic publications from the GNWT to review and analyze trend-related data for caribou herds. We also explored potential contributing factors to any changes in barren-ground caribou in NWT, the significance of those trends, and any gaps in the availability of information. We explored whether information was available for the following trends:

- Population abundance
- Herd productivity
- Seasonal range/habitat use by caribou
- Habitat condition
- Predation
- Food security in communities (including food availability and food quality, including health of harvested animals)
- Harvest management
- Land use [i.e., anthropogenic land use (e.g., mines) and associated impacts to caribou]
- Wildfires
- Climate change
- Parasites/disease (including insect harassment), and
- Environmental contaminants/pollution.

In addition to evaluating the trend data itself, we sought to understand how well the available information is addressing the caribou-related concerns of communities, other decision-makers, or users of the data (e.g., co-management boards, governments, industry). In this context, it is

important to note the distinction we see between environmental trend monitoring and cumulative impact monitoring. While trend monitoring programs can answer questions like "Are caribou populations declining in a particular herd over time?", such programs are not necessarily designed to consider what might be causing any of the detected changes or trends. Understanding the impact of multiple stressors on caribou or other valued ecosystem components (VEC) and, therefore, the cause of any detected trends, requires a cumulative impact monitoring program or an interpretive framework that is deliberately designed to evaluate the impacts of multiple stressors on a VEC; past, present, and future.

We conducted a literature review of monitoring reports and studies that analyzed and summarized the available data within the caribou herds under this Audit. Evidence for our findings and recommendations for this section of the Audit came from the following sources:

- A literature review of caribou studies, of the caribou herds of interest, including government reports and academic papers, where GNWT biologists were authors or the research was guided and funded by GNWT. The temporal scope of the audit was established to include reports published since 2015 to refine the analysis to more recent studies while still capturing the history of monitoring, management, and research activities in the GNWT.
- Organizational questionnaires
- Interviews with representatives of organizations (boards, IGIOs, industry, GNWT, federal departments), and
- A public survey.

Caribou are paramount to the social, cultural, economic, and environmental systems of the NWT. There are significant and ongoing changes to the herds in recent decades. For example, the Bathurst herd has seen a significant decline in recent years, with numbers changing from roughly 470,000 in the mid-1980s to a low of about 6,240 in 2021 (GNWT, 2024h). This decline is triggering interest in better understanding if the regulatory regime and monitoring and management practices are adequate; considering that stressors, and the cumulative impacts of such stressors, may be increasing over time (Tłı̨chǫ Government, 2023).

1.1 DATA AVAILABILITY

What We Examined

The Audit Team sought to determine the availability of both scientific and TK-based monitoring data/information for each trend of interest, as well as the quality of the data/information. The Audit Team identified specific trends of interest related to barren-ground caribou that should be prioritized and provided a rationale as to why they should be prioritized. The Audit focused on the following lines of inquiry:

- *Is scientific monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality?*

- *Is TK-based monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality?*
- *Are there specific trends of interest related to barren-ground caribou for which scientific or TK-based monitoring should be prioritized (with rationale as to why they should be prioritized)?*

Why it is Important

Monitoring data/information is the basis for decision-making about how to manage caribou and how to approach future monitoring. If the data/information is not available for each trend of interest, decisions made about caribou management and monitoring cannot be evidence-based. The co-management regime has an opportunity to make informed decisions with data/information from both scientific and TK-based data/information. Having these parallel sets of expertise available strengthens management and monitoring decisions. By understanding the breadth of available data/information on each trend of interest, the Audit Team can identify specific trends of interest for which scientific and/or TK-based monitoring should be prioritized. Researchers contributing to caribou data/information in the NWT regime may encounter capacity constraints and decisions must be made about what trends to prioritize. Our assessment of possible priority areas can help direct these efforts.

What We Found

Table 1-1 below provides a high-level summary of findings for each line of inquiry.

TABLE 1-1: FINDINGS ON DATA AVAILABILITY

Line of Inquiry	High-Level Findings
Is scientific monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality?	Scientific monitoring data/information are used for studies on each trend of interest; some organizations would like better access to raw data/information. Conclusions made by authors of peer-reviewed literature and government studies were generally of high-quality and sufficient to address the objectives of the studies.
Is TK-based monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality?	TK-based monitoring data/information is available, and organizations stress the importance of respecting TK in monitoring approaches. TK-based monitoring data is considered high-quality information due to the inclusion of TK in various ways (e.g., Indigenous methodological framework in study design, community-based monitoring programs), across all trends of interest.

Line of Inquiry	High-Level Findings
Are there specific trends of interest related to barren-ground caribou for which scientific or TK-based monitoring should be prioritized (with rationale as to why they should be prioritized)?	Community food security, wildfires, climate change, environmental contaminants/pollution, habitat conditions, predation and parasites/disease are trend areas requiring more attention.

1.1.1 SCIENTIFIC MONITORING DATA/INFORMATION ARE USED FOR STUDIES ON EACH TREND OF INTEREST; SOME ORGANIZATIONS WOULD LIKE BETTER ACCESS TO RAW DATA/INFORMATION

The Audit Team reviewed the data collected and published in government reports (39), academic studies (47), and government-academic collaborations (included under academic studies). Academic studies that included collaboration with the GNWT (i.e., either through GNWT funding or inclusion of GNWT authors) accounted for 49% of literature reviewed (23 of 47 studies). We compared the monitoring data against trends of interest defined in Appendix A.

Availability of Information/Data

Government reports/studies are often publicly available; decision-makers and communities can retrieve them from academic research databases, the GNWT Environment and Climate Change (ECC) Resources website, or by making a request to the GNWT for data/reports. All papers on the GNWT-ECC Resources website provide a summary and explanation of research/study results within the publication.[6] Many papers also include raw data as an appendix, or links to where the data can be found. Inclusion of raw data or links to raw data were included in publications focused on population abundance, of which the same papers also highlighted trends of interest such as herd productivity and seasonal range/habitat use (fewer include trends of interest, such as habitat condition, harvest, and land use).

Raw data were less likely to be provided for harvest management, which is difficult due to modelling/simulation nature of studies. No raw data were provided in studies that focused on trends of interest such as predation or parasites/disease. Data provided from the GNWT was noted in many studies as 'may be available upon request'. The GNWT website has links to the NWT Discovery Portal where studies are housed.[7] They also provide a list of 416 research projects that have been conducted by the GNWT (GNWT, 2022d).

Government-academic papers are less publicly available than those provided on the GNWT website, however all publications include a summary and explanation of research/study results. Seventy-four percent (74%) of academic papers were available to the general public without a fee or access through an educational institution. Many papers also include raw data as an appendix,

[6] Papers can be downloaded from the GNWT Environment and Climate Change Resources website (https://www.gov.nt.ca/ecc/en/resources)
[7] NWT Discovery Portal link: (https://www.gov.nt.ca/ecc/en/services/nwt-cumulative-impact-monitoring-program-nwt-cimp/nwt-discovery-portal)

or links to where the data can be found. Inclusion or links to raw data were included most in publications focused on habitat condition (6) and population abundance (5).

Academic studies were less likely to include raw data within the publication itself (23% of academic studies included raw data vs 28% of government downloaded publications included raw data or links to where data can be found).

Trends of Interest Defined in the Audit Plan (Appendix A)

The Audit Plan, included in Appendix A, included a list of factors for review (as described above). The Audit Team found that the quality of data/information has good coverage across trends of interest. Below, we elaborate on the composition of studies that include data/information on each trend of interest. We then explore the perceptions of parties to the regime and the public related to the availability of monitoring data/information and priorities for future monitoring efforts.

The results of the literature review of published government and academic studies from 2015 to present, based on each trend of interest, is presented below. Both government and academic published literature included sufficient data for highlighting trends and significance of trends, when sufficient information was available. Most academic papers included in the literature were peer-reviewed and therefore met a certain threshold for quality of analysis. In addition, many of the academic papers included as part of the literature review had one or more authors from GNWT, or utilized GNWT collected data (e.g., collar data) as part of their study design.

When the quantity or quality of available data were insufficient to make scientifically meaningful conclusions, both government and academic literature highlighted these potential gaps in understanding. Because of the sharing of data between the GNWT and academia, especially for caribou collar data, the consistency of data used across studies affords a higher quality of analysis and comparison between trends and years. Therefore, conclusions made by authors of peer-reviewed literature and government studies were generally of high-quality and sufficient to address the objectives of the studies.

Across the government publications reviewed, the most studied trends of interest were herd productivity (33% of studies), population abundance (31% of studies), seasonal range/habitat use (26% of studies), and harvest management (23% of studies; Figure 1-1). Note that some of these studies looked at more than one trend. Additional summary of available data can be found in Appendix C.

Across academic publications reviewed, the most studied trends of interest were seasonal range/habitat use (51% of studies), habitat condition (43% of studies), climate change (36% of studies), and land use (23% of studies) (Figure 1-2).FIGURE 1-1: TRENDS OF INTEREST STUDIED IN GOVERNMENT REPORTS REVIEWED FOR BARREN-GROUND CARIBOU

A summary of available data can be found in Appendix C.

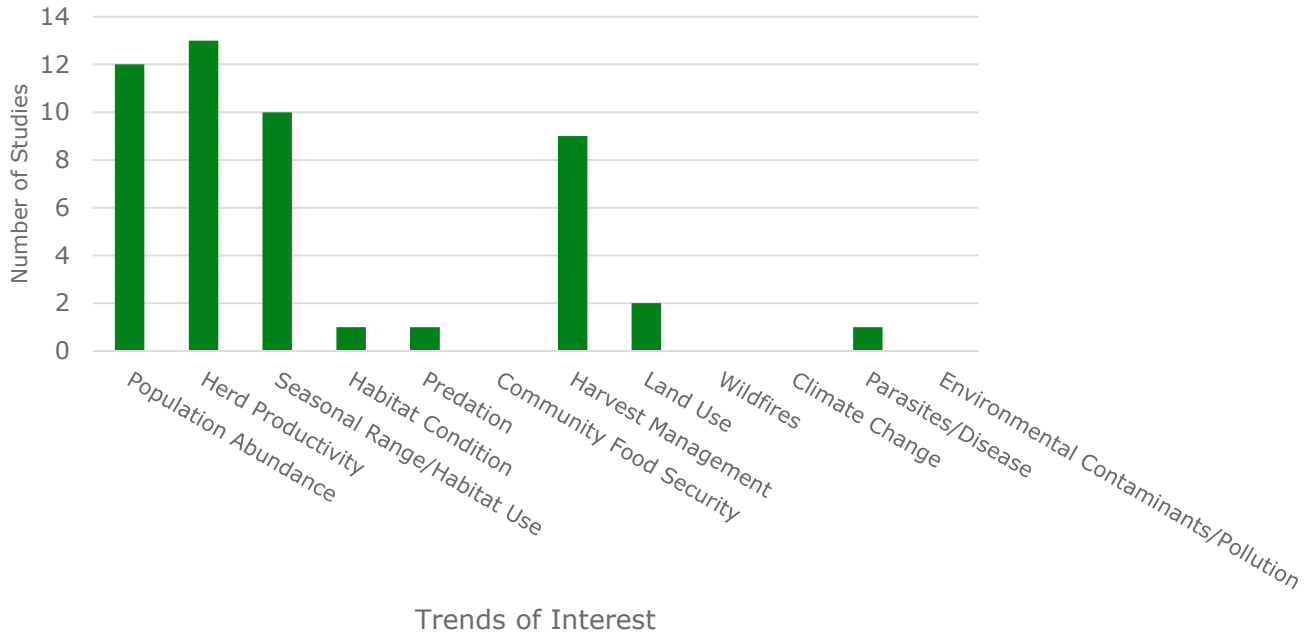


FIGURE 1-1: TRENDS OF INTEREST STUDIED IN GOVERNMENT REPORTS REVIEWED FOR BARREN-GROUND CARIBOU

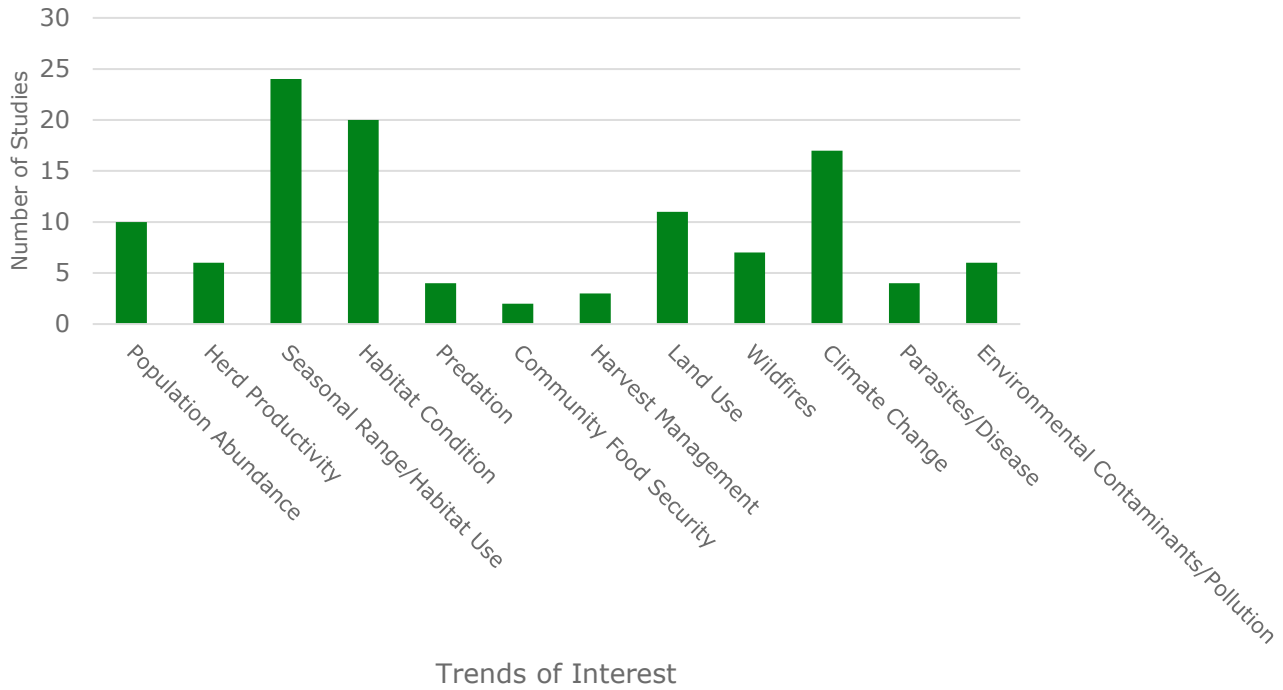


FIGURE 1-2: TRENDS OF INTEREST STUDIED IN ACADEMIC STUDIES REVIEWED FOR BARREN-GROUND CARIBOU

The most studied herd across both government and academic sources was the Bathurst herd (Figure 1-3). The Tuktoyaktuk Peninsula herd is the least studied herd of barren-ground caribou across herds of interest reviewed (Figure 1-3). Studies [e.g., (Boulanger, Poole, Gunn, Adamczewski, & Wierzchowski, 2021)] note that insufficient population estimates for the Tuktoyaktuk Peninsula herd limit comparison of population dynamics functions. More detailed information on proportion of herds studied for each trend of interest is available in Appendix C.

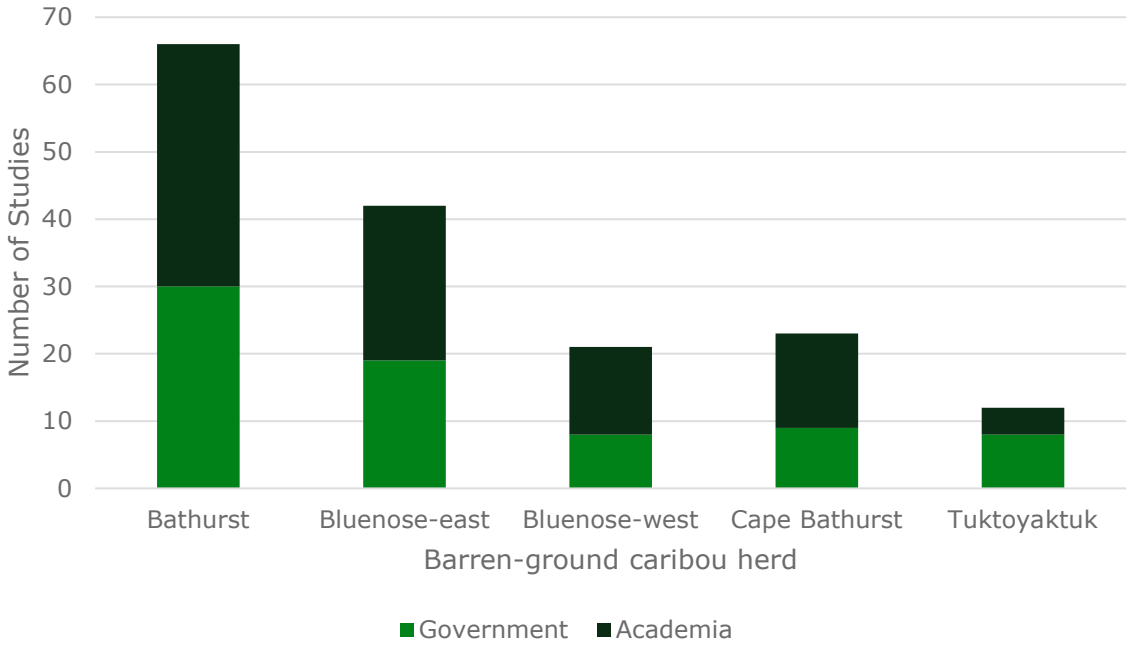


FIGURE 1-3: TRENDS OF INTEREST STUDIES REVIEWED IN GOVERNMENT AND ACADEMIC LITERATURE FOR EACH CARIBOU HERD OF INTEREST

Report Quality and Presentation of Results

The Audit Team reviewed the quality and presentation of results in both government reports and government-academic collaborations and found that the reports were of high-quality, and the data reported clearly. We reviewed 39 government reports and 23 government-academic collaborations between 2015 and the present and found:

- Objectives – were clearly stated.
- Methods – were clearly described, used standard techniques, and described any deviations from standard techniques with suitable justification and detail.
- Analysis and statistics – were clearly defined and used standard methods. Statistical code was provided in various herd population estimate reports, however, is rarely provided in similar reports throughout Canada.
- Results – were clearly described and presented in tables, figures, and text.
- Uncertainty – various sources of uncertainty were discussed, including sampling errors, observer errors and methodological uncertainty and were clearly presented in standard statistical language (e.g., standard deviation). Uncertainty was discussed in relation to

methods and implications on the understanding of the data and ways to update the methods. Lower uncertainties were presented where available.

- Discussion – the results were discussed and often compared to previous work, particularly for population counts. The implications of the results were discussed.

Of the reviewed government-academic papers on barren-ground caribou from 2015-present, the Audit Team found that papers were generally published in good quality journals with a peer-review system where detailed review is required prior to acceptance and publishing, and so the quality of data and analysis was regarded as high-quality.

What we heard from Organizations and the Public, about the Availability of Data/Information for Trends of Interest

The section below reports input from organizations (e.g., boards and NGOs) and the public separately.

Organizations reported using available caribou data/information and described it to be of 'Fair' quality. Almost half of organizations reported, in the organizational questionnaire, that they use monitoring data/information about barren-ground caribou (Figure 1-4). Of those who reported using monitoring data/information about barren-ground caribou, 12% were unsure about rating its quality, while 69% reported the quality to be 'Fair', and 19% determined the quality to be 'Excellent' (Figure 1-5). Thirty percent (30%) of respondents who reported using monitoring data/information about barren-ground caribou are from the GNWT and therefore may also have the role of collecting this data/information.

Organizations reported that the GNWT provides information in multiple formats, including presentations and government reports:

- One board reported that the interpretation is good and that both government and academic researchers will give presentations at co-management meetings.
- One organizational questionnaire respondent shared their view on the need to increase public engagement in monitoring programs and improve awareness of where to find monitoring information. Another respondent shared their desire for more clarity on how to access raw data and plain language summaries.

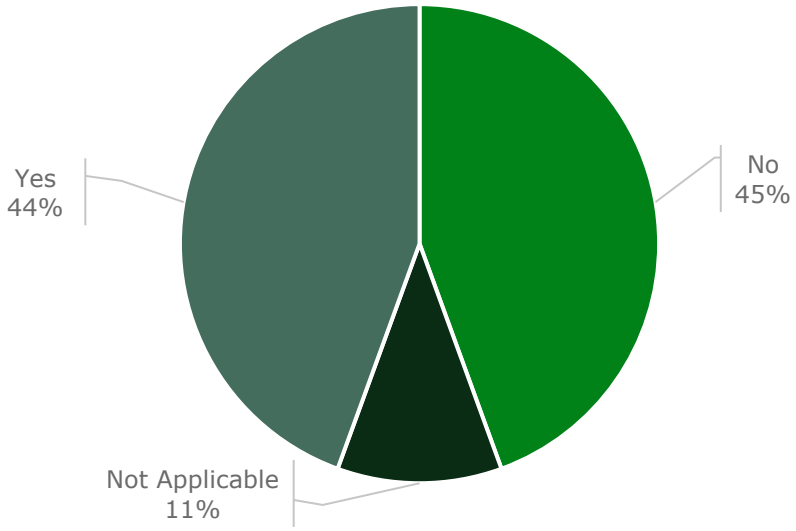


FIGURE 1-4: PERCENTAGE OF ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS WHO USE BARREN-GROUND CARIBOU MONITORING DATA/INFORMATION

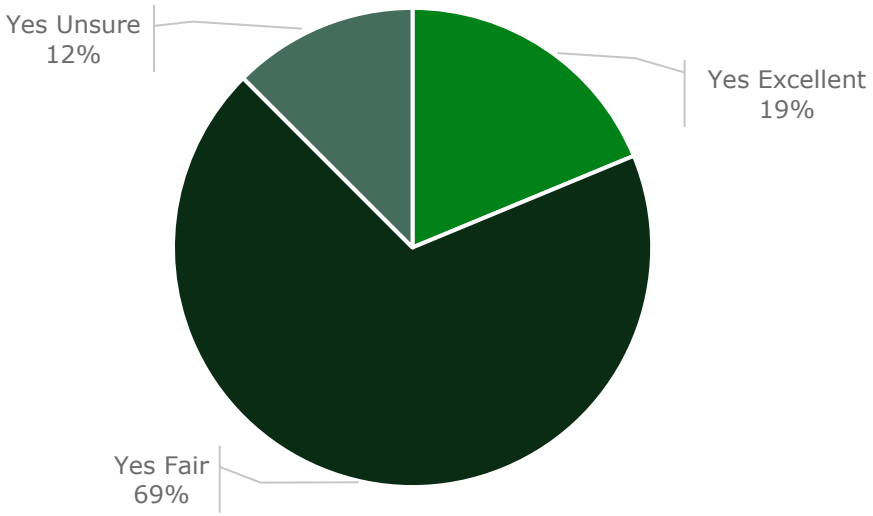


FIGURE 1-5: ORGANIZATIONAL QUESTIONNAIRE RESPONDENT'S PERCEPTION OF THE QUALITY OF BARREN-GROUND CARIBOU MONITORING DATA/INFORMATION

The public survey respondents are confident that caribou monitoring programs exist, and some respondents are aware of the results and where to find them. The public survey results indicate a high proportion of respondents acknowledging they have an awareness of caribou monitoring programs (>70%) (Appendix B). Yet, fewer than half of public survey respondents reported awareness of the monitoring results. Twenty-five percent (25%) of respondents said they are somewhat aware of the results of caribou monitoring programs and almost 30% reported being

unaware of the results (Appendix B). Thirty-six percent (36%) of public survey respondents reported an awareness of where to find monitoring results (Appendix B).

Some organizations articulated a desire for monitoring reports to be provided more quickly:

- Several organizational representatives articulated a desire for data to be provided more quickly: One board indicated that it typically took over a year for the GNWT to release their reports on population counts. A different board indicated that it routinely took over a year to deliver population counts. An IGIO noted their desire to have access to caribou data/information sooner after it is collected. GNWT has followed up to note that they take every effort to complete surveys, analyses, and final reports as quickly as possible, highlighting that they carefully proof data and analyses. They also mentioned that they share individual survey results once available, through letters to IGIOs and at caribou co-management forums.
- One IGIO expressed, during an interview, that the timing was fine.

Access to Raw Data

Through the interviews and organizational questionnaire, several organizations expressed interest in increased access to raw data. There was discrepancy between inputs, since one board reported that GNWT has been open to giving them raw data, while another noted that raw data is not shared. In the latter case, the board described their experience of receiving caribou survey reports a year after the survey was conducted without the raw data provided. They expressed a desire to do their own analysis and number crunching. A third board reported that improvements are needed across the NWT regarding open access to raw data for interpretation. The GNWT has a platform called the Wildlife Management Information System where individuals and organizations can request data from an online, geo-referenced database. This provides a central repository for parties to store and access standardized wildlife observation data to support the conservation and management of wildlife and wildlife habitat in the NWT.

There are organizations who do not see a need for increased access to data/information. For example, one IGIO said, in an interview, that the raw data is not necessary and that the final interpreted result is fine. We also heard from an industry representative that industry has access to maps that include caribou collar data, updated weekly, to inform their mitigation measures. This data is accessed through data sharing agreements.

Some respondents described the need to address the format of data/information that is available. One IGIO articulated their desire for shape files of caribou on winter roads. One co-management board representative noted that the format of the data/information could be tailored for inclusion in environmental assessments (EAs). An impact assessment board described how reports, PDF documents, and appendices with data are widely available, but that analysis cannot be conducted from those sources. They articulated a need for data standards to be examined and established, including but not limited to, data about caribou trends.

1.1.2 TK-BASED MONITORING DATA/INFORMATION IS AVAILABLE, AND ORGANIZATIONS STRESS THE IMPORTANCE OF RESPECTING TK IN MONITORING APPROACHES

TK-based monitoring data/information is included in published reports and studies on caribou trends of interest. In some cases, these studies are rooted in western scientific methods, and it is not appropriate to include TK-based monitoring data/information. Likewise, some studies and research initiatives focus only on TK-based monitoring data/information. Below, we elaborate on where TK-based monitoring data is available. We describe the perspectives shared by parties to the regime in interviews and via the organizational questionnaire about the role of TK in caribou monitoring approaches.

Inclusion of TK in Published Literature

The published literature demonstrates the inclusion of TK across all trends of interest. TK was included in the reviewed government studies in various ways, including: reference to external TK studies; collaboration workshops with Indigenous communities and co-management boards; use of mapped TK in modelling; inclusion of TK baseline data in cumulative effects assessments; engagement sessions for the development of management plans; and involvement of Indigenous individuals in conduct of studies.

Inclusion of TK in reviewed academic studies comprised the following: reference to TK as background/introduction information or with interpretation of study results; reference to external TK studies; reference to community-based monitoring programs; inclusion of feedback from Inuit organizations on manuscripts; use of Indigenous methodological framework in study design (including use of community-based research and respondent observations); inclusion of community representatives in monitoring networks (i.e., CircumArctic Rangifer Monitoring and Assessment (CARMA)); incorporation of TK into modelling and analyses; compilation of TK summaries for determination of cumulative effects; and use of TK to corroborate scientific results.

TK was included in 19 (49%) government studies and in 22 (47%) academic studies. Inclusion of TK (2015 - present) was demonstrated in government studies on population abundance (3 of 12 studies; 25%), herd productivity (3 of 13 studies; 23%), seasonal range/habitat use (4 of 10 studies; 40%), habitat condition (1 of 1 study; 100%), predation (1 of 1 study; 100%), harvest management (3 of 9 studies; 33%), land use (1 of 2 studies; 50%), and parasites/disease (1 of 1 study; 100%).

Across academic studies, each trend of interest included at least two papers that included TK. Inclusion of TK (2015 – present) was demonstrated in academic studies on population abundance (4 of 10 studies; 40%), herd productivity (4 of 6 studies; 67%), seasonal range/habitat use (11 of 24 studies; 46%), habitat condition (12 of 20 studies; 60%), predation (3 of 4 studies; 75%), community food security (2 of 2 studies; 100%), harvest management (3 of 3 studies; 100%), land use (6 of 11 studies; 55%), wildfires (6 of 7 studies; 86%), climate change (11 of 17 studies; 65%), parasites/disease (2 of 4 studies; 50%), and environmental contaminants/pollution (3 of 6 studies; 50%).

TK-based Research and Monitoring Contributing Valuable Data/Information on Caribou Trends of Interest

Our document review demonstrated the Ekwǫ̀ Nàxoèhdee K'è ekwo (Boots on the Ground Program) to be an important source of TK monitoring results.[8] Tłı̨chǫ TK is the focus of this research and training program. In an interview, the GNWT described their experience of receiving good TK information from the Tłı̨chǫ Government (TG) and community via the TG's program. They noted the Bathurst Caribou Advisory Committee as a platform where science and local TK are shared side-by-side. Along with the Bathurst Caribou Advisory Committee, the Advisory Committee for Cooperation on Wildlife Management (ACCWM) Annual Status Meetings are another platform where science and local TK are shared side-by-side.

The NWT Discovery Portal contains some data/information on TK expertise related to caribou. The search string 'Caribou AND Traditional Knowledge' led to 77 records, however most of these records do not have a focus on TK and some records appeared in duplicates and/or with maps and components added as separate records (GNWT, 2024b). One interesting result is from the Tłı̨chǫ Government's Research and Monitoring Program (2013) where they documented TK expertise with maps of caribou migratory routes before and after mines and in relation to winter roads, communities, and mine sites (Mackenzie, et al., 2013).

The inclusion of TK in research and monitoring initiatives relies on the results of publicly available TK studies or direct engagement with TK holders. Therefore, capacity issues have an impact (see Section 3.5.5). Direct engagement with TK holders requires significant time and resources. Some IGIOs have more publicly available TK studies than others, which can result in TK from one IGIO having a larger role than TK from other IGIOs.[9] For example, the Tłı̨chǫ Government conducts and shares public TK studies. Other IGIOs may not have the resources or capacity to conduct and publish TK studies, or they may not be comfortable sharing TK publicly.

[8] Ekwǫ̀ Nàxoèhdee K'è 2022 Results: Kokètì Ek'atì Deèzàatì. 2023. Dedats'eetsaa: Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; Ekwǫ̀ Nàxoèhdee K'è 2021 Results: Kokètì Ek'atì Deèzàatì. 2022. Dedats'eetsaa: Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; Ekwǫ̀ Nàxoèhdee K'è 2020 Results: Kokètì Ek'atì Deèzàatì. 2021. Dedats'eetsaa: Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; Ekwǫ̀ Nàxoèhdee K'è 2019 Results: Tłı̨chǫ Traditional Knowledge and Land Use Study. 2020. Dedats'eetsaa: Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; Ekwǫ̀ Nàxoèhdee K'è 2018 Results: Tłı̨chǫ Traditional Knowledge and Land Use Tłı̨chǫ Traditional Knowledge and Land Use Study. 2019. Dedats'eetsaa: Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; Boots on the Ground Caribou Monitoring Program 2017 Results: Tłı̨chǫ Traditional Knowledge and Land Use Study. 2018. Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT;Boots on the Ground Caribou Monitoring Program 2016 Results: Tłı̨chǫ Traditional Knowledge and Land Use Study. 2017. Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; "We Watch Everything" A methodology for Boots on the Ground Caribou Monitoring: Tłı̨chǫ Traditional Knowledge and Land Use Study. 2017. Tłı̨chǫ Research and Training Institute. Behchokǫ̀, NT; see also Ekwǫ̀ Nàxoèhdee K'è: Boots on the Ground | Tłı̨chǫ Research and Training Institute

[9] 2025 Review of the Management and Monitoring of Kǫk'èetì Ekwǫ̀ (Bathurst Caribou): Report. Prepared for the Wek'èezhìı Renewable Resources Board by ERM.

Input from Audit Respondents

IGIOs and boards had suggestions for additional mechanisms to support TK-informed data/information monitoring about barren-ground caribou. One IGIO expressed their desire for GNWT to advocate for the Arctic Borderlands Ecological Knowledge Co-op[10] to be started again. They described this initiative as a 30-year TK study on caribou, noting that it fell apart in 2016 when it stopped receiving support from the GoC. One board and one IGIO emphasized during interviews the importance of the Indigenous Guardians programs (ECCC, 2023). They noted the opportunity for Guardians programs to uplift the role of TK in the monitoring of barren-ground caribou.

Several interviewees articulated success stories regarding engagement with TK. One IGIO provided an example of the NWT species at risk committee demonstrating respect for TK by creating TK-specific criteria for endangered and threatened species (NWT SARC, n.d.). Additionally, formal species status reports developed by the NWT Species at Risk Committee include both Indigenous and Community Knowledge and Scientific Knowledge sections. One First Nation reflected on an example of good practices where a proponent consulted with their self-governing nation before conducting aerial surveys. The proponent sought input from the Nation on when and where to fly for surveys to ensure minimal impact on caribou populations. They noted that in this example, the Nation's status as 'self-governing' may have led to the improved consideration and that other Nations likely do not experience the same treatment.

Some interviewees criticized approaches taken by the GNWT. One Nation indicated that GNWT-ECC staff had gone up in a helicopter and netted caribou from the air. They noted that this caused an uproar in the community. The Nation described this as a missed opportunity to respect, and learn from, Elders who are very sensitive to disturbances to animals. They noted how many people in their community are wise in understanding animal patterns and behaviours. They believed that there was no effort to work with community members to develop a plan that met the GNWT objectives, but in a less invasive manner that was respectful to everyone involved. One board described their ongoing voiced objection to caribou collaring. They noted that the GNWT is heavily involved in caribou collaring and that they have sent out letters to communicate their dissatisfaction.

An industry representative noted the Mobile Caribou Conservation Measures process should be used by IGIOs and proponents to help build a collaborative approach to TK and Western Science.

[10] Scientific Licence: Arctic Borderlands Ecological Knowledge Coop: Community Based Ecological Monitoring Program

1.1.3 THERE ARE MULTIPLE PRIORITIES FOR DATA COLLECTION WITH POPULATION ABUNDANCE AND HARVEST MANAGEMENT RANKING AS TOP PRIORITIES, WHILE PREDATION RANKS AS THE LOWEST PRIORITY

Identifying Priorities for Data Collection – Audit Respondents

When asked to choose three priority areas in the organizational questionnaire, based on pre-determined options, organizational responses identified population abundance, harvest management, herd productivity, and seasonal range/ habitat condition as top priorities (Figure 1-6).

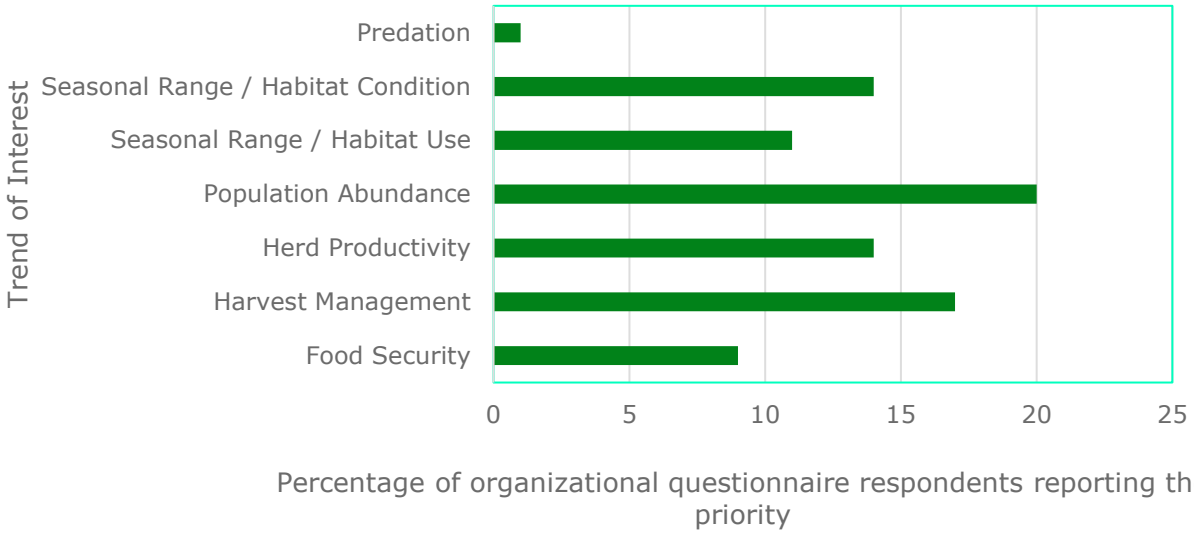


FIGURE 1-6: ORGANIZATIONAL QUESTIONNAIRE RESPONDENT'S PRIORITIES FOR FUTURE TREND MONITORING

A few organizational questionnaire respondents provided comments on priorities that were not directly articulated by the pre-determined list of options in the survey. One IGIO indicated their priority of monitoring impacts, and specifically the impacts of oil and gas developments on caribou. One board described in an interview their desire to see data/information on the impact of wildfires on caribou habitat.

Respondents of the public survey also identified priorities (Figure 1-7). They emphasized in their comments the need to investigate the effects of climate change and development on wildlife and their habitat. When asked about what components are the most important for the government to monitor over the next 5 years, most individuals (42%) chose "regional changes to the environment due to climate change" (Appendix B). This response was followed by "other" (18%), "current industrial developments" (17%), "transboundary environmental effects" (17%), and "future industrial developments" (7%). Some of the "other" responses that were different from the options provided included animal welfare, internal processes and accountability, and collaboration with Indigenous Governments.

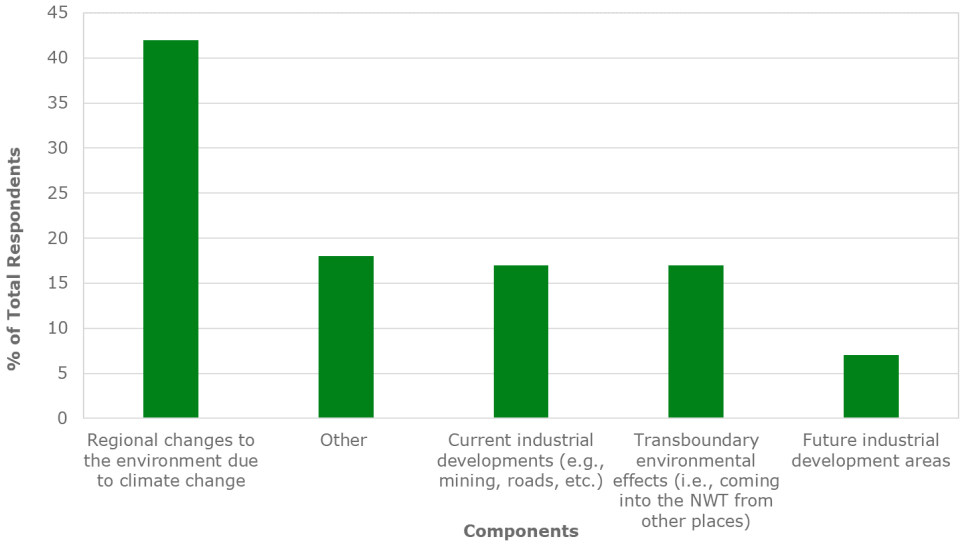


FIGURE 1-7: COMPONENTS THAT PUBLIC SURVEY RESPONDENTS CONSIDERED THE MOST IMPORTANT FOR THE GOVERNMENT TO MONITOR IN THE NEXT FIVE YEARS

Identifying Priorities - Number of Publications

One approach to identifying priorities is to consider the topics where the fewest reports and papers are published. As described in Figure 1-1 (Section 1.1.1), the topics with no government reports on the GNWT website (2015-2024) were community food security, wildfires, climate change, and environmental contaminants/pollution, although there were reports on these topics prior to 2015. There was one report for each of habitat condition, predation, and parasites/disease, and two reports on land use.

Across academic sources reviewed, the topics with the fewest papers since 2015 were community food security (4%), harvest management (6%), and predation (9%) (Figure 1-2).

1.1.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: CARIBOU DATA/INFORMATION FOR TRENDS OF INTEREST

The most studied herd, across government and academic sources, was Bathurst herd (77% of total studies), followed by Bluenose-East (49% of total studies), Cape Bathurst (27% of total studies), and Bluenose-West (24% of total studies). The Tuktoyaktuk Peninsula herd was the least studied, with only 14% of total studies including data and information on this herd (Figure 1-3).

Through our exploration and comparison of available government resources and academic studies, it is evident that the GNWT primarily focuses on trends of interest such as population abundance and herd productivity, while trends explored by government-academia partnerships or academic studies include more of the explanatory mechanisms (the 'whys') behind trends of interest. This difference is evident in the increase in studies on wildfires, land use, climate change, disease, etc. that were available from academic sources. We note that GNWT works with academia, funds academic studies, and contributes to this research. However, our assessment identified that the results of academic studies may not be easily accessible to NWT decision-makers and/or interested parties (see Section 1.1.1). The NWT Environmental Research Bulletins provide plain

language summaries of academic and government research, for those studies funded by NWT CIMP.[11] In addition, for selected projects funded by NWT CIMP, NWT CIMP has offered additional funding to create project summary videos.[12]

Data/information on caribou trends of interest is of good quality. The quality of data used in trend analyses is well reported in government reports. Academic published studies have passed peer-review and have had the data/information inputs to the study scrutinized by experts in the field to ensure quality control. Therefore, it is assumed that the quality of the data is good; however, raw data is not often included in government reports or academic papers to confirm this assumption.

Assessing the quality of TK in published GNWT reports and academic studies would be inappropriate for us to do. The details about *how* TK is included, and/or *how* TK drives the results is not always included in these reports/academic publications. Therefore, it is difficult to make a conclusion on whether it was done 'in a good way' or in a way that maintains the integrity of the TK. In the case of TK studies driven by TK holders, such as the Ekwǫ̀ Nàxoèhdee K'è ekwo (Boots on the Ground Program), TK holders steer projects and have their own mechanisms regarding quality assurance.

We note a disconnect between the amount of data/information collected by the GNWT and academic studies and the accessibility of data/information to parties of the regime and the public. While not all organizations articulated a desire to have access to raw data, many did express interest in accessing raw data. However, we note that the individuals may request access to observational data via the Wildlife Management Information System.

As a co-management regime, there are two ways of knowing – Indigenous expertise and western scientific expertise – that should have authority and capacity (resources) to design, direct, and conduct data/information collection processes and research projects. We acknowledge the impressive ways that Indigenous people provide TK-based data/information, and we acknowledge how the GNWT is engaging with TK in research, monitoring and decision-making. However, some Audit respondents voiced concern about specific monitoring decisions, such as collaring, helicopter netting, and wolf management programs. Wolf management programs have included wolf reduction actions through harvest incentive programs and aerial removal programs on various caribou herd ranges.

2025 Audit Recommendations

Recommendation 2025-1-1: GNWT to provide plain language summaries for all GNWT and GNWT/academic studies on caribou in an accessible location and include links to the full studies where available. We would expect that stakeholders and rightsholders will be able to access and understand the full scope of caribou research beyond what is currently provided in NWT CIMP-funded project summaries (NWT Environmental Research Bulletins).

[11] https://www.gov.nt.ca/ecc/en/services/nwt-cumulative-impact-monitoring-program-nwt-cimp/nwt-environmental-research-bulletin.
[12] https://www.gov.nt.ca/ecc/en/services/nwt-cumulative-impact-monitoring-program-nwt-cimp/videos-nwt-cimp

GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The development of plain language summaries on caribou studies led by GNWT is feasible moving forward. Other academic literature on barren-ground caribou is aggregated and promoted with a simple summarization on the Northern Caribou Canada website (https://www.northerncaribou.ca/). This website is led by the WRRB with support from the GNWT.

The GNWT commits to: Providing plain language summaries and links to GNWT-led research on barren-ground caribou on its website.

Recommendation 2025-1-2: GNWT to work with partners to support and enable caribou monitoring TK, especially for those IGIOs who have been unable to provide it due to lack of capacity or funding. We would expect that additional support will lead to greater capacity and additional TK caribou studies.

GNWT's response: The GNWT agrees with the intent of this recommendation. and is already fulfilling part of the actions that it is able to address.

The GNWT supports the use of TK in caribou monitoring and management. The GNWT is already fulfilling part of the recommendation by providing proposal-based funding for TK studies addressing cumulative impacts to caribou through the NWT Cumulative Impact Monitoring Program. The GNWT is also committed to working with Indigenous governments and Indigenous organizations to source external funding for the collection of TK related to caribou, as needed for specific projects.

The GNWT is not able to commit to providing additional financial support, beyond what is already provided, for TK studies on an ongoing basis due to fiscal limitations, but will continue to aid in identifying external funding sources and/or partnering on funding proposals.

1.2 AVAILABILITY OF TREND ANALYSES

What We Examined

The Audit explored the following lines of inquiry related to trend analysis:

- *Has a trend analysis been done for each trend of interest? If so, what was the quality of the trend analysis?*
- *Were any environmentally or culturally significant trends detected?*
- *Was there an absence of detected changes where changes might be expected?*
- *Are there specific trends of interest related to barren-ground caribou for which trend analyses should be prioritized (with rationale as to why they should be prioritized)?*

Why it is Important

The value of trend information corresponds to the quality of analysis to inform trend detection. If trend information is collected, but analysis has not been conducted, or conducted poorly, then it is difficult to know the trajectory of trends of interest or to make informed decisions based on that information.

What We Found

Table 1-2 below provides a high-level summary of findings for each line of inquiry.

TABLE 1-2: SUMMARY OF FINDINGS FOR EACH LINE OF INQUIRY (TREND ANALYSES)

Line of Inquiry	High-level Findings
Has a trend analysis been done for each trend of interest? If so, what was the quality of the trend analysis?	Trend analysis has been done for each trend of interest except land use and community food security. Trend analysis is of good quality, with some concerns by Audit respondents.
Were any environmentally or culturally significant trends detected?	Significant trends were detected.
Was there an absence of detected changes where changes might be expected?	There was an absence of detected changes where changes might be expected for wildfires and calving dates.
Are there specific trends of interest related to barren-ground caribou for which trend analyses should be prioritized (with rationale as to why they should be prioritized)?	Community food security, wildfires, climate change, environmental contaminants/pollution, habitat conditions, predation and parasites/disease are trends of interest related to barren-ground caribou for which trend analyses should be prioritized.

1.2.1 TREND ANALYSIS HAS BEEN DONE FOR MOST TRENDS OF INTEREST AND IS OF GOOD QUALITY; SOME CONCERNS EXIST

Trend analysis is available for all trends of interest, except land use and community food security. Trend analysis is provided by government reports, academic studies, and/or government-academic collaborations. Organizational questionnaire respondents largely report trend analysis to be of 'fair' quality. Below, we elaborate on the composition of studies that include trend analysis on each trend of interest. We identify where significant trends are identified and where no significant trends are identified where they may have been expected. We consolidate a list of trends of interest for which trend analysis should be prioritized.

Government Reports

In government reports reviewed from 2015 to present, trend analyses included population abundance, herd productivity, seasonal range/habitat use, and harvest management. Trend analyses completed for population abundance, herd productivity, as well as seasonal range/habitat use were primarily captured in the government estimates of breeding females, adult herd size, and demographics studies that are completed every two to three years. These analyses are effective because of consistent methods used between surveys (e.g., every two to three years) and the resulting temporal trends that can be investigated.

Trends are well defined and well reported, listing objectives, methods, statistics, and results clearly. GNWT biologists report on potential sources of error and how they have minimized these methodological errors. Population estimates included the majority of trend reporting, incorporating changes in population size and other demography metrics such as male-female ratios, calf-female ratios, and survival estimates. Reporting was focused on caribou demography. We understand that habitat factors such as fire, insect harassment and forage quality are tracked and that these data may be available upon request, but we did not find any reporting on these long-term monitoring programs. An annual report listing the types of long-term monitoring conducted and monitoring data available may be helpful for outreach to management partners and researchers.

Within these studies as well, harvest management is explored, often through modelling of future scenarios given varying potential harvest rates. Studies used existing population estimates and different variables such as harvest rates, to detect potential changes between future scenarios and/or to predict sustainable harvest in future years. There is less information available on past actual harvest rates (especially reports for poaching and disrespectful harvesting). The GNWT has noted that acquiring accurate barren-ground caribou harvest reporting is a continuing challenge, and the responsibility for collecting and reporting this information is shared with IGIOs as part of the NWT's wildlife co-management system. There remain large sensitivities around reporting Indigenous harvest and sharing that information with GNWT. However, harvest estimates were used in various government reports as inputs to modelling analyses (e.g., to explore natural mortality) or used to estimate sustainable harvest rates for future years. There were not any studies noted that investigated the effectiveness of enforcement activities. Across trends studied in government papers, all caribou herds of interest were investigated.

Detailed tables of trend analysis by source and herd type are provided in Appendix C. Table 1-3 below summarizes reports on trend analyses completed by the GNWT for each caribou herd of interest.

TABLE 1-3: GOVERNMENT TREND ANALYSES FOR CARIBOU HERDS OF INTEREST

Trend Analysis	Herd Studied
Population abundance	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula
Herd productivity	Bathurst, Bluenose-East
Seasonal range/habitat use	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula
Harvest management	Bathurst, Bluenose-East

Trend analyses are used to inform caribou management plans/strategies for each herd. Recent plans/strategies include:

- Bathurst: Bathurst Caribou Range Plan Summary (GNWT, n.d.-a), Bathurst Caribou Management Plan (Bathurst Caribou Advisory Committee, 2021), YúnethéXáʔetthën Hádı - Caribou Stewardship Plan (LKDFN, 2020).

- Bluenose-East: Taking Care of Caribou: the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground caribou Herds Management Plan (Advisory Committee for Cooperation on Wildlife Management, 2014).
- Bluenose-West: Taking Care of Caribou: the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground caribou Herds Management Plan (Advisory Committee for Cooperation on Wildlife Management, 2014).
- Cape Bathurst: Taking Care of Caribou: the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground caribou Herds Management Plan (Advisory Committee for Cooperation on Wildlife Management, 2014).

A GNWT representative noted that Taking Care of Caribou: the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground Caribou Herds Management Plan was amended in 2021.

Academic Studies

Across academic studies reviewed from 2015 to present, trends of interest studied that included trend analysis were population abundance, herd productivity, seasonal range/habitat use, habitat condition, predation, harvest management, wildfires, climate change, parasites/disease, and environmental contaminants/pollution (Table 1-4). Trends of interest within academia that were studied without inclusion of trend analysis included community food security and land use.

TABLE 1-4: ACADEMIC TREND ANALYSES FOR CARIBOU HERDS OF INTEREST

Trend Analysis	Herd Studied
Population abundance	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst
Herd productivity	Bathurst, Bluenose-East
Seasonal range/habitat use	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst
Habitat condition[1]	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst
Predation	Bathurst, Bluenose-East
Harvest Management	Bathurst
Wildfires	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst
Climate change[1]	Bathurst, Bluenose-East, Bluenose-West, Cape Bathurst
Parasites/disease	Bathurst, Bluenose-East
Environmental contaminants/pollution[1]	Bathurst, Bluenose-East, Cape Bathurst

[1] Includes trend analyses that are not herd specific.

Trend analysis for herd productivity was often studied using modelled trend analyses, similar to government analysis of harvest management. Harvest management was also modelled using assumed harvest levels and was recognized as likely an underestimation. It seems that knowledge gaps exist where actual harvest rates are missing, and therefore any trend modelling may not include the appropriate level of confidence. Across trends studied in academic papers, all caribou herds of interest, except for Tuktoyaktuk Peninsula, were investigated.

The Audit Team found that academic sources included more of a 'mechanistic' approach to exploring the 'whys' of environmental trends for the caribou herds of interest. Many of these studies included collaboration with the GNWT, either through government funding or inclusion of GNWT authors on the studies. This avenue allows the GNWT to supplement their routine investigations of caribou herd demographics (e.g., population abundance studies every three years), affording a holistic review of information through collaboration with academia.

The types and extent of trend analysis published in government and academic studies (2015-present) differs based on herd (see Appendix C for detailed tables). For example, the Bathurst herd is the focus of 66 reports (30 government and 36 academic; 77% of all reports), while the Tuktoyaktuk Peninsula herd is the focus of 12 reports (8 government and 4 academic; 14% of all reports) (Figure 1-3).

Organizational Questionnaire Responses

Some organizational questionnaire respondents reported using trend analysis. Fifty-eight percent (58%) of organizational questionnaire respondents noted that they do not use trend analysis. Of those who use trend analysis, 73% report it is of 'Fair' quality, while 13% responded 'Excellent'. One NGO from the ISR noted in the organizational questionnaire that trend analysis was not available to them.

1.2.2 SIGNIFICANT TRENDS WERE DETECTED

Across government studies, significant trends were detected for population abundance and herd productivity. For the Bluenose-East herd, this trend included a significant decrease in breeding and non-breeding females in 2018 compared to 2015 (Boulanger, et al., 2019). Calf productivity estimates also indicated a significant negative trend in productivity from 2008 to 2018, influenced by decreasing calf survival (Boulanger, et al., 2019). An overall herd decline since 2010, of about 20%, was documented for the Bluenose-East herd (Boulanger, et al., 2019). However, a more recent survey (2021 estimate), indicated that changes in breeding females, adult females, and herd size were not statistically significant between 2018 and 2021 (Boulanger, et al., 2022). Further, estimates of adult females and herd size increased significantly between 2021 and 2023 (Boulanger, et al., 2024).

The most recent government population study on the Bathurst herd did not find a significant change in estimates of breeding females, adult females, and adult herd size between 2018 and 2021 (Adamczewski, et al., 2022). From 1985 to 2021, estimates with emigration *included* suggested a significant decrease in herd size, while estimates with emigration *excluded* suggest the herd is approaching overall stability (Adamczewski, et al., 2022).

The last reported government population study published on the Tuktoyaktuk Peninsula, Cape Bathurst, and Bluenose-West herds was completed in 2018. There was no significant population trend for either the Bluenose-West and Cape Bathurst herds between 2005 and 2018 (Davison, Boulanger, & Behrens, 2020); however, there was a non-significant increasing trend in the Cape Bathurst herd. In contrast, there was a significant decline detected in the Tuktoyaktuk Peninsula herd (Davison, Boulanger, & Behrens, 2020). Results of the 2021 surveys for these herds have been reported to relevant boards and Indigenous groups and recorded in the 2022/23 ACCWM

action plans. However, the 2021 survey report for these herds was not posted at the time of the Audit.

Across academic studies, significant trends were detected for population abundance, seasonal range/habitat use, habitat condition, climate change, environmental contaminants/pollution, predation, and wildfires. There were no academic papers found that described significant trends in parasites/disease, herd productivity, community food security, harvest management, or land use in NWT. Although changes in condition and health of caribou, associated with arctic oscillation, were explored in one academic paper.

1.2.3 THERE WAS AN ABSENCE OF DETECTED CHANGES WHERE CHANGES MIGHT BE EXPECTED FOR WILDFIRES AND CALVING DATES

Within the government publications reviewed, an absence of detected changes was noted for harvest management and seasonal range/habitat use. For harvest management, many 'modelling' studies exist with objectives to predict changes to caribou abundance with different parameters/factors including harvest rates. However, there are gaps in the information available on trends of actual caribou harvest levels and actual harvest rates to input into these modelling exercises. As mentioned in previous sections, this is missing appropriate confidence and has been noted to possibly result in a misrepresentation of future scenarios/trends by authors. However, these models present various scenarios to aid in decision-making. For seasonal range/habitat use, many government population estimate studies include an aspect of seasonal range and habitat use in their studies, but have gaps in their investigation of any significance of changes or trends.

Within academic sources reviewed, unexpected changes noted were for wildfires and climate change. For example, we found no linear trend in number of fires or annual area burned over time since 1965 within the Taiga Sheild Ecozone (Lewis, 2019), although TK reports increased frequency and severity of fires (Dokis-Jansen, 2015). As well, neither area burned nor mean burn severity showed significant trends through time, save for the Bluenose-West herd that had a significant decrease in both area burned and burn severity from 1985 to 2011 (Rickbeil, Hermosilla, Coops, White, & Wulder, 2017). Unexpected findings from climate change studies included, for example, that climate change has brought significantly earlier springs to the Arctic, but researchers did not detect a corresponding change in calving date in caribou across northern North America (Couriot, et al., 2023).

1.2.4 TRENDS ANALYSIS THAT SHOULD BE PRIORITIZED IS THE SAME AS PRIORITIES IDENTIFIED ABOVE (SECTION 1.1.3)

The determined priority areas identified in Section 1.1.3 above (for data/information) are also priorities for trend analysis. In addition to priority areas that are identified by gaps in the literature (Section 1.1.3), here we share perspectives of organizational questionnaire respondents specific to their priorities for trend analysis.

<u>Organizational Questionnaire Respondent Perspectives – Priorities</u>

Organizational questionnaire respondents shared priorities for future trend analysis in interviews. One IGIO emphasized their desire to see a research focus pivot from population decline to

emigration, to identify where the herds are shifting. One board suggested prioritizing the links between caribou and climate change. One First Nation expressed interest in prioritizing trends in predation. They noted that before starting the wolf management program, there was no initial study of wolf populations on the landscape. They reflected on this impacting the ability to analyze the effectiveness of predator management. They described wolf management as a hot topic over the past 5 years and noted that understanding trends in predation is a way to monitor the success of the wolf management program as a management strategy. However, the GNWT notes that a review was conducted of available knowledge on wolves that was summarized in the Wolf Technical Feasibility Assessment (Wolf Feasibility Assessment Technical Working Group, 2017). There have been aerial surveys conducted to investigate wolf abundance; however, the estimates often have low precision, which limits the ability to detect changes in wolf density throughout the years (Wilson et al., 2023). The low precision is due to the difficulty in detecting wolves from the air. Therefore, although there have been studies of wolf populations in the NWT, good estimates for wolf populations are not accessible.

One NGO from the ISR described in the organizational questionnaire that predation is a priority for trend analysis as well as continued tracking of population abundance and herd productivity. One board from the ISR noted that food security related to the herd is a priority and that trends around food availability and food quality, including the health of harvested animals are important. They emphasized how the Inuvialuit and Gwich'in Nations within the region depend on the caribou for food and other traditional / cultural uses.

Herd Specific Management Plans

The GNWT described, during an interview, the interplay between herd specific management plans and research on caribou trends. They noted that the management plans reflect information gaps and that they take guidance on what to prioritize from those management plans. They articulated that stressors can be different for different herds.

One board expressed a desire for increased communication between boards so that land use planning can be used to assist in managing the herds. They noted that land use planning could assist in policy initiatives, for example caribou management measures could be put into a LUP. Another board expressed the same desire for a better connection between conservation zones and an evidence-base of precise locations of wildlife habitat.

GNWT Partnerships with Academics

The GNWT reflected on the importance of their collaborations with academia. Collaborating with academics allows them to address priorities and access more funding for caribou research. The GNWT sees academics as having a role to play in conducting in-depth studies. They noted past and current collaborations with Polar Knowledge Canada and the State University of New York, as well as other academic institutions to support caribou research. In both these cases, GNWT reflected that they allowed for academic freedom while providing direction on the types of questions they wanted answered. GNWT also noted how their staff sit on students' research / theses committees.

1.2.5 OVERALL OBSERVATIONS AND RECOMMENDATIONS: AVAILABILITY OF TREND ANALYSIS

The Audit Team observed the availability of caribou trend analysis and that the most explored trends of interest in government studies were herd productivity, population abundance, and seasonal range/habitat use. There were no papers downloaded directly from the government website that addressed community food security, wildfires, climate change, or environmental contaminants/pollution from 2015 onwards. Across all government-academic papers reviewed for the caribou herds of interest since 2015, all trends of interest were explored. The most abundant trends of focus in the reviewed academic literature were seasonal range/habitat use, habitat condition, and climate change. In addition, spatial trend information exists for habitat condition and predation (abundance and rates), however temporal trends for these trends of interest are less studied. As mentioned above, there are many 'modelling' studies related to harvest management completed to predict changes to abundance with different parameters/factors including harvest rates. However, we found very little information on trends of caribou harvest levels.

We observe that in addition to management plans reflecting information gaps and, therefore, being a source of direction for what to prioritize in trend analysis, existing trend analysis is the basis for developing management plans. Researchers can collaborate with RRBs and land use planners to help ensure that trends analysis, habitat management, and land use planning align (ERM, 2025).

We acknowledge the importance of GNWT fostering collaborations with academia to enable efficient analysis of caribou trends of interest at the territorial scale.

2025 Audit Recommendations

Recommendation 2025-1-3: GNWT to provide an overview or links to summaries or academic studies on trends in caribou harvest. We would expect GNWT to provide what is already known or what estimates are being made and used when making decisions on management of various caribou herds.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit.
>
> Caribou harvest is discussed at annual meetings with IGIOs at the Bathurst Caribou Advisory Committee (BCAC) Meetings, and the Advisory Committee for Cooperation in Wildlife Management (ACCWM) but the GNWT does not collect trends in caribou harvest. The harvest information is reported by co-management partners in the annual meeting reports of the BCAC and ACCWM. Annual reports for the Cape Bathurst, Bluenose-West and Bluenose-East barren-ground caribou herds are available on the ACCWM website. Annual Action Plans for the Bathurst herd are available from the BCAC member organizations.

The GNWT commits to: Provide links on the GNWT ECC website to the publicly available ACCWM and BCAC annual reports where harvest of Cape Bathurst, Bluenose-West, Bluenose-East and Bathurst caribou is reported.

Recommendation 2025-1-4: GNWT to prioritize trend analyses of the following trends of interest related to barren-ground caribou: community food security, wildfires, climate change, environmental contaminants/pollution, habitat conditions, harvest, predation and parasites/disease, with a particular focus on community food security for which there is no trend analysis available.

GNWT's response: The GNWT agrees with this recommendation and commits to partially fulfilling the recommendation prior to the next Audit. The GNWT does not have the resources required to conduct all the noted trend analyses. Instead, the GNWT commits to prioritizing trend analyses on the key environmental factors that impact barren-ground caribou populations.

The GNWT commits to: Partnering on research related to environmental factors that impact barren-ground caribou populations, summarizing and making available, where possible, trends in the following key environmental factors: Climate change influences on habitat quality and habitat use; Seasonal habitat and range use; Parasites/disease in targeted barren-ground caribou herds

1.3 POTENTIAL CONTRIBUTING FACTORS AND CONSEQUENCES

What We Examined

The Audit explored the following lines of inquiry:

- *Is there sufficient information to evaluate the potential contributing factors of any environmentally or culturally significant trends detected? If not, what are the information gaps?*
- *Is there sufficient information to evaluate the consequences of any environmentally or culturally significant trends detected? If not, what are the information gaps?*

Why it is Important

Once environmentally or culturally significant trends are identified, it is important to determine the contributing factors to the trends and to evaluate the consequences of trends in order to make informed management decisions.

What We Found

Table 1-5 below provides a high-level summary of findings for each line of inquiry.

TABLE 1-5: FINDINGS FOR EACH LINE OF INQUIRY (CONTRIBUTING FACTORS)

Line of Inquiry	High-level Findings
Is there sufficient information to evaluate the potential contributing factors of any environmentally or culturally significant trends detected? If not, what are the information gaps?	There is sufficient information to evaluate the potential contributing factors of environmentally or culturally significant trends detected.
Is there sufficient information to evaluate the consequences of any environmentally or culturally significant trends detected? If not, what are the information gaps?	Gaps exist in information necessary to evaluate the consequences of environmentally or culturally significant trends detected, EA processes can fill some gaps, models are being created. TK and social science can inform social/cultural consequences.

1.3.1 THERE IS SUFFICIENT INFORMATION TO EVALUATE THE POTENTIAL CONTRIBUTING FACTORS OF ENVIRONMENTALLY OR CULTURALLY SIGNIFICANT TRENDS DETECTED

We explored the published literature on potential contributing factors of environmentally significant trends. Potential contributing factors are many, and they:

- Impact different herds differently, and
- Interact in complex ways.

Potential Contributing Factors Identified in the Literature

Government and academic publications (with government authors involved as collaborators) identify potential contributing factors for the significant trends detected. Table 1-6 provides a summary from the document review and identifies whether there is sufficient information to identify potential contributing factors. Appendix C provides an elaboration on this content, as well as specific references.

TABLE 1-6: EXAMPLES OF CONTRIBUTING FACTORS OF ENVIRONMENTAL TRENDS

Trend	Sufficient Information?	Examples of potential contributing factors for the significant trends
Population abundance	Yes[13]	• Harvest • Emigration • Demographic factors including reduced survival of adult caribou, reduced pregnancy rates, and reduced calf survival • Drought • Forage availability

[13] Authors acknowledge that barren-ground caribou subpopulation dynamics are not well understood but known potential factors highlight areas for increased research on synchronicity barren-ground caribou subpopulation cycles.

Trend	Sufficient Information?	Examples of potential contributing factors for the significant trends
		• Predators • Insect harassment, pathogens • Decadal winter severity • Habitat disturbance (e.g., industrial activity) • Natural variability
Herd productivity	Yes	• Decreasing calf survival • Decreasing cow survival • Increase in bull:cow ratios • Increase in drought conditions and severe insect harassment
Seasonal range/habitat use	Yes	• Industrial development • Drought • Weather conditions/climatic patterns • Northerly advance of treeline • Roads • Wildfires
Habitat condition	Yes	• Quantity and quality of available food resources • Wildlife • Land use • Climate change • Dust deposition from industrial development
Climate change	Yes	• Warmer temperatures • Higher snowfall • Warmer ground with associated changes in nitrogen dynamics and increased plant growth
Environmental contaminants/pollution	Yes	• Mining • Industrial development • Roads • Oil and gas exploration • Noise pollution • Long range atmospheric transport from industrialized regions
Predation	Somewhat	Difficulties in examining potential contributing factors exist because of lack of territoriality on the winter range, and influence of immigration of wolves from adjacent caribou herds in times of range overlap (Wilson et al. 2023). Therefore, the extent that wolves influence the decline and recovery of caribou herds is unknown, although results suggest wolves exhibit a relatively strong numerical

Trend	Sufficient Information?	Examples of potential contributing factors for the significant trends
		response to a single, declining prey base (Klaczek et al. 2016).
Wildfires	Yes	• Climate/ climate change • Melting permafrost • Vegetation composition
Parasites/ diseases	Yes	• Climate change • Seasonality • Age/sex of host

Perspectives of Audit Interviewees

During an interview, the GNWT referred to the complexity of the system and the difficulty in teasing apart the drivers of caribou population change. They noted factors of wolves, harvest, climate change (drought, insects) and the diversity of behaviours amongst herds. They emphasized that weather and climate are impacting caribou. The GNWT described their adaptive approach for management where they are doing their best with the information they have and working with their partners.

One NGO articulated that there is sufficient information to evaluate some potential contribution factors of caribou herd decline, but that GNWT was not conducting the analysis. They noted that another NGO had used the collar data for caribou and found that the caribou do not want to cross the roads around the diamond mines (Smith & Johnson, 2023b). They relayed frustration that GNWT is not doing this kind of study. This NGO argued that all the necessary data exists, but that it is not being put together in ways that address drivers of caribou decline. However, the GNWT notes that this study on caribou responses to mine winter roads was set up and partly funded by GNWT and was conducted in partnership with a graduate student who completed the fieldwork and analyses in partnership with the University of Northern British Columbia and Gahcho Kue mine staff.

One board described filling in a gap that the GNWT did not cover. They reflected on their work with community members during an amendment application, where they delineated an area used by herds that the GNWT did not identify.

1.3.2 GAPS EXIST IN INFORMATION NECESSARY TO EVALUATE THE CONSEQUENCES OF ENVIRONMENTALLY OR CULTURALLY SIGNIFICANT TRENDS DETECTED

As noted under Section 1.2, environmentally and culturally significant trends have been detected for the barren-ground herds of interest. Each of these trends will have consequences on caribou, ecosystems, and people/communities. Our investigation of the published literature demonstrates that reports/studies on caribou are focused on existing trends and the drivers of those trends; it is

through modelling that scientists and collaborators are studying the consequences of environmentally or culturally significant trends in the NWT.

Modelling to Address Information Gaps

Modelling is one approach to address information gaps about the potential consequences of environmentally and culturally significant trends of interest. Harvest modelling, for example, includes parameters for various scenarios given different declines/harvest rates. These models have the potential to explore consequences or various scenarios of any detected trend.

One representative of the federal government described another promising modelling approach during an interview. They reported working successfully with GNWT, Natural Resources Canada (NRCan), academia, and communities on the Western Boreal Initiative (for boreal caribou). They described it as a modelling project that considers multiple parameters (birds, boreal caribou, human effects, and fire) over the span of the next 100 years. They expressed being hopeful that the model's predictions can inform resource monitoring and management practices in the NWT. They articulated that this tool would allow them to consider both a snapshot of what is occurring now, and predictions over time.

Evaluation of Consequences and Impact Assessment

The EA process is a mechanism in the NWT regulatory regime that provides a platform to evaluate the potential consequences of any environmentally or culturally significant trends detected that may be exacerbated by development. During interviews, several Audit interviewees articulated concern regarding small-medium scale development that does proceed through the EA process that may have cumulative consequences on environmentally or culturally significant trends.

1.3.3 OVERALL OBSERVATIONS: POTENTIAL CONTRIBUTING FACTORS AND CONSEQUENCES

Gaps exist in the data/information available to assess potential consequences of environmentally or culturally significant trends. The GNWT and other parties are involved in modelling initiatives to address this gap, such as the Western Boreal Initiative.

Environmentally or culturally significant caribou trends will have impacts on both ecological and social systems. The EA process is a platform to identify potential consequences of specific development projects, and increasingly addresses cumulative impacts, setting a specific development in the context of broader sets of stressors for caribou. Similar platforms do not exist for smaller/medium-scale projects that are not called to EA.

Government and academic publications (with government authors involved as collaborators) identify potential contributing factors for the significant trends detected. The complexity created by multiple, and interacting, contributing factors makes identifying specific contributing factors difficult.

1.4 ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

What We Examined

The Audit sought to identify if/how decision-makers and communities are engaged in the collection of information for each trend of interest. Through interviews and an organizational questionnaire, the Audit Team explored the following lines of inquiry:

- *Were decision-makers and communities engaged in the collection of information related to each trend of interest? If so, how?*
- *Were decision-maker and community concerns documented and addressed as part of these research projects?*
- *Have the results of the trend analyses been made available or communicated to the relevant decision-makers and communities? How easily accessible are the results?*

Why it is Important

It is important that the collection of information related to trends of interest integrates the perspectives of communities and decision-makers at all stages, from conducting monitoring to sharing results. Engagement with co-management boards, Indigenous Organizations, and decision-makers ensures that caribou trend information collection is conducted in a way that is considerate of community perspectives, as well ensures that information is collected and disseminated in a way that is useful and accessible to decision-makers.

What We Found

Table 1-7 below provides a high-level summary of findings for each line of inquiry.

TABLE 1-7: FINDINGS ON ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

Line of Inquiry	High-Level Findings
Were decision-makers and communities engaged in the collection of information related to each trend of interest? If so, how?	Decision-makers and communities were engaged in the collection of information related to each trend of interest.
Were decision-maker and community concerns documented and addressed as part of these research projects?	Decision-maker and community concerns are usually related to management and monitoring approaches rather than specific research projects.
Have the results of the trend analyses been made available or communicated to the relevant decision-makers and communities? How easily accessible are the results?	The results of the trend analyses are available in some cases and are sometimes communicated to the relevant decision-makers and communities.

1.4.1 DECISION-MAKERS AND COMMUNITIES WERE ENGAGED IN THE COLLECTION OF INFORMATION RELATED TO EACH TREND OF INTEREST

We found that all published government and government-academic reports/studies demonstrate engagement with decision-makers and communities. The descriptions of *how* decision-makers and/or communities are engaged is limited in the published texts where the focus of the study is the trend analysis. Through interviews and an organizational questionnaire, we identified the perceptions of respondents on the engagement.

Published Reports/Studies

GNWT and academic published reports describe the participation of decision-makers and communities in the collection of information related to trends of interest. Table 1-8 provides a summary of if/how decision-makers and communities were engaged for each trend of interest from 2015 to present. Appendix C elaborates on these findings with references to the publications in question. The studies engage with decision-makers and communities in different ways. In some cases, multiple studies inform a trend of interest.

TABLE 1-8: HOW DECISION-MAKERS AND COMMUNITIES WERE ENGAGED FOR EACH TREND OF INTEREST

Trend	Engagement	Type of Engagement
Government		
Population abundance	Yes	Individuals from communities and the Wek'èezhìi Renewable Resources Board (WRRB) were involved in aerial survey counts
Herd productivity	Yes	Individuals from communities and the WRRB were involved in aerial survey counts
Seasonal range	Yes	Individuals from communities and the WRRB were involved in aerial survey counts
Habitat condition	Yes	Collaboration with WRRB
Harvest management	Yes	Harvest monitored by community monitors, check-stations and officer patrols
Land use	Yes	Individuals from GNWT-ECC provided input and discussion on wildlife effects monitoring program objectives.
Academic		
Population abundance	Yes	Inclusion of authors from GNWT; collaboration with SRRB, WRRB, GRRB
Herd Productivity	Yes	Inclusion of authors from GNWT, Tłı̨chǫ Government, and WRRB; government provided collar data

Trend	Engagement	Type of Engagement
Seasonal range/ habitat use	Yes	Involvement of communities in surveys, interviews; government provided collar data
Habitat condition	Yes	Involvement of communities in monitoring; government provided collar data
Predation	Yes	Collaboration with resource boards; inclusion of authors from GNWT; government provided collar data
Community food security	Yes	Community members participate in interviews; consultation with co-management boards and government organizations
Harvest management	Yes	Consultation and collaboration with co-management boards and the NWT Wildlife Management Advisory Committee; collar data provided by GNWT
Land use	Yes	Community participation/engagement; government provided data
Wildfires	Yes	Engagement with communities and TK holders; GNWT provided collar data; partnerships with co-management boards
Environmental contaminants/ pollution	Yes	Community involvement in sampling; GNWT provided data
Climate change	Yes	Communities involved in research; data provided from GNWT
Parasites/disease	Yes	Hunter-harvested samples; involvement with hunters and trappers organizations for data collection; GNWT provided collar data; NWT CIMP-funded research with Tłı̨chǫ Elders and the Ekwǫ̀ Nàxoèhdee K'è (ENK) team to explore parasites/disease in barren-ground caribou herds

GNWT noted, during an interview, that they invite survey observers from communities on their aircraft for aerial surveys of caribou trends. They reflected on often receiving more requests to participate than there is space on the aircraft. One IGIO described, in an interview, that each IGIO has ‘a seat on the plane’ when surveys are done and that Indigenous groups are involved in surveys. One board said they are sometimes asked if they want to help GNWT with field work such as habitat surveys.

1.4.2 DECISION-MAKER AND COMMUNITY CONCERNS ARE USUALLY RELATED TO MANAGEMENT AND MONITORING APPROACHES RATHER THAN SPECIFIC RESEARCH PROJECTS

When asked how they document and address decision-maker and community concerns as part of their research projects, the GNWT noted in an interview that they engage with communities during the research permit application process.[14] All wildlife research and monitoring activities in the NWT, including work done by the GNWT, requires a wildlife research permit that requires a consultation process to be undertaken. They noted that IGIOs are asked to provide feedback and support for the proposed activities, which provides an opportunity for the researcher to engage with the IGIO and to address any outstanding concerns or comments. However, several Audit respondent organizations described how their concerns regarding caribou management and monitoring approaches were not always addressed. Additionally, an IGIO expressed concern regarding their capacity to participate given the lack of funding for IGIOs without land claims. Capacity concerns are further discussed under Section 3.5.

The GNWT described in an interview that, from their perspective, the wolf management approach to caribou management came from engagement with communities. One IGIO discussed in their interview how they do not agree with the wolf management approach and wolf harvest levels and that they expressed their concern to the GNWT. The IGIO felt that not only were their concerns ignored, but they were then excluded from conversations about the management approach. They stated interest in more active communication from and consultation by renewable resources boards on this topic.

Another First Nation expressed a lack of follow-up by researchers when they shared their concerns and provided an evidence-base (TK and biological science-based) about how sensory disturbances can be habitat disturbances. They reflected that this concern does not seem to be understood and the evidence around the concern is not influencing the chosen research approach.

A third First Nation noted their ongoing concerns around cumulative impacts on caribou that are not being addressed. They noted previous NWT Environmental Audits recommending consideration of cumulative impacts on caribou that, from their perspective, are not being addressed. They described this as one area that could affect decision-making (i.e., if cumulative impacts are high, projects may not proceed). They also voiced frustration at the lack of tracking and accountability of the RA and suggested annual public reporting as a mechanism to ensure transparency and accountability.

One First Nation representative shared concerns about the current Bathurst Caribou Range Plan, noting that it needs to be re-done. They identified concerns with the methods of how it was conducted and recommended that thresholds be adjusted for assigned areas. They further explained that, currently, the GNWT is accountable for that range plan and holds it, yet they feel it should be developed and held by a committee. However, the GNWT shared that the Plan was developed collaboratively by a Working Group consisting of twenty-one members from IGIOs, territorial and federal governments, renewable resources boards, industry, and environmental

[14] Apply to do research | Environment and Climate Change (gov.nt.ca)

non-governmental organizations over a period of four years. It was finalized in 2019 and is currently up for its five-year review.

One board described their disappointment at how little the opinions of their staff are sought and/or included in research. They noted that they have not always been involved in the design of approaches to collect caribou information. They described working groups as an avenue that could support them having a role in study design, and they noted various levels of success from this avenue. They described their role as providing recommendations on monitoring plans related to the frequency and location of trend information, and these recommendations may or may not be accepted.The GNWT shared that the ACCWM and Bathurst Caribou Advisory Committee annual meetings provide a venue for information sharing, sharing Indigenous Knowledge and science and making decisions on caribou herd status. These decisions directly influence the management and monitoring actions for the herds.

One First Nation identified a missed opportunity to improve understandings of caribou trends by listening to local Elders. They relayed that Elders in their community are not supportive of how the caribou data are currently collected using collars, citing that it is too invasive. They call on the GNWT to move to less intrusive methods, like fecal sample collection. The Audit Team notes that fecal sampling works for boreal caribou where caribou occupy a small area but is likely not logistically feasible for barren-ground populations.

One board reflected on the importance of academic research in the territory and the challenge of academic priorities tending to take precedence over research needs identified by decision-makers and communities. They suggested forming additional partnerships that could support key areas of interest as well as creating a coalition of research priorities. They expressed that having a university in the NWT would be very helpful to support the research coalition.

1.4.3 THE RESULTS OF THE TREND ANALYSES ARE AVAILABLE IN SOME CASES AND ARE SOMETIMES COMMUNICATED TO THE RELEVANT DECISION-MAKERS AND COMMUNITIES

Below we describe the availability of trend analysis and data as gathered from Audit respondents. We explore the perspectives of interview and organizational questionnaire respondents about if/how trend analysis is communicated with them.

Accessibility of Trend Information and Plain Language Summaries

Some interviewees described their satisfaction with how GNWT and others share trend analysis. One IGIO expressed that the way data is presented is good. They noted the role of presentations and the willingness of most people in GNWT to talk to them and their community members. One industry representative noted that they appreciate the maps that GNWT sends out on a weekly basis showing the collared caribou locations. It is to be noted that these maps are not publicly available and are only sent out to companies who have data sharing agreements in place to implement Mobile Caribou Conservation Measures (i.e., measures to mitigate disturbances to caribou around active mining and exploration sites). . Additionally, another board expressed appreciation for the plain language infographics that they can share with their partners.

Some interviewees shared criticisms of the GNWT's approach to sharing trend analysis and updating management tools based on trend analysis. In an interview, one NGO reflected that the GNWT's surveys are not appropriately aggregated nor are they explained in an easily comprehensible fashion.

The GNWT reflected that their communication is evolving and that they could do a better job. They noted that they share trend analysis with co-management boards and interested parties.

Timeliness of Results

The GNWT shared that it is approximately a year after surveys are completed that GNWT publishes the full results in a government manuscript report. However, GNWT typically shares results of population surveys through letters to boards and IGIOs as soon as final numbers are calculated, usually in November (i.e., within 4-5 months of the survey flying). In addition, there are annual fall status meetings (ACCWM for Cape Bathurst, Bluenose-East and Bluenose-West, and Bathurst Caribou Advisory Committee for Bathurst) for 4 of the 5 herds where GNWT provides updates on population and other surveys and studies. Further, there is on-going contact between GNWT, boards and IGIOs throughout the year to varying degrees where information about caribou is exchanged.

One IGIO noted that the GNWT results come back fairly quickly compared to the Government of Nunavut results. Another representative from the same IGIO noted that they are still waiting for the results on a Beverly herd survey that was conducted last year. They noted large gaps between surveys (5+ years sometimes). They suggested that the GNWT and the Government of Nunavut share the responsibility of research and surveys for the Beverly herd. The Government of Nunavut takes the lead on population surveys, and the GNWT conducts composition surveys for the herd and places and monitors the satellite collars.

Additional Input from Audit Respondents

One IGIO expressed their desire to see an end of season report from GNWT-ECC on seized caribou, as well as numbers in violation of the *Wildlife Act*. The GNWT has noted, however, that the GNWT-ECC does share information on illegal harvest in the Mobile Core Bathurst Caribou Management Zone each year with IGIOs.

One IGIO shared their opinion that access to federal science is lacking and not proactive. They expressed a desire for federal scientists to support their Nation with data/advice and expertise.

One board described a need to look at, what they referred to as, NWT's siloed approach to monitoring, with the government doing all the monitoring. They described how, in their opinion, this results in less effective and slower processes because funding agreements must be made for other parties to retrieve small pockets of information. They asserted that monitoring should be looked at as a territorial issue rather than a governmental issue.

The Audit Team notes that in some cases, First Nations do TK-based monitoring (e.g., Ekwǫ̀ Nàxoèhdee K'è: Boots on the Ground). Further, Indigenous Guardians programs offer opportunities for community-based monitoring to contribute to territorial understandings of

trends. Both are examples where funding agreements must be made with the GNWT or federal government.

NWT Discovery Platform

The NWT Discovery Portal is an important central platform for research results in the NWT. As the Audit Team, we explored this database to identify if caribou trend analysis is available. When the search string "GNWT AND caribou AND trend" or "trend analysis" is used, only three results emerge. One is a Ekwǫ̀ Nàxoèhdee K'è: Boots on the Ground report (Jacobsen, 2022), one was a PowerPoint presentation on guidance for monitoring caribou in zones of influence (Patenaude, 2015), and the third was NWT CIMP Caribou Blueprint from 2022.

1.4.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

In summary, the Audit Team notes the following important findings that emerged from the evidence around the ability of available information to address concerns:

- Published trend analysis (by GNWT, academia and collaborations between the two) identify engagement with decision-makers and communities, but the details of this engagement are not articulated since the articles focus is the trends themselves. We cannot determine from these published texts if/how decision-maker and community concerns are driving the study design.
- The level of engagement did not meet the expectations of some decision-makers or communities.
- We found some evidence to suggest that decision-maker and community concerns are documented and addressed as part of research projects, including through the wildlife research permit process. However, we also gathered input that concerns regarding caribou management and monitoring approaches are not always addressed and that capacity constraints within at least one organization reduce participation in the permit review process.
- The NWT Discovery Portal is a good starting point to centralize trend information; however, caribou trend analysis was not easily accessible to us when we searched the platform.
- We notice a disconnect between the monitoring and management of caribou and cumulative impact monitoring. Monitoring of specific caribou trends can inform cumulative impact studies and there is an opportunity for cumulative impact studies to inform caribou monitoring to ensure that the outcomes are in a format that can be used in cumulative impact monitoring models, for example. Experts from the government, academia, and TK holders each understand caribou impacts to come from multiple simultaneous and interacting drivers. The increasing complexity of potential drivers of caribou decline require that the approaches to monitoring and management adapt to address this complexity.

2025 Audit Recommendations

Recommendation 2025-1-5: GNWT and co-management boards to work together to provide an overview of how decision-makers collaborate and integrate community perspectives to answer questions about caribou. Enhance descriptions of how decision-maker and community concerns drive caribou study design (like what is found in NWT Environmental Research Bulletins). What we expect is that the information about collaborative efforts will extend beyond what is currently included on the GNWT website, which focuses on the work being carried out by GNWT.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in the recommendation prior to the next Audit. The GNWT works with Indigenous governments and Indigenous organizations in many decision-making processes with respect to caribou research and management. These include Indigenous governments, Indigenous organizations, renewable resources boards, advisory committees, Guardian programs and other co-management forums. Through these collaborative programs and decision-making processes community perspectives are brought forward to inform research and management decisions.
>
> The GNWT commits to: Describing on its website and providing links to existing webpages and information sources that outline collaborative caribou research and management programs, forums and decision-making processes.
>
> GRRB's response: The GRRB would be happy to provide information on how we work with RRCs, community members, and GNWT to centre our work around the communities' research priorities.
>
> WRRB's response: The WRRB reviews and responds to all GNWT wildlife research proposal applications individually after seeking initial IGIO and public input through the Board's Management Proposal website page. For proposed wildlife and wildlife management actions, the WRRB requires Parties to the Tłı̨chǫ Agreement (TG, GNWT, Canada) to provide evidence of community consultation and integration into management proposals submitted to the Board. The Board seeks input from affected IGIOs and the public through its online Public Registry or through direct communication with community members (phone, email, letter) when a Proceeding is initiated. The Board considers both science and TK evidence in its decision making, when available. Community perspectives and input from IGIOs and the public are reflected in the WRRB's decision making as shown in Reasons for Decision reports or written responses, which can be found on the Board's website on the Public Registry or the Management Proposals page.

Recommendation 2025-1-6: GNWT to enhance the Browse function on the NWT Discovery Portal to improve access to topics, like "Caribou: population trends". Provide a clear instructional welcome on the home page to direct users to the Browse function. What we expect is that it will be easier for visitors to access the information of most interest to them.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The NWT Discovery Portal provides multiple search functions but finding relevant materials on topics of interest can be challenging. The GNWT will work in the next several years to update the search and browse function.

The GNWT commits to: Updating the NWT Discovery Portal's default search option and search instructions on the homepage of the NWT Discovery Portal to aid users in searching for materials of interest.

Recommendation 2025-1-7: GNWT to work with its partners (e.g., other government agencies, such as ECCC or Government of Nunavut, and/or academic partnerships) to develop population models of caribou herds that incorporate a wider list of variables, e.g., habitat alteration through climate change and fires, insects, disease, etc. We would expect that these models would help determine the sensitivity of caribou to various environmental perturbations to identify likely current and future drivers of change (e.g., climate change, harvest, predation, etc.) and data gaps for the herds.

GNWT's response: The GNWT is already fulfilling the actions being proposed by this recommendation. The GNWT and its partners have developed and currently use population models of caribou herds to explore sensitivity of caribou to environmental changes. These models incorporate a wide list of variables that may impact caribou. The GNWT will continue to work with partners and to improve existing models and develop new tools to understand the drivers of caribou population change, particularly the relative contribution of habitat change, harvest and to the extent possible, effects of predation

2. PART 2: THE EFFECTIVENESS OF CUMULATIVE IMPACT MONITORING IN THE NWT

Under Section 146 of the MVRMA, "The responsible authority shall, subject to the regulations, 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." Furthermore, Section 148(3)(b) of the MVRMA states "(b) a review of the effectiveness of methods used for carrying out the functions referred to in Section 146;". This Audit seeks to understand if the methods used by the GNWT, as the RA[15], and others to monitor cumulative impacts are used in a targeted manner, are effective at detecting impacts, and if results are communicated broadly. Data for understanding and addressing cumulative impacts is collected independently by various parties, including the GNWT, but requires consolidation. Through the consolidation of this information, the Audit sought to investigate and assess methods by which environmental monitoring techniques are implemented to support cumulative impact management, what areas and project types cumulative impact monitoring is targeted to, how cumulative impact monitoring information is disseminated and collaborated upon, how communities and other relevant stakeholders are engaged in cumulative impact monitoring studies, and if and how cumulative impact information is used by decision-makers to impact mitigation.

Evidence used to support the evaluation of the above questions came from a selection of sources including environment and research reports [(GNWT, 2022a) (GNWT, 2022b) (GNWT, 2022c) (Carlson, Nishi, Stubbs, Routh, & Winbourne, 2023) (Murdoch, 2021)], action plans (GNWT, 2021), research and dataset reviews from regions in the NWT [(Elmarsafy & Gray, 2023) (Carlson, Nishi, Stubbs, Routh, & Winbourne, 2023)], NWT Cumulative Impact Monitoring Program (NWT CIMP) reports [(Riley P., 2021) (Musetta-Lambert, Culp, Walker, & Chanyi, 2023)], CIMP website and documentation (e.g., NWT CIMP Blueprints), questionnaire and interview responses, and public survey responses.

Decision-makers in the NWT, including co-management boards, Indigenous Governments, the federal government, and the GNWT itself, require information concerning potential or existing cumulative impacts. Cumulative impacts assessment is a mandatory component of the EA process in the NWT. The potential for cumulative impacts is a significant concern for NWT residents given mining and infrastructure development, transboundary water use, and the rapid changes due to climate change.

[15] Previous audits have construed this as evaluating NWT CIMP's effectiveness. While NWT CIMP has a clear role in monitoring cumulative impacts, there's no evidence to suggest it bears sole responsibility for meeting Section 146 of the MVRMA. The GNWT-ECC has been designated as the RA; thus, our assessment of cumulative impact monitoring methods extends to the entire GNWT.

2.1 EFFECTIVENESS OF CUMULATIVE IMPACT MONITORING METHODS

What We Examined

To determine the effectiveness of cumulative impact monitoring methods, the Audit Team examined the following lines of inquiry:

- *Do the parties responsible for conducting environmental monitoring of caribou, fish, and water use standardized monitoring techniques when designing and implementing monitoring programs, such that the information can be used in cumulative impact monitoring?*
- *Do the parties responsible for conducting environmental monitoring of caribou, fish, and water have established processes for collaborating and/or sharing results? If not, what are the barriers?*
- *Are there specific cumulative impact monitoring methods used by parties responsible for conducting environmental monitoring of caribou, fish, and water? If so, what are their respective approaches for data/information collection, analysis, and reporting?*
- *Are cumulative impact analysis strategies being updated as required?*

The 2020 Audit had the following related findings:

- GNWT has made improvements to its program since the last Audit (2015).
- The GNWT, as RA, is not employing cumulative impact monitoring effectively.
- Additional enhancements of cumulative impact monitoring were required.
- There is no structure in place to ensure that individual monitoring programs in the NWT contribute to environmental trend or cumulative impact monitoring.

Why it is Important

Environmental monitoring is conducted by various parties in the NWT, including the GNWT, the federal government, industry, RRBs, the Fisheries Joint Management Committee, the Wildlife Management Advisory Council (NWT), Indigenous Guardians programs, academia, and community members through programs like the Community-based Monitoring Program. Monitoring can be ad hoc, required by regulatory / compliance requirements, be part of ongoing programs to detect trends, and/or inform cumulative impacts over time. To determine the effectiveness of cumulative impact monitoring methods, it is important to determine the techniques used in the design and implementation of monitoring programs, whether and how information is shared, and whether specific methods are used for cumulative impact monitoring.

What We Found

The table below provides a high-level summary of findings for each line of inquiry.

TABLE 2-1: FINDINGS ON CUMULATIVE IMPACT MONITORING METHODS

Line of Inquiry	High-level Findings
Do the parties responsible for conducting environmental monitoring of caribou, fish, and water use standardized monitoring techniques when designing and implementing monitoring programs, such that the information can be used in cumulative impact monitoring?	There is some evidence that parties responsible for conducting environmental monitoring of caribou, fish, and water use standardized monitoring techniques when designing and implementing monitoring programs such that the data can be used in cumulative impact management.
Do the parties responsible for conducting environmental monitoring of caribou, fish, and water have established processes for collaborating and/or sharing results? If not, what are the barriers?	There is indication of some collaboration and information sharing between parties responsible for conducting environmental monitoring of caribou, fish and water, under three separate platforms.
Are there specific cumulative impact monitoring methods used by parties responsible for conducting environmental monitoring of caribou, fish, and water? If so, what are their respective approaches for data/information collection, analysis, and reporting?	Little evidence was found in the document review and interviews that indicate parties responsible for conducting environmental monitoring are utilizing specific cumulative impact monitoring methods when monitoring caribou, fish, and water.
Are cumulative impact analysis strategies being updated as required?	There is limited evidence that cumulative impact analysis strategies are being updated as required.

2.1.1 THERE IS SOME EVIDENCE THAT PARTIES RESPONSIBLE FOR CONDUCTING ENVIRONMENTAL MONITORING OF CARIBOU, FISH, AND WATER USE STANDARDIZED MONITORING TECHNIQUES

A literature review revealed that few published studies or project proposals reference cumulative impact monitoring as one of the considerations when designing and implementing the researcher's studies (Musetta-Lambert, Culp, Walker, & Chanyi, 2023); (Elmarsafy & Gray, 2023); (Murdoch, 2021); (Riley P., 2021). The GNWT provides monitoring and research blueprints for the three main VECs - fish, caribou, and water - the documents provide a high-level overview of the priorities associated with each VEC (GNWT, 2022a); (GNWT, 2022b); (GNWT, 2022c). The Science Project Funding Guide (most recently updated in 2025-26) provides links to data collection protocols and guidance for caribou, water quality and aquatic health, and fish (GNWT, 2024a). GNWT indicated that the number of referenced protocols has increased from ten (10) to sixteen (16) over the past five years (e.g., NWT Mercury Surveillance Monitoring is new).

Interviews indicate some evidence of standardized techniques in designing and implementing monitoring programs, such as approaches used by GNWT-ECC in water quantity monitoring and caribou monitoring. GNWT-ECC noted that for hydrology monitoring, they regularly consult with NWT CIMP to better identify potential impacts on lakes. However, GNWT-ECC's water monitoring

standardization appeared to be generally unrelated to cumulative impact monitoring, but instead to align with best practices in water quality/quantity monitoring. GNWT-ECC Wildlife Management Division indicated that they use standardized monitoring techniques and have conducted a repeatable calving ground survey since about 2010. They also indicated that they work with industry by providing input into Wildlife Management and Monitoring Plans to inform the ways in which industry monitors caribou. In The Audit Team's experience working with industry, monitoring methods are similar between projects but are not standardized. For example, caribou monitoring methods used for one mine were informed by methods used by GNWT for a different mine. It does not appear that there are standardized protocols in use like in other places, such as British Columbia (Government of BC, 2018).

DFO indicated in an interview regarding NWT CIMP-funded work that standard monitoring protocols are strictly adhered to, which are uploaded into the NWT Discovery Portal.

LWBs indicated that, due to the size and complexity of the NWT, the lack of standardized monitoring methods, and the site-specificity and evidence-based decisions made for each project/monitoring location, data is unable to be aligned across monitoring projects in the NWT (e.g., compliance monitoring by industry, monitoring conducted by GNWT) and current cumulative impact monitoring in the territory does not address this gap. Note that GNWT has developed guidelines in conjunction with LWBs to guide standard data requirements and reporting (Standards for Reporting Water Quality Information in the NWT) (GNWT, 2020).

The 2020 NWT Audit recommended that the GNWT implement a coordinator with the authority to direct parties responsible for monitoring to ensure information is collected in a standardized structure that could result in coordinated efforts between business units conducting cumulative impact monitoring and trend monitoring:

> **Recommendation 2020-3-1 (GNWT):** The RA identify an overarching coordinator to ensure the RAs responsibilities under MVRMA Section 146 are fulfilled; a logical coordinator could be the existing NWT CIMP. The coordinator for the RA must be given the authority including appropriate resources to direct the monitoring of other parties such that various entities collect information in a coherent manner according to an accepted monitoring structure and with the authority of regulations to ensure cooperation.

In its original response to this recommendation, GNWT-ECC indicated that they are fulfilling its obligations for cumulative impact monitoring under Section 146 of the MVRMA by:

- Creating several initiatives to bolster the GNWT efforts to understand cumulative impacts, including the development of water quality reporting guidelines (which have been adopted by the Land and Water Boards),
- Developing a Cumulative Effects Framework for GNWT-ECC, and
- Developing a water quality monitoring approach that allows all water monitoring partners to contribute information to fill spatial and temporal gaps.

The LWBs noted that a coordinator cannot direct the LWBs to make decisions regarding monitoring, but that GNWT can provide standard methods, guidance, and/or provide recommendations to inform LWB decisions.

We found that although these initiatives may be in place or under development, the recommendation is **outstanding**. We have not received evidence that a coordinator has been instated to oversee or provide guidance to the groups conducting monitoring so that they can collect information in a coherent manner to support cumulative impact monitoring. We observe that this recommendation, as written, is unlikely to be advanced or addressed in the territory.

We also observe that there are standardized monitoring techniques used within GNWT to fulfill their specific mandates, and that NWT CIMP highly recommends the use of protocols and guidance, but that monitoring techniques are not standardized across the territory. The Audit Team acknowledges that there is a distinction between compliance monitoring and cumulative impact monitoring, which can cause incompatibility in techniques.

2.1.2 THERE IS INDICATION OF SOME COLLABORATION AND INFORMATION SHARING BETWEEN PARTIES RESPONSIBLE FOR CONDUCTING ENVIRONMENTAL MONITORING OF CARIBOU, FISH AND WATER, UNDER THREE SEPARATE PLATFORMS

Results from projects funded through NWT CIMP are available online via the NWT Discovery Portal (GNWT, 2024b). This platform enables users to search for specific data, metadata, and reports, while also facilitating contributions from researchers who can upload their research and monitoring findings. While NWT CIMP-funded project information is added, the addition of data/reports by others is voluntary and is not supported by a formal process for collaboration / sharing of information.

In addition to the Portal, the Mackenzie DataStream is an open access hub for sharing freshwater datasets collected by communities in the Mackenzie River Basin (Mackenzie Data Stream, 2024). The Mackenze DataStream is also a voluntary initiative, funded by the Gordon Foundation and the GNWT.

The federal government has also established the Open Science and Data Platform that houses public data. It is searchable by province/territory and includes publications, datasets, and information from monitoring stations (water quality and air quality). We noted that cumulative impact monitoring information is available on this platform, with some overlap with the NWT Discovery Portal for those studies funded by NWT CIMP (e.g., Surface water temperature monitoring in Great Bear Lake (Government of Canada, 2024)). The platform includes air quality analysis and water quality analysis for various locations in the NWT. External to this platform, the federal government also provides a list of federal cumulative effects initiatives – the list was last modified in 2023 (Government of Canada, n.d.).

GNWT-ECC Wildlife Management and Water Monitoring and Stewardship Divisions noted that they host annual status meetings to present results alongside new information from Indigenous groups. GNWT-ECC also indicated that their reporting is publicly available online and has expanded to include other media forms such as video. Lastly, as referenced in Part 1 above, GNWT has a

Wildlife Management Information System that is an online, georeferenced database that stores standardized wildlife observation data. However, it is not an open source database, but requires a request to GNWT for access.

Through interviews and the organizational questionnaire, we heard mixed feedback on the current collaborative approaches. An RRB indicated that the NWT Discovery Portal is not optimal and that plain language summaries that provide information accessibly are needed. A co-management committee indicated that aspects of the existing platforms are of value, for example, the NWT Environmental Research Bulletins, but can be out of date. They suggested that it would be helpful if there was a current list of active projects in real-time with contact information (note that NWT CIMP provides a full list of NWT CIMP-funded projects from 1999 to present on its website, which includes contact information for all projects (GNWT, n.d.-b)). The respondent suggested that social media platforms, such as Facebook, may be useful to reach people within communities. They also suggested that the NWT CIMP website should include clear definitions of what cumulative impact monitoring is and what it seeks to accomplish with a list of short- (<5 years), medium- (5-10 years) and long-term (>10 years) priorities.

A co-management body also expressed concerns related to the communication between the scientists and organizations involved in NWT CIMP-funded work. They indicated that there is a lack of a cohesive plan for collecting the information and data necessary to answer critical questions or develop cumulative impact indicators. The organization suggested that better communication and coordination of priority setting and data collection, as well as data sharing agreements throughout the Mackenzie watershed are necessary. They further suggested that this could be accomplished between the GNWT and the most suitable co-management boards. For example, each regional Land and Water Board (LWB) could feed into the Mackenzie Valley Land and Water Board (MVLWB) and the GNWT could exchange data with the MVLWB, which in turn could disseminate the information to the regional LWBs. ISR co-management bodies would need to develop a data sharing arrangement with the MVLWB and GNWT to be part of the overall watershed data management and sharing. They emphasized that the data and information must travel in two ways, geographically and through the governmental levels.

A RRB suggested that data sources are satisfactory, but due to their disjointed nature, it is challenging to grasp a coherent overarching picture of environmental monitoring results across the NWT. Another RRB also suggested that although GNWT has monitoring manuscript reports available, the reliability of this data is questionable because the reports are not peer-reviewed.

One of the barriers to improving communication and sharing of environmental monitoring information, identified by a RRB and GNWT-ECC, is capacity and staffing constraints. They expressed that there are not enough staff members to effectively communicate / share information. Another barrier to effective communication and sharing of environmental monitoring information, identified by GNWT-ECC, are challenges associated with effectively communicating results in a digestible manner to multiple audiences.

The 2020 NWT Audit included a recommendation to make water monitoring information available in an online, central location:

> **Recommendation 2020-2-2:** The RA develop and/or provide descriptions of the rationale and study design for individual monitoring stations sampled by the federal and territorial government and make this information available at a central electronically-accessible location.

In the original response to this recommendation, GNWT-ECC agreed with the intent of the recommendation and indicated its intent to explore consolidating rationales and study designs of its programs in a publicly informative way. GNWT-ECC uses the NWT water quantity (hydrometric) network, operated by the Water Survey of Canada with the GNWT as an active partner, which generates publicly available data. GNWT-ECC also responded that it intends to link a list of core parameters specific to water quality developed by NWT CIMP to the NWT CIMP's Water Monitoring Blueprint. We found that this recommendation is **outstanding**, but that some work is currently underway.

2.1.3 LITTLE EVIDENCE WAS FOUND IN THE DOCUMENT REVIEW AND INTERVIEWS THAT INDICATE PARTIES RESPONSIBLE FOR CONDUCTING ENVIRONMENTAL MONITORING ARE UTILIZING SPECIFIC CUMULATIVE IMPACT MONITORING METHODS WHEN MONITORING CARIBOU, FISH, AND WATER

The 2020 NWT Audit made two recommendations related to monitoring programs being structured to effectively support cumulative impact monitoring:

> **Recommendation 2020-3-3 (GNWT):** The RA develop a monitoring structure that will ensure that individual monitoring programs undertaken across the NWT can contribute to baseline description, trend analyses and cumulative impact monitoring by the RA. This should be done in consultation with other organizations or departments that conduct or direct monitoring in the NWT. This structure could be implemented through policy, guidelines and/or regulations and should define standards for monitoring such as:
>
> - Rationale for site selection
> - Core parameter or indicator lists for each VEC
> - Sampling methods and analytical methods (e.g., detection limits)
> - QA/QC and other data handling methods
> - Statistical methodology
> - Evidence that the results of individual monitoring programs were being reviewed by the RA, the methods and interpretation verified, and the results disseminated
>
> **Recommendation 2020-3-4 (LWBs, RRBs, LUPBs, MVEIRB):** The co-management boards use their ability to impact the design of monitoring programs to ensure the adoption of consistent monitoring requirements for proponents. The outcome we expect is that industry's monitoring efforts will be able to aid the RA in meeting its Section 146 responsibilities.

In both the original and updated responses to Recommendation 2020-3-3, the GNWT referenced several standardized monitoring structures underway that will address the needs of decision-makers and monitoring partners, including:

- The development of a Cumulative Effects Framework for GNWT-ECC (available as of January 31, 2025),
- The 2020 release of Water Quality Reporting Standards by GNWT-ECC and the LWBs,
- NWT CIMP's pilot project in the Yamba basin in which a sampling approach to water quality monitoring is being tested that will allow various water monitoring partners to contribute information to fill spatial and temporal gaps, and
- The identification of core parameters for water quality monitoring by NWT CIMP to inform their Water Blueprint.

In a follow-up interview with GNWT-ECC, interviewees also indicated there are two projects related to caribou: mapping caribou disturbance as part of NWT CIMP's Inventory of Landscape Change, as well as a joint initiative with Polar Knowledge Canada to identify drivers of caribou population trends (neither of which would address this specific recommendation).

The new Cumulative Impact Monitoring Framework "outlines NWT CIMP's approach to detect and understand cumulative impacts in the NWT in collaboration with other programs with a responsibility for VCs" (pg. 5). The framework consists of four elements: Prioritization, Monitoring and Research, Analysis, and Reporting. The framework does not address the elements outlined in Recommendation 2020-3-3. We found the 2020-3-3 recommendation **outstanding** and it is unlikely to be implemented by the GNWT as written**.**

In the updated response to Recommendation 2020-3-4, LWBs provided examples of ensuring consistent monitoring techniques adoption by proponents, such as the NWT CIMP and LWB joint initiative on guidelines for reporting water quality data and including reference to the GNWT's Standards for Reporting Water Quality Information in the NWT (2020) in LWB guidance and policies. LWB also indicated in its original response that the design of monitoring programs required by the LWBs through permit and/or water licence conditions is impacted by evidence gathered during regulatory proceedings; the data that is collected by different proponents through water licence Aquatic Effects Monitoring Programs (AEMP) requirements is not necessarily standardized, and by extension, unable to meaningfully contribute to the analysis of cumulative impacts. LWB suggested that if GNWT does not provide evidence for monitoring programs to be designed in a certain way, it is challenging for LWBs to include conditions and approve monitoring plans that result in consistent monitoring requirements for proponents. They highlighted that the development of standards and guidelines is hindered by the lack of an overarching framework that considers cumulative impact data in a meaningful and consistent manner. The LWBs reviewed the Cumulative Impact Monitoring Framework before it was released and noted that the framework "is written primarily for GNWT-ECC…and does not necessarily articulate how cumulative impact monitoring data is presented for consideration by decision-makers" (LWB email correspondence). They further noted, however, that the review of the Framework led to productive discussion between LWB and GNWT-ECC staff on how and when LWBs consider cumulative impact monitoring

and what tools LWB/GNWT-ECC could develop to aid applicants in providing cumulative impact monitoring information that is considered in preliminary screening decisions.

The Gwich'in Renewable Resources Board (GRRB) indicated, in its response, that they do not have the authority to ensure proponents use specific designs for their monitoring programs, although both GRRB and WRRB have offered comments on the design of LWB's Guidelines for AEMP.

The Mackenzie Valley Environmental Impact Review Board (MVEIRB) noted in its response that when they set measures in reports of EA to require monitoring, the measures focus on information needs and monitoring outcomes to prevent significant adverse impacts and to ensure effective mitigation measures. MVEIRB intentionally avoids being prescriptive about the specifics of monitoring design and methodology so that regulators and developers have the space to set out monitoring details that are consistent with and contribute to broader cumulative impact monitoring frameworks. Given these responses and interview input, we found that Recommendation 2020-3-4 to be **outstanding**.

The 2020 NWT Audit made additional recommendations regarding prescribing cumulative impact monitoring program delivery:

> **Recommendation 2020-4-2 (GNWT):** The RA consider a risk-based cumulative impact monitoring strategy, prescribing the design and delivery of a cumulative impact monitoring program to meet Section 146 of the MVRMA, in response to evidence that a particular VEC is demonstrating a concerning negative trend. Traditional Knowledge may be a particularly valuable method of tracking wildlife populations such as caribou, in which TK observations could alert the RAs to a change and could then inform development of a response framework.
>
> **Recommendation 2020-4-3 (GNWT)**: The RA should design a coherent cumulative impact monitoring and assessment framework for the NWT that includes clarity on language, the role of different organizations, policy directions for boards and departments, monitoring protocols, and advice for industry to manage and consider cumulative impacts.

As noted above, the Cumulative Impact Monitoring Framework was available as of January 31, 2025. The framework is "an operational guide for NWT CIMP to develop science monitoring and research that can predict cumulative impacts and support effective research management decision-making in the NWT" (GNWT, 2025a) (pg., 3). It notes that, due to the territory's geographic scope and capacity/funding limitations, NWT CIMP is focused on developing a predictive understanding of cumulative impacts rather than conducting comprehensive long-term monitoring. While the framework does not explicitly describe a 'risk-based cumulative impact monitoring strategy', it does discuss the process by which monitoring and research priorities change to reflect risk. It does not describe the process by which TK observations would alert RAs to a change but does acknowledge the role TK has in adaptive analysis. We found Recommendation 2020-4-2 to be **adequate**.

Regarding Recommendation 2020-4-3, the new Cumulative Impact Monitoring Framework does not include most of the components outlined in the 2020 Audit Recommendation (i.e., role of different organizations, policy directions for boards and departments, monitoring protocols, nor

advice for industry to manage and consider cumulative impacts). We understand that GNWT is working on a separate roles and responsibilities document, which was not available at the time of the Audit. In speaking with GNWT-ECC in a follow-up interview, GNWT-ECC noted that the framework is scoped to focus on science activities under NWT CIMP and within its current level of resourcing. They noted that recommended monitoring protocols are listed within a different document. They also believe that policy direction for boards / other departments is outside the scope of the framework, and they would not want to be too prescriptive or overstep their authority in providing policy direction.

GNWT-ECC stated that the monitoring framework will be implemented in a phased manner, starting small and building upon NWT CIMP's successes. We found this recommendation to be **partially implemented**.

In our literature review, we did not find much recent (within the past five years) evidence that monitoring programs are structured to support cumulative impact monitoring, beyond the NWT CIMP-funded and NWT CIMP-led initiatives as well as the air quality/ water quality monitoring under federal initiatives. We observe, through the Audit research as well as existing knowledge from other wildlife-related work in the territory, that there are independent streams of research that consider potential effects separately. However, one positive example that was mentioned by various organizations, and especially GNWT, is the NWT CIMP – POLAR Knowledge Canada partnership that is currently funding research on barren-ground caribou herd population responses to cumulative impacts. One of the projects is investigating sub-lethal effects of contaminants, for example (GNWT, n.d.-c).

2.1.4 THERE IS SOME EVIDENCE THAT CUMULATIVE IMPACT ANALYSIS STRATEGIES ARE BEING UPDATED AS REQUIRED

There is some evidence that cumulative impact *analysis strategies* (our emphasis) are being updated as required. The most recent evidence of a cumulative impact analysis strategy is the new Cumulative Impact Monitoring Framework, which includes a section on analysis. The Framework outlines an adaptive modeling approach to analyse cumulative impacts, including quantifying the natural range of variation, assessing which stressors are affecting the VCs, and forecasting how VCs will respond to management scenarios. We note that this framework is specific to NWT CIMP. The 2030 Audit will provide an opportunity to review the effectiveness of the framework's implementation.

In response to interview questions regarding whether cumulative impact monitoring strategies have changed over time and whether those changes are positive or negative, most interviewees who were asked this question[16] were unable to respond, while one RRB noted that the strategies for cumulative impacts have been adaptable and there is willingness to change. During an interview with GNWT-ECC after the release of its Cumulative Impact Monitoring Framework, the respondent pointed out that cumulative impact approaches and tools are updated regularly due to advancements in technology.

[16] About one third of interviewees were asked this interview question.

2.1.5 OVERALL OBSERVATIONS AND RECOMMENDATIONS: EFFECTIVENESS OF CUMULATIVE IMPACT MONITORING METHODS

Overall, the effectiveness of cumulative impact monitoring methods in the NWT is currently limited. There is a lack of standardized monitoring techniques specifically tailored for cumulative impact monitoring usage. While NWT CIMP strongly recommends the use of certain monitoring protocols / guidelines within in its funding guide, we identified, through reviews of literature and project reports, that cumulative impact monitoring considerations are seldom prioritized during the initial stages of environmental monitoring design and implementation (Musetta-Lambert, Culp, Walker, & Chanyi, 2023); (Elmarsafy & Gray, 2023); (Murdoch, 2021); (Riley P., 2021). This lack of standardization leads to data inconsistencies, making it challenging to aggregate or compare results across different monitoring initiatives effectively.

Collaborative efforts among the various parties responsible for environmental monitoring are also inconsistent. While platforms like the NWT Discovery Portal are designed to facilitate data sharing by allowing researchers to upload and access data and metadata, it is a voluntary initiative beyond NWT CIMP projects. This lack of collaboration is partly due to the absence of a document that clearly delineates roles and responsibilities for data collection, sharing, and usage.

2025 Audit Recommendations

We recommend the following 2020 recommendations be carried over: **2020-2-2, 2020-3-4,** and **2020-4-3**. Associated new recommendations are outlined below.

Recommendation 2025-2-1: LWBs/GNWT-ECC to identify and pilot tool(s) to aid applicants in providing cumulative impact monitoring information that is considered in preliminary screening decisions. We would expect that a more consistent approach is taken to the provision of cumulative impact monitoring information under the water licensing and land permitting system.

> GNWT's response: The GNWT agrees with this recommendation and commits to partially fulfilling the GNWT's role in this recommendation prior to the next Audit. The GNWT agrees that developing tools to support Preliminary Screening for water licenses and land use permits to effectively and consistently address cumulative impacts consistently would be beneficial. This would require the LWBs to identify what cumulative impact information is needed and for the LWBs and the GNWT to jointly identify what information is currently feasible to provide for all projects at the screening stage. If specific tools are identified as feasible, the GNWT and the LWBs will identify pros and cons of implementing such a tool before proceeding to pilot. Where information is lacking, targeted funding calls (e.g., upcoming *Road Development Impacts: Understanding and mitigating cumulative impacts from road development* led by NWT CIMP) may be able employed to support tool development.
>
> The GNWT commits to: Work with the LWBs to identify information and tools that would be most helpful to support the LWBs and project proponents to address cumulative impacts in pre-screening decisions. A pilot may be started depending on available information and feasibility.

LWBs' response: The LWBs are committed to collaborating with GNWT-ECC to identify opportunities that will help applicants, affected parties, reviewers, and decision-makers consider cumulative impacts for small-scale projects that do not require an Environmental Assessment (EA), which would otherwise include a cumulative impact evaluation. Funding from NWT CIMP's targeted funding calls could support collaboration and identification of opportunities to more effectively address cumulative impacts. An example of this is their upcoming "Road Development Impacts: Understanding and mitigating cumulative impacts from road development" call, which LWB staff intend to participate in through attendance at workshops and other meetings as necessary. LWB staff could also participate in any future NWT CIMP funding calls that could help create the guidance discussed above.

The LWBs invite NWT CIMP to co-develop standard permit conditions to address cumulative impacts and/or on specific project components where gaps in addressing cumulative impacts and associated monitoring and mitigation measures have been identified. The LWBs provide the process for input into permit and licence applications. Staff will continue to follow the LWB Rules of Procedure, distributing applications for land use permits and water licences – including draft management plans – and drafting permit and licence conditions for public input. To better inform preliminary screening decisions, NWT CIMP could provide information and recommended conditions to address cumulative impacts for permit and licence applications.

Recommendation 2025-2-2: GNWT, GoC and RRBs to describe and communicate (e.g., through plain language examples) how resource managers respond to evidence that a particular VEC is demonstrating a concerning negative trend (as described in the Cumulative Impact Monitoring Framework). We would expect that this information would be available for each of the three priority VECs.

GNWT's response: The GNWT agrees with the recommendation and commits to fulfilling the GNWT's role in the recommendation prior to the next Audit. When considering the three priority VECs (fish, water, and caribou), the GNWT's main role in resource management decision making related to water and fish is to provide information and advice to co-management boards related to water, aquatic life and habitat. The GNWT is a resource management decision maker for caribou in conjunction with renewable resources boards and advisory committees.

The GNWT commits to: Summarizing and providing plain language summaries on its websites or links to co-management partner websites describing co-management decision making processes that guide management actions when caribou are at different phases of their population cycle including the decline phase.

CIRNAC's response: CIRNAC acknowledges the need for an integrated monitoring and response framework for cumulative impacts and declining trends among the priority VEC's. CIRNAC will continue to engage officials from other federal departments to ensure they have awareness of this recommendation.

GRRB's response: The GRRB would be happy to provide input on this.

WRRB's response: The WRRB collaborates with the GNWT and TG through the Barren-ground Caribou Technical Working Group to discuss and provide input on caribou research, management, and monitoring. The WRRB, GNWT, and TG have collaboratively developed an Adaptive Co-Management Framework, which provides a way of implementing adaptive management and will benefit herd management planning through the experience of developing indicators, setting benchmarks, applying them to management activities, and monitoring the results. The adaptive management framework is directed at the annual implementation and evaluation of management actions for the Bathurst and Bluenose-East caribou herds. The framework seeks to incorporate an array of indicators to assess whether management actions are modifying caribou trends and recognizes the complexity and interconnectedness of contribution factors affecting caribou demography.

The WRRB participates in annual review processes to determine herd status for the Bathurst and Bluenose-East caribou through the Advisory Committee for Cooperation on Wildlife Management and the Bathurst Caribou Advisory Committee. The WRRB is a member of the Conference of Management Authorities, which is responsible for management of species at risk, and participates in consensus agreements for listings, recovery documents, and implementation.

SRRB's response: The SRRB recognizes the importance of clear communication about how resource managers respond to concerning trends in VECs. We support efforts by GNWT, GoC, and the regional boards to provide plain-language explanations and real examples of management actions triggered by monitoring results. In the Sahtú region, the SRRB actively facilitates community-led monitoring programs that gather Indigenous knowledge and scientific data. We communicate results using plain language in workshops, infographics, graphic recordings, and videos- tools designed to make complex information accessible and meaningful to community members. The SRRB also advises resource managers by integrating community concerns and knowledge into decision-making, ensuring that responses to negative trends reflect Sahtú priorities and values. We encourage partners to develop communication materials that are accessible and reflect Indigenous perspectives to enhance transparency and trust

Recommendation 2025-2-3: GNWT to finalize and share the cumulative impact monitoring roles and responsibilities document and identify the steps it will take annually (over the next five years) to progress collaboration with others on cumulative impact monitoring. We would expect that this information would include all parties with responsibilities and would aid in understanding of and the accountability for monitoring in the territory.

GNWT's response: The GNWT is already fulfilling part of the actions being proposed by this recommendation and agrees with the remainder. The GNWT commits to fulfilling the remainder of the recommendation prior to the next Audit. Identifying the steps the GNWT will take annually to progress collaboration with others on cumulative impact monitoring will continue to be part of NWT CIMP's annual work planning actions.

The GNWT commits to: Developing and releasing a high level "Cumulative Impact Monitoring Roles and Responsibilities in the NWT" document, outlining the roles and responsibilities of all entities that conduct cumulative impact monitoring.

2.2 SUFFICIENCY OF CUMULATIVE IMPACT MONITORING INFORMATION

What We Examined

To determine the sufficiency of cumulative impact monitoring information, we examined the following questions:

- *Do decision-makers have sufficient information about cumulative impacts to be able to make decisions that manage and/or mitigate the impacts?*
- *Is cumulative impact monitoring targeted to areas of major proposed development, areas of natural change, or other areas?*
- *Where is cumulative impact monitoring information most needed by decision-makers?*

The 2020 Audit had the following related findings:

- The Responsible Authority was not employing cumulative impact monitoring effectively.
- Additional enhancements of cumulative impact monitoring required.

Why it is Important

Cumulative impact monitoring information is crucial for decision-makers in areas where environmental changes due to climate change, development, and other factors pose risks. This information is an important tool for decision-makers to understand the effectiveness of management activities, including the extent of a potential project's impacts. For this reason, it is important to assess the extent of accessibility and usability of cumulative impact information for the decision-making parties.

What We Found

The table below provides a high-level summary of findings for each line of inquiry.

TABLE 2-2: FINDINGS ON SUFFICIENCY OF CUMULATIVE IMPACT MONITORING INFORMATION

Line of Inquiry	High-level Findings
Do decision-makers have sufficient information about cumulative impacts to be able to make decisions that manage and/or mitigate the impacts?	Cumulative impact information for decision-makers is largely insufficient.
Is cumulative impact monitoring targeted to areas of major proposed development, areas of natural change, or other areas?	There is evidence that cumulative impact monitoring is targeted to areas of major proposed development and areas of natural change.
Where is cumulative impact monitoring information most needed by decision-makers?	Cumulative impact monitoring information is most needed in areas with high development potential.

2.2.1 CUMULATIVE IMPACT INFORMATION FOR DECISION-MAKERS IS LARGELY INSUFFICIENT

When asked whether cumulative impact information for decision makers is sufficient, 37% of Audit questionnaire respondents, including co-management boards, IGIOs, and some government departments, perceived the available information as insufficient for effective decision-making, while 32% perceived information to be sufficient. Three percent (3%) perceived information to be more than sufficient, while the remaining respondents were unsure or answered, "Not applicable." Results of a recent NWT CIMP-led survey indicate slightly better results, with 50% of their respondents indicating satisfaction that NWT CIMP is providing information to support decision-makers (GNWT, 2025b).

Some government and industry representatives, in response to the organizational questionnaire, regarded the available information on cumulative impacts as sufficient for their decision-making needs. These responses suggest that for these respondents, the current level of information aligns well with their requirements for making informed decisions. An industry informant expressed concern that concerns about cumulative impacts are "driving permitting for early-stage exploration," which they claim has virtually no cumulative impacts.

Additionally, the format of monitored data on key environmental factors like caribou, fish, and water presents challenges. Most questionnaire respondents indicated that the format of the data was unusable, limiting its overall effectiveness for monitoring cumulative impacts. This uncertainty, particularly prevalent among government and industry sectors, points to a mismatch in data formatting and the specific monitoring needs of these data users.

Interviews illustrate some concerns regarding data quality and accessibility. A RRB stated that cumulative impact monitoring data is not accessible for decision-making; there is a lack of coordination between projects/programs that places the responsibility on co-management boards to piece separate components of project information together. A co-management body expressed that cumulative impact monitoring data is not presented or shared in a format that is easily accessible and translatable to IGIOs that are making decisions.

A RRB indicated that, although they believe that NWT CIMP is a good program, it is not currently being used effectively and that there is a disconnect between the information available from NWT CIMP and its application and use. An Indigenous Government expressed frustration with the lack of advancement and development of cumulative impact monitoring for caribou to inform decision-making; they expressed the hope that an outcome of the Audit will be the strengthening of tracking and accountability of responsible authorities.

Interviewees did provide some examples whereby cumulative impact monitoring information is or will be considered in decision-making. An Indigenous organization mentioned that cumulative impact information from mining and its effects on wildlife have been included in a recent land use permit application, and decision-makers will use that information to inform their decisions. An IGIO noted that cumulative impact monitoring information will apply in its decisions regarding upcoming developments (such as quarry permits).

Several interviewed entities remained unsure about the sufficiency of cumulative impact monitoring information, reflecting either a lack of clarity in how the data aligns with decision-making processes or a disconnect between data availability and specific needs.

Notably, certain co-management boards indicated that cumulative impact monitoring was not relevant to their work – for instance, a RRB indicated that cumulative impact monitoring is not a part of the questions the board is addressing regarding harvest monitoring or caribou health. A LUPB also expressed that they were under the impression that cumulative impact monitoring was functioning satisfactorily but was not related to land use planning.

In interviews, MVEIRB indicated they currently do not cite a cumulative impact framework in their decisions, explaining that while some cumulative impact monitoring programs provide results project-by-project, there is no jurisdictional/regional-level framework providing a larger general picture of cumulative impact monitoring initiatives in the NWT (Audit Team's note: there is now a framework, but it was only released in January 2025). They expressed that a regional study that identified clear cumulative impacts across the region would more effectively inform decisions.

Another component that multiple groups challenged regarding NWT CIMP specifically, and its capacity to inform decision-making, was the lack of human environment and socio-cultural parameters. An IGIO representative expressed that cumulative impact monitoring has little emphasis on non-biological parameters. MVEIRB also vocalized concerns about the lack of human environment consideration in NWT CIMP, suggesting that it was related to NWT CIMP existing under the GNWT-ECC umbrella, which does not have a social mandate, resulting in NWT CIMP not fulfilling its MVRMA responsibilities. NWT CIMP noted that it updated its Blueprints in 2022 to include a human relationship category under 'related factors'. For example, the caribou blueprint now includes "People-caribou relationships," including "traditional use mapping" and "understanding how relationships with caribou are changing." There is also a current NWT CIMP-funded project that is investigating people-fish relationships (GNWT, n.d.-c). NWT CIMP has also noted that it has created two Cumulative Impact Monitoring Social Scientist positions to better facilitate monitoring from a TK perspective and to assist with developing a better understanding of the people-VEC relationship. Positions had not been filled at the time of writing the Audit report.

An interview with GNWT-Health and Social Services focused on the cumulative impact monitoring of culture / community well-being. There are several initiatives underway to monitor the social, economic, and cultural aspects of a development. As noted in the 2020 Audit, the Tłı̨chǫ Highway is one such development for which a Socio-Economic Working Group was established that identified a set of socio-economic indicators to monitor the impact of the development. In December 2024, the working group released six posters highlighting current Tłı̨chǫ Government programming and GNWT data related to each core topic (Tłı̨chǫ Government, 2025).

Beyond this one example of development-specific approaches, GNWT-Health and Social Services noted that well-being indicators are consistently measured across the territory, and that there is socio-economic agreement reporting for mines operating in the territory. However, they noted that the territory needs to do better job at considering cumulative impacts from a culture / well-being perspective across development types.

An Indigenous Government stated that they do not use cumulative impact information from other sources for their work and instead use their own data archives to help others make decisions. They vocalized that Indigenous communities should be identifying VECs and that TK could answer simple questions regarding cumulative impacts without the need to conduct large-scale studies focused primarily on caribou, fish, and water.

NWT CIMP-funded projects are required to engage with decision-makers and report that engagement in their project proposals. According to NWT CIMP, project proposals are expected to clearly identify northern resource management decisions that will benefit because of the proposed project. This expectation is reflected in NWT CIMP's Funding Guidelines (GNWT, 2024a). We did not find evidence that other cumulative impact monitoring (i.e., not funded by NWT CIMP) is informed by decision-markers' needs.

In the 2020 NWT Audit, the recommendation was made for MVEIRB and LWBs to outline requirements for considering cumulative impacts in decision-making to relevant decision-making parties:

> **Recommendation 2020-4-1 (LWB, MVEIRB):** The MVEIRB and the LWBs clearly describe the specific information required from government, including the RA, that would aid the boards in considering cumulative impacts in making decisions. We encourage the boards to consider what data, analyses, interpretation, and significance requirements would help inform cumulative effects assessment (MVEIRB) and cumulative impacts management (LWBs).
>
> We would expect, for example, that the boards might outline requirements for government to provide baseline status of VECs subject to a development proposal and that this would form the basis of the cumulative impact assessment by the proponent.

In the original response to the recommendation, LWB expressed the opinion that the GNWT, in collaboration with relevant IGIOs, LWBs, and MVEIRB, should be responsible for the development of a framework to consider cumulative impacts consistently. LWBs are limited to case-by-case decision-making because of evidence provided during proceedings. When information is provided, or if potential cumulative impacts are known, then these can be reflected with conditions to a permit and/or licence. LWB staff continue to participate as a member of the NWT CIMP Steering Committee and provide input on which research projects receive NWT CIMP funding. MVEIRB originally responded to the recommendation by expressing that they rely on active participation from government departments, IGIOs, and other groups to inform cumulative effects assessments. They also indicated in their updated response that they will be publishing their *EA Initiation Guidelines for Major Projects*. These guidelines have since been published (April 2024) as *Guideline for an optional pathway for major projects to enter environmental assessment* (MVEIRB, 2024a), which provides additional information regarding the MVEIRB's approach to cumulative effects assessments. The guideline includes guidance on the type and level of information required, as well as a requirement for developers to describe their proposed assessment methods at the EA initiation stage.

We found that the recommendation is **partially implemented**. There is a disconnect between the cumulative impact information and guidelines that are available and their application and use by decision-makers. Interviews indicate that decision-makers express significantly variable opinions regarding the efficacy and sufficiency of cumulative impact information in their decisions.

The 2020 NWT Audit also included the following related recommendation:

> **Recommendation 2020-4-4 (LWB, WRRB, GLUPB, MVEIRB):** The boards publish their cumulative impact monitoring knowledge gaps on a regular schedule and request a response from government on how they may assist in providing information.

LWB responded to the recommendation stating that all information regarding cumulative impacts is publicly available on LWB's public registry, and they collate concerns related to cumulative effect proceedings and provide them to NWT CIMP. They maintained that the largest limitation is the absence of a framework that could be used to consider cumulative impact information in a consistent manner, which makes it challenging to identify gaps. WRRB responded to the recommendation by stating that it provides input on existing cumulative impact monitoring knowledge gaps through their recommendations in reports; notably, they highlighted that interviews that they have conducted indicate that data and information brought together from NWT CIMP-funded projects is not effectively linked to EA and management decisions, as it is not readily usable for assessing and making decisions about cumulative impacts. MVEIRB agreed with the recommendation and expressed the intent to present collated research priorities at the next NWT Board Forum; after approval by the NWT Board Forum, the results will be shared publicly. The recommendation is **partially implemented** – decision-makers are publishing some cumulative impact monitoring knowledge gaps, but publication is limited as are mechanisms to integrate into cumulative impact monitoring programs.

Overall, the variability in how data is perceived in terms of adequacy, suitability, and usability underscores the need for enhanced data clarity, relevance, and accessibility to better support all parties in environmental decision-making. There is a clear need for improvements in data integration into specific contexts, enhanced dissemination practices, and possibly, more consistent and comprehensive data collection methods to bridge the gaps identified by various stakeholders.

2.2.2 THERE IS EVIDENCE THAT CUMULATIVE IMPACT MONITORING IS TARGETED TO AREAS OF MAJOR PROPOSED DEVELOPMENT AND AREAS OF NATURAL CHANGE

Since 2020, cumulative impact monitoring in the NWT has occurred across different regions, each addressing specific environmental concerns through a blend of scientific research and TK. In the North/South Slave Region, efforts are concentrated on the ecological impacts of development on water bodies and caribou habitats, utilizing both contemporary science and Indigenous insights.

Research in the Dehcho Region has concentrated on the effects of natural phenomena like fire and permafrost on caribou habitat, alongside fish studies and water assessments to gauge ecological changes from human and climatic influences (NWT CIMP, 2016). In the Gwich'in Region, research blends TK with scientific methods to examine how permafrost degradation affects aquatic habitats

and fish, also exploring community-driven environmental monitoring (Gill H., 2014). The Sahtú Region's projects integrate scientific and traditional approaches to monitor caribou and water quality, assessing the impacts of petroleum extraction and environmental stressors on aquatic systems (SRRB, 2024). Lastly, research in the Wek'eezhii Region concentrates on caribou conservation, examining the impacts of climate change and development on their habitats and integrating TK to enhance management practices, with additional studies on the effects of mining on water quality (NWT CIMP, 2022).

GNWT-ECC Climate Change, Cumulative Impacts and Knowledge Division, of which NWT CIMP is a part, indicated that, currently, cumulative impact monitoring information is focused on anthropogenic and landscape disturbance impacts to freshwater ecosystems, caribou and fish. The Monitoring Blueprints – on caribou, water, and fish – set the priorities for NWT CIMP.

The 2020 NWT Audit recommended a continual evaluation of monitoring priorities:

> **Recommendation 2020-4-6 (GNWT):** The NWT CIMP continue to evaluate its monitoring priorities on a five-year cycle in response to findings from monitoring and research, and that it provides specific directions and conclusions to decision-makers in the form of memoranda, NWT CIMP-certified monitoring protocols, policies, and customized project-specific advice.

In the updated response to the recommendation, GNWT-ECC expressed their continued dedication to evaluating and refining monitoring priorities in collaboration with co-management and Indigenous partners and highlighted the comprehensive review of NWT CIMP's Monitoring Blueprints. NWT CIMP reevaluated its Blueprints in 2022 and will continue to reevaluate as part of the Action Plans cycles. The next Action Plan will be released in 2026. According to GNWT, the goal is to be able to answer decision-makers' information needs better.

GNWT also shared its 2024 NWT CIMP survey results, which indicated that 60% of respondents were satisfied that NWT CIMP addresses high-priority research questions for decision-makers.

We found that the recommendation has been **partially implemented**, wherein monitoring NWT CIMP priorities appear to be re-evaluated on an official 5-year cycle. There is limited evidence from interviews or questionnaire results to suggest that NWT CIMP provides specific directions and conclusions to decision-makers, but we do note that NWT CIMP has updated its list of recommended monitoring protocols and does provide some advice through regulatory processes (e.g., NWT CIMP reviews / participates in all EA processes in the NWT and provides comments here appropriate, consolidated with other GNWT comments; occasional review of Type A Water License and Land Use Permits Applications, particularly for projects that will lead to EA).

2.2.3 CUMULATIVE IMPACT MONITORING INFORMATION FROM AREAS OF HIGH DEVELOPMENT POTENTIAL IS MOST NEEDED BY DECISION-MAKERS

As noted above, NWT CIMP focuses its monitoring and research on three priority VECs: caribou, water, and fish. NWT CIMP-funded projects have included monitoring the effects of climate change on water quality, understanding changes in fish abundance and distribution, improving knowledge of seasonal water quality changes, and enhancing community engagement with the incorporation of TK (Hovel et al. 2020; GNWT 2021). Other prioritized areas of study that integrate cumulative

impact monitoring methods regionally include studying the impacts of road dust, expanding research on lakes and ponds, investigating how climate change affects aquatic food webs, invasive species and species at risk, and building robust baseline data sets for tracking environmental changes (Carlson, Nishi, Stubbs, Routh, & Winbourne, 2023); (Murdoch, 2021); (Musetta-Lambert, Culp, Walker, & Chanyi, 2023); (Riley P., 2021); (GNWT, 2021). While water quality research has focused primarily on river systems like the Mackenzie, Peel, and Arctic Red Rivers, the NWT CIMP Action Plan acknowledges gaps in knowledge about lakes, which are also vital to regional ecosystems.

Questionnaire responses indicate specific areas of concern, such as the Slave Geological Province, Liard Basin, Sahtú Region along the Mackenzie River, Dehcho Region, and areas around southern communities, all noted for their mineral development potential, ecological sensitivity, and critical wildlife habitats. Respondents strongly emphasized the need to align cumulative impact monitoring projects with areas of high development potential to provide information relevant to EA and regulatory decisions. Additionally, questionnaire respondents highlighted the need to consider community priorities and the impacts on local economies from land conversions to protected areas.

Respondents advocated for comprehensive cumulative impact monitoring coverage, addressing areas affected by climate change, including wetlands, permafrost features, deltas, and critical habitats for species at risk like caribou, migratory waterfowl, and predators such as wolves and grizzly bears. Responses also indicate a strong emphasis on monitoring key species, particularly caribou herds, in relation to climate change, predator populations, and human disturbances such as mining, pipelines, and road development. Water quality across the NWT, affected by factors like permafrost thaw, flooding, and fires, is highlighted as a critical monitoring area. Moreover, there is a call for regional and landscape-level monitoring that encompasses both broader regional considerations (e.g., Sahtú Settlement Area, Dehcho, South Slave regions) and specific ecosystems or features (e.g., Upper Coppermine River Basin, Great Slave Lake), including the impacts of infrastructure projects like the Mackenzie Valley Highway.

In interviews, a concern noted by several IGIOs and a board was the lack of social-cultural and human environment parameters from cumulative impact monitoring information. A First Nation highlighted that there is little emphasis on non-biological parameters in cumulative impact information that can enable decision-makers, and the board expressed that the greatest area for improvement for cumulative impact monitoring decision-making would be the integration of socio-cultural and socio-economic components – the board has consistently heard that there are significant adverse effects in these areas, but the drivers have not been identified yet.

Another challenge noted in multiple interviews was that NWT CIMP operates on a project-by-project level – this does not provide a broad regional overview of cumulative impacts in the NWT that could more effectively support decision-makers.

2.2.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: SUFFICIENCY OF CUMULATIVE IMPACT MONITORING INFORMATION

The targeted application of cumulative impact monitoring across various regions in the NWT demonstrates a strategic acknowledgement of localized environmental concerns, which is a positive development toward effective environmental management. Each region—North/South Slave, Dehcho, Gwich'in, Sahtú, and Wek'eezhii—has distinct environmental monitoring projects that address specific concerns related to development impacts, natural phenomena, and traditional use areas. These projects incorporate both scientific and TK, aiming to provide a holistic understanding of environmental changes and their impacts.

While regional projects are well-intentioned, the integration of their outputs into broader decision-making frameworks remains a challenge. The development of a Cumulative Effects Framework by the GNWT, recommended in the 2020 Audit, is intended to enhance this integration by establishing a risk-based strategy for cumulative impact monitoring. The framework will support NWT CIMP but does not align with broader environmental governance structures. Therefore, the framework will have limited scope to support influencing regulatory, conservation, and management decisions in a meaningful way. As such, it will be important for NWT CIMP to meet with co-management boards to discuss NWT CIMP's activities and results.

2025 Audit Recommendations

We recommend the following 2020 recommendations be carried over: **2020-4-6** (i.e., provision of specific conclusions to decision-makers in the form of memoranda, NWT CIMP-certified monitoring protocols, policies, and customized project-specific advice).

Recommendation 2025-2-4: GNWT to provide narrative descriptions of predictions of impacts and/or expected interactions from development (e.g., linear development; lithium mining) to decision-makers, working with decision-makers to determine the VECs and development-type of most interest. We would expect that the limited resources available to NWT CIMP may be directed to better support decision-making in the NWT.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. While in many cases it is impossible to develop quantitative predictions of the cumulative impacts from development due to data limitations, scientific and Traditional Knowledge can help provide high-quality qualitative predictions. By developing narrative reports detailing expected direction and relative magnitude of impacts from development and natural processes, the GNWT can support decision-makers to address the most pressing concerns.
>
> The *Collaborative Barren Ground Caribou Initiative* was developed to address many unanswered questions posed by the federal, territorial and Indigenous governments and organizations, co-management partners and communities about what is driving changes in caribou abundance and what the future holds. Current investment and focus in the NWT on roads, including both the development of new roads and transitioning winter roads to all-season roads, has raised public interest regarding potential impacts that road developments may have on caribou herds, and previously inaccessible waterbodies and fish. In

response, this topic will be the subject of a second directed funding call and narrative report.

As opportunities allow, the GNWT will solicit input for decision-makers and partners to determine additional priorities for collaborative initiatives such as those described above.

The GNWT commits to:

- Releasing a plain language synthesis report about the outcome of the *Collaborative Barren Ground Caribou Initiative*.
- Releasing one or more additional narrative descriptions of the impacts from development and the interactions with other environmental stressors (e.g., cumulative impacts from road development on caribou, water, and fish).

2.3 ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

What We Examined

To determine the ability of available information to address concerns, the Audit Team examined the following lines of inquiry:

- *Were communities and decision-makers engaged in the cumulative impact monitoring of caribou, fish and water? If so, how?*
- *Were community and decision-maker concerns documented and addressed as part of these studies?*
- *Have the results of cumulative impact monitoring been made available or communicated to decision-makers and communities? How widely and easily accessible are the results?*

The 2020 Audit did not address these questions directly.

Why it is Important

It is integral that cumulative impact monitoring information integrates the perspectives of communities and decision-makers at all stages, from conducting cumulative impact monitoring work to sharing results. Engagement with co-management boards, Indigenous Organizations, and decision-makers ensures that cumulative impact monitoring is conducted in a way that is considerate of community perspectives, as well ensures that information is collected and disseminated in a way that is useful and accessible to decision-makers.

What We Found

The table below summarizes the high-level findings related to the ability of available information to address concerns.

TABLE 2-3: FINDINGS RELATED TO THE ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

Lines of Inquiry	High-level Findings
Were communities and decision-makers engaged in the cumulative impact monitoring of caribou, fish and water? If so, how?	There is evidence of engagement of community and decision-makers in the cumulative impact monitoring of caribou, fish, and water, with some opportunities for improvement.
Were community and decision-maker concerns documented and addressed as part of these studies?	There is evidence of cumulative impact monitoring projects documenting and addressing community and decision-makers concerns as part of cumulative impact monitoring studies.
Have the results of cumulative impact monitoring been made available or communicated to decision-makers and communities? How widely and easily accessible are the results?	Cumulative impact monitoring information is available and communicated.

2.3.1 THERE IS EVIDENCE OF ENGAGEMENT OF COMMUNITY AND DECISION-MAKERS IN THE CUMULATIVE IMPACT MONITORING OF CARIBOU, FISH, AND WATER, WITH SOME OPPORTUNITIES FOR IMPROVEMENT

NWT CIMP indicated that it engages with organizations when seeking input on Blueprint priorities, including RRBs, LWBs, MVEIRB, DFO, the Wildlife Management Advisory Council, the NWT CIMP Steering Committee, subject matter experts, the Nę K'ə Dene Ts'ı̨lı̨ Forum (in the Sahtú region), and the GNWT. In addition, NWT CIMP requires that funding recipients engage with communities. NWT CIMP also indicated that as part of the NWT CIMP process, all proposals must include a letter of support from Indigenous groups and/or community members. Proposals are required to describe engagement activities and hiring community monitors are strongly encouraged. The NWT CIMP Steering Committee evaluates each project proposal, including the proposed community engagement and participation.

As identified under Section 1.4, we found that all published government and government-academic reports/studies related to caribou trends demonstrated engagement with decision-makers and communities. However, the descriptions of how decision-makers and/or communities are engaged was limited. In interviews, GNWT-ECC Wildlife Management Division indicated that they engage with communities during the application process for research permits related to caribou monitoring. They also noted that many of their surveys include observers from communities.

Certain industry and NGO representatives in the questionnaire reported active participation in cumulative impact monitoring, while others noted limited or no involvement in monitoring efforts. In interviews, a co-management board expressed concerns around the level of engagement related to NWT CIMP-funded projects, suggesting that for effective community engagement, partnering with communities at all project stages is necessary, including issue identification, priority setting, project design, planning and delivery, data collection, data interpretation, and

outreach. They highlighted that it is not sufficient to only include or engage the community solely as field researchers or technicians.

Indigenous groups have emphasized the importance of understanding the holistic environmental effects and tailoring engagement strategies to meet diverse community concerns rather than applying generic approaches. They emphasized the importance of direct interactions such as face-to-face meetings to foster a deeper understanding and stronger relationships between stakeholders. NWT CIMP highlighted that NWT CIMP-funded projects are required to share results annually at a northern meeting and that NWT CIMP hosts an annual results workshop, rotating between regions. Annual results workshop reports are available online (GNWT, n.d.-d).

Industry representatives have highlighted the importance of including community inputs in all facets of environmental monitoring, including activities related to infrastructure, like access roads. They suggest prioritizing community-led initiatives, such as harvesting records and community waste management, to ensure monitoring efforts are relevant and beneficial to local populations.

NGOs have called for more regular consultations, employing plain language materials to make information more accessible, and organizing annual workshops to facilitate ongoing dialogue about cumulative impact monitoring.

GNWT acknowledged the need for greater funding and resources to enable communities to lead data collection efforts for monitoring. Additionally, enhancing collaboration between governmental bodies and Indigenous Governments is seen as crucial to avoid silos and ensure a comprehensive approach to cumulative impact monitoring. This cooperative strategy is intended to integrate community perspectives effectively and align decision-making processes with the ecological realities of the NWT.

Several interviewees referenced the Barren-Ground Caribou Initiative, a collective of seven projects funded in conjunction by Polar Knowledge Canada and NWT CIMP, as a good example of NWT CIMP functioning successfully. Interviewees noted that this initiative could be used as a blueprint for other projects in the integration of TK studies and western science studies, with the development of plain language summaries as good practice.

We observe that there is variability in cumulative impact monitoring engagement with communities and decision-makers, indicating that this is an area that requires improvement.

2.3.2 THERE IS EVIDENCE OF CUMULATIVE IMPACT MONITORING PROJECTS DOCUMENTING AND ADDRESSING COMMUNITY AND DECISION-MAKERS CONCERNS AS PART OF CUMULATIVE IMPACT MONITORING STUDIES

We found some evidence that concerns from community and decision-makers are documented or addressed as part of cumulative impact monitoring studies, specifically those funded by NWT CIMP. There are several examples found within the NWT Environmental Research Bulletins of research that includes collaboration with communities and decision-makers (e.g., RRBs) in the design and implementation of the research (for example, CIMP209 – Frequency of flooding in the Slave River Delta (GNWT, 2023a)). We also heard from a DFO researcher who has conducted research in Great Slave Lake for over a decade (with support from NWT CIMP) that they meet twice a year with communities, government, and commercial fisheries to discuss the results of

their work and community concerns for the following year's research. We did not find additional evidence of DFO or other federal projects documenting / addressing concerns.

As noted in Section 1.4.2, GNWT-ECC Wildlife Management Division noted that they engaged with communities during the caribou research permit application process and integrate concerns, but some concerns were raised by IGIOs regarding this process. GNWT-ECC Water Monitoring and Stewardship noted that they are trying to partner with communities at the outset of new projects in advance of a known activity.

2.3.3 CUMULATIVE IMPACT MONITORING INFORMATION IS AVAILABLE AND COMMUNICATED

Through the Audit public survey, most respondents confirmed an awareness of monitoring programs in the NWT (72%, 82% and 59% for caribou, water, and fish monitoring programs respectively), however public awareness of where to find the results of these monitoring programs varied greatly. Only 36%, 37%, and 18% of survey respondents were aware of where to find results for caribou, water and fish monitoring programs respectively. These results indicate that although there is an awareness of these programs existing across the NWT, results are not widely accessed.

The accessibility and communication of cumulative impact monitoring results to decision-makers and communities in the NWT show a degree of variability across different sectors. Federal government entities, certain industry stakeholders, and some territorial government representatives generally reported easier access to cumulative impact monitoring data, with 60% of questionnaire respondents reporting that cumulative impact monitoring results are easily or somewhat accessible to interpret and apply to their work. In contrast, some Indigenous Organizations and other industry respondents indicated that they find cumulative impact monitoring results less accessible, indicating gaps in how information is distributed and utilized across different groups, as well as capacity to review and understand results.

The results from the NWT CIMP-led survey were much more positive, with 80% of respondents indicating satisfaction with the accessibility of monitoring and research results to communities and the public. Eighty percent (80%) of respondents also indicated satisfaction with the presentation of results to communities (GNWT, 2025b). The discrepancy between the Audit public survey results and the NWT CIMP-led survey is likely due to the familiarity of NWT CIMP-survey respondents with NWT CIMP and the NWT Discovery Portal.

In interviews, variability was also evident. Most concerns noted by various groups were centered around data. A RRB expressed that, although results are publicly available, the NWT Discovery Portal was not the optimal tool for their use and that plain language summaries would be more accessible to communities. Another RRB expressed that NWT CIMP data were not accessible. A federal department also expressed it is challenging for boards to search for NWT CIMP-funded project data, resulting in a large disconnect between NWT CIMP and regulatory processes. A GNWT representative also expressed some concern about NWT CIMP data quality. However, some interviewees had more positive reflections. A RRB praised NWT CIMP for bringing information to communities using one-page summary reports. The Audit Team notes that the NWT Environmental

Research Bulletins are accessible and clear. An Indigenous organization also praised the Barren-Ground Caribou Initiative's use of communication materials, which include a summary report, TK studies, and a western science report.

While efforts have been made to enhance the accessibility of cumulative impact monitoring results through various online platforms and repositories, such as the NWT Discovery Portal and Mackenzie DataStream, challenges remain in providing a comprehensive and coherent view of the available data due to the fragmented nature of these resources. To improve the situation, suggestions have been put forward for the creation of a standardized, unified portal that would consolidate cumulative impact monitoring data from all sources, making it more navigable and user-friendly. However, some interviewees noted the challenges in consolidating monitoring data from disparate sources, such as compliance monitoring.

Regular and consistent engagement with all stakeholders, especially Indigenous communities, is also seen as vital for enhancing the understanding and applicability of cumulative impact monitoring data. Additionally, Audit informants have highlighted the importance of presenting cumulative impact monitoring results in formats that are easily understandable and directly applicable to decision-making, such as through peer-reviewed scientific literature and educational materials that explain how to assess and use cumulative impact data in practical scenarios.

2.3.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: ACCESSIBILITY OF INFORMATION TO ADDRESS CONCERNS

Ultimately, there are mechanisms in place to share cumulative impact monitoring results with communities and the public, such as detailed project reports on regional websites, direct communications to co-management boards, summary videos, annual presentations, and NWT Environmental Research Bulletins. There seems to be a disconnect between what information is available and the public's knowledge and access to the available information.

2025 Audit Recommendations

Recommendation 2025-2-5: GNWT work with its partners to identify and establish similar initiative(s) to that of the Barren Ground Caribou Initiative to focus VEC research and to better integrate TK studies and western science studies. We would expect that GNWT would work closely with decision makers to identify specific questions that need addressing and that the collaboration would lead to useful decision-making tools (e.g., risk maps) and plain language summaries.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The 2023-2026 *Collaborative Barren Ground Caribou Initiative* (CBGCI) has been extremely successful. This directed funding call, a joint initiative with Polar Knowledge Canada and NWT CIMP, provided funding to 7 separate projects to research and monitor multiple different threats to barren ground caribou. Project leads meet regularly to discuss their work, which leads to increased collaboration across projects and better outcomes. The project leads will also be writing a plain language synthesis report for decision makers, which will summarize and interpret the key findings from all projects, but with a focus on understanding how different threats interact across the full-annual lifecycle. This report will be available on the NWT Discovery Portal.

Based on the success of the CBGCI and guidance by the NWT CIMP Steering Committee, NWT CIMP is running a 3-year directed funding call entitled *Road Development Impacts: Understanding and mitigating cumulative impacts from road development*, with funding to start in 2026-27. Like the CBGCI, this directed funding call will bring together multiple projects working on similar topics and result in a synthesis report for decision makers that informs the mitigation of the impacts to caribou, water, and fish from road development. Additionally, given the success of the first CBGCI, the GNWT will include the exploration of additional options and priority topics for future directed funding calls in NWT CIMP's Action Plan for 2026-2030, to be released in 2026.

The GNWT commits to:

- Running a 3-year directed funding call entitled *Road Development Impacts: Understanding and mitigating cumulative impacts from road development*.
- Including the exploration of options and priority topics for additional directed funding calls in future years, as funding allows.

3. PART 3: THE EFFECTIVENESS OF REGULATORY REGIMES IN THE MACKENZIE VALLEY

The MVRMA sets out an integrated system of land and water management that is meant to fulfill several principles including the protection of the environment from significant adverse impacts. Importantly, the MVRMA defines "impact on environment" in a very broad manner and therefore environmental audits focus on a series of key components. The Terms of Reference for this Audit asked us to consider impacts on:

- Air;
- Caribou and other wildlife;
- Community wellness;
- Fish;
- Landscape and habitat; and,
- Water.

The Audit Team reviewed whether the current regimes are adequately regulating all aspects of the environment or whether further improvements in the system are needed.

There are several main components that make up the regulatory regimes in the Mackenzie Valley including land use planning, environmental assessment (EA), renewable resource management, and land/water regulation. The Audit Team examined the current functioning of the regulatory regime. We considered multiple sources of evidence to identify if, and how, the regulatory system adequately and appropriately regulates impacts on environmental components in alignment with the MVRMA. We explored regulatory gaps and approaches that are in place, or could be considered, to mitigate these gaps. We probed the functioning of diverse roles and responsibilities held by the boards and other parties involved in co-management. We considered transboundary issues, where the Mackenzie Valley regulatory regime interfaces with broader governance regimes and environmental impacts. Regulation in areas without a land claim agreement was researched, with both environmental and social-economic-cultural impacts considered. Many players, policies and regulations, and processes function together to create the NWT regulatory regime, and we assessed successes and opportunities for improvement.

We gathered evidence and conducted synthesis and analyses. Information sources included a questionnaire sent to organizations (boards, GNWT, industry, IGIOs, NGOs, federal government departments) that included both quantitative and qualitative elements; document reviews to ensure that our insights were considered in the context of MVRMA, existing mandates and best practices; a public survey to allow the public voice to inform our results; interviews with key informants representing the federal government, GNWT, NGOs and IGIOs. We compiled an evidence-base and conducted synthesis and analysis to arrive at key insights.

In the sections below, we discuss our main findings for each topic. Where appropriate, we also comment on whether recommendations from the 2020 Audit have been addressed.

3.1 REGULATORY SCOPE

What We Examined

The Audit Team sought to determine whether the scope of the regulatory regime adequately covers valued components of the physical and socio-economic environment. The Audit focused on the following lines of inquiry:

- *Are there any outstanding areas where there is a real or perceived effect on key environmental components but is currently unregulated? If so, what approaches are in place to mitigate any regulatory gaps?*
- *Are the roles and responsibilities of the boards and other parties involved in co-management clearly defined, understood and coordinated?*
- *Are impacts regulated to the satisfaction of parties participating in the process? If not, what are the barriers?*
- *Are transboundary issues adequately addressed and communicated?*
- *Are impacted parties satisfied with how impacts are regulated in those areas without a land claim agreement?*

The 2020 Audit identified that:

- Since devolution, the GNWT had undertaken several legislative initiatives related to land and resource management.
- Progress had been made on addressing regulatory gaps identified in the 2015 Audit, but gaps related to groundwater, air regulations and archeological resources persisted.
- The GNWT had made progress on climate change policy and action planning, but it was too early to assess the effectiveness of the implemented measures.
- Devolution transferred some responsibilities, but this had not resulted in greater clarity in co-management at that time.
- The regulation of transboundary issues was found to be adequate.
- In addition, the 2020 Audit found:
    - The GNWT is monitoring indicators of community well-being, but it was not evident how effectively the information was being used to inform regulatory decision-making. At the project level, the MVEIRB was leading the way on the development of community-centric adaptive management programs.
    - The Mineral Development Strategy needed improvements to meet the needs of industry. There was insufficient evidence that the GNWT's NWT Economic Opportunities Strategy is effective at achieving its objectives.

Why it is Important

The regulatory regime is designed to uphold and implement the MVRMA. By assessing the regulatory scope, we can identify if/how the current structure and functioning of the regime is aligned with the MVRMA. In addition to being accountable to the legislated MVRMA, parties to the regime are also accountable to each other, stake and rights holders and the public at large. The scope of the regulatory regime must be efficient and effective at addressing potential impacts to biophysical, cultural, social, and economic components.

What We Found

The table below summaries Audit findings related to regulatory scope. In addition to presenting the findings for each line of inquiry, we identified one emergent and cross cutting theme.

TABLE 3-1: AUDIT FINDINGS RELATED TO REGULATORY SCOPE

Lines of Inquiry	High-level Findings
Are there any outstanding areas where there is a real or perceived effect on key environmental components but is currently unregulated? If so, what approaches are in place to mitigate any regulatory gaps?	There are outstanding areas where there is a real or perceived effects on key environmental components including social, cultural and economic well-being.
Are the roles and responsibilities of the boards and other parties involved in co-management clearly defined, understood and coordinated?	The roles and responsibilities of boards and organizations in the regime are largely clear, but opportunities exist for improved participation of the federal departments.
Are impacts regulated to the satisfaction of parties participating in the process? If not, what are the barriers?	The public and parties to the regime demonstrate confidence in how impacts are regulated, but opportunities for improvement exist.
Are transboundary issues adequately addressed and communicated?	Transboundary issues are addressed, but concerns remain around transboundary water and wildlife.
Are impacted parties satisfied with how impacts are regulated in those areas without a land claim agreement?	Parties are generally satisfied with how impacts are regulated in areas without a land claim agreement, but concerns remain.
Emergent and cross cutting theme across regulatory scope	Uplifting TK and Indigenous expertise is paramount to a functioning co-management regime.

3.1.1 THERE ARE OUTSTANDING AREAS WHERE THERE ARE REAL OR PERCEIVED EFFECTS ON KEY ENVIRONMENTAL COMPONENTS INCLUDING SOCIAL, CULTURAL AND ECONOMIC WELL-BEING

Organizations (boards, GNWT, industry, IGIOs, NGOs) and the public are generally satisfied with how the regulatory regime addresses impacts in the Mackenzie Valley, however, respondents shared some concern about regulatory gaps (Figure 3-1 includes results of the organizational

questionnaire). Respondents identified gaps in the areas of community well-being and air-quality. We describe these concerns below.

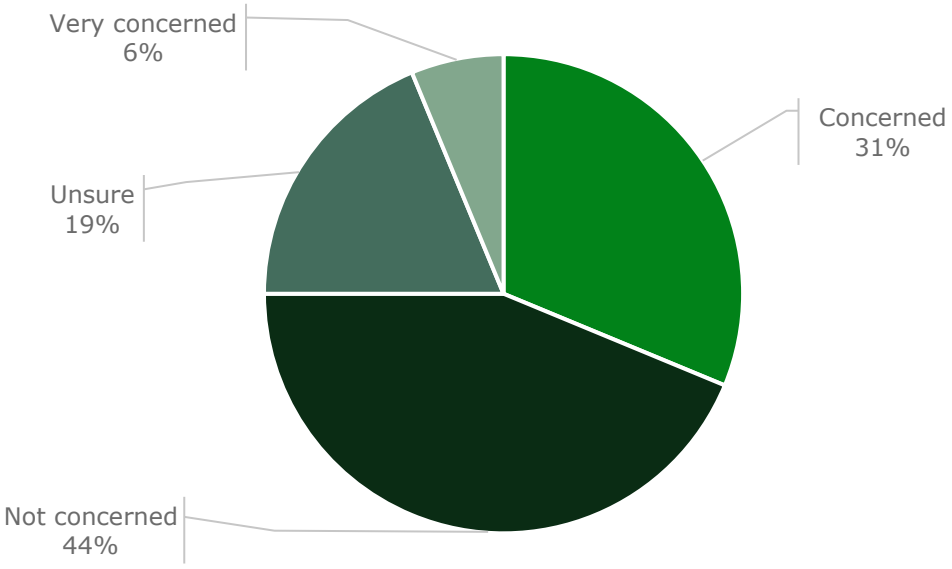


FIGURE 3-1: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS LEVEL OF CONCERN ABOUT IMPACTS IN UNREGULATED AREAS

Social, cultural, and economic well-being

A guiding principle within Part 5 of the MVRMA is the "protection of the social, cultural and economic well-being of residents and communities in the Mackenzie Valley" (Section 115(1)(b)). The MVRMA explicitly identifies that social, cultural and economic well-being should be addressed in land use planning and impact assessment. Additionally, the MVRMA identifies that the LWBs shall consider "the importance of conservation to the well-being and way of life of the aboriginal peoples of Canada" (Section 60.1(a)). Audit respondents suggested that considerations of well-being are the biggest gap in the regulatory regime.

Through interviews and the organizational questionnaire, Indigenous Organizations emphasized that community wellness encompasses mental-emotional-spiritual and cultural dimensions. Indigenous Organizations described the regulatory regime as a whole as inadequate in how it addresses mental-emotional-spiritual and cultural dimensions. The impact of this gap is felt by communities in many forms, and one Indigenous Organization cited problems of addictions as one example.

Thirty-eight percent (38%) of public survey respondents considered progress made on 'considering community wellness when making decisions about land and resource management or development' to be insufficient, while 30% considered progress sufficient (Figure 3-2, and Appendix B).

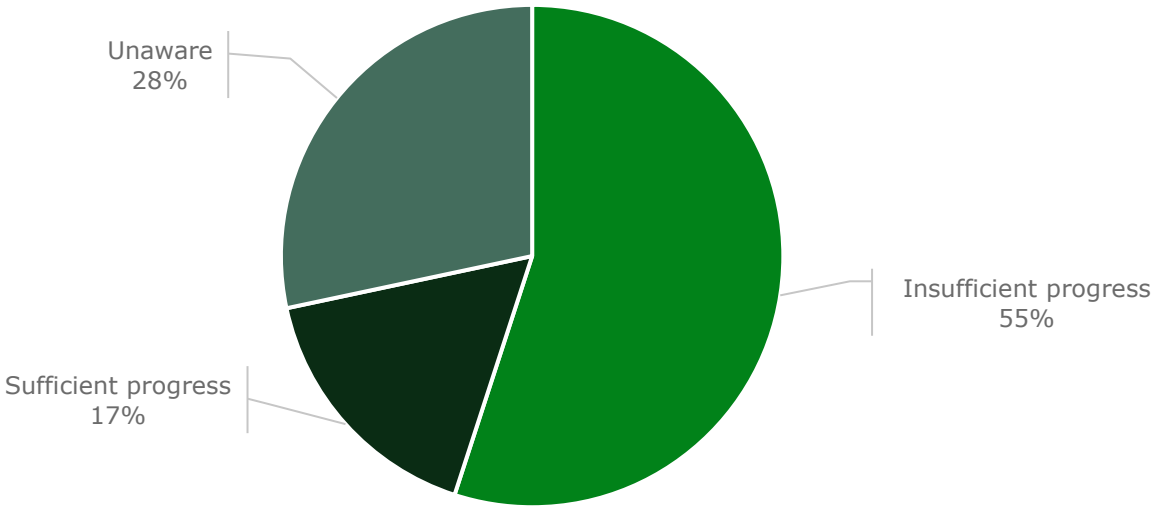


FIGURE 3-2: PUBLIC SURVEY RESPONDENTS PERSPECTIVES ON SUFFICIENCY OF PROGRESS REGARDING HOW COMMUNITY WELLNESS IS CONSIDERED IN DECISION-MAKING

MVEIRB highlighted this gap in an interview, noting that socio-cultural-economic components are significantly impacted by development programs. They noted that without an emphasis on these components in the regulatory regime, there remains a lack of knowledge on what the exact drivers are that create the impacts, and in turn, limiting the possibility to mitigate these impacts.

As was articulated in the 2020 Audit, MVEIRB, in collaboration with IGIOs, is taking initiative to address the community well-being gap for the EA component of the regulatory regime. MVEIRB developed Socio-Economic Impact Assessment Guidelines (2007) (MVEIRB, 2007) and Cultural Impact Assessment Guidelines through Technical Sessions (MVEIRB, 2009). They have expanded the scope of assessments to include valued cultural components and community components and are ensuring that proponents implement comprehensive community well-being monitoring programs (MVEIRB, 2006).

The Tłı̨chǫ Highway Socio-Economic Working Group is a good example of how parties are working together in the NWT to address social, economic, and cultural trends related the impacts of the new Tłı̨chǫ Highway. Led by the Tłı̨chǫ Government, the working group includes representatives from the community governments of Whati and Behchoko and the GNWT. The working group releases progress reports once per year and created visual posters that communicate results in accessible ways (Tłı̨chǫ Government, n.d.).[17]

Representatives from GNWT-Health and Social Services (HSS) noted in an interview that they collect and monitor health data closely. They emphasized the need to consider health and well-being should be considered holistically and there is an interconnectedness to health/well-being and biophysical environment, such as caribou trends.

[17] Tłı̨chǫ Highway Socio-Economic Reports | Tlicho

The community well-being gap is prevalent for the permitting area of the regulatory regime. While LWBs have jurisdiction to consider the importance of conservation to the well-being and way of life of the aboriginal peoples of Canada (Section 60.1(a)), several interview respondents noted this jurisdiction is not clear and/or not being implemented to sufficiently consider social, cultural, and economic well-being when issuing permits. One IGIO described their frustration that rights-based issues such as traditional and resource use, and linked effects on mental/cultural well-being, are mostly outside the mandate of the LWBs and are thus unable to be addressed. They described how, if concerns are noted, the only 'recourse' is to refer the project to an EA and noted that this approach is not necessarily the best path or the best use of community resources. Further, there was concern that absent a LUP, which helps provide a cultural safety net upon which land use can be sustainably managed, permit conditions and terms are not enforceable if they fall outside the powers granted to an inspector.

A GNWT representative noted how the LWBs consider impacts to wildlife habitat, but the link between wildlife habitat and community well-being (e.g., from being on the land and engaging with TK) is not explicitly addressed.

One LWB described, in an email to the Audit Team, a missed opportunity to create Indigenous contracting and procurement opportunities related to small GNWT development projects. They had received a letter from a First Nation expressing frustration with LWBs and the GNWT with respect to Indigenous contracting opportunities for GNWT-Infrastructure projects in their area. The LWB noted that:

> "For major projects (like a mine or a highway), a project is referred to Environmental Assessment where socio-economic factors may be considered by the Review Board. The Review Board can make recommendations in relation to socio-economic factors as well. For example, recommending that the GNWT find a way to work with local Indigenous groups on procurement to make sure that they benefit from activities happening on their lands.
>
> For small projects (building bridges, access roads etc.), there is [often] no EA - licences and permits are issued after only a LWB process. The problem is our governing legislation does not include making conditions or provisions related to procurement. So, there is a gap here - which is important because there are far more "small projects" than there are major projects" (LWB).

One industry representative emphasized their desire for boards to address more clearly the economic well-being of northerners, particularly with the minerals industry. They contend that low levels of investment in the NWT for minerals exploration and development is a missed opportunity to support economic well-being.

The 2020 NWT Audit made a recommendation to address the community well-being regulatory gap through collaborative design of a common agenda and set of shared measures or indicators with results available to decision-makers:

> **Recommendation 2020-1-3**: Organizations/departments with a mandate for monitoring and mitigating community well-being work together to make their efforts complementary by developing a common agenda for their goals with a set of shared measures or indicators, and a plan for making results available to decision-makers during the EA and regulatory phases of projects. The outcome we expect is that community well-being is monitored consistently, and the results are used to inform and improve regulatory decision-making.

The GNWT hosted a socio-economic forum in 2022, which included representatives from the mining industry, IGIOs, and the GNWT to identify ways to work together to increase the socio-economic benefits from resource development, focusing on accountability for both the GNWT and industry (GNWT, n.d.-e). At the time of writing this Audit report, the GNWT had not finalized or publicized the forum summary, so we could not determine whether outputs will be useful to inform common goals.

The GNWT also indicated that departments are working together to develop a common set of indicators and emphasized that input from communities and IGIOs is critical to informing a final set of indicators for a project. The Audit Team reviewed a 2022 document titled 'Cultural Well-being Indicators', prepared for the GNWT (MNP, 2024) that was created in response to an MVERIB reason for decision Measure #6 for the Diavik mine. The process taken to identify these indicators shows promise and uplifts the unique voices of IGIOs across the NWT. Consideration of how to leverage these efforts beyond Diavik is required.

GNWT-Industry, Tourism and Investment (ITI) conducted a Socio-Economic Agreement (SEA) Program Review, aiming to improve socio-economic benefits in communities. The results of this review were published in 2022 and include recommendations for improving the program. Notably, the report suggests that "the existing SEA Program be redesigned to incorporate explicit goals, objectives, outcomes, a program logic model, and a performance measurement and evaluation framework" (DPRA, 2022, p. 10).

We found that the recommendation 2020-1-3 is **partially implemented**, as actions are being taken to bring parties together and conduct reviews to improve socio-economic outcomes. However, we have not yet received evidence that the GNWT has developed a common agenda for their goals with a set of indicators or a plan for making results available while addressing privacy and data sovereignty issues. Further, the recent feedback from one Indigenous Nation's discussions with a LWB suggest that there are clear paths for improving procurement opportunities, especially for GNWT development projects. We suggest that the GNWT uses the initiatives mentioned (e.g., SEA Program Review) to provide inputs for this recommendation and that the results be shared with regulators and the respective communities, and with the public as appropriate.

<u>Air Quality</u>

During interviews and in the organizational questionnaire, one NGO and one IGIO articulated their concern about unregulated air quality. One IGIO expressed concerns about unregulated air quality and noted how the increase of NWT forest fires exacerbates this concern.

One IGIO noted, during an interview, how exploration projects have air quality impacts, but LWBs do not have jurisdiction for air quality. They cited this as a regulatory gap.

The GNWT monitors air quality through four continuous stations and has established standards for the maximum concentrations of pollutants in the air (GNWT, 2023d). The GNWT has the authority to develop air regulations and to create an air regulatory system (GNWT, n.d-f). The GNWT described, during an interview, that they are having conversations about where air regulations would best fit.

3.1.2 THE ROLES AND RESPONSIBILITIES OF BOARDS AND ORGANIZATIONS IN THE REGIME ARE LARGELY CLEAR, BUT OPPORTUNITIES EXIST FOR IMPROVED PARTICIPATION OF FEDERAL DEPARTMENTS

The roles and responsibilities of co-management boards and other organizations of the regulatory regime are generally clear and understood. Most respondents of the organizational questionnaire describe being very knowledgeable about the roles and responsibilities of the boards and other parties involved in co-management (Figure 3-3).

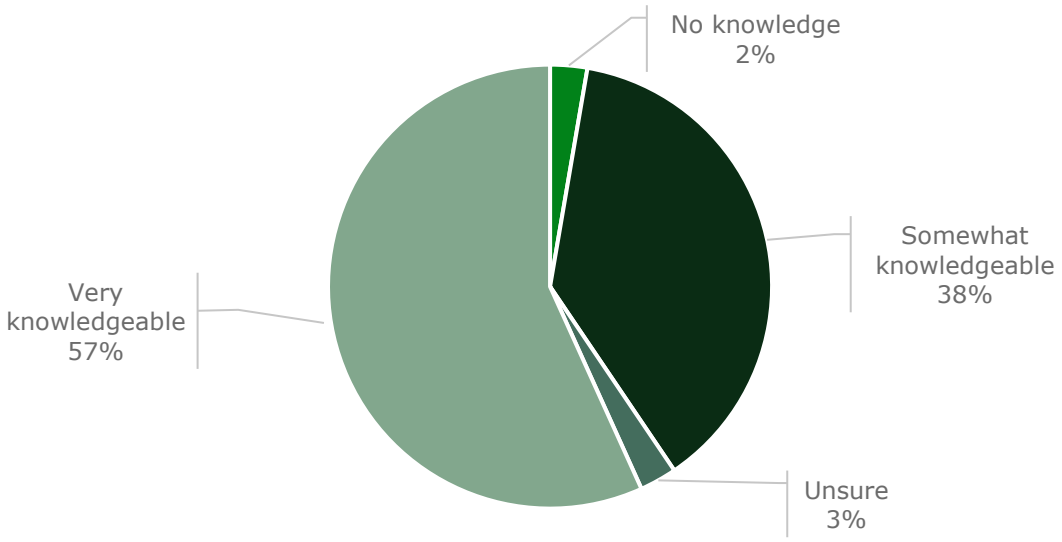


FIGURE 3-3: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS KNOWLEDGE OF ROLES AND RESPONSIBILITIES ACROSS THE REGULATORY REGIME

Industry articulated, during an interview, their desire for more efficient processes and described jurisdictional disputes between boards, the GNWT and IGIOs as an obstacle to efficiency. LWBs are meant to address the regulation of land use, while management of land tenure is with the GNWT (since 2014). In some cases, this division of roles is unclear when conditions of land tenure address land use. There can therefore be duplication of requirements in cases where both a land use permit and land tenure exist.

IGIOs, NGOs, and boards each shared concerns about a lack of proactive engagement from the federal government. For example, one NGO described using a subpoena as a mechanism for DFO to provide information in some cases. They noted that NRCan participated if they are called upon

(e.g., to provide subject matter expertise on risk assessment and earthquakes). One board concurred that it is difficult to get participation from the federal family (DFO, ECCC, Parks Canada) even though they are part of the co-management regime. They emphasized that better coordination is required so that everyone can meet their requirements. A third board went so far as to say that "it seems the federal government forgets [they] exist." Industry described some 'science-based' departments of the GoC (DFO, ECCC, Parks Canada) as "really hard to work with", noting high staff turnover, lack of access to decision-makers and inconsistencies in their knowledge of licencing and permitting processes. One IGIO noted that federal departments (e.g., ECCC, DFO) used to be active in mining regulatory processes and are now absent. They articulated that the absence is having detrimental impacts on relationships between the federal government and others. Specifically, they noted that the regulatory regime is not able to benefit from the advice/ data/ expertise held at the federal level. These issues are further described under Section 3.5. In an interview, one federal government respondent noted that there could be improved coordination between federal departments, that in turn would improve how they engage with the regulatory processes in the NWT and how they engage with territorial organizations and IGIOs.

Respondents described, during interviews, some confusion about roles and responsibilities related to engagement and consultation. One NGO described how the MVEIRB and LWBs do a good job of engaging the public but noted that it is not their responsibility because they are the adjudicator. One IGIO raised a concern about the Crown having boards fulfill the primary form of consultation when the Crown should fulfill the core aspects with only procedural aspects left to the boards. The Audit Team notes that a recent court decision acknowledged the role of boards in consultation (MVEIRB, 2024b). Industry stated, during an interview, that they are taking on GoC and territorial consultation obligations because it makes sense to get things done efficiently but they noted the high cost to them. Industry did not provide examples of how they take on consultation obligations in different contexts, or what those obligations are.

The necessity of parties meeting on a regular basis to address these coordination issues was highlighted as a recommendation of the 2020 NWT Audit:

> **Recommendation 2020-1-2**: The GNWT and CIRNAC establish a process for parties to meet on a regular basis and discuss implementation opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. At times, this process will need to include IGIOs and industry as appropriate. We further recommend CIRNAC ensure a record of findings, actions, and outcomes are published to ensure transparency and to facilitate monitoring and auditing of progress.

In their original joint response, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the GNWT shared that they engaged with the MVLWB, MVEIRB, and the Canadian Northern Economic Development Agency's Northern Projects Management Office to discuss processes for parties to meet on a regular basis. They identified processes already in place for parties to meet on a regular basis and discuss opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. One venue is the annual MVRMA resource co-management workshops. They also noted regular discussions that

occur among federal, territorial, and resource management board staff, and the fact that reports are typically shared on board websites. During the 2020 Audit, CIRNAC and GNWT also shared the newly launched Mackenzie Valley Operational Dialogue (MVOD).

In an updated response, CIRNAC shared that MVOD has had several sessions and workshops with IGIOs, resource management boards, mining industry, the GNWT, and GoC, where "Light Work Plans" are co-developed to act on challenges. CIRNAC also received funding in the 2022 Budget for the Northern Regulatory Initiative, including to implement Regulatory Dialogues to strengthen resource management systems in the NWT; CIRNAC has leveraged MVOD to do so.

GNWT-ECC also shared in an updated response that greater focus is being placed on including IGIOs in these processes and that a need for additional processes for parties to meet has not been identified.

Industry described, in an interview, their perspective on MVOD. They noted that the forum is addressing a diversity of issues occurring with the regulatory regime and they articulated their desire to see MVOD focus more explicitly on a few clear things, including early-stage exploration. A representative noted that MVOD has yet to lead to any changes. Industry described that they would like to see more robust federal representation at MVOD. They identified representation from DFO, ECCC, and Parks Canada to be important for addressing regulatory issues at the federal level. They also articulated a desire to have more leadership representation on behalf of the GNWT, for example at the Associate Deputy Minister (ADM) or Deputy Minister (DM) level.

At the latest MVOD, a "touchstone" virtual meeting in November 2024, parties shared progress on several initiatives to help address:

- Capacity:
    - A pilot secondment program, funded by CIRNAC under the Northern Regulatory Initiative, where LWB staff would work directly with IGIOs "to increase capacity and knowledge of the regulatory system. The program will also help MVLWB staff gain insights into the perspectives and pressures faced by IGIOs" *(ERM, 2024)*. The expression of interest process was underway at the time of the MVOD meeting and has since concluded. Additional information on this program is provided under Section 3.5.5.
- Operational efficiency:
    - LWB retained consulting firm WSP to develop templates for mineral exploration, based on the 2020 NWT Environmental Aduit recommendation 1-8 (see Section 4).
    - GNWT noted that it is in the early stages of proceeding with legislative amendments to the Waters Regulations and *Waters Act.* The focus will be targeted amendments to regulations, but other legislative changes would be needed to provide investment certainty (e.g., process for closing water licences) (see Section 4).

We found that the response to recommendation 2020-1-2 is **partially implemented**. MVOD is acting as a platform for frequent dialogue, with input from relevant parties, and results are being shared. We have found some evidence that changes are occurring or advancing in the regime due

to MVOD. However, there are ongoing concerns by industry that MVOD has not led to measurable change. We encourage CIRNAC and the GNWT to continue these processes and to ensure that progress is being tracked across all initiatives. We expect that by the next Audit, CIRNAC and the GNWT will be able to provide additional demonstrative examples of how this platform is steering improvements to how parties collaborate, and to the functioning of the overall regime.

3.1.3 THE PUBLIC AND PARTIES TO THE REGIME DEMONSTRATE CONFIDENCE IN HOW IMPACTS ARE REGULATED, BUT OPPORTUNITIES FOR IMPROVEMENT EXIST

Respondents of the organizational questionnaire articulated various degrees of satisfaction with how impacts are regulated in the Mackenzie Valley. Forty-six percent (46%) of respondents reported being satisfied, while 28% reported being not satisfied, 20% reported being unsure and 6% reported being very satisfied (Figure 3-4).

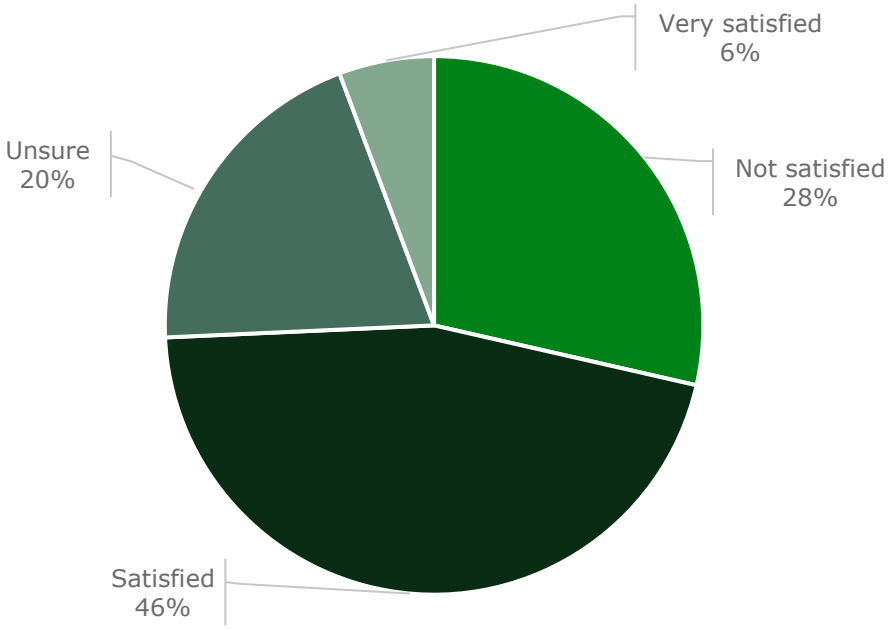


FIGURE 3-4: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS SATISFACTION WITH HOW IMPACTS ARE REGULATED

Respondents described in questionnaire responses various barriers to regulation of impacts. As described above in Section 3.1.1, there are concerns about the lack of emphasis on healing and well-being.

Industry respondents expressed ongoing concerns with how small-scale exploration projects are regulated in the territory. Like the 2020 Audit, industry questionnaire and interview respondents noted that it is difficult and costly for small-scale exploration projects to get approval. They mentioned that an advantage of the MVRMA system is that it is not too structured and focuses on co-management and evidence that is relevant to a project, but that it is becoming more prescriptive due to the recent focus on legal interpretation. They emphasized that being stuck

between a non-structured and structured system creates challenges such as a lack of clarity and higher costs.

In addition, industry representatives interviewed believed that the GNWT requires more staff with relevant experience in the mining industry who understand the system and can give advice to new developers and industry (through GNWT-ITI's Pathfinder approach or other means). Industry acknowledged that the Pathfinder supports are a good example of how GNWT can help provide advice on effective engagement but noted that it is understaffed and under-funded.

Two IGIOs expressed, during interviews, that due to capacity they must be selective about the kinds of applications they intervene on and therefore do not always participate in the regulatory process. One IGIO suggested that the notifications from LWBs could be tagged with specific keywords to reduce the time it takes for recipients to review for relevancy the high number of notifications. LWBs noted that they have some systems in place to reduce the burden of multiple notifications, for example, by using different distribution lists for different projects based on region. One IGIO expressed appreciation for the robustness of the system.

An NGO emphasized during an interview their opinion that inspection and enforcement activities should be better regulated. One IGIO shared a similar sentiment during an interview, in which they urged for public reporting of enforcement on wildlife management plans and harvest violations. Section 3.7 below addresses compliance and enforcement in more detail.

Most public survey respondents reported that is it 'true' or 'somewhat true' that decisions coming out of regulatory processes help to protect the land and water (Table 3-2).

TABLE 3-2: PUBLIC SURVEY RESPONDENTS' VIEWS ON THE EFFECTIVENESS OF REGULATORY PROCESSES IN PROTECTING THE LAND AND WATER

The decisions made at the end of the processes help to protect the land and water.				
Perception of Truth	**Environmental Assessment**	**Land Use Permitting**	**Water Licensing**	**Land Use Planning**
Not at all true	7%	7%	3%	5%
Somewhat true	37%	48%	44%	39%
True	41%	30%	38%	29%
Unaware	15%	16%	15%	27%

3.1.4 TRANSBOUNDARY ISSUES ARE ADDRESSED, BUT CONCERNS REMAIN AROUND TRANSBOUNDARY WATER AND WILDLIFE

Thirty-three percent (33%) of organizational questionnaire respondents consider transboundary issues to be 'sufficiently addressed', 28% reported that they are 'somewhat addressed', while 36% of respondents reported being 'unsure'. Only 3% reported that they are 'not addressed' (Figure 3-5).

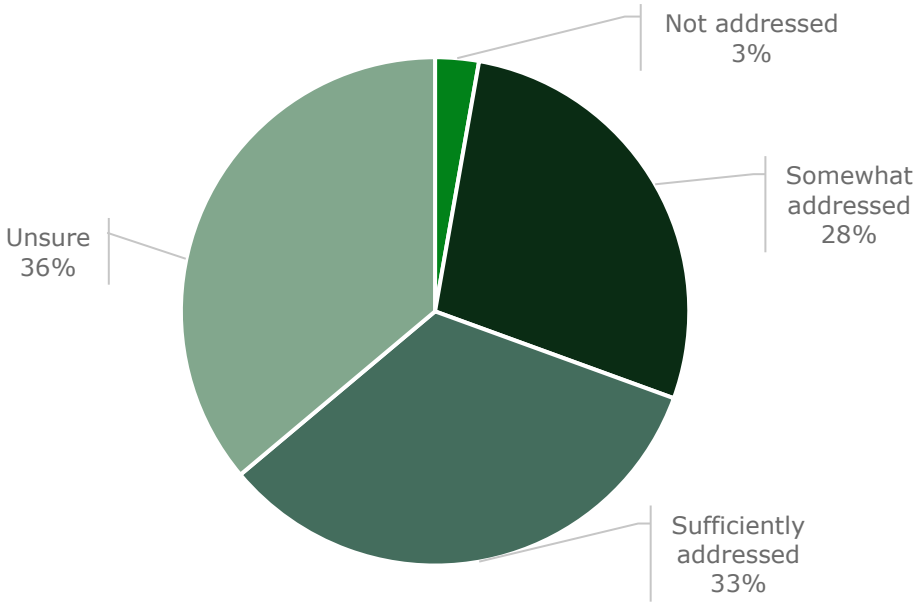


FIGURE 3-5: ORGANIZATIONAL QUESTIONNAIRE RESPONDANTS' PERSPECTIVES ON THE EXTENT TO WHICH TRANSBOUNDARY ISSUES ARE ADDRESSED

Several respondents expressed some concern about transboundary water regulation. One federal government representative noted, in a questionnaire response, that transboundary water requires more attention and regulation. One NGO described a situation where the GNWT was not notified about an oil spill in Alberta, and they reflected on the need for better communication between the two governments. One IGIO also spoke to transboundary water issues as concerning and they asserted that the Alberta/NWT agreement lacks teeth for enforcement, citing issues occurring in the Alberta oil sands. One board noted the lack of a clear understanding of the link between the monitoring related to the bilaterial water agreements and the MVRMA.

Audit informants also spoke to some concerns regarding transboundary wildlife management. A board noted that while barren-ground caribou are transboundary herds, there is not a clear link between management and monitoring between the Territories. Two NGOs also reflected on barren-ground caribou in their questionnaire responses. One noted that the Government of Nunavut and the federal government allowed mining in the historic calving grounds of a herd, with little to no temporary or permanent protection of key habitat.

Two respondents pointed to broader policy / capacity issues. A GNWT representative described, in the questionnaire, that all parties need to respect agreements and that the GNWT requires more capacity to meet their obligations. One industry representative noted in a questionnaire response that there are conflicting priorities with respect to conservation, transportation, and infrastructure development between jurisdictions.

3.1.5 PARTIES ARE GENERALLY SATISFIED WITH HOW IMPACTS ARE REGULATED IN AREAS WITHOUT A LAND CLAIM AGREEMENT, BUT CONCERNS REMAIN

Forty percent (40%) of respondents to the organizational questionnaire reported being satisfied and 3% reported being very satisfied with how impacts are regulated in those areas without a land claim agreement, while 23% of respondents reported not being satisfied. Thirty-four percent (34%) of respondents were unsure about how impacts are regulated in those areas without a land claim agreement. Figure 3-6 provides a visual of the distribution of levels of satisfaction amongst respondents.

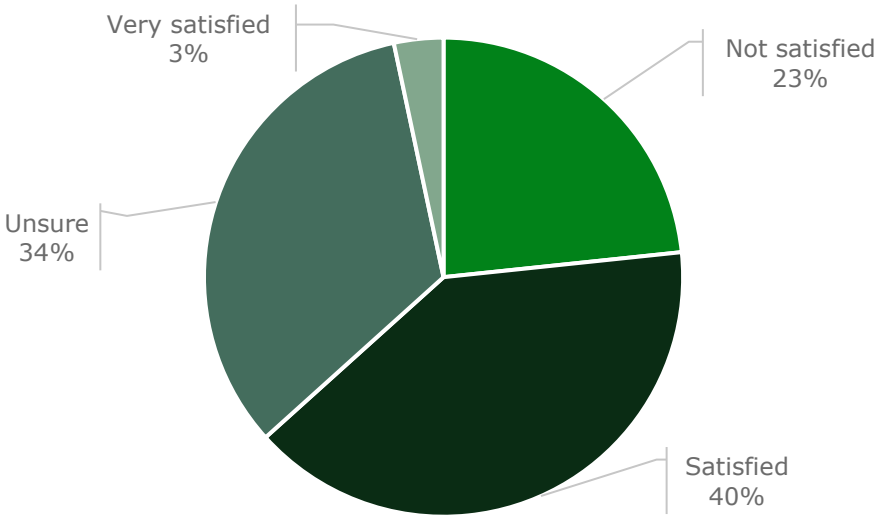


FIGURE 3-6: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS' LEVEL OF SATISFACTION WITH HOW IMPACTS ARE REGULATED IN THOSE AREAS WITHOUT A LAND CLAIM AGREEMENT

Representatives of communities without land claims described the representation, intent, and fairness of the regulatory process to be lacking at some points. Without added funding sources from settled land claims, they noted that capacity issues are exacerbated and that formal processes to ensure their inclusion in regulatory decisions are lacking. They described that without a land claim, land use planning is more challenging. Without a LUP, the LWBs do not have the initial context for issuing land use permits and water licences in line with community priorities. One Indigenous Nation described missing the notification emails for a project due to capacity constraints, and the result was that development impacts occurred on culturally significant land. They reported that if a First Nation with an unsettled land claim enters the regulatory process late there is no opportunity to have cultural value components or rights-based interests represented in final terms and conditions. One strategy this Nation described during interviews is to work directly with the LWBs so they can influence the licensing process and strengthen their participation in the regime, expressing a desire for flexibility from, and ongoing dialogue with, LWBs. Of course, this

strategy requires IGIOs to have the capacity and resources to work directly with the LWBs and implement feasible solutions.

Complications occur for industry in areas without land claims. Industry representatives described during an interview, and in questionnaire responses, that they cannot have any land disposition around interim land claim areas due to the lack of land claim settlements. Industry interviewees and questionnaire respondents described that they bear a great deal of uncertainty when engaging in these areas, leading to higher costs, longer timelines, and the potential that projects do not happen at all. Industry representatives noted a disparity in the ease of work between areas with and without a land claim. Section 3.3 below explores issues surrounding land claims and land use planning in more detail.

3.1.6 CROSSCUTTING THEME: UPLIFTING TK AND INDIGENOUS EXPERTISE ARE PARAMOUNT TO A FUNCTIONING CO-MANAGEMENT REGIME

As noted by previous Audits, there is evidence of an increasing role for TK in the regulatory regime. TK is now required for valued components chapters of EAs and informs decisions taken by MVEIRB (MVEIRB, 2005), as well as LWBs (MVRMA 60.1(b)). Early engagement on the part of proponents is an opportunity to explore the role of TK in project design, assessments and monitoring. One IGIO noted, in an interview, that the LWBs could do more to consider TK in their decision-making.

One board articulated, during an interview, how land use planning clashes with Indigenous ideologies where, "all land is important." They noted how land use planning is a western way of approaching management and that more needs to be done to bring those worlds together. During an interview, one IGIO critiqued the philosophical underpinnings of the regulatory regime of the NWT for being pro-development in its assumptions and processes. They described how development is assumed to move forward, unless significant impacts are anticipated. Another board articulated a difference in perspectives occurring within the same regime, noting how:

> "Companies acquire rights for exploration and then follow that with engagement. Although from the perspective of the developers, an impact has not occurred until an activity is physically conducted, for First Nations communities, the rights themselves are an impact. There is a significant difference in perceptions". (board interviewee)

Previous Audit recommendations addressed the role of TK. We provide examples and a reflection on how the 2025 evidence-base relates to them:

> **Partially Implemented Recommendation 2015-16:** LWBs and MVEIRB should work with interested parties to identify approaches to better utilize and integrate TK information into the decision-making processes.

Evidence we gathered for this Audit indicates that MVEIRB has taken significant steps to address this recommendation and sets an example for others in the regulatory regime. For example, hosting Cultural Impact Technical Sessions, which provided a platform for TK holders to submit evidence in their own community and publishing Guidelines for Incorporating Traditional

Knowledge in Environmental Impact Assessment (2005) (MVEIRB, 2005) that function to inspire other boards. MVLWB formally adopted these guidelines in 2021.

The 2020 Audit notes evidence of LWB publishing Guidelines for AEMP (2019) (MVLWB, GNWT, 2019) that include processes for the collection and use of TK. The LWBs also released a Standard Water Licence Conditions Template (v. 2.1, 2023), which includes requirements that the "Licensee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee" and to identify how recommendations based in TK were incorporated into the submission (MVLWB, 2023a).

> **Recommendation 2020-1-9:** The MVEIRB and the LWBs, in cooperation with other relevant regulators and affected Indigenous communities, establish, where necessary, a project TK Advisory Committee or talking circle to advise on the use of TK for the purpose of enhancing decision-making of the project. Such TK committees would advise project proponents and regulators and conduct monitoring, if required, from pre-regulatory though regulatory reviews, construction, operation, and beyond as required. To be most effective, a TK Advisory Committee would need to be established as early as possible, but no later than the start of an EA, and live through to the end of the project, advising both regulators as well as the project proponent.

One IGIO highlighted this recommendation, during an interview, and noted that in their opinion it has not been followed. They agreed that a TK Advisory Committee could see cultural well-being components incorporated into decisions making. We did not find evidence of TK Advisory Committees being leveraged, yet as described above, the MVEIRB demonstrates innovative and impactful processes to create space for TK. We found this recommendation to be **partially implemented**. The boards demonstrate the intent of the recommendation in their continued efforts to engage with TK during assessment processes. The permitting process has fewer legislated consultation opportunities for specific projects, yet there is a growing demand for well-being to be considered in permitting decisions.

> **Recommendation 2020-2-1:** The RA work with TK holders to consider how best to recognize and utilize TK-based information in the evaluation of water quality and quantity trends and to develop a transparent process to guide the use of TK.

When we discussed this recommendation with GNWT, they noted the important guidance provided by the Traditional Knowledge Policy and Implementation Framework (GNWT, 2009). However, GNWT-ECC interviewees did not use the framework directly and instead approached supporting TK on a project-by-project basis. They cited guardians' programs and community-based monitoring programs as important platforms.

We acknowledge the initiatives taken by the GNWT to engage with TK in monitoring. We found the response to be **adequate**, since the recommendation does not speak explicitly to implementation.

3.1.7 OVERALL OBSERVATIONS AND RECOMMENDATIONS: REGULATORY SCOPE

In summary, the Audit Team notes the following important findings that emerged from the evidence around regulatory scope:

- Social, cultural, and economic well-being are not sufficiently considered over time and at a territorial scale. While the regime has provisions for considering social, cultural, and economic well-being at a high-level, these topics are not consistently and effectively addressed throughout the regime. There are gaps in jurisdiction. For example, LWBs address well-being as it relates to conservation and consider well-being in preliminary screenings, but impacts to well-being are only regulated if a project is bumped to an EA. It has been a challenge to reflect Indigenous worldviews with western tools (e.g., land use planning). In addition, industry continues to voice concern about negative economic impacts due to insufficient consideration of economic well-being. There are leading examples in parts of the regime, but more effort is needed to look at social, cultural, and economic well-being over time (and not just in the context of a development project, or through a narrow lens, such as through benefits).
- The complexity of the co-management regime requires that all parties work together consistently to understand each other's roles (and constraints), and to improve the efficiency and effectiveness of the regime.
- The GNWT can focus on where there are levers to address policy/capacity issues related to transboundary issues, such as water and caribou, and economic development, as well as address SEA program improvements (as per DPRA's recommendations) and air quality regulatory gaps.
- Alternative mechanisms can be considered to increase opportunities for parties without settled land claims to share their perspectives and influence regulatory decisions.

Building on the work MVEIRB has done on a well-being approach to impact assessment, more can be done to reflect Indigenous worldviews across the regime (e.g., within land use planning, wildlife modelling). Collaborative discussions, that address underlying values, can create more opportunities for novel approaches to emerge that benefit the co-management regime by leveraging the expertise of two distinct worldviews.

2025 Audit Recommendations

We recommend the following 2015 and 2020 recommendations be carried over: **2015-16, 2020-1-2**, **2020-1-3**, and **2020-1-9**. Please see Appendix D for a summary of recommendations and updated responses.

3.2 ENGAGEMENT AND CONSULTATION

What We Examined

The Audit Team sought to determine whether the processes of engagement and consultation are functioning in alignment with the MVRMA and the expectations of parties, stakeholders and rights holders and the public at large. The Audit focused on the following lines of inquiry:

- *Do the boards and other decision-makers follow processes and procedures to engage and consult with interested parties, and is there any engagement coordination amongst responsible organizations? What are the barriers?*

- *Do parties have adequate access to information to provide input to regulatory processes? If not, what are the barriers?*
- *Are parties satisfied with the quantity, quality, and outcome of engagement? What are the barriers? And how can engagement be improved?*

The 2020 Audit identified that:

- The public was largely satisfied with engagement, but strategies should continue to be reviewed.
- Gaps persisted related to the GNWT developing a clear policy and program to address and communicate its responsibilities for consultation and public engagement and CIRNAC developing of regulations on consultation to add further clarity and certainty to the regulatory process.
- Transparency and accessibility continued to improve for different aspects of the regulatory process.

Why it is Important

Engagement and consultation are a key component for the functioning of the Mackenzie Valley regulatory regime. The co-management boards and regulators are institutions of public government and are, therefore, accountable to the public. Indigenous Nations and organizations have a unique role in the NWT co-management regime. Engagement processes and protocols are in place to ensure that IGIOs can play a role in decision-making. The Audit process is an opportunity to evaluate the functioning of diverse engagement and consultation mechanisms.

What We Found

The table below summaries Audit findings related to engagement and consultation.

TABLE 3-3: AUDIT FINDINGS RELATED TO ENGAGEMENT AND CONSULTATION

Lines of Inquiry	High-level Findings
Do the boards and other decision-makers follow processes and procedures to engage and consult with interested parties, and is there any engagement coordination amongst responsible organizations? What are the barriers?	Boards and other decision-makers follow processes and procedures to engage and consult with interested parties and some coordination amongst parties demonstrates positive results.
Do parties have adequate access to information to provide input to regulatory processes? If not, what are the barriers?	Parties have adequate access to information; it is capacity issues that prevent meaningful input into regulatory processes.
Are parties satisfied with the quantity, quality, and outcome of engagement? What are the barriers? And how can engagement be improved?	Parties are satisfied with the quantity and quality of engagement, but less satisfied by outcomes of engagement (particularly industry respondents).

3.2.1 BOARDS AND OTHER DECISION-MAKERS FOLLOW PROCESSES AND PROCEDURES TO ENGAGE AND CONSULT WITH INTERESTED PARTIES AND SOME COORDINATION AMONGST PARTIES DEMONSTRATES POSITIVE RESULTS

Boards and other decision-makers follow processes and procedures to engage and consult with interested parties. The Tłı̨chǫ Government noted, in an interview, that they have published guidelines for engagement to ensure that respondents have clarity on expectations for consultation and engagement (Tłı̨chǫ Government, 2019). The LWBs of the Mackenzie Valley collaborated on 'Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits' (MVLWB, 2018). In 2023, the MVLWB started the process of updating their engagement guidelines (ERM, 2024). Despite these efforts, one Nation without a land claim shared, during an interview, their desire for increased clarity on what support they can expect from boards and other decision-makers during engagement and consultation processes.

A continued desire for improved clarity on engagement and consultation responsibilities and processes reflects two outstanding recommendations from the 2015 audit:

> **Outstanding Recommendation 2015-17:** The GNWT should develop a clear policy and program to address and communicate its responsibilities for consultation and public engagement.
>
> **Outstanding Recommendation 2015-18:** INAC should make the development of regulations on consultation a priority to add further clarity and certainty to the regulatory process.

In its original response to recommendation 2015-17, the GNWT indicated that its approach to consultation is reflected in the documents "The Government of the Northwest Territories' Approach to Consultation with Aboriginal Governments and Organizations" (2007) (GNWT, 2007) and "Respect Recognition Responsibility: The Government of the Northwest Territories' Approach to Engaging with Aboriginal Governments" (2012) (GNWT, 2012).

In response to recommendation 2015-18, CIRNAC originally responded that its focus was to develop guidelines and enact regulation-making authority under the *NWT Devolution Act*. They more recently noted that the work of the Consultation and Accommodation Unit on federal consultation guidelines will add clarity and certainty to the regulatory process. CIRNAC described listening to Indigenous partners about consultation and engagement issues that require attention, noting partners' concerns around a federal regulation as the tool to address the consultation concerns and that more work is needed to understand its appropriateness as a tool.

We found Recommendation 2015-17 and Recommendation 2015-18 to be **outstanding**. We do not anticipate that Recommendation 2015-17 will be advanced as written, nor that 2015-18 will be advanced.

The federal government noted, during an interview, that for areas without settled land claims, consultation can be streamlined through the support of co-management boards. Specifically, when boards send out reviews for public input, they request that parties include comments/concerns they have about infringements of rights. If rights issues are raised, the board will flag these

concerns to the GoC right away, which helps to streamline consultation and may help reduce the burden placed on communities.

One board articulated their process of communication and engagement, providing some examples of effective engagement mechanisms including:

- Posting minutes and newsletters to their website
- Traveling to communities for community tours
- Having Renewable Resource Council representatives from each community at board meetings who can inform their councils at the local level
- Rotating board meeting locations between communities, creating opportunities to speak with the community members at the same time.

They reflected on the opportunity to improve their website to make it more interactive, accessible, and user-friendly for the public. IGIOs also noted during interviews that they would appreciate if certain websites were improved. Another board described, in an interview, using regular virtual meetings, with local leadership, members of council, government and/or academic partners, as a forum to talk about research projects and to keep people informed via information sharing. IGIOs reflected on these communication efforts. For example, by sharing their appreciation of co-management boards being responsive to emails.

One engagement process used by the LWBs is the online review system (ORS). The system provides notifications about water licence and land use permit applications and associated submissions. Two IGIOs shared, during interviews, an idea to improve this process by providing more 'forward facing' detail when notifications go out so that they could skim notifications rather than having to open each to find details, such as the name of the project in question or the respective region. Another IGIO stated that decisions are time consuming to review, but accessible.

The GNWT highlighted that they worked with the GoC to develop standard language attached to every proceeding on the ORS about Crown consultation (i.e., that the Crown relies on the board's process as the primary means to fulfill its duty to consult with Indigenous Peoples) (SLWB, 2025).[18]

The LWBs demonstrate making significant strides in response to a previous audit recommendation to facilitate engagement opportunities outside specific regulatory processes and to create guidance documents that address needs identified:

> **Recommendation 2020-1-7**: That the LWBs regularly meet with key client groups outside of specific regulatory processes to discuss opportunities and challenges with the goal of continuing to improve the regulatory system. We further recommend the LWBs use the information from these engagement sessions to inform priorities and workplans. The outcome we expect is for the LWBs to create opportunities outside of specific regulatory processes, to

[18] See this link for an example: https://new.onlinereviewsystem.ca/review/D4291C88-DBF2-EF11-90CB-6045BD5BAF9E.

> understand the needs of groups of proponents (e.g., mineral exploration proponents). We also expect the LWBs to consider creating guidance and products that address the expressed needs identified by proponents.

In an updated response, the LWBs shared several initiatives that involved collecting input from stakeholders and updating or developing guidance documents. They identified being involved in the organizing committee for the annual MVRMA resource co-management workshops, having a full-time Community Outreach Coordinator who provides information and training sessions at events, and being members of the steering committee for the MVOD where feedback on the regulatory system is received, among others.

The LWBs have emphasized that they prioritize keeping existing guidance documents up to date and developing additional guidance documents as needed. The LWBs shared that since the 2020 Audit, they have (MVLWB, 2024):

- Issued a full revision of the Engagement and Consultation Policy in 2023 after comprehensive engagement starting in 2019.
- Initiated a process to assess and potentially update the associated Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits.
- Updated the Water and Effluent Quality Management Policy to the Waste and Wastewater Management Policy in 2023 following a public review and in this process.
- Developed the Standard Process for Setting Effluent Quality Criteria into a separate document.
- Developed the Standard Water Licence Conditions Template in 2020 and expanded it in 2022 with public review.
- Updated ORS notifications to include the Project name as requested by users.
- Updated LWB Governance Policies to clarify when the LWBs will seek public input to support the development and revision of guidance documents.
- Initiated a full internal review and revision of the parallel Standard Land Use Permit Conditions Template.
- Jointly released the LWB/GNWT Method for Determining Water Source Capacity for Small-Scale Developments (2021), LWB/IWB/GNWT Guideline for the Design, Operation, Monitoring, Maintenance and Closure of Petroleum Hydrocarbon-Contaminated Soil Treatment Facilities in the NWT (2020), and LWB/GNWT/CIRNAC Guidelines for Closure and Reclamation Cost Estimates for Mines (2022).
- Developed the reference bulletins for Water Use Term Changes (2022), Split-Interest Projects (2020), and Water Use (2024) to improve clarity on some specific common questions about how the LWBs interpret and apply the legislation.
- Conducted a public review to address concerns raised following the release of the Reference Bulletin: Water Use in 2020, and subsequently revised and re-issued the Bulletin with associated reasons in 2024. Completed administrative updates to guidance documents

to improve clarity for Application Forms (2023), Guides to the Water Licensing and Land Use Permitting Processes (2023), Document Submission Standards (2023), Geospatial Data Submission Standards (2021), Standard Outline for Management Plans (2021), and Water Use Fee Policy (2021).

- Updated the LWB/GNWT Guidelines for Effluent Mixing Zones (2023).
- Updated their websites with permanent links to prevent broken cross-reference hyperlinks in guidance.
- Are in the process of developing the Land Use Cost Estimator and associated Support Manual to replace the Land Permit Application Security Template. A draft version of the tool and manual was published February 2023 for public review *(MVLWB, 2023b)*.
- Started to include revision history tables when guidance documents are updated and make associated review summary tables available on the website.
- Updated the LWB Governance Policies (2024), which clarify when the LWBs will seek public input to support the development and revision of guidance documents.

We found that the response to this recommendation is **adequate**, as this is a priority for the LWBs and many updates have been made to provide guidance since the last Audit. We encourage the LWBs to continue this work toward improving the regulatory system and be transparent with proponents on how their specific feedback has been received and implemented.

Coordination

Interview respondents provided reflections on if/how coordination occurs between parties for engagement. The federal government noted that sometimes coordination happens, but it is not always appropriate to coordinate between GNWT and GoC. One LWB elaborated that some federal-territorial level coordination (DFO and GNWT-ECC) was not efficient nor productive. They reflected, however, on CanNor's initiative [through the Northern Projects Management Office (NPMO) and GNWT-ITI] to bring people together for the Resource Development Advisory Group (RDAG) before applications for major project as being helpful. Industry also reflected on the importance of the RDAGs for projects crossing the threshold into a mining production decision because coordination is required from multiple federal departments (e.g., explosives permit, DFO approvals, etc.). Industry described, in interviews, a strategy they use of coordinating for federal government representatives to join them during engagement to ensure that compliance is met and projects progress at a reasonable pace.

One board described, during interviews, coordinating with other boards in their region to offer community 'meet and greets' that create an opportunity for enhancing the public's understanding of their different roles/responsibilities. Another board described, in an interview, how the Species at Risk process works very well, because the NWT Species at Risk Secretariat coordinates the materials for engagement across NWT. Similarly, a different board reflected on the coordinated efforts of the GNWT Department of Infrastructure and GNWT-ECC on the Mackenzie River Ferry Landings engagements. They noted how communities were responsive to the opportunity to ask questions to a diversity of subject matter experts at the same time.

A recommendation from the 2020 NWT Audit addressed the need for coordinated effort between the GNWT and federal departments to improve engagement and consultation strategies:

> **Recommendation 2020-1-10:** The GNWT and the federal departments with responsibility for engagement and consultation under the MVRMA work with their respective clients to review and improve engagement strategies.

Recommendation 2020-1-10 prompted further action to address engagement and consultation gaps for the GNWT and federal departments. CIRNAC iterated that it honours the Crown's section 35 duty to consult through assessment and regulatory processes established under land claims and the MVRMA and funds Indigenous groups to support their involvement through implementation plans. The Northern Participant Funding Program (NPFP) provides further financial support to enable participation in assessments for large projects. The program was renewed in 2023 and was expanded to include some funding for non-project specific Indigenous impact assessment capacity building initiatives and large regulatory processes (e.g., water licensing). Additional information on NPFP is provided under Section 3.5.5. Having responsibilities for Indigenous consultation and engagement during major project assessments, the NPMO of the Canadian Northern Economic Development Agency (CanNor) continues to coordinate with the GNWT. Since the 2020 Audit, the NPMO and the GNWT have been collaborating on consultation efforts, including:

- communications regarding identification of potentially impacted Indigenous Governments and Indigenous Organizations,
- co-development of joint notification letters sent at the beginning of the EA process, and
- regular meetings, engagement and information-sharing during the EA process.

CIRNAC indicated that they continually review engagement and consultation strategies throughout each engagement and in various instances, such as relevant judicial decisions, the NWT Environmental Audit, and board initiatives. In its original response, CIRNAC stated that it expressed interest in the boards' process to update consultation and engagement policy and guidelines and confirmed in an updated response that CIRNAC participated in the 2022 and 2024 processes about guidelines updates. CIRNAC also recently launched the Northern Regulatory Initiative (NRI), which "aims to improve the capacity of Indigenous Governments and Indigenous Organizations, renew important relationships and provide clarity to rights holders and stakeholders." In an interview, CIRNAC noted that the NRI is progressing slowly to be respectful of engagement, partnership, and other urgent priorities in the NWT. They shared that they are having discussions internally to improve understanding and alignment on engagement and Consultation processes.

In the updated responses to both recommendation 2015-17 and 2020-1-10, the GNWT shared that it "continues to update and build on the GNWT Consultation approach by developing new tools and continuing to provide training to GNWT staff to remain consistent with evolving Canadian law on Aboriginal consultation." The Audit Team notes that, in 2014, GNWT prepared a detailed Consultation Resource Guide for its staff, titled 'A Manual for Government of the Northwest Territories' Staff on the Duty to Consult and Accommodate in the NWT'. More recently,

they developed an Employee Guide to Public Engagement (GNWT, 2024i). The Audit Team also acknowledges the templates created in 2024 by GNWT to support internal efficiency, tracking, coordination, and transparency surrounding the Duty to Consult (GNWT, 2024j). The 'Anticipated Scope and Depth of Consultation and Strategy' template allows GNWT to identify if/how other parties to the regime have a role in the process. The 2030 Audit may assess how the implementation of these templates improves engagement and consultation activities.

The Audit Team found that this recommendation is **partially implemented**. Efforts are underway to review and improve engagement and consultation activities.

Early engagement

The GNWT cited the Mining Incentive Program (GNWT, 2024c) as an example for how it supports industry by providing funding for exploration projects. They consider this one remedy for the high costs articulated by industry, which may help free up funds for community engagement, although engagement costs are excluded from the program.

One board shared, during an interview, their desire for improved clarity from *The Mineral Resources Act* (MRA) and its regulations. Specifically, they want more information on the appropriate level of effort for early engagement. This would support their analysis of engagement records to determine 'sufficient early engagement'. One interviewee highlighted an opportunity for industry to consider the cost of engagement needs early on in relevant price models for projects.

The duty to consult and accommodate - differing perceptions

One IGIO articulated a desire for more clarity on how the duty to accommodate is being managed in the regime (Parliament of Canada, 2019). They shared concerns that the clause – to consult and accommodate – is shortened to address consultation only. They noted that this has impacts on communities and the environment. The duty to consult is sometimes progressed in the form of limited emails and if no response is given, development moves forward. They described how in this example, there is no 'accommodation' in terms of improved communication pathways or capacity support. They noted that this issue is particularly problematic for communities without land claims, expressing that:

> "There is an inherent lack of justice happening in the communities without land claims - where the GNWT, proponent, GoC are benefiting from resource development taking place. Without efforts to accommodate Indigenous communities in the process they do not benefit" (IGIO interviewee).

3.2.2 PARTIES HAVE ADEQUATE ACCESS TO INFORMATION; IT IS CAPACITY ISSUES THAT PREVENT MEANINGFUL INPUT INTO REGULATORY PROCESSES

Respondents of the public survey (see Appendix B), organizational questionnaire, and interviews all agree they have adequate access to information. As demonstrated by Figure 3-7 below, most respondents of the organizational questionnaire perceive information to which they have access to be sufficient for enabling their input into regulatory processes. The small percentage of respondents who responded 'insufficient' note the public registry being difficult to navigate and

data being difficult to interpret and connect to project approval. In an interview, one GNWT representative also noted the challenge of navigating LWB registries.

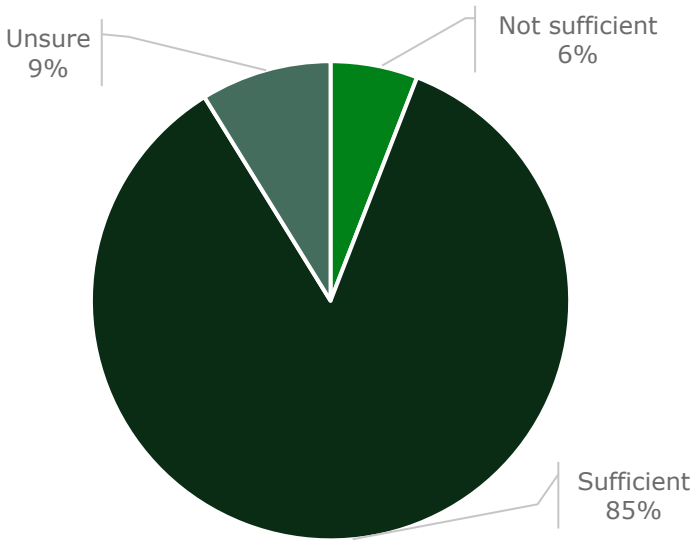


FIGURE 3-7: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS AGREE THAT ACCESS TO INFORMATION IS SUFFICIENT

Organizations identified having limited capacity to engage with information. Interview respondents frequently noted the nuance between having access to information and having the capacity to interpret it. Capacity can be considered funding, or technical capacity to understand complex results, or capacity in terms of the time required to address multiple applications. To address capacity constraints, one First Nation described their process of using funding to hire environmental consultants that can provide technical advice and ensure the Nation has access to adequate information and a robust interpretation of it based on their priorities.

Capacity constraints can limit the ability of IGIOs to respond to the many applications and engagement emails they receive. One First Nation described receiving more engagement emails than they have the capacity to address and a narrow window of time to respond to them. They noted that projects proceed without a conversation. An engagement record can demonstrate three ‘attempts’ as sufficient for a complete permit application. Once an application is determined complete, legislative timelines are triggered (e.g., 42 days) within which the board must review evidence and make a decision. The First Nation described this situation as procedurally fair, but not fair given limitations and capacity challenges in a small community.

In some cases, parties describe having difficulty accessing information. One board noted that sometimes getting access to information collected by the GNWT is a challenge. They asserted a desire for public servants to remember that it is public information for public use and not for individual use or research. One IGIO articulated their proactive approach to requesting information from proponents (e.g., shape files for proposed land use activities). In this case, the IGIO is playing an active role in identifying and seeking out information from proponents.

Access to information is different for big development projects vs. medium and small-sized projects. IGIOs reflected on the differences in engagement approaches for big projects vs. medium and small-sized projects. They noted that for big projects, the systems and processes are generally good with public hearings, meetings, etc., but for medium and small projects, communication does not always reach community members.

The capacity of boards can impact information sharing with communities. One board reflected, in an interview, on their capacity issues impacting information sharing. They described capacity challenges preventing them from keeping their website up to date. A few boards described their capacity constraints impacting the role that TK can have for providing input to regulatory decisions. They have the desire to gain more insights from TK but not adequate resources to engage meaningfully with Elders. Additional information on capacity constraints is provided in Section 3.5.

When asked about information sharing to enable input during regulatory processes, some parties highlighted a need for information sharing about the regulatory process itself. One board and one IGIO noted that information is required about the *regulatory system* for people to be able to prioritize their efforts. They reflected that community and IGIO may not know where their input is the most powerful across the regulatory system, nor how to navigate it most efficiently to dedicate their limited resources to creating the best impact. This point was also articulated by an NGO who said that engagement can be improved with co-management education sessions being offered. They shared a vision of boards putting on an annual education event open to the public that builds community capacity and equips people to navigate the regime (e.g., How to make a compelling presentation at a hearing? How to make a good written submission and presentation in front of a board? How to do questions for presenters or intervenors?).

We found annual MVRMA resource co-management workshops co-hosted by MVEIRB, the LWBs, the GNWT, the Government of Canada, and, depending on the location, the LUPBs and the RRBs contain educational aspects. These workshops are aimed to increase understanding and knowledge of respondents with co-management and integrated systems of land and water management established through the MVRMA. Summary reports are available on the MVLWB website for workshops between 2016-2022. The March 2024 workshop summary report is found on the MVERIB website, (MVEIRB, 2024c).

3.2.3 PARTIES ARE SATISFIED WITH THE QUANTITY AND QUALITY OF ENGAGEMENT, BUT LESS SATISFIED BY OUTCOMES OF ENGAGEMENT (PARTICULARLY INDUSTRY RESPONDENTS)

Parties are generally satisfied with the quantity and quality of engagement but less satisfied with the outcomes of that engagement. Respondents of the organizational questionnaire demonstrated that respondents are satisfied/very satisfied (70%) with the quantity and with the quality (69% satisfied/very satisfied) of engagements; but only 44% felt satisfied/very satisfied with outcomes (Figure 3-8, Figure 3-9, Figure 3-10 below). The responses to the public survey indicate that only 16% of respondents felt their perspectives are heard in the context of environmental assessments and land use permitting (See Appendix B).

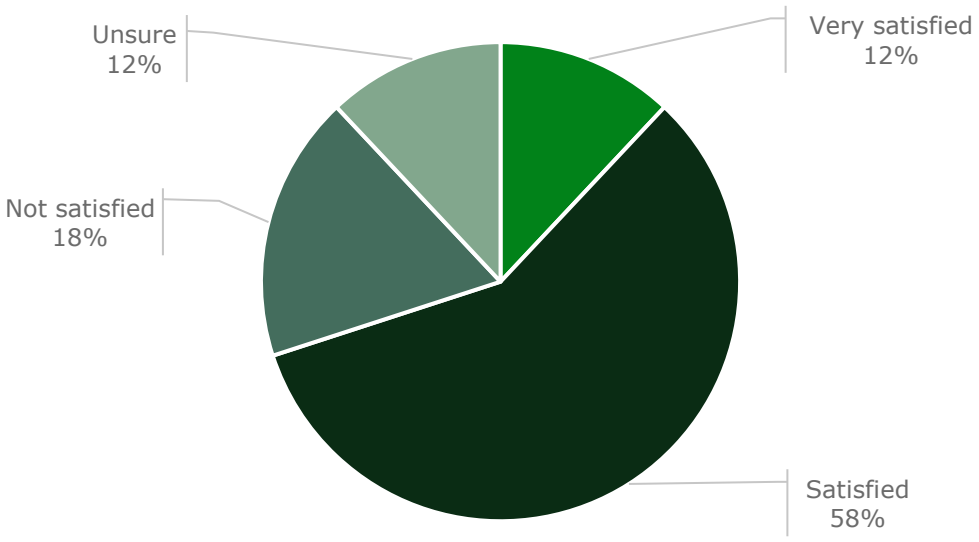


FIGURE 3-8: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS SATISFACTION WITH QUANTITY OF ENGAGEMENTS

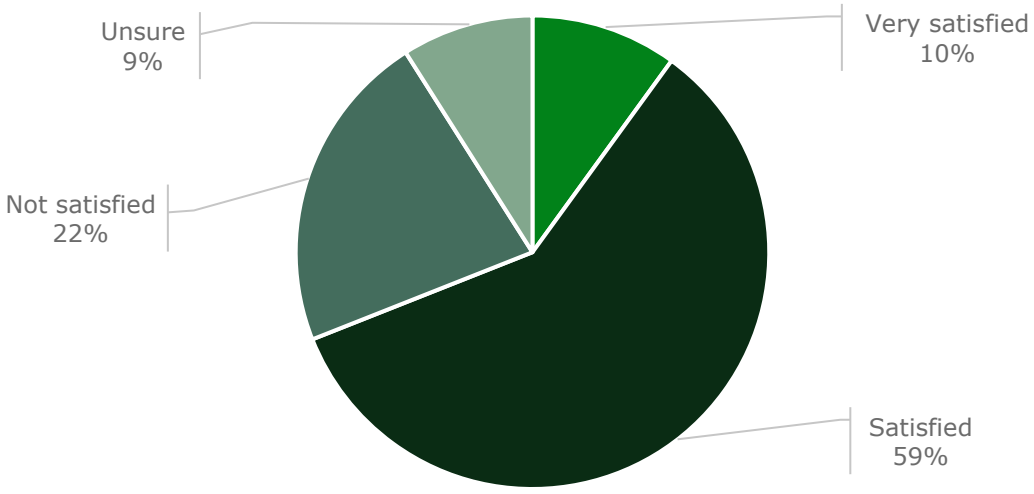


FIGURE 3-9: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS SATISFACTION WITH QUALITY OF ENGAGEMENTS

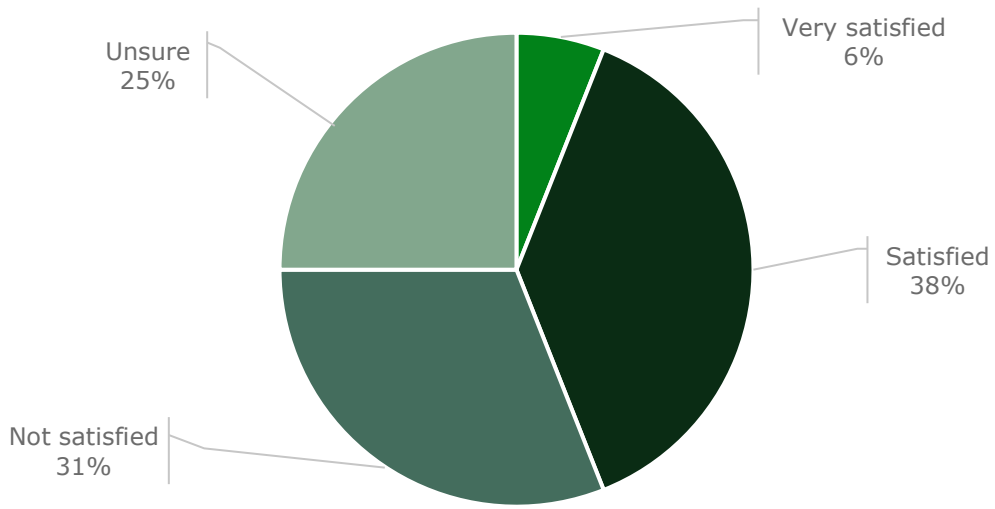


FIGURE 3-10: ORGANIZATIONAL QUESTIONNAIRE RESPONDENTS SATISFACTION WITH OUTCOMES OF ENGAGEMENTS

A previous NWT Audit recommendation encouraged the MVLWB to adapt their engagement practices to allow for the detection of public concerns early in the process:

> **Recommendation 2020-1-11:** The MVLWB re-examine its engagement process and enhance the process where appropriate to better detect emerging public concerns and to adapt their plan for engagement as required.

The LWBs identified that they have released their Strategic Plan (The Strategic Plan*) for the Land and Water Boards of the Mackenzie Valley* (2022-2026), which includes a pillar focused on 'Relationship building and Outreach' with a specific goal to "increase effort on outreach and relationship building with parties, applicants, and the public to support collaboration and effective implementation of an integrated co-management system" (pg. 8). They put a notable emphasis on community outreach as a priority and way to strengthen their understanding of and relationships with communities, Indigenous Governments, and industry. However, an industry representative noted that they were not engaged in the development of the Strategic Plan and believe that there are improvements to be made. The Audit Team notes that while some organizations may choose to conduct standalone engagement with stakeholders to inform the development of their organizational strategic plan, organizations typically use strategic planning exercises to summarize input from stakeholders over a wide set of engagements. Another goal outlined in the LWBs' Strategic Plan is to "develop/update key policies, guidelines and procedures that promote clarity, efficiency, and consistency in the LWB's regulatory processes for parties, applicants, and the public" (pg. 8). In response to this goal, the LWBs released an updated Engagement and Consultation Policy, which includes updates to clarify the roles of parties, outline the concepts of relationship-building and collaboration, and emphasize how processes address concerns early on. In their updated response to the Audit recommendation, the LWBs provided

evidence of engagement with various stakeholder groups (with the process beginning in 2019) to inform this policy, including written responses and workshop results.

We found that the response to this recommendation is **adequate**, as the LWBs' policy on engagement and consultation has been updated with extensive input from relevant parties.

Multiple industry representatives noted a dissatisfaction with the outcomes of engagement in the organizational questionnaire. One industry representative shared their perspective there are too many processes, and they noted the constraints put on them by regulators. Another industry representative asked why Ministerial policy direction is not used more to direct outcomes.

3.2.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: CONSULTATION AND ENGAGEMENT

Consultation and engagement are paramount to a functioning regulatory regime. In summary, the Audit Team notes the following findings that emerged from the evidence around consultation and engagement:

- Boards demonstrate ongoing efforts regarding consultation and engagement.
- The GNWT and CIRNAC need to articulate more clearly with parties their roles and responsibilities regarding engagement and consultation in the regime.
- More 'forward facing' keyword details in LWB notification emails (e.g. project, request) would help parties streamline the time taken to identify notifications of high importance.
- The *Mineral Resources Act* (MRA) is not prescriptive about how to assess the appropriate level of effort for early engagement to support boards' evidence-based decision-making. Parties to the regime will have to work together to create consensus, guidelines and shared expectations.
- Audit respondents seek increased clarity on how 'accommodation' can be interpreted and actioned as part of the duty to consult and accommodate.

2025 Audit Recommendations

We recommend the following 2020 recommendation be carried over: **2020-1-10**. Additional recommendations are outlined below.

Recommendation 2025-3-1: GoC to work with GNWT on developing clear communication materials that describe consultation responsibilities in the NWT. We would expect that these communication materials would be in plain language and would support improved understanding of consultation and engagement roles and responsibilities.

> GNWT's response: The GNWT is already fulfilling the GNWT's role in the actions being proposed by the recommendation. The GNWT's approach to consultation with Indigenous governments and Indigenous organizations is clearly outlined and publicly available online (https://www.eia.gov.nt.ca/en/priorities/meeting-gnwts-legal-duty-consult-aboriginal-governments). This approach is consistent with the honor of the Crown, ensuring that consultation is done in good faith, with the goal of continued mutually respectful relationships. The GNWT recognizes that

consultation is an evolving field, and commits to meet obligations with its consultation efforts, and adjusting its approach when necessary.

The GNWT has developed tools and templates to aid GNWT Departments when corresponding with Indigenous governments regarding consultation. With the support of the United Nations Declaration on the Rights of Indigenous Peoples Implementation Act, the GNWT recognizes and supports Indigenous peoples right to self-determination and their right to participate in decision-making in matters which would affect their rights.

CIRNAC's response: The Government of Canada agrees that clear communication materials outlining consultation and engagement roles and responsibilities in the NWT would be beneficial for all. This is best accomplished in coordination with the GNWT, the co-management Boards and Indigenous Governments. The Government of Canada is committed to continuing its efforts and collaborating with the GNWT and Renewable Resource Boards toward fulfilling this recommendation.

Towards meeting this recommendation, CANNOR's Northern Projects Management Office (NPMO) intends to work with GNWT officials to develop an MOU and related terms of reference to support joint consultation efforts with IGIO's during environmental assessments in the Mackenzie Valley. This approach has been taken in the Yukon and provides a framework for developing a similar model with the GNWT to support improved understanding of territorial and federal consultation roles and responsibilities.

Recommendation 2025-3-2: LWBs and MVEIRB to work with other parties of the regime to identify the appropriate level of effort for early engagement to support boards' evidence-based decision-making. We would expect that parties to the regime work together to create shared expectations and guidelines that are consistent with the principle of free, prior, and informed consent.

LWBs' response: The LWBs and MVEIRB have different roles in helping the crown to satisfy its s. 35 Duty to Consult, so understandably the level of early engagement during permitting and licensing processes are much different than that during an environmental assessment or impact review process. The LWBs agree the level of engagement effort should be commensurate to the proposed or ongoing activities, so have embarked on updating its *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*. Amongst other objectives, this update is intended to identify opportunities to clarify engagement requirements for smaller scale projects.

On an administrative/editorial note, the LWBs would suggest using a different word than 'regime', in an effort to decolonize the language in the Audit wherever possible.

MVEIRB's response: MVEIRB has outlined expectations for early engagement in its Guideline for the Optional Pathway for Major Projects to Enter Environmental Assessment and also directs developers to reference the LWB's pre-submission engagement guidelines for further detail on early engagement approaches. MVEIRB additionally directs developers to work with the consultation units of the GNWT and the Federal Government (NPMO and CIRNAC) for further guidance. The

level of pre-EA engagement required, due to the complexity, scale and scope of projects that generally go through an environmental assessment, results in the expectations for pre-engagement to vary greatly from the majority of regulatory processes that might only require a land use permit. The Board will continue to work with Indigenous Governments, Federal and Territorial Governments and other parties when updating or implementing its guidelines to set engagement expectations that reflect the principles of free, prior and informed consent.

Recommendation 2025-3-3: LWBs to find ways to further reduce engagement burden, such as targeting notifications to stakeholders and rightsholders to be more 'forward facing' and relevant (e.g., use of key words) and improving the searchability of the ORS for regulatory decisions. We would expect that stakeholders/rightsholders would reduce time spent on searching / navigating LWBs communications and materials.

LWBs' response: The LWBs, MVEIRB, and the GNWT use the Online Review System (ORS) to carry out public reviews of applications submissions required by active Permits and Licences. Further refinement and customization of user notifications and other system improvements would reduce the burden on potentially affected parties; however, additional funding is needed to work towards this goal. Regulatory decisions are available on the LWBs' public registries. The searchability and accessibility of this platform continues to evolve in response to feedback from all participants in the co-management system.

Recommendation 2025-3-4: MVEIRB and LWBs to create opportunities for skills-based capacity building at annual MVRMA resource co-management workshops. For example, building capacity of regulators regarding TK and/or building capacity of IGIOs regarding how to input into the regulatory process (e.g., How to make a compelling presentation at a hearing? How to make a good written submission and presentation in front of a board? How to do questions for an expert witness?). We would expect that practical training sessions would lead to improved skills.

LWBs' response: As of 2024, the LWBs began participating as a technical host at the Annual GeoScience Forum on the topic of engagement. This included an education-component, an interactive information sharing and gathering activity, followed by a panel answering questions related to challenges and ideas. This is something the LWBs intend to continue in 2025 with a different focus. The LWBs have also begun secondments of staff to IGs to provide additional capacity, are supporting the joint LWB/MVEIRB Outreach Team and its strategy, and are beginning to explore additional topics that participants in the co-management system would like to learn more about (e.g., walking through a Land Use Permit Application process, how to make an effective public hearing presentation, and how to prepare and submit effective recommendations to the Boards).

MVEIRB's response: The MVEIRB supports the use of the MVRMA resource co-management workshops as a venue for informing and instructing participants, including Boards, Governments, IGIOs and the public, on how they can best participate in EIA and Regulatory processes. Skills development is an ongoing focus for the MVEIRB, and our newly established engagement, outreach and partnership team, including region specific community liaisons, will help determine specific knowledge gaps that can help guide skill development initiatives going forward. MVIERB also supports the development of NWT Board Forum training

courses that not only supports capacity of Board members and staff, but are also available to IGIOs, Federal and Territorial government staff and the general public.

3.3 LAND USE PLANS

What We Examined

The Audit Team sought to determine whether there is a clear process to track land use planning, whether there is clear progress for establishing LUPs, and whether impacted parties are satisfied with how resource development planning is being done in areas without them. The Audit focused on the following lines of inquiry:

- *Is there a clear process to track progress of land use planning?*
- *Is there clear progress for establishing LUPs in areas without LUPs? If not, what are the barriers?*
- *Are impacted parties satisfied with how resource development planning is being done in those areas without LUPs?*

The 2020 Audit identified that:

- Existing LUPs had not been consistently reviewed and updated every five years.
- LUPs had not been developed and/or finalized in areas without land claims and timelines had not been established, published or monitored. Nonetheless, some encouraging progress had been made to advance land use planning in those regions.
- Additional implementation training was warranted.

Why It Is Important

LUPs are a key component of the resource management system in the NWT.

> "Land use plans define where certain activities can take place and determine the effect of human impacts on the landscape. They are also used to assign special areas of spiritual, ecological, or cultural importance for protection, and areas designated for development. In addition, land use plans are used to establish regional zones and broad criteria to help evaluate and screen project proposals as part of regulatory permitting processes." (GNWT, 2024d)

Land use planning in the Mackenzie Valley has occurred on a regional basis according to settlement region boundaries.

What We Found

The table below summaries Audit findings related to LUPs.

TABLE 3-4: AUDIT FINDINGS RELATED TO LUPS

Lines of Inquiry	High-level Findings
Is there a clear process to track progress of land use planning?	Progress on existing LUPs is sometimes shared; however, the process is still unclear, awareness of the process is low among the public across the NWT, and barriers to progressing and tracking progress remain.
Is there clear progress for establishing LUPs in areas without LUPs? If not, what are the barriers?	A path forward has been identified for the Dehcho Planning Region; however, there have been delays and no clear progress in other regions without a LUP due to several barriers.
Are impacted parties satisfied with how resource development planning is being done in those areas without LUPs?	Parties are mostly unaware of or not satisfied with how resource development planning is being done in areas without a LUP.

3.3.1 PROGRESS ON EXISTING LUPS IS SOMETIMES SHARED; HOWEVER, THE PROCESS IS STILL UNCLEAR, AWARENESS OF THE PROCESS IS LOW AMONG THE PUBLIC ACROSS THE NWT, AND BARRIERS TO PROGRESSING AND TRACKING PROGRESS REMAIN

Updates to Existing LUPs

LUPs exist in the Gwich'in (2003), Sahtú (2013) and Tłı̨chǫ settlement regions (for Tłı̨chǫ lands) (2013) and are meant to be updated every five years. The respective Land Use Planning Board is responsible for updating the Regional LUPs. In the 2020 Audit, it was highlighted that existing LUPs are not consistently reviewed and updated every five years. At the time, only the Sahtú LUP was under review, which was initiated in 2018. Since the last Audit, two out of three existing LUPs have been updated through the 5-year review process, demonstrating that there has been some progress in completing the review process in accordance with the MVRMA.

The Sahtú LUP was updated as of June 7, 2023, with its 5-Year Review Amendments. The plan was approved by the Sahtú Land Use Planning Board (SLUPB) in May 2021, the Sahtú Secretariat in July 2021, the GNWT in June 2022, and the GoC in June 2023 (SLUPB, 2024a).

The Tłı̨chǫ Lands LUP was updated on October 12, 2023, with the approval of recommended amendments to the *Tłı̨chǫ Wenek'e Land Use Plan Law* in the 5th Tłı̨chǫ Assembly (NationTalk, 2023). The Tłı̨chǫ Wenek'e is not a LUP under Part 2 of the MVRMA and has a different review and update period compared to the Sahtú and Gwich'in LUPs (Tłı̨chǫ Government, 2013).

No updates have been made to the Gwich'in Settlement Region's Nành' Geenjit Gwitr'it T'igwaa'in (Working for the Land): the Gwich'in LUP, which was approved in 2003 (GNWT, 2024d).

Low Awareness of Land Use Planning

Some land use planning updates are shown on the GNWT "Land use planning in the NWT" page but only a brief status is shown, with little information on the history of developments or the

process to progress forward. In addition, there is no indication of the date last updated (GNWT, 2024d). Brief updates are also posted on the LUPBs' websites on their "News" pages when there are developments, including the dates of the updates (GLUPB, 2023), (SLUPB, 2024b). The GNWT suggested during communications with the Audit Team that it is most appropriate for the individual planning boards to communicate how their plans were developed, as well as the processes for ongoing participation in plan reviews and revision processes.

Despite updates being posted to websites occasionally, land use planning processes are not clear and awareness of land use planning in general is low among the public. In the 2025 Audit public survey, there was least awareness about land use planning processes compared to other components of the resource management system, which is similar to the public survey results from the 2020 Audit. When asked about their participation, of those that were aware, 39% responded "somewhat true" and 29% responded "true" that they had access to information that helped them understand how to participate in land use planning processes. However, 29% of respondents were unaware if they had access to information that helped them understand how to participate, 29% were unaware if they had enough time to give their input, and 32% were unaware if the decisions made at the end of the process considered their input.

A LUPB shared that it has made efforts to improve awareness of what land use planning is and its importance since the last Audit. These efforts include engagement through different mediums to get input from different segments of the population, meet and greet sessions that do not involve any decision-making, and coordinating with the LWB to improve understanding of the difference between the two organizations.

Another barrier identified by this LUPB in an interview is that land use planning sometimes clashes with TK (e.g., all land is considered important) and land use planning can be viewed as a western approach. They expressed that work needs to be done to bridge this gap.

Low Capacity

Organizational questionnaire respondents suggested that it should be made clear to the public where and when updated information on LUP progress can be found. In an interview, a LUPB reflected that there were not many updates to its LUP in the recent review, but the process still took several years, primarily for the GNWT and GoC approvals. In the organizational questionnaire, a LUPB expressed concern that the GNWT and GoC have staff dedicated to thoroughly reviewing every word of a draft LUP, while the IGIO does not have staff dedicated to this and has low capacity. It was the interviewee's view that each one of these government bodies should have the same funding and staffing to participate in land use planning at the same level. Additionally, the LUPB shared that when going through the review process, it does not receive regular updates throughout the GNWT and GoC approval stages, which can take several years.

Low capacity was also identified as a barrier to sharing progress with the public. In an interview, another LUPB shared that it has been a challenge to keep its website updated and ensure that the public has access to information due to low organizational capacity, but that communication should improve once more staff are hired.

The 2020 Audit recommended identifying capacity challenges and implementing a plan to help alleviate them.

> **Recommendation 2020-1-12:** The Land Use Planning Boards work with the GNWT to identify key capacity challenges and develop and implement a plan to help alleviate the identified challenges (e.g., to share administrative components amongst planning boards).

In their original responses, the SLUPB, Gwich'in Land Use Planning Board (GLUPB), and GNWT highlighted that the responsibility for adequately funding LUPBs lies with the GoC and requests had been made to ask for more funding. We acknowledge that this recommendation was misaddressed and is meant for the Land Use Planning Boards and the GoC. In an updated response, the SLUPB indicated that the GoC accepted their business case for increased funding in 2022. The GLUPB also received additional funding, which they view as more appropriate and now on par with the other two boards in the Gwich’in region, although it was noted in an interview that the staff salaries are still low.

Interviews further detailed that the LUPBs completed the implementation funding review process with CIRNAC for an updated 10-year core funding arrangement, within which funds can be carried forward between years. As outlined in Section 3.5, a continued concern is the honoraria rates for board members. The rates are currently viewed as insufficient and preventing the retention of qualified board members. A LUPB also highlighted in an interview that it has been experiencing challenges with high turnover of staff and difficulty recruiting staff, particularly in a highly competitive market. Some of their recent initiatives include using recruitment support, attending a career fair, and developing a teacher’s resource package to help the schools share what is involved in land use planning. The LUPBs staffing situation seems to be improving.

The 2020 Audit recommendation also emphasized that the LUPBs and GNWT share information and work together collaboratively on common issues. Many administrative components of LUPBs are kept separate to reflect regional differences. The SLUPB shared that they have been collaborating with the Sahtú Land and Water Board (SLWB) to share resources in their office space in Fort Good Hope, which has helped to lower costs while collaborating within the region. The GLUPB highlighted that they share some administrative components at a regional level with the GRRB and Gwich'in Land and Water Board (GLWB).

We found that the response to this recommendation is **adequate**, as we recognize the responsibility of the federal government and the limitations of sharing resources across regions. We are pleased to hear that the GoC has increased the core funding for LUPBs and agree that avenues for supporting capacity would more appropriately be addressed through other recommendations.

<u>Unclear Approval Processes and Lack of Ongoing Communication</u>

As previously stated, organizational questionnaire respondents suggested that it should be made clear to the public where updated information on land use planning progress can be found and when. Respondents also expressed concern that there is no clear path to approvals for LUPs. In an interview, a LUPB reflected that there were not many updates to its LUP in the recent review, but

the process still took several years, primarily for the GNWT and GoC approvals. The GNWT noted in an updated comment that "the timing of approvals is impacted by the need to appropriately consider and accommodate, where necessary, any potential impacts to Aboriginal or treaty rights identified by IGs and IOs through the consultation processes." However, the LUPB shared that when going through the review process, it does not receive regular updates throughout the GNWT and GoC approval stages, which alone can take several years.

3.3.2 A PATH FORWARD HAS BEEN IDENTIFIED FOR THE DEHCHO PLANNING REGION; HOWEVER, THERE HAVE BEEN DELAYS AND NO CLEAR PROGRESS IN OTHER REGIONS WITHOUT A LUP DUE TO SEVERAL BARRIERS

Updates in Areas Without a LUP

GNWT-ECC Land Use and Sustainability Division requested to provide written responses rather than an interview due to capacity constraints and the Audit Team acknowledges receiving these written comments. It was noted in multiple interviews that updates on existing negotiations may not be public to respect the wishes of the groups involved, which may limit the awareness of the Audit Team and the public.

In the 2020 Audit and previous Audits, the absence of LUPs in the Dehcho, the southeast NWT, and the broader Wek'èezhìi area of the NWT has been noted as a consistent barrier that is "impeding the successful implementation of an integrated system of land and water management" (Stratos Inc., 2020).

Some progress has been made in the Dehcho Planning Region since the last Audit. A path forward has been shared publicly on the Dehcho Land Use Planning Committee's website, including the expectation to go to Public Review in 2024, followed by a year of plan revisions to address comments and Crown Consultations initiated by Canada and the GNWT in 2025, after which planning partners (Dehcho First Nations, the GNWT and Canada) can begin their approval processes. In the 2020 Audit, it was noted that the second draft of the Interim Dehcho LUP was completed in 2016 and the three planning partners aimed to complete the plan for public review by spring 2020. Although progress has been made, the expectation for public review has been delayed by four years since the 2020 Audit, indicating that some barriers to progress persist in the region. An NGO and IGIOs expressed concern in interviews that the GNWT has rejected previous attempts at a LUP despite being close to approval and believed a path forward is not guaranteed until a LUP is signed.

There are no significant updates for the Wek'èezhìi Management Area, although the GNWT website indicates that it is working collaboratively with the Tłı̨chǫ Government and Canada to examine possible next steps in creating a Wek'èezhìi Area LUP (GNWT, 2024d). In an interview, the Tłı̨chǫ Government indicated that the next step was with the GNWT at the time of the interview in Spring 2024.

Land use planning is currently a subject of land and resources negotiations that are taking place in the southeastern NWT region. The GNWT website indicates that is working with IGIOs to build capacity for land use planning in the area (GNWT, 2024d).

In the 2020 Audit, it was highlighted that the GNWT committed to releasing an annual status report, starting in 2019, that would describe the collective progress on land use planning. The Audit Team acknowledge that this ambition was impacted by COVID-19 and located one annual report developed since that date.

Barriers to Progress in Areas Without a LUP

One of the areas viewed as having the most insufficient progress in the public survey was "completing land use plans" (55% of respondents viewed progress as "insufficient"). This is similar to the 2020 Audit public survey, although the perception of progress made on completing LUPs has decreased slightly.

Within the organizational questionnaire, there were mixed perspectives on if there is clear progress towards LUPs in areas without one, but it is clear that awareness is low (20% of respondents chose "no progress", 37% chose "some progress", and 43% chose "unsure").

Some potential reasons for barriers to progress identified by respondents who chose "no progress" include:

- Not having the right people at the table who know the issues and solutions in the regions (territorial government perspective),
- Lack of political will power (industry and NGO perspective),
- People not agreeing to anything (territorial government perspective),
- Not having a clear path to approval (co-management board perspective),
- Low capacity (federal government perspective),
- LUPs can be misaligned with what is required under various Acts/Regulations, and
- Land claims not being settled as a major barrier (the most common response by all types of organizations).

The GNWT elaborated on the complexity of developing a land use planning process that all parties can agree on. They noted how, prior to the completion of claims, the roles and responsibilities for planning processes and plan approvals are under negotiation and that IGIOs may not be aligned on their preferred planning processes in areas where Aboriginal rights overlap.

To address some of the barriers, the 2020 Audit included a recommendation to adequately fund land use pre-planning/planning activities in regions without settled land claims.

> **Recommendation 2020-1-14:** The GNWT and the GoC work collaboratively to adequately fund land use pre-planning/planning activities in regions without settled land claims; it is incumbent on the GNWT and the GoC to adequately fund this process in these areas.

Both CIRNAC and the GNWT agreed with this recommendation and indicated that they would continue to have conversations together and try to provide an appropriate amount of in-kind and financial support.

The GNWT noted that the GNWT-ECC Land Use and Sustainability Division issues an annual call for proposals to IGIOs to support pre-planning activities in areas without regional LUPs. This funding is intended to help build capacity and prepare for future regional planning. Table 3-5 below outlines the amount of funding approved by the GNWT since 2020-2021.

TABLE 3-5 GNWT SUPPORT FOR PRE-PLANNING ACTIVITIES FOR IGIOS

Fiscal Year	Amount Approved (rounded)	Number of Agreements
2020-21	$270K	7
2021-22	$141K	7
2022-23	$340K	6
2023-24	$79K	2
2024-25	$120K (to mid-March 2025)	3
Total 2021-2025	$950K	3

*Some agreements are with regional IGIOs and support activities by more than one local IGIO.

GNWT clarified their view, in correspondence with the Audit Team, that funding support for regional land use planning processes is the federal government's responsibility.

CIRNAC shared that resources to support land use planning is a priority area of the NRI and could help to advance this recommendation. However, in an interview, it was shared that CIRNAC has not identified any opportunities to apply NRI funding to advance these activities. CIRNAC shared that it had hoped to provide funding to address the Wek'èezhìi and Akaitcho overlap area, but the partners were focusing on other interests. The interviewee also noted that, at a recent Dehcho Planning Committee meeting, Indigenous partners did not raise the issue of resources to conduct land use planning.

In an interview, CIRNAC indicated that there have also been some developments in funding since the last Audit for planning in the Wek'èezhìi Management Area, which is a region with a settled land claim and self-government agreement.

A concern was raised by an IGIO in an interview regarding a lack of funding for community respondents (outside of the LUPBs or committees). This lack of funding significantly limits the participation of small, remote communities in land use planning and prevents the process from meeting their needs.

We found that this recommendation is partially implemented, as some gaps remain and there is limited evidence of the GNWT and GoC collaborating to adequately fund activities in regions without settled land claims.

3.3.3 PARTIES ARE MOSTLY UNAWARE OF OR NOT SATISFIED WITH HOW RESOURCE DEVELOPMENT PLANNING IS BEING DONE IN AREAS WITHOUT A LUP

Within the organizational questionnaire, awareness on how resources development planning is being done in those areas without LUPs is low (52% of questionnaire respondents were unsure of

if they were satisfied). Of those who were aware, half were satisfied and half were not satisfied. Of those who were not satisfied and expressed specific concerns, critical responses were received from different types of organizations (i.e., GNWT, IGIOs, NGOs, and industry).

When asked to provide details about their concerns, organizational questionnaire respondents indicated that there seems to be a lack of planning and accountability from the GNWT, especially on a regional scale, which is viewed as limiting progress and increasing uncertainty.

Industry respondents highlighted that there is no resource development plan for the NWT that they are aware of, and there are no clear goals in the GNWT mandates for improved resource development that they are aware of. They noted that the Arctic and Northern Policy Framework hardly mentions the word mining, and industry cannot determine who should get benefits from projects. The Audit Team acknowledges that a Mineral Development Strategy does exist for the GNWT (GNWT, n.d-g), but is dated and requires renewal given the current and ever evolving context in the territory.

An NGO indicated, within the organizational questionnaire, that there is no context or direction for whether land use permits, water licences or other activities should be allowed or not, which they indicated is not "sustainable development." In an interview, the NGO emphasized the need for land use planning to set a context for whether something is acceptable, as concerns were raised about industry taking actions without this guidance.

An IGIO expressed significant concern in an interview regarding resource development planning in areas without a LUP. They shared that cultural and socio-economic components are not currently being considered as they are supposed to be in accordance with the MVRMA, and that communities have not always been meaningfully engaged, especially when a project falls outside of the EA process (see Section 3.1: Regulatory Scope and Section 3.2: Engagement and Consultation).

Interviewees also identified challenges with the interconnection between land use planning and other areas of priority in the NWT. A GoC interviewee emphasized that the absence of a LUP can inhibit cumulative impact monitoring, as land use planning is another tool for addressing cumulative impact monitoring concerns. A board representative highlighted that analysis exists on environmental impacts (e.g., impacts to caribou) from the results of various initiatives, but these results are not integrated into planning and decision-making processes.

3.3.4 OVERALL OBSERVATIONS AND RECOMMENDATIONS: LUPS

In summary, the Audit Team notes the following important findings that emerged from the evidence around LUPs:

- Some, but not all, existing LUPs have been updated in accordance with the 5-year review requirement.
- Awareness of what land use planning is or what progress is occurring is low among the public. There is also not a clear process to track land use planning progress.

- Limited capacity to participate in and share updates on land use planning remains a barrier for LUPBs and IGIOs. However, LUPBs have received increased funding from the GoC since the last Audit, which shows some progress toward addressing this issue.
- In areas without a LUP, a path forward has been identified for the Dehcho Planning Region but there have been delays and no clear progress in other regions.
- Progress in completing LUPs is viewed as insufficient and various barriers were identified, such as low capacity, lack of appropriate participation, and lack of a clear path forward for decision-making. Unsettled land claims were again identified as a major barrier by multiple parties, as they bring continued uncertainty to planning and risk to resource projects.
- In areas without a LUP, many parties are unaware of how resource development planning is being done. Many of those that were aware were not satisfied, particularly about a lack of cohesive planning for the NWT, which creates uncertainty for industry and concerns about development activities that are being accepted for NGOs and IGIOs.

2025 Audit Recommendations

We recommend the following 2020 recommendations be carried over: **2020-1-14** but recognizing the distinction that GNWT funds pre-planning and GoC fund planning activities.

Recommendation 2025-3-5: GNWT and GOC to explore with Indigenous Governments, and fund if interest from Indigenous Governments, the development and implementation of Indigenous-led development policies, plans or strategies. We would expect that this approach would help ensure that Indigenous Governments' self-determined priorities for social, cultural, and economic well-being and development can be considered by others while other formal mechanisms are under development (e.g., Modern Treaties, LUPs, etc.).

> GNWT's response: The GNWT is already fulfilling the actions being proposed by this recommendation. The GNWT currently offers programs that support the development and implementation of Indigenous-led development policies, plans, and strategies. The GNWT provides funding that supports Indigenous-led conservation and stewardship initiatives, such as guardians programs, management plans and work towards Indigenous and Conserved Protected Areas as described in the Healthy Lands, Healthy People workplan. This funding, alongside other non-GNWT funding sources, such as through the Our Land for the Future Agreement support Indigenous Government's self-determined priorities.
>
> Indigenous governments can access funding through the Industry, Tourism and Investment (ITI) Support for Entrepreneurs and Economic Development (SEED) Policy under the Community Economic Development Program. This program provides funding to support Indigenous and community governments in developing their economies, advancing regional economic development initiatives, and/or investing in events promoting economic opportunities, including feasibility studies, strategic plans, evaluations and planning costs that investigate economic opportunities and build on existing community resources.
>
> Regional Economic Development Plans (REDPs), developed as a mandate item during the 19th Legislative Assembly, were completed in 2023. These plans are designed as evergreen strategic frameworks, REDPs support regional growth

across sectors such as agriculture, fisheries, and manufacturing. They also will help inform the development of a broader NWT Economic Vision.

In areas where there is no established regional land use planning process the GNWT puts out an annual call for proposals to support pre-planning activities. This provides an opportunity for Indigenous governments and Indigenous organizations to access limited funding to support capacity building and other activities that will help them prepare for future regional land use planning. (See GNWT's response to recommendation 2020-1-14.)

Community governments are responsible for community planning within their municipal boundary. These plans manage land use and through zoning bylaws manage development more specifically. These plans are to be completed every eight years. MACA supports community governments through the development of request for proposals in acquiring a consultant to complete the community plan. MACA is responsible to complete section 35 consultation on the plans before they are approved by the Minister.

The Minister of ITI has a mandate to develop an Economic Vision and Investment Strategy for the NWT. This process will involve engagement with Indigenous governments, residents, sectors, and communities. This work is a mandate commitment of the 20th Legislative Assembly. From 2016 to 2020, the GNWT supported Indigenous Governments and Indigenous Organizations in developing Regional Mineral Development Strategies (RMDS). All regions were engaged, and two RMDS documents were released:

- Gwich'in Regional Mineral Development Strategy (2020)
- Inuvialuit Regional Mineral Development Strategy (2020)

CIRNAC's response: The Government of Canada agrees with the importance of Indigenous-led development policies, plans and strategies, and commits to discussing priorities with the GNWT and Indigenous Governments and identifying avenues to advance this recommendation, recognizing current funding limitations.

Recommendation 2025-3-6: GNWT and GoC to provide regular updates on progress of the review process of LUPs. We would expect that LUPB's would be kept up to date on the status of LUP reviews.

GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in this recommendation prior to the next Audit. The GNWT is committed to maintaining ongoing and open communication with planning boards during the review of regional land use plans and land use plan amendments.

The GNWT commits to: Providing regular email updates on the status of the review of regional land use plans or land use plan amendments to the respective Land Use Planning Board.

CIRNAC's response: The Government of Canada contributes to the reviews of Land Use Plans led by the Land Use Planning Boards. The Government of Canada has and will continue to fulfill that role and we continue open and regular

communication with the Land Use Planning Boards and other planning partners on these tasks.

3.4 COMPREHENSIVE LAND CLAIM AGREEMENTS

What We Examined

The Audit Team sought to determine whether there is a clear process to track land, resource, and self-government negotiations. The Audit focused on the following line of inquiry:

- *Is there a clear process to track progress of land, resource, and self-government negotiations? If not, what are the barriers and potential solutions?*

The 2020 Audit identified that:

- Some progress had been made, but negotiations in the Dehcho on land and resources had been put on hold,
- There were new approaches to developing resource management regimes in the southeastern NWT, and
- Insufficient resources may have been an ongoing concern.

Why it is Important

Comprehensive Land Claim Agreements (CLCAs)[also known as Modern Treaties] outline the rights and ownership of lands and resources and establish processes and considerations for decision-making on activities that could impact lands and resources. CLCAs help provide certainty, strengthen predictability, and support Indigenous capacity and self-determination. In regions without settled land claims, the MVRMA still applies and the MVEIRB and MVLWB have jurisdiction. However, without CLCAs in place, the integrated system of land and water management is more challenging to implement (e.g., co-management boards, LUPs). Self-government agreements provide Indigenous Governments with decision-making power to deliver programs and services to their communities in a self-determined manner. “Concluding and implementing land, resources and self-government agreements meets the interests of all residents of the NWT” (GNWT, 2025). The absence of settled land claims has been consistently highlighted as a barrier.

What We Found

The table below summaries Audit findings related to CLCAs.

TABLE 3-6: AUDIT FINDINGS RELATED TO CLCAS

Line of Inquiry	High-level Findings
Is there a clear process to track progress of land, resource, and self-government negotiations? If not, what are the barriers and potential solutions?	There is not a clear process to track progress on unsettled land claims and most parties view progress as insufficient.

3.4.1 THERE IS NOT A CLEAR PROCESS TO TRACK PROGRESS ON UNSETTLED LAND CLAIMS AND MOST PARTIES VIEW PROGRESS AS INSUFFICIENT

Updates on Unsettled Land Claims

Three CLCAs (i.e., the Inuvialuit Final Agreement, Gwich'in CLCA, and Sahtú Dene and Métis CLCA), one Self-Government Agreement (i.e., Deline Final Self-Government Agreement) and one combined land claim and Self-Government Agreement have been completed in the NWT (i.e., the Tłı̨chǫ Land Claims and Self-Government Agreement with the four "Dogrib Treaty 11" communities).

There are four combined land, resource and self-government agreements still under negotiation in the NWT (i.e., with the Acho Dene Koe First Nation, Akaitcho Dene First Nations, Dehcho First Nations, and Northwest Territory Métis Nation). There has been limited progress on reaching settlements for these negotiations since the last Audit, although some updates were found, as listed below.

- Acho Dene Koe First Nation: An update on the GNWT website regarding negotiations with the Acho Dene Koe First Nation indicates the following: "In February 2021, the Acho Dene Koe First Nation formally notified Government of its interest to move away from the phased approach and negotiate all subject matters within a comprehensive lands, resource, and self-government agreement, and to pursue a public/inclusive partnership Indigenous Government, which would represent all residents of Fort Liard and all Acho Dene Koe First Nation Band members. Negotiations are proceeding" (GNWT, 2025).
- Akaitcho Dene First Nations: CIRNAC indicated that the draft Agreement-in-Principle remains in draft, and negotiations continue to be underway.
- Dehcho First Nations: The GoC website indicates that the parties are currently in the process of negotiating an Agreement-In-Principle (CIRNAC, 2024). A news article indicated that the Dehcho First Nations resumed land claims negotiations with Canada and the GNWT in 2023 after an eight-year stall (Pilkington, 2023).
- Northwest Territory Métis Nation: An update on the GNWT website indicates the following: "The parties have completed an Agreement-in-Principle on Land and Resources and a framework agreement for self-government. The next step in the negotiation process is to complete negotiations for the Land, Resources and Self-Government Final Agreement" (GNWT, 2025).

There are also two comprehensive land claim agreements being negotiated with transboundary groups (i.e., with Ghotelnene K'odtineh Dene and Athabasca Dënesuliné), one transboundary agreement begin negotiated with a Yukon First Nation (i.e., with the First Nation of Nacho Nyak Dun) and five solely self-government agreements under negotiation (i.e., with the Gwich'in, Inuvialuit, Sahtú Dene and Métis of Colville Lake, Sahtú Dene and Métis of Fort Good Hope, and Sahtú Dene and Métis of Norman Wells) (GNWT, 2025).

Tracking Progress on Unsettled Land Claims

Within the public survey, respondents were asked to evaluate their perception of progress on five resource management focus areas: completing unsettled land claims, completing LUPs, increasing funding for IGIOs and others to participate in land and resource management activities, considering things like community wellness when making decisions about land and resource management or development, and improving communication on Government-Indigenous consultation. The area viewed as having the most insufficient progress was 'completing unsettled land claims' (73% of respondents viewed progress as "insufficient"). This finding is similar to the 2020 Audit, although the perception of progress made on completing unsettled land claims and LUPs has decreased slightly.

Some information on the status of negotiations is available on the GNWT "Current negotiations" webpage but few details are provided (GNWT, 2025). The GoC's "Negotiations in progress" webpage includes who the negotiating parties are, a list of key milestones for each negotiation, and a recommendation to reach out to the relevant IGIO directly for more information. Updates may be occasionally shared by other negotiating parties through their respective platforms or through news articles. We found that there is not a consistent place to find up to date information on negotiations.

The process to track progress on land, resource, and self-government negotiations was viewed as unclear within the organizational questionnaire (39% of respondents said that the process is unclear and 42% were unsure). Respondents do not feel that information on the matter is being shared or they do not know where to find it. Respondents suggest that there should be clear, concise, recurrent public reporting from parties involved, including information on who is at the table, history, goals, progress, next steps, timelines, accountabilities, etc.

A federal government representative noted in an interview that updates are posted when there are key milestones but otherwise details are not shared to respect parties throughout the negotiation process. Therefore, the information available to the public and to the Auditor is limited.

Impacts of Unsettled Land Claims

In areas without a land claim agreement, 3% of organizational questionnaire respondents were "very satisfied" with how environmental and social impacts are regulated, 40% were "satisfied", 23% were "not satisfied", and 33% were "unsure."

Several organizational questionnaire respondents who were not satisfied provided comments on challenges faced in areas without land claim agreements. Negative impacts identified for IGIOs include a lack of capacity to participate in regulatory processes, lack of clear linkages between communities and processes outline in the MVRMA, lack of ability to make decisions on their land and resources, less benefits from development, less participation in co-management, inconsistency with some affected communities having agreements and some not having them, and Indigenous partners in these areas tend to raise more concerns about trust/confidence in the regime. A GNWT respondent shared that it is difficult to work in areas without a land claim agreement because activities can be influenced by political factors from their perspective. Industry respondents indicated that lack of progress on land claims results in missed opportunities for the

region, as uncertainty and risk are high, projects are put on hold, and investment dollars move elsewhere. Further, when land use planning roles and processes are not clarified in a land claim agreement, it can be more challenging to get agreement amongst all planning partners on the roles and processes, particularly where multiple Indigenous Governments are negotiating agreements.

In interviews, IGIOs cited lack of meaningful engagement and representation in regulatory processes. It was noted by the LWBs that organizations and individuals without land claims do not have the funding and therefore the readiness to participate. A GoC representative shared that managing consultation fatigue is also more challenging in areas without a settled land claim because they need to reach out to individual communities, where there is not a formal structure in place like there is in areas with settled CLCAs (i.e., boards coordinating at a regional level).

According to the LWBs at the MVOD held in May 2024, they are engaging on the possibility of an interactive online engagement mapping tool that would be available on the LWBs' websites and may include contact information for community representatives. The intent of this mapping tool is to support industry and other interested parties to engage with communities.

3.4.2 OVERALL OBSERVATIONS AND RECOMMENDATIONS: COMPREHENSIVE LAND CLAIM AGREEMENTS

In summary, the Audit Team notes the following important findings that emerged from the evidence around CLCAs:

- There has been limited progress in settling land claims since the last Audit.
- Most parties view progress on land claims as insufficient and causing significant barriers across various aspects of the regulatory regime.
- Limited information about land claims under negotiation is publicly available and the manner to access information is not consistent. It is difficult for the public to determine whether any progress has been made.

2025 Audit Recommendations

Recommendation 2025-3-7: GNWT and GoC to coordinate on establishing a consistent online information source (e.g., webpage) that provides annual updates on the status of land claim negotiations, including related expenditures for the year. The status could follow a set categorization, e.g., "Active", "Inactive". We would expect that this reporting would better enable a public evaluation of progress.

> GNWT's response: The GNWT disagrees with this recommendation. The identified barrier in this section is the absence of settled land claims: "*The absence of settled land claims has been consistently highlighted as a barrier*" (page 119). The GNWT and the GoC already maintain public facing websites about the status of negotiations. There is no content in this report upon which to conclude that updates to either of those websites are connected to or a barrier to the progress or outcomes of negotiations. Generally, negotiations are confidential and without prejudice to the parties. The GNWT cannot determine what GoC publishes, nor can it commit GoC to fulfil this recommendation, which would be required for GNWT to

do so. What is publicly available on the GNWT website is information about the stage of negotiations and updated results in so far as when public-facing milestones are reached.

CIRNAC's response: The Government of Canada acknowledges a public, coordinated and consistent information source that provides annual updates could be useful, however information on land claim negotiations is sensitive and confidential. The Government of Canada is willing to work with GNWT to discuss if and how best to meet the intention of this recommendation.

3.5 ADEQUACY OF RESOURCES

What We Examined

The Audit Team sought to determine whether boards are sufficiently funded to meet their legal mandate, whether board appointments allow quorum to be maintained, and whether IGIOs and other respondents have access to sufficient funding, aligned with the scope and scale of regulatory decision-making. The Audit focused on the following lines of inquiry:

- *Are boards appropriately staffed and funded to meet their legal mandate?*
- *Are boards able to reach quorum when required? If not, what are the barriers to achieving and maintaining quorum?*
- *Do boards have adequate access to the information needed for consideration during decision-making? If not, what are the barriers?*
- *Are the relevant working units of the federal and territorial governments appropriately staffed and funded to be able to provide the needed information to boards?*
- *Do Indigenous Governments and Indigenous Organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?*
- *Do non-government organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?*
- *Do community members and the general public have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?*

The 2020 Audit identified that:

- Core funding allocations had improved, but some boards were still having funding issues.
- Board vacancies continued to persist, with some process improvements made by CIRNAC.
- There had been significant progress on participant funding for EAs but gaps remained for other regulatory processes.
- The Interim Resource Management Assistance (IRMA) continued to provide much needed capacity support, but additional improvements were warranted.

Why it is Important

One of the principles governing land claims and underpinning the MVRMA is that of co-management of resources between governments and Indigenous groups. Adequacy of board funding, the ability of boards to reach quorum, and adequacy of funding for Rights holders and stakeholders to participate are fundamental requirements for a functioning co-management regime.

What We Found

The table below outlines the lines of inquiry and high-level findings related to adequacy of resources.

TABLE 3-7: FINDINGS RELATED TO ADEQUACY OF RESOURCES

Lines of Inquiry	High-level Findings
Are boards appropriately staffed and funded to meet their legal mandate?	Funding has improved but is still insufficient to fully cover the boards' mandates, and recruitment and retention is an ongoing issue for some boards.
Are boards able to reach quorum when required? If not, what are the barriers to achieving and maintaining quorum?	Boards are generally able to reach quorum when required but there are ongoing struggles.
Do boards have adequate access to the information needed for consideration during decision-making? If not, what are the barriers?	The adequacy of access to information used for board decision-making depends on the organization providing the information and the board's capacity and ability to use it.
Are the relevant working units of the federal and territorial governments appropriately staffed and funded to be able to provide the needed information to boards?	Generally, relevant working units of the federal and territorial governments are appropriately staffed and funded to be able to provide the needed information to boards.
Do Indigenous Governments and Indigenous Organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?	IGIOs do not have access to funding aligned with the scope and scale of regulatory decision-making. Barriers include funding gaps and insufficient capacity to respond to the number of requests for input.
Do non-government organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?	Non-government organizations do not have access to funding aligned with the scope and scale of regulatory decision-making. Barriers include funding gaps.
Do community members and the general public have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?	Community members and the public have access to funding, but it is not aligned with the scope and scale of regulatory decision-making. Barriers include funding gaps.

3.5.1 FUNDING HAS IMPROVED BUT IS STILL INSUFFICIENT TO FULLY COVER THE BOARDS' MANDATES, AND RECRUITMENT AND RETENTION IS AN ONGOING ISSUE FOR SOME BOARDS

CIRNAC provides core funding to boards as well as additional contingency/supplemental funds (e.g., for hearings and other periodic activities) and annual training funds. The 2020 Audit findings showed that while core funding was sufficient in most cases, more secure funding would be helpful (Stratos Inc., 2020). Some refinements of the funding arrangements between CIRNAC and the boards to resolve remaining issues were expected to take place since the 2020 Audit.

In 2024, boards generally expressed that core funding is sufficient for the status quo, with several acknowledging an increase in core funding. Some board interviewees noted that funding is still not fully sufficient to enable them to meet all the requirements of their mandates and the necessary activities to fulfill them.

> "Resources are sufficient to make decisions but insufficient to report back and meet all requirements under the land claim." (LWB interviewee)

Generally, boards expressed a disconnect between available funding (e.g., required regulatory and engagement activities) and the needs and priorities of communities, such as the need for additional work related to climate change, outreach, TK, harvesting surveys, etc.

All the boards interviewed for the Audit noted the inability to fill current vacancies, mostly due to the difficulty in attracting and retaining adequate staff with the needed qualifications. For example, one board shared that they are not able to attract and hire a biologist to be based in their region due to housing costs/availability and social barriers (e.g., harassment and discrimination).

Interviewees reflected that staffing shortages often results in existing staff working over capacity to fill the gaps leading to added pressure and some burnout. Consequently, employee retention was also cited as an issue with a few boards reporting a high turnover rate.

We heard concern from a federal government representative that LWBs are overloaded.

3.5.2 BOARDS ARE GENERALLY ABLE TO REACH QUORUM WHEN REQUIRED BUT THERE ARE ONGOING STRUGGLES

The 2020 Audit found that CIRNAC has made some improvements to the board appointment process, but more improvements were required to achieve a more efficient and effective process to ensure board nominations are made and approved in a timely manner.

Generally, boards reported in interviews that they are able to reach quorum. Only one board reported not being able to reach quorum for the past 18+ months. Several boards reported that board positions will expire soon and expressed concern that they will not be able to reach quorum.

Two critical issues conveyed during our interviews in relation to board members and their ability to reach quorum were:

<u>Delays in Appointment and Approval Processes</u>

Several boards cited delays in board member appointment processes by the nominating bodies, and the slow approval process at the federal level (e.g., Minister approval of board members) as ongoing challenges. Several boards noted approvals being held up for several months at the federal level and a general lack of transparency throughout this process. CIRNAC agrees that there are certain delays in the approval process either due to nomination delays from parties, approval delays from the Minister, or delays in the security clearance process. Since the last Audit, CIRNAC made some changes to make the security clearance process easier (such as replacing fingerprinting with an online Criminal Record Name Check).

Lack of Adequate Board Remuneration (honoraria)

Most boards shared that the lack of adequate compensation is an obstacle to attracting and retaining board members. The existing remuneration is $225-$400 per day for board members and $325-$550 for Chairs. Interviewees expressed concern that the honoraria do not properly compensate board members for their time and effort. Insufficient remuneration, in addition to competition with other organizations, makes attracting and retaining board members a key challenge, especially for members who hold other full-time positions with higher compensation. The low remuneration results in a high number of board members who are retired. If compensation was greater to substitute working days, more diverse people may apply for board positions. In our interview, CIRNAC agreed that compensation is low and that an independent review of remuneration rates was completed in January 2024. *CIRNAC has reviewed the independent report in Spring 2024 and is currently working on next steps.*

Other challenges to board member appointments that were cited less frequently include:

- Challenges in appointing a Chair due to lack of availability.
- Bias and conflicts of interest on some boards, i.e., unclear vetting process for board appointments that sometimes is politicized, and selection of board members with conflicting project-related businesses.

3.5.3 THE ADEQUACY OF ACCESS TO INFORMATION USED FOR BOARD DECISION-MAKING DEPENDS ON THE ORGANIZATION PROVIDING THE INFORMATION AND THE BOARD'S CAPACITY AND ABILITY TO USE IT

Boards generally have access to information, namely technical information, but the adequacy level is dependent on its format, readiness, and the board's own capacity and ability to interpret and utilize it. Two RRBs shared that sometimes they encounter challenges in getting access to certain data from the territorial and/or federal governments even though it is supposed to be information for public use. In other cases, boards can solicit technical data from independent contractors, which enhances board decision-making.

One RRB reported that GNWT has been open to giving them raw data and noted that GNWT's interpretation of the data has been sufficient. They also mentioned that GNWT researchers present at co-management meetings. The same RRB noted that, ideally, they would like to independently research their conservation concerns but are not eligible for funding if the GNWT is already conducting related research.

Boards that are fully staffed with the proper expertise expressed the ability to process and analyze data for their use; however, smaller boards or those with vacancies expressed limited capacity. For example, one RRB did not have the expertise required to interpret species at risk data to enable decision-making due to the shortage of a biologist and inability to hire/attract staff, as described in the example in Section 3.5.1.

Boards highlighted that access to information/data pertaining to Indigenous Knowledge and TK, cultural information, and socio-economic information is more complicated. Factors contributing to this challenge are related to file/information format, proprietary issues, and a community's limited capacity to participate and engage. In certain cases, community members in regions without a land claim are challenged to participate due to the lack of participant funding.

3.5.4 THERE ARE SOME CONCERNS THAT RELEVANT WORKING UNITS OF THE FEDERAL AND TERRITORIAL GOVERNMENTS ARE NOT APPROPRIATELY STAFFED AND FUNDED TO BE ABLE TO PROVIDE THE NEEDED INFORMATION TO BOARDS

During the interview for this Audit, representatives from CIRNAC did not express concern regarding their capacity to provide needed information to boards since technical information provided to regulatory proceedings mostly comes from other federal regulators, such as DFO and NRCan. CIRNAC stated that they can provide procedural knowledge and funding for inspectors whenever needed.

An engaged non-government organization perceived that some government departments do not have the required capacity to participate in the co-management system and gave an example of DFO having been subpoenaed by some boards to get information[19]. Industry representatives perceive that the federal government (particularly DFO, ECCC, and Parks Canada) regularly experience staff turnover leading to a loss of knowledge and continuity. They noted difficulty with accessing decision-makers and getting required answers.

> "The number one thing the federal departments can do to speed permitting is to "get a grip" on its own departments and processes." (Industry interviewee)

A LWB provided an example of a letter sent to ECCC requiring it to provide additional toxicity data and opinion because ECCC has previously expressed that it could not provide the required information (Wek'èezhìı Land and Water Board, 2023).

DFO noted during an interview that the length of the EA process can hinder consistent participation of team members. DFO also described the challenge of addressing thousands of information requests from organizations and the public without an efficient information management system to help them sequence and prioritize requests (e.g., from IGIOs). ECCC shared, during an interview, that internal capacity issues can limit their ability to comment on all licensing and permitting files sent from the LWBs. They shared that a lack of comment does not necessarily mean that they are in agreement with licencing and permitting decisions, it could mean they simply did not have the capacity to address the file. They suggested LWBs indicate

[19] The Audit Team was not able to verify this occurrence.

when ECCCs comment is necessary versus desired, such that ECCC could prioritize how to use their limited capacity.

One board expressed that federal and territorial government staff require more onboarding and training to better understand co-management boards, their roles, and authority and develop more familiarity with land claim agreements and relevant laws.

3.5.5 IGIOS DO NOT HAVE ACCESS TO FUNDING ALIGNED WITH THE SCOPE AND SCALE[20] OF REGULATORY DECISION-MAKING

The 2020 Audit identified progress in funding, namely the NPFP[21], but identified gaps in available funding to Indigenous groups and communities. The 2020 Audit put forward two related recommendations.

> **Recommendation 2020-1-16:** The LWBs seek to develop a participant funding program, funded by the federal and Territorial Governments, to support regulatory decisions within its jurisdiction. The funding would provide capacity support to Indigenous parties requiring assistance to participate in the regulatory process, as well as technical support. In the interim, and until such time as a capacity funding program can be developed, we encourage the GNWT provide staff services (in-kind support) to provide technical advice and information to interested Indigenous parties in order to allow Indigenous parties to understand the project impacts and potential mitigations for development of recommendations to the LWBs.

In 2021, the LWBs sent a letter to the Minister of CIRNAC requesting that the NPFP be expanded to include the LWBs' regulatory processes such as water licence proceedings. CIRNAC renewed the Program for an additional 5 years in 2023 and expanded it to include funding for dedicated non-project specific Indigenous impact assessment capacity building initiatives and limited funding for large regulatory processes (e.g., water licensing).[22] In an interview, CIRNAC clarified that the expanded Program added a dedicated amount for panel processes, a dedicated amount for capacity building (non-project specific for preparations to participate in processes), and a non-allocated amount for regulatory processes such as water licensing (limited amount and shared between Nunavut and the NWT). It shared that it is already dedicating resources to collect evidence for the next Program renewal process in 2027/28 and document needs for further funding. In an updated comment, CIRNAC shared that pilot funding through the expanded NPFP is now available for major regulatory processes within the jurisdiction of the LWBs, and two water licensing proceedings have been funded to date, with the first instance beginning in August 2024.

[20] Scope and scale refers to the range of an organization's mandate and jurisdiction within the NWT regulatory regimes.
[21] CIRNAC established the NPFP in 2019 to assist people in meaningfully participating and having their voices heard in impact assessments of major infrastructure and resource extraction projects, as well as associated regulatory processes that are likely to affect, positively or negatively, their land, lives or livelihoods. Indigenous Governments, non-governmental organizations, individuals and, in some cases, local governments can submit funding applications.
[22] Funding for one or two water licencing processes for large or complex projects following environmental assessment or where a Type A licence is required when there is no environmental assessment across both the NWT and Nunavut.

The 2020 Audit also identified that GNWT's IRMA[23] funding was diluted to apply to all land and resource capacity issues in unsettled land claim areas and a gap remained for permitting and licensing processes in the NWT. A recommendation from the 2020 NWT Audit was put forward to address this gap (GNWT, 2024f).

> **Recommendation 2020-1-17:** The GNWT introduce a multi-year funding envelope for a portion of the IRMA funds; this is a leading practice for grant and contribution funding programs. We also recommend that the GNWT increase the IRMA funding envelope by an incremental amount commensurate with an appropriate index, such as cost-of-living differential or inflation, in order to continue to support Indigenous organizations at a similar level year-over-year. We further recommend GNWT help facilitate coordination opportunities between applicants where appropriate, since only the GNWT as the fund manager can identify similar project proposals that may benefit from cooperation.

In GNWT's updated response to the 2020 Audit recommendation, they shared that they are working with the GoC to increase the budget for the IRMA Program and improve it by conducting a complete review and updating the IRMA Program Guidelines. Moreover, GNWT recognized the importance of working closely and collaboratively with Indigenous Governments and noted that it was looking at additional funding from IRMA to help IGIOs participate in regulatory processes. They have considered multi-year base funding for eligible IGIOs.

In a follow-up interview, a GNWT representative shared that the review of IRMA guidelines has not been advanced, but they had updated the application forms to be more user-friendly and are working on making the forms available in Indigenous languages. GNWT agrees that additional funding from IRMA to allow Indigenous participation in the regulatory process will help, especially since it would benefit work on the clean energy and critical minerals action plan. They noted that the majority of IRMA funding comes from the federal government. The GNWT representative expressed support for federal participant funding to be expanded beyond EA (closure planning, etc.).

Recent engagements through the public survey, organizational questionnaire, and interviews suggest that funding available for IGIOs, particularly those without settled land claims, is insufficient. Respondents generally agree that funding for IGIOs is not sufficient to completely cover the scope and scale of their work.

Organizational questionnaire respondents were asked whether there is sufficient funding for IGIOs. As shown in the following figure (Figure 3-11), only 12% of respondents indicated there is sufficient funding for IGIOs, while 44% indicated funding is not sufficient and 44% were not sure.

[23] The IRMA Program is intended to strengthen the ability of Indigenous Governments and Indigenous Organizations without land and resource agreements in the Northwest Territories (NWT) to participate in management activities affecting surrounding land use areas. Indigenous Governments and Indigenous Organizations eligible to access IRMA funding include NWT Bands, Local First Nations, and Métis Locals; and NWT Regional/Tribal/Territorial organizations, Bands, Local First Nations, or Locals may direct their Base Funding allocations to a regional Indigenous organization, which has been formally mandated to represent them.

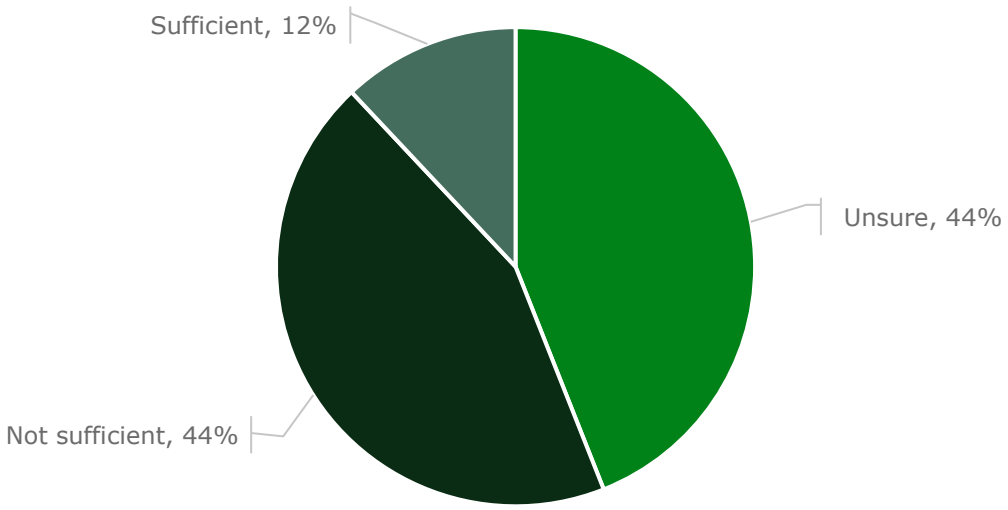


FIGURE 3-11: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE SUFFICIENCY OF FUNDING FOR INDIGENOUS GOVERNMENTS AND INDIGENOUS ORGANIZATIONS

A representative from the federal government agreed that funding is limited and is not available for regulatory processes, such as preliminary screenings or water licence / land use permit applications. Some representatives from the GNWT stated that there is little funding for participating in many of the processes guiding land and resource development (RRBs, land and water boards, etc.) and that funding should be expanded. Some reiterated that IGIOs in areas without settled land claims require stable, ongoing funding and capacity to be able to meaningfully participate in regulatory and planning processes.

In terms of barriers to access existing funding, interviewees mentioned that lack of awareness and understanding of how to obtain financial assistance, and the inability of some Indigenous groups to retain experts/staff to review the applications, which could be perceived as too technical, as common barriers. This input is reflected in the findings of the public survey that showed that while 35% of respondents perceived that sufficient progress was made to increase funding to participate in land and resource management activities, 35% perceived the progress as insufficient and 30% were not aware. When asked to comment on areas of improvement to support environmental protection in the NWT, respondents mentioned increased funding for IGIOs to participate in processes as an area for improvement.

The GNWT provides in-kind support to interested Indigenous parties. We heard from some IGIOs during the interviews that there is lack of transparency on how much money they can access and that constant negotiation with GNWT is required to get IRMA funds. Some IGIOs shared that NPFP is helpful, but the amount of money they get is not enough to cover the work that they need to do. Others noted that NPFP funding does not cover funding required for other regulatory processes.

IGIOs also noted that gaps in funding related to TK/land use studies are especially prominent. Some Indigenous groups, such as Gwich'in Tribal Council, use TK as an integral pillar of their decision-making, while other boards (such as LWBs) and councils are more tied to the regulatory process and permitting requirements that do not necessarily prioritize TK integration. We heard that there is a need for more funding to ensure TK and cultural heritage considerations are being integrated into decision-making.

One IGIO also highlighted that the regulatory system has failed to address cultural well-being and social-economic conditions in areas with no settled land claim or self-government agreement. They also noted that funding and resources should enable the capacity to investigate issues of cultural significance and to understand the social-economic landscape.

We found that the 2020-1-16 recommendation (participant funding program) has been **partially implemented**, as the NPFP was expanded during its renewal, but gaps remain in covering regulatory processes that fall under the jurisdiction of LWBs. This ongoing gap was identified by questionnaire and interview respondents across sectors.

We found that the 2020-1-17 recommendation is **outstanding**. GNWT is working on acquiring additional funding and has prioritized updating the IRMA Program to increase funding and improve outcomes for respondents, but these changes have not been implemented at the time of this Audit.

The development and use of secondment programs hold promise in the NWT. GNWT has a secondment program called "Building Capacity with Indigenous Governments" under which GNWT employees can be seconded to a position within Indigenous Governments and employees of Indigenous Governments can be seconded to a position within the GNWT. The Audit Team is aware of its current use by an IGIO to enhance capacity. In addition, the LWBs have initiated a secondment program, introduced under Section 3.1.2. The LWBs received seven applications, six of which were from groups in the Dehcho and Akaitcho regions. LWBs prioritized applications based on CIRNAC funding requirements and have had conversations with two groups to identify the best ways to work together to improve IGIO regulatory capacity. As of March 2025, the LWBs had not finalized plans with any group. In addition, the LWBs interviewed most of the other groups to better understand capacity challenges, which LWBs noted uncovered "a lot of areas where the LWBs can improve / change our processes to reduce the amount of time and effort IGIOs need to participate" (LWB respondent, March 2025). LWBs also recognize that the program has established more direct relationships with IGIOs. The 2030 Audit would be well placed to review the progress and outcomes of these programs.

3.5.6 NON-GOVERNMENT ORGANIZATIONS DO NOT HAVE ACCESS TO FUNDING ALIGNED WITH THE SCOPE AND SCALE OF REGULATORY DECISION-MAKING

Interviews and questionnaire respondents indicated that NGOs do not have access to proper funding to enable them to participate in regulatory decision-making, though they may have the relevant experience and/or the ability to appoint the required expertise to participate in regulatory processes. As shown in the following figure (Figure 3-12), only 3% of questionnaire respondents

indicated that funding for non-government organizations is more than sufficient, 13% of respondents indicated funding is sufficient, while 36% indicated it is not and 48% were not sure.

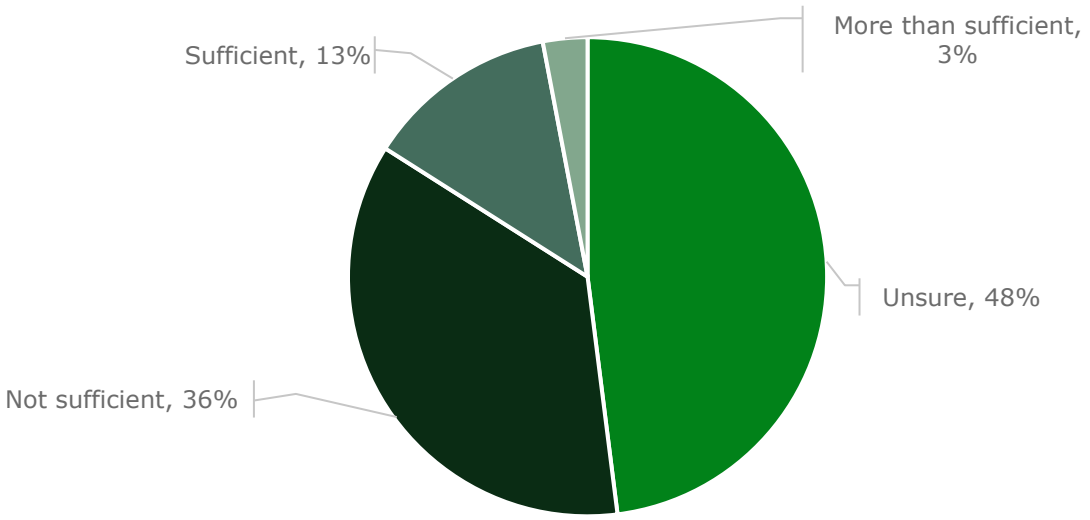


FIGURE 3-12: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE SUFFICIENCY OF FUNDING FOR NON-GOVERNMENT ORGANIZATIONS

One respondent expressed that NGOs are usually ineligible for GNWT-ECC funding to participate in regulatory processes (e.g., Water Stewardship Strategy). The GNWT acknowledged that they cannot provide travel/participant funding to NGOs, but that NGOs are welcome to attend workshops.

3.5.7 COMMUNITY MEMBERS AND THE PUBLIC HAVE ACCESS TO FUNDING, BUT IT IS NOT ALIGNED WITH THE SCOPE AND SCALE OF REGULATORY DECISION-MAKING

Recent engagements suggest that the community and the public do not have access to funding aligned with the scope and the scale of regulatory decision-making. As shown in the following figure (Figure 3-13), only 6% of questionnaire respondents indicated there is sufficient funding for community members and the public, while 47% indicated funding is not sufficient and 47% were not sure.

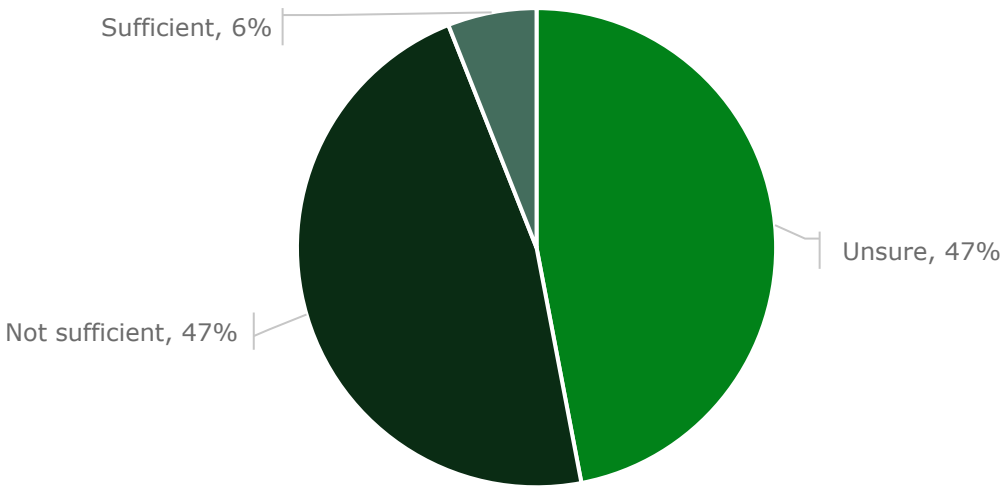


FIGURE 3-13: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE SUFFICIENCY OF FUNDING FOR COMMUNITY MEMBERS

It seems that a good portion of the community and the public are not aware that there is funding available (through IRMA and NPFP for individuals) for them to participate in regulatory processes. One respondent described "the lack of legislative or policy requirements for participant funding as a failure of GNWT to actually implement its Open Government Policy."

This sentiment is also reflected in the public survey where some respondents commented that more funding, educational resources, and tools to support community involvement and locally led programs are needed, in addition to increased funding and capacity to support communities' participation and increase understanding of well-being in decision-making.

Several IGIOs noted that certain boards are more active than others in community engagement through public hearings and sessions and/or topic-specific workshops that are open to everyone. An Indigenous Government highlighted that compensation for Elders and citizens is required for their TK and participation in focus groups. This is sometimes covered by the proponents, the relevant board, or Indigenous Governments depending on the project size and accessibility. Therefore, according to some, there has been progress enabling community members to engage.

Others perceived that the boards in some cases may need to do more to make hearings accessible to the community (e.g., holding local hearings in all communities or funding travel for respondents from communities where no hearing is being held). One respondent expressed there is a lack of opportunity for non-Indigenous residents to be engaged or take part in decision-making.

Industry representatives conveyed that capacity funding for communities is very important and necessary, especially with new exploration/development in the NWT, such as lithium. Interviewees noted that awareness and education on what lithium mining is in comparison to diamond and gold mining is needed to ensure the community is well prepared to participate in the decision-making process.

3.5.8 OVERALL OBSERVATIONS AND RECOMMENDATIONS: ADEQUACY OF RESOURCES

In summary, the Audit Team notes the following findings that emerged from the evidence around adequacy of resources:

- Adequacy of resources varies based on the type of organization (government, board, etc.) and its jurisdiction.
- Boards generally have sufficient funding but still not enough to enable them to meet all their requirements, such as reporting.
- Most of the engaged boards and IGIOs mentioned they need additional staff to enhance capacity and alleviate pressure on existing staff.
- Additional resources would be required to undertake additional strategic work to address climate change issues and community interests such as TK.
- Efforts to increase awareness (and support) on streams of funding available to communities and the processes to acquire it are needed.

2025 Audit Recommendations

We recommend the following 2020 recommendations be carried over**: 2020-1-16** and **2020-1-17**. Additional recommendations are below.

Recommendation 2025-3-8: GoC to fund dedicated and long-term positions (e.g., 10 years) for IGIOs to participate in northern regulatory processes (including by providing TK), until formal, structural mechanisms are in place (i.e., modern treaties and funding implementation agreements). We would expect that this would create greater equity for participation in the NWT regulatory regimes, regardless of treaty status, and will ensure that public funds are directed to long-term sustainable capacity within IGIOs.

> CIRNAC's response: CIRNAC's Northern Participant Funding Program currently supports Indigenous governments and organizations, and other northerners to facilitate their meaningful participation in the impact assessment and regulatory processes established under land claims agreements in Canada's three territories; funding is made available for impact assessments and water licencing of large, complex or controversial resource development or infrastructure projects (i.e., "major" projects). While CIRNAC agrees with the intent of the recommendation, the department notes that this application-based program is for Indigenous governments and organizations with and without settled (modern) treaties and having a settled treaty may not address funding and capacity challenges and are willing to explore alternate funding models in the future (see 2025-3-9).
>
> CIRNAC's Northern Regulatory Initiative has provided some initial funding to the Mackenzie Valley Land and Water Board to support a pilot secondment initiative with Indigenous Governments and Organizations and will gather key lessons learned to feed into addressing this recommendation.

Recommendation 2025-3-9: GoC and GNWT to explore models for direct funding in NWT to ensure that IGIOs (without modern treaties) have stable resources for regulatory capacity. We would expect that this approach would move away from the need for funding applications (like IRMA), which results in administrative burden and is a drain on capacity.

GNWT's response: The GNWT is already fulfilling the GNWT's role in the actions being proposed by this recommendation. The GNWT supports the recommendation's intent to sufficiently resource Indigenous governments and to address capacity shortcomings related to project assessment and reviews. The existing IRMA (Interim Resource Management Application) program has two components:

1. Base Funding – This funding is allocated once a year on a per capita basis. Indigenous governments and Indigenous organizations can elect to apply for multi-year base funding for a term of 3 years.

2. Resource pressures funding – this funding covers additional costs related to major project developments. Eligible organizations may also submit proposals.

Application processes ensure that limited funds are allocated fairly, according to resource pressures in different regions, and to maintain the integrity and responsiveness of the IRMA program. The GNWT has and continues to meet with federal counterparts to find ways to improve the amount of funds available and funding processes, as the program is consistently fully subscribed.

CIRNAC's response: The Government of Canada agrees with the intent of the recommendation to provide sustainable funding to Indigenous Governments and Organization's for impact assessments and regulatory reviews, and, along with the GNWT, is committed to completing land claim and self-government agreements that will provide stable resources for regulatory capacity. The Government of Canada also echoes the GNWT in its caution of direct funding to result in inconsistent and potentially inadequate funding for organizations with higher regulatory burdens that may vary year to year.

The Government of Canada also recognizes the administrative burden posed by application-based funding programs. As noted in the response to recommendation 2025-3-8, project-specific funding through the Northern Participant Funding Program provides equitable funding regardless of modern treaty status. Further, the Northern Participant Funding Program has dedicated general capacity-building funding for participating in environmental assessments and regulatory processes that is separate from project-specific funding.

LWBs' response: No LWB response required. However, the LWBs are currently participating in a secondment initiative funded by the GoC and the LWBs to support regulatory capacity for organizations in areas without settled Land Claims.

Recommendation 2025-3-10: CIRNAC to ensure board members are fairly recognized for their time. We would expect that honoraria would be sufficient to attract and retain board members for the proper functioning of the system.

> CIRNAC'S Response: CIRNAC commissioned an independent report on Board remuneration (completed in 2024), and based on the report, is currently advancing recommendations on next steps.

Recommendation 2025-3-11: Like the LWB example under Section 3.5.5, all parties should seek input from IGIOs to identify process improvements (or step-change improvements) that will reduce the capacity burden on IGIOs. We would expect parties to identify, communicate, and implement these changes.

> GNWT's response: The GNWT agrees with this recommendation but cannot commit to a timeframe for fulfilling based on the role of other contributors. Funding support through the Our Land for the Future Project Finance for Performance (OLF NPFP) should be considered to address IGIO capacity burdens with respect to land use plans and conservation efforts.
>
> CIRNAC's response: CIRNAC's Northern Participant Funding Program includes both project-specific participation funding for environmental assessments and dedicated capacity-building funding to Indigenous Governments and Organization's. Officials with the Northern Participant Funding Program conducted engagement sessions in with NWT communities in 2019, 2022 (virtual) and 2024 and received valuable feedback. The Program is always willing to consider feedback from recipients and will continue to receive input through engagement and activity reports.
>
> CIRNAC's Northern Regulatory Initiative has provided some initial funding to the Mackenzie Valley Land and Water Board to support a pilot secondment initiative with Indigenous Governments and Organization's and will gather key lessons learned to feed into addressing this recommendation. This was triggered by discussions through the Mackenzie Valley Operational Dialogue (MVOD), which also convenes Indigenous partners regularly and provides opportunities to share regulatory challenges and co-develop solutions towards these issues.
>
> LWBs' response: See response above for recommendation 2025-3-4. The LWBs have been seeking input on overall improvements to LWB processes as well.

3.6 OUTCOME OF REGULATORY DECISIONS

What We Examined

We sought to determine whether the outcomes of the regulatory processes and regulatory decisions are aligned with the expectations of parties to the agreement, stake and rights holders, the public and the intent of the MVRMA. We explored the availability and accessibility of board decisions to the public and other interested parties. We assessed the perception of parties and the public on board decisions being evidence-based and unfettered from political or other influences. We identified the extent to which LUP requirements are complied with in decision-making. We unpacked the complexities around outcomes of the security requirements process and identified opportunities for improvements articulated by parties to the regime. We assessed available

evidence of significant adverse impacts to the environment, that could reflect gaps in the regulatory regime. The Audit focused on the following lines of inquiry:

- *Are board decisions available and written in a manner to be accessible to the public, as well as to other interested parties?*
- *Are LUP requirements complied with in decision-making?*
- *Are board decisions evidence-based and unfettered from political or other influences to the satisfaction of parties participating in the decision- making process?*
- *Are parties satisfied with the outcome of the security requirements process?*
- *Is there evidence of significant adverse impacts to the environment?*

The 2020 Audit identified that:

- Regulatory decision-making with respect to the biophysical environment remains sound.
- Regulatory process for some low-risk activities causes uncertainty for industry.
- New approaches to integrating TK in decision-making are being implemented.[24]

Why it is Important

The MVRMA addresses "an integrated system of land and water management in the Mackenzie Valley" (Government of Canada, 2019). We examine outcomes related to both the biophysical aspects of this integrated system, as well as outcomes related to social-cultural-economic elements and outcomes of management practices and processes. The MVRMA is built on the premise of co-management of resources by the territorial, federal, and Indigenous Governments. Transparency of, and accountability for, outcomes is paramount to a functioning regime and to enabling course-correction if changes are needed.

What We Found

The table below summaries Audit findings related to outcome of regulatory decisions.

TABLE 3-8: AUDIT FINDINGS RELATED TO OUTCOME OF REGULATORY DECISIONS

Lines of Inquiry	High-level Findings
Are board decisions available and written in a manner to be accessible to the public, as well as to other interested parties?	Board decisions are available and usually written in a manner that is accessible to the public, as well as to other parties.
Are LUP requirements complied with in decision-making?	Uncertainty exists regarding if/how LUP requirements are complied with in decision-making.
Are board decisions evidence-based and unfettered from political or other influences to	Board decisions are evidence-based and unfettered from political or other influences to the

[24] In the 2025 Audit, TK in decision-making is explored in Section 3.1 on Regulatory Scope.

Lines of Inquiry	High-level Findings
the satisfaction of parties participating in the decision- making process?	satisfaction of parties participating in the decision-making process.
Are parties satisfied with the outcome of the security requirements process?	Parties noted areas for improvement regarding the outcomes of the security requirements process.
Is there evidence of significant adverse impacts to the environment?	There is evidence of significant adverse impacts to caribou.

3.6.2 BOARD DECISIONS ARE AVAILABLE AND USUALLY WRITTEN IN A MANNER THAT IS ACCESSIBLE TO THE PUBLIC, AS WELL AS TO OTHER PARTIES

The MVEIRB, the Wildlife Co-management Boards, the LWBs, and the Land Use Planning Boards each have responsibilities to share decisions with the public, and other parties, in accessible ways. Most respondents to the organizational questionnaire suggested that board decisions are always available to them (67%) (Figure 3-14).

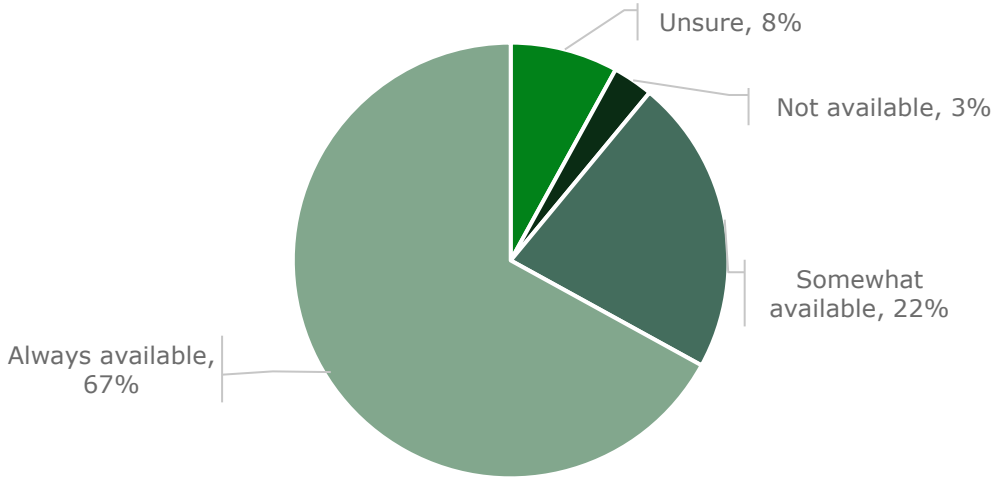


FIGURE 3-14: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON AVAILABILITY OF BOARD DECISIONS TO THE PUBLIC AND OTHER PARTIES

Respondents to the organizational questionnaire were confident that board decisions are written in a way that is understandable to the public and other interested parties. Eleven percent (11%) of respondents suggested that decisions are 'always' understandable, while 50% noted that the decisions are 'usually' understandable (Figure 3-15).

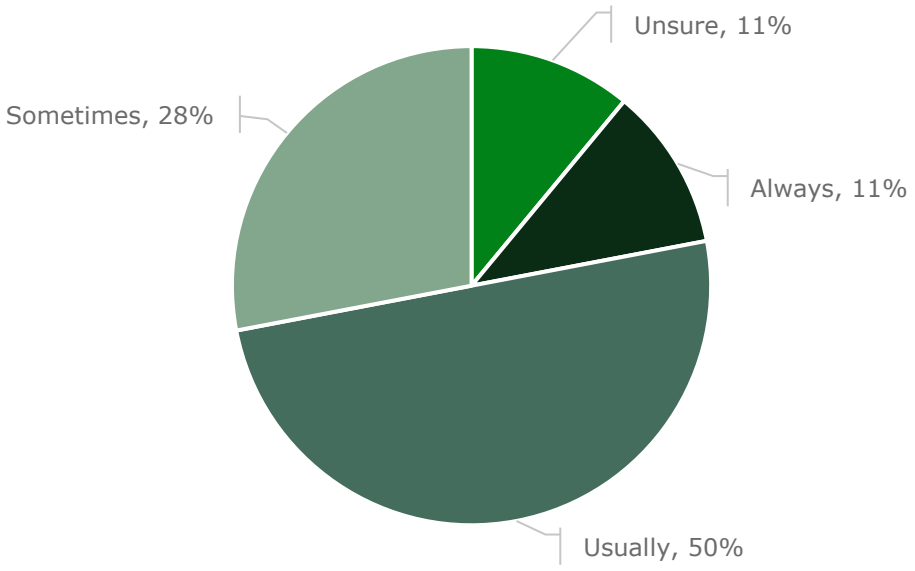


FIGURE 3-15: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON WHETHER BOARD DECISIONS ARE WRITTEN IN A WAY THAT IS UNDERSTANDABLE TO THE PUBLIC AND OTHER PARTIES

One IGIO noted in an interview that the system can be hard to navigate. They questioned how community members would know if land use was approved. The GNWT suggested, in an interview, that online platforms could be better leveraged to improve communications around board decisions.

Public survey respondents identified that their inputs were addressed by board decisions (Table 3-9). These responses imply that the public could access and understand the decisions well enough to interpret them against their own contributions. As indicated by Table 3-9 most public respondents (58% - 63% depending on the board) perceive that it is true or somewhat true that their input is addressed by board decisions.

TABLE 3-9: PUBLIC PERCEPTION OF THEIR INPUT BEING ADDRESSED BY BOARD DECISIONS

Perception of Truth	Environmental Assessment	Land use permitting	Water licensing	Land use planning
Not at all true	16%	16%	8%	10%
Somewhat true	34%	42%	45%	41%
True	27%	19%	18%	17%
Unaware	23%	23%	29%	32%

3.6.3 UNCERTAINTY EXISTS REGARDING IF/HOW LUP REQUIREMENTS ARE COMPLIED WITH IN DECISION-MAKING

Many respondents to the organizational questionnaire are confident that LUP requirements are complied with in decision-making (26%); however, most organizational questionnaire respondents expressed that they are unsure if this is the case (66%) (Figure 3-16).

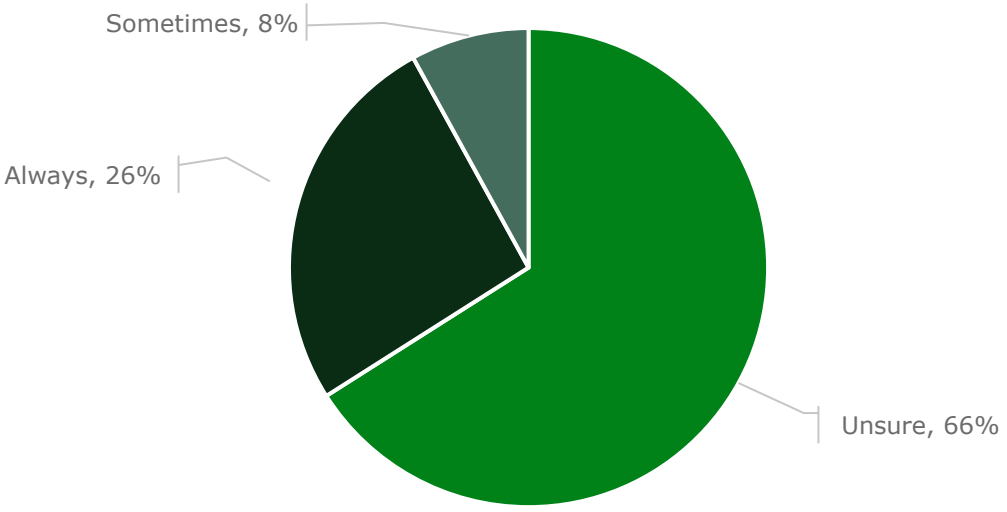


FIGURE 3-16: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE EXTENT TO WHICH RESOURCE MANAGEMENT DECISIONS COMPLY WITH LUP REQUIREMENTS

One organizational questionnaire respondent noted an instance where the GNWT made a unilateral decision to reduce the size of the Reindeer Grazing Reserve without public engagement or conformity check with the Gwich'in LUP or ISR community conservation plans. Public documents describe the situation where an Indigenous Council filed a motion for the LWB to deny a permit for development on the Reindeer Grazing Reserve. The LWB asserted that the territory "is not required by either the Devolution Agreement (GNWT, 2014), the Gwich'in Comprehensive Land Claim Agreement (Government of Canada, 1992), or the common law to consult third parties when allocating public land for projects that have "no effect" on surrounding communities" (Brackenbury, 2020). The Council expressed their concern, noting that the land in question had been set aside as a reindeer grazing reserve since 2014.

3.6.4 BOARD DECISIONS ARE EVIDENCE-BASED AND UNFETTERED FROM POLITICAL OR OTHER INFLUENCES TO THE SATISFACTION OF PARTIES PARTICIPATING IN THE DECISION-MAKING PROCESS

Respondents of the organizational questionnaire and interviews predominately agreed that board decisions are evidence-based and unfettered from political and or other influences. Twenty-five percent (25%) of organizational questionnaire respondents asserted that this is always the case, and 53% consider this to be usually the case (Figure 3-17).

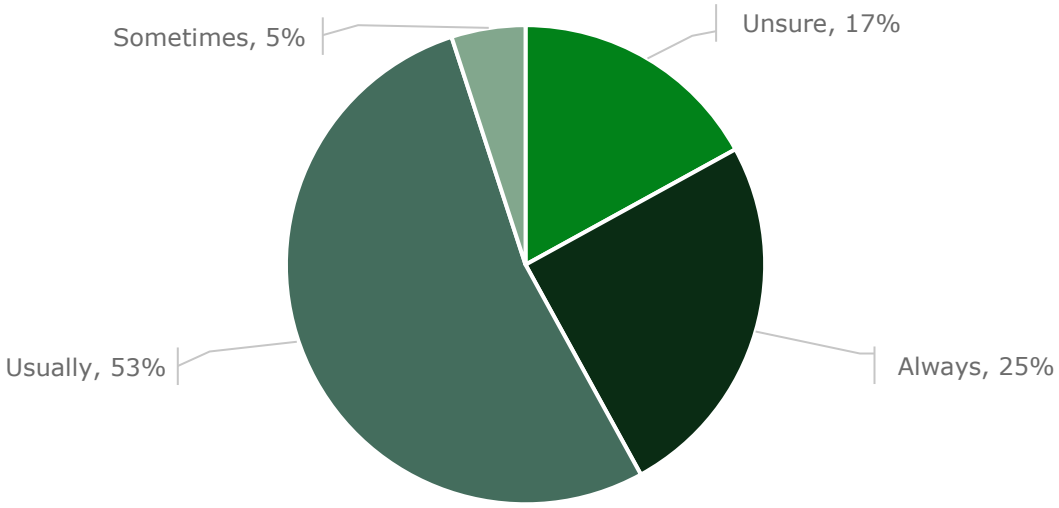


FIGURE 3-17: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE EXTENT TO WHICH BOARD DECISIONS ARE EVIDENCE-BASED

When organizational representatives were asked if board decisions are unfettered from political or other influences, the responses are less confident: 38% of respondents were 'unsure' if this is the case, while 24% believed it is 'always' the case and 29% noted that it is 'usually' the case Figure 3-18).

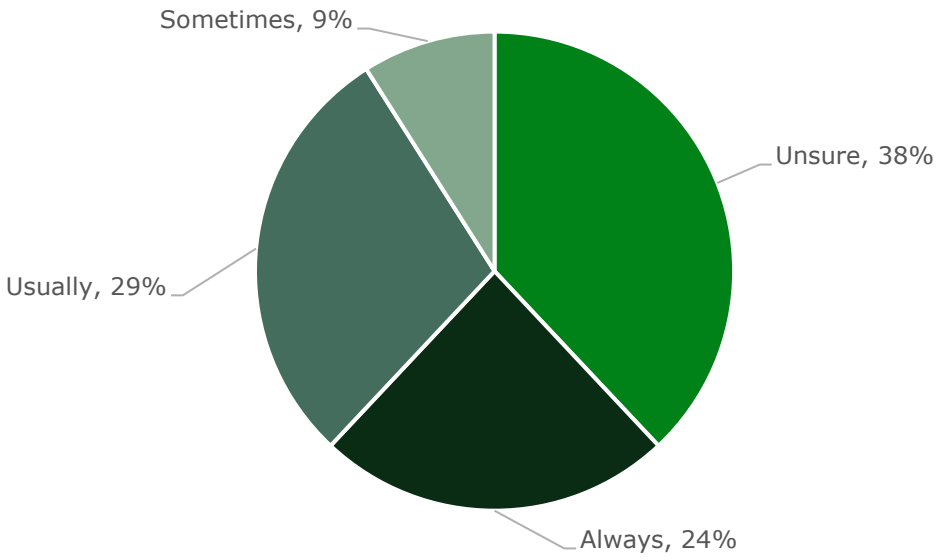


FIGURE 3-18: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON THE EXTENT TO WHICH BOARD DECISIONS ARE UNFETTERED FROM POLITICAL OR OTHER INFLUENCES

One federal interviewee reflected on how board staff are careful to maintain confidentiality during EA processes and that they do not influence EA processes by sharing information.

One IGIO expressed their view of the MVRMA as a 'pro-development' Act because it assumes development will go ahead unless there is evidence of it causing environmental impacts or infringing on rights. They described how Indigenous Nations, that choose not to have development in their territory, must justify their choice for no development in the context of a colonial institution.

A federal government representative noted in an interview that the boards do a good job of making sure things are open and transparent. They described how boards add comments on the public registry to situate their decisions in an evidence-base. Three different IGIOs reflected, during interviews, that board decisions are evidence-based.

3.6.5 INCREASED TRANSPARENCY ON THE SECURITIES PROCESS WILL INCREASE PUBLIC UNDERSTANDING AND CONFIDENCE

In the Mackenzie Valley, the LWBs have the authority to require security deposits under land use permits and/or water licences (under the MVRMA). Two tools are recommended in the NWT to estimate e securities:

- The RECLAIM model is the preferred cost estimating model for projects that require a Type A or Type B water licence. RECLAIM 8.0 is under development.
- The MVLWB security template is used for projects that require only a land use permit and no water licence.

Proponents are asked to use these tools to include security estimates in their permit or lease applications. The GNWT also uses these tools to provide an estimate for proposed projects, which they submit to LWBs for consideration. In a small number of cases, the GNWT also has the authority to set a security deposit for an activity that requires a land use permit and/or a water licence, if that activity also requires a disposition (e.g., land leases on Commissioner's Land), which case security may also be set under the disposition.

The legacy of mining exploration and development activities being abandoned by their operators due to insolvency is present in the NWT (e.g., Giant Mine). Ensuring effective securities processes is therefore, not surprisingly, important in the NWT and for maintaining public trust in the regulatory regime.

In its document review, the Audit Team found a recent report (2023) by the Standing Committee on Economic Development and Environment focused on the Prevention and Management of Contaminated Sites (NWT Legislative Assembly, 2023). The report provides recommendations to address public liabilities. Relevant examples of recommendations include the following:

- GNWT to have internal expertise to inform regulatory decision-making and inspection capacity to prevent further public liabilities.
- GNWT to develop an effective early warning system to prevent further public liabilities, including mandatory financial security that is consistently reviewed and adjusted.
- GNWT implement transparent and clear processes to ensure that securities are established, reviewed and coordinated among various Departments.
- GNWT make financial security information public *(NWT Legislative Assembly, 2023)*.

The GNWT provided a formal response to the Standing Committee's report (GNWT, 2023e).

The GNWT noted in its response that the responsibility for reclamation securities is currently shared amongst several authorities: the GNWT, IGIOs, the federal government, and the LWBs.

The GNWT described with confidence the capacity and expertise of their internal resources to inform regulatory decision-making. They also identified their intention to continue to retain external subject-matter experts for instances such as securities evaluations and closure plan reviews (as required). They noted how the current merger of territorial departments will help increase coordination around securities, with the GNWT-ECC being responsible for securities. They committed to continuing their work with the LWBs on policy and guidelines to set clear expectations on closure and reclamation security.

The GNWT noted that financial security information is publicly available on the LWBs' public registries. They acknowledged that these can be cumbersome to locate. The GNWT also clarified that they respond to information requests about securities. The GNWT committed to providing public information on financial securities on their website and described how the new *Public Land Act* will require public reporting of securities.

Parties have created or are in the process of creating guidance documents to support the securities process in the NWT. The guidance documents include:

- The Guidelines for Closure and Reclamation Cost Estimates for Mines was released in 2017 and updated in 2022 *(MVLWB, 2025)* (LWB, GNWT, and CIRNAC 2022). The guidelines are meant to help determine the total cost of mine closure security deposits.
- The LWBs, GNWT, and CIRNAC are in the process of updating the Land Use Cost Estimator and associated Support Manual to replace the Land Permit Application Security Template. This process includes publishing a 2023 draft version of the tool and manual for public review *(MVLWB, 2023b)*.

One NGO expressed concerns during an interview about financial securities. Specifically, they perceived that the land and water financial security ratios are kept static and that the Minister has discretion to accept any kind of financial security (e.g., collateral such as property or other companies), even if some forms put risk on the environment and the public.

GNWT representatives clarified that land/water ratios for security estimates are determined on a case-by–case basis. They further noted that GNWT, including the Minister, has not and will not accept collateral (e.g., property or other companies) as security. One LWB noted that the provision of a security liability estimate is a requirement for the LWBs to accept a permit and/or licence application. They further noted that the LWB does have discretion not to require security, but that those instances are very rare and often only in the case where amounts are minimal (e.g., <$10,000).

The GNWT noted during an interview that the security requirements process could be improved by adjusting the requirements based on evolving environmental standards and risks. They described the complexities of having multiple parties involved in the securities process (e.g., when GNWT does or does not hold security for land leases). With respect to LWB security decisions made since devolution in 2014, the GNWT respondent noted that it is possible, but has not yet happened, that

a bankruptcy or failure by an operator to remediate could result in the securities set by the LWB leaving the GNWT and/or Indigenous Governments under secured. They described that they are addressing improvements to securities through the *Public Land Act* and associated regulations and policies and anticipate regulations in place by 2025/2026.

The Audit Team notes that there exist some misconceptions about the security deposits process in the NWT. Notably, about land/water ratios for security estimates and about the forms of security that are accepted by the Minister. Further, the Audit Team acknowledges that parties are currently involved in planning new regulations and policies for securities that will fall under the recently passed *Public Land Act*. The new regulations and policies will address all the areas for improvement identified including:

- Clarifying how the LWB and GNWT systems interact to ensure project are fully secured, but also not double bonded,
- Requiring all projects to be evaluated to determine if securities should be held under a lease or other disposition,
- Updating securities estimates over time to ensure they address inflation and environmental change,
- Allowing for the GNWT to set requirements, timeframes and conditions for when a restoration plan must be submitted reviewed and revised, and
- Requiring public reporting of securities.

Finding ways to communicate the functioning and effectiveness of the security deposits system, and creating transparent mechanisms to demonstrate this, will increase the confidence that organizations and the public have in the regulatory regime.

3.6.6 THERE IS EVIDENCE OF SIGNIFICANT ADVERSE IMPACTS TO CARIBOU

There is evidence of significant adverse impacts to barren-ground caribou herds (see Section 1). Experts from the GNWT, TG, NSMA and ECCC noted, during interviews that combinations of drivers interact to cause the declines. Yet, the precise combination of drivers pushing this decline remains unknown. The caribou experts acknowledge that herd specific management practices alone are likely insufficient to enable herd recovery.

The public survey results demonstrate confidence in the regulatory regime to protect the land and water (Appendix B). Very few respondents noted that it is 'not at all true' that the decisions made at the end of the processes help to protect the land and water. Public survey respondents asserted that it is 'True' (41%) or 'Somewhat true' (37%) that decisions made at the end of the EA process help to protect the land and water. Public confidence is slightly lower for Water Licensing, Land Use Permitting, and Land Use Planning (see Appendix B).

The extent of natural environmental systems functioning across the vast landscape of the NWT (1,171,918 km^2) (Government of Canada, 2017) creates a natural buffer to adverse environmental impacts that occur at a local and even regional scale. The impact assessment process demonstrates mitigation of significant adverse impacts at the local scale. Impacts of major projects are buffered by healthy ecosystems at regional and territorial scales. Yet, the

increase in cumulative impacts on environmental systems (including, for example, forest fires, development, climate change) can, over time, erode this buffer and perhaps in non-linear ways.

The regulatory regime is well positioned to work collaboratively to monitor and address cumulative impacts and to adjust decision-making accordingly.

3.6.7 OVERALL OBSERVATIONS AND RECOMMENDATIONS: OUTCOMES OF REGULATORY DECISIONS

In summary, the Audit Team notes the following observations from the evidence around outcomes of regulatory decisions:

- Where LUPs do not exist, LWBs make efforts to engage with stakeholders and rights holders to address and/or accommodate a diversity of priorities during their decision-making processes.
- The security requirements process is complex and requires additional plain language explanations to increase public understanding and trust.
- Parties want greater transparency on Ministerial decisions.
- The complex interplay of drivers leading to significant declines in barren-ground caribou herd must be identified and addressed (see Section 1).

2025 Audit Recommendations

Recommendation 2025-3-12: LWBs, GNWT, and CIRNAC collaborate to create a communication material that explains the securities process in an accessible way. We expect that increased public understanding of the securities process will enhance public trust in NWT securities.

> GNWT's response: The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in this recommendation prior to the next Audit.
> The GNWT recognizes the importance of clear and collaborative communication in building public trust in the resource management system. This commitment complements existing GNWT legislative commitments to report on security holdings and the GNWT's commitments under the Open Government Policy.
> The GNWT has discussed this recommendation with LWB and CIRNAC counterparts and understands that both organizations intend to accept the recommendation and work with GNWT to implement it.
>
> <u>The GNWT commits to:</u>
>
> - Work with the LWBs and CIRNAC to establish a small working group with membership from each organization to implement the recommendation. Subject to the agreement of all three organizations, this working group will: establish a workplan, define the materials, develop draft materials for review within the three organizations, update the draft materials based on comments received, and submit the final draft materials for approvals within the three organizations.
> - GNWT will incorporate the products into GNWT communications, as applicable.

- GNWT will seek to work with the LWBs and CIRNAC to review and update the products at regular intervals.

CIRNAC's response: CIRNAC agrees with this recommendation and commits to working with the GNWT and LWB's to develop accessible communication material(s) that clarify the securities process and builds public trust in the resource co-management system in a way that aligns with CIRNAC's limited role regarding securities in the NWT. CIRNAC has discussed this recommendation with the Land and Water Boards and GNWT and understands that both organizations intend to accept the recommendation and work with CIRNAC to implement it. The Government of Canada further supports the GNWT and Land and Water Boards commitment to establish a working group and develop these communication materials in a timely manner.

LWB's response: The LWBs, GNWT, and CIRNAC are in the process of updating the Land Use Permit Closure Cost Estimator (Estimator) and associated Support Manual (Manual) to replace the Land Use Permit Application Security Template. A public review of the draft Estimator and Manual took place in 2023 and this project is ongoing. The LWBs, GNWT, and CIRNAC jointly developed the Guidelines for Closure and Reclamation Cost Estimates for Mines in 2017, and those guidelines were updated in 2022.

The LWBs have offered to display more security information on each public registry project page if the GNWT is able to share that information with the LWBs. Initial discussions with the GNWT appear that this approach is reasonable and should be feasible to implement in the near future. As this is the platform where participants in the co-management system go to search for documents and decisions, this information being displayed with each project should increase the awareness and trust in the securities process. The LWBs, the GNWT, and CIRNAC will commit to developing a standard message regarding what security is and how it is held, so that this message can also accompany the display of this information and be used in other communications (e.g., LWB/GWNT websites, future ppt presentations, etc.)

3.7 COMPLIANCE AND ENFORCEMENT

What We Examined

The Audit Team sought to determine if parties are satisfied with the compliance and enforcement activities, if the tools and resources for enforcement are appropriate to promote and maintain compliance, if reporting is done in a timely manner and whether there are procedures to adapt and modify. The Audit focused on the following lines of inquiry:

- *Are the boards satisfied with the compliance and enforcement activities?*
- *Are interested parties, other than the boards, satisfied with the compliance and enforcement activities?*
- *Are the tools and resources for enforcement appropriate to promote and maintain compliance?*
- *Are inspections and reporting done in a timely manner and provided to the appropriate parties?*

- *Are there procedures to adapt and modify project permits and licences when adverse impacts are identified? Is there evidence of adaptation/modification?*

The 2020 Audit found that the compliance and enforcement regime is working but some areas for improvement were noted, and progress has been made to address the recommendations from the 2015 Audit, but additional efforts are required.

Why it is Important

Compliance and enforcement help reduce risks to the environment by ensuring parties operate to meet the obligations under their authorizations and legislation.

Across the NWT, GNWT-ECC officers and inspectors enforce land, water, environmental protection, wildlife and forest laws and regulations. According to GNWT, officers follow an education-first approach and work closely with parties to create awareness and encourage proactive compliance and enforcement. According to the GNWT, officers have the independence and discretion to make compliance and enforcement decisions within the limits of legislation and regulations, but that "their actions can be scrutinized by the courts" (GNWT, 2024g). Additionally, the federal government has responsibility for inspections and compliance of federal laws and regulations, such as *Fisheries Act* Authorizations and *Migratory Birds Convention Act* violations, as well as on federal lands.

What We Found

TABLE 3-10: FINDINGS RELATED TO COMPLIANCE AND ENFORCEMENT

Lines of Inquiry	High-level Findings
Are the boards satisfied with the compliance and enforcement activities?	Boards emphasize greater resources are required for compliance and enforcement activities and desire increased clarity on officers' roles and authorities.
Are interested parties, other than the boards, satisfied with the compliance and enforcement activities?	Interested parties have concerns with compliance and enforcement activities.
Are the tools and resources for enforcement appropriate to promote and maintain compliance?	Tools and resources for enforcement are appropriate to promote and maintain compliance but some improvements are required.
Are inspections and reporting done in a timely manner and provided to the appropriate parties?	Water Licence and Land Use Permit inspections and reporting are done in a timely manner, provided to the appropriate parties, and are accessible to the public but some concerns suggest gaps remain.
Are there procedures to adapt and modify project permits and licences when adverse impacts are identified? Is there evidence of adaptation/modification?	Procedures to adapt and modify project permits and licences when adverse impacts are identified are sometimes effective.

3.7.1 BOARDS EMPHASIZE GREATER RESOURCES ARE REQUIRED FOR COMPLIANCE AND ENFORCEMENT ACTIVITIES AND DESIRE INCREASED CLARITY ON OFFICERS' ROLES AND AUTHORITIES

Through interviews and the organizational questionnaire, some boards expressed a concern with the operational structure for compliance and enforcement activities. In the NWT, the enforcement officers/inspectors responsible for inspecting and enforcing conditions of water licences, land use permitting, etc. fall under the jurisdiction of the GNWT and federal departments and not the LWBs issuing the licences and permits. In other jurisdictions, the regulatory authority issuing the permit or licence has its own inspectors. If there are any concerns regarding the inspections, compliance, or enforcement, the LWBs have little recourse. In certain cases, if there is an actual infraction that requires court action, boards are not notified because the infraction must remain within the judicial sphere of the government.

Generally, interviewees believe that having more integrated compliance and enforcement systems is needed. Some of the boards have discussed this with the GNWT, and Sahtú Secretariat Incorporated sent an official letter to the GNWT proposing that inspectors be situated under the LWB so the same party administering the licence does the inspection. However, the boards recognize that this is not easy, and barriers related to funding (salaries), time and change management requirements exist.

A GNWT representative noted that LWBs do not want to enable inspectors to make on-the-ground decisions and that there is a reduced trust between industry and LWBs, and sometimes the inspectors are caught in the middle. The GNWT also shared that improving inspections, capacity, and training were key focuses of the merger to form the GNWT-ECC department.

Other barriers to enforcement and compliance activities perceived by the LWBs and several other organizations include:

- **Limited Capacity:** The boards and a GNWT representative generally agreed that more resources are needed to improve compliance and enforcement activities. One RRB indicated concern about capacity, especially of wildlife enforcement officers (GNWT, DFO, ECCC). While they could not comment on the work of DFO and ECCC enforcement officers due to the lack of communication, they noted that GNWT enforcement officers do a good job enforcing the law but they "cannot be in all places all the time" and as a result, feel that a lot is being missed. A federal department representative agreed that the number of wildlife enforcement officers is a capacity limitation, and that additional staffing would help their federal compliance and enforcement activities. Similarly, LWBs expressed concern that there are not enough inspectors in the region, inspectors do not have the resources to do their job, and there has been a high turnover in GNWT staff since devolution, which causes challenges with relationship building and coordination. From the LWB's perspective, it is difficult to find time to speak with inspectors, inspectors are conducting fewer site visits, there are sometimes lapses in inspections, and reports are not always received on time. Boards in remote areas, experience a high turnover in GNWT inspectors, which leaves lapses in enforcement and compliance activities and prohibits the boards from establishing coordinated efforts and relationships with inspectors.

- **Activities vary by project scale**: The LWBs noted that compliance and enforcement activities on bigger projects (such as the Giant Mine) are very good, but they are not satisfied with the compliance and enforcement activities on smaller projects specifically.
- **Lack of clarity on officers' roles and authorities**: Some boards mentioned that the authority of the inspectors is not clear (e.g., what they can enforce and what not, what decisions they can make). One board mentioned that while compliance and enforcement for water licences is clear, it is not as clear what type of monitoring and enforcement there is for other types of licences, such as wildlife permits.

The 2020 Audit identified some of these issues as well. In the 2020 Audit, the LWBs expressed concern regarding the capacity of inspectors and the GNWT agreed that coordination between the parties with inspection responsibilities under the MVRMA and the effectiveness of the system could improve. The parties shared in 2020 that there are regular meetings between them, including annual inspector meetings, quarterly Joint Working group meetings between GNWT Lands, GNWT ENR, CIRNAC, and each Executive Director of the LWBs, and regular informal meetings between the GNWT and the LWBs throughout the year. The 2020 Audit put forward a recommendation to address this issue.

> **Recommendation 2020-1-18:** The LWBs and the inspection units of GNWT and the GoC establish a process to meet and discuss challenges and solutions with respect to the inspection regime in the Mackenzie Valley, specifically as it relates to clarifying roles and responsibilities, ensuring adequate inspector capacity, as well as timely and transparent inspections, reporting and follow-up. We further recommend boards ensure a record of findings, actions, and outcomes are published to ensure transparency and facilitate future auditing of progress.

In updated responses in 2024, the parties indicated that they continue to meet regularly and on an as-needed basis and that improving inspections remains a priority. The LWBs shared that quarterly compliance meetings between the senior leadership of the LWBs and the GNWT did not take place in 2023 due to the wildfire evacuations, as well as a variety of factors including departmental changes at the GNWT (e.g., merger, staffing) and a consideration of current priorities. GNWT confirmed that they have not met with LWBs since the merger (e.g., the Departments of Lands and Environment and Natural Resources (ENR) in early 2023) due to changes in leadership at GNWT.

CIRNAC worked on developing a new land management system that would track non-compliance issues, but the system did not work out and CIRNAC chose to rely on the existing processes outlined to date. CIRNAC hired two inspectors and shared that it did not have any current staffing concerns related to inspectors and would make staffing decisions based on needs.

Given our review, we found that this recommendation is **outstanding**. We see that efforts are being made to address concerns through various meetings but, as we heard during the interviews, these efforts are not enough. There could be more opportunities to review the entire scope of responsibilities and concerns regarding the inspection regime and track the outcomes of these meetings and discussions.

3.7.2 INTERESTED PARTIES HAVE CONCERNS WITH COMPLIANCE AND ENFORCEMENT ACTIVITIES

Industry respondents conveyed that there is a double standard in the NWT with the inspectors having traditional powers (e.g., for field decisions) in the ISR, while they have been constrained by unnecessary LWB policy in the Mackenzie Valley. Industry believes that permits and licences in the Mackenzie Valley are very rigid and do not leave room for changes from initial project specifications, and that any change requires an amendment and possible community engagement, which adds to timeline and costs. They also noted that inspectors do not have any flexibility or ability to make on-the-ground decisions based on their professional judgement due to the rigidity of the permits and licences and legal interpretation of the LWBs. Industry is concerned that the resulting added costs are a risk to attracting new development to the region.

One IGIO discussed how they do not receive updates on compliance or whether developers are meeting the requirements of licences and permits. They emphasized the importance of establishing a better link between communities and enforcement bodies and how building and strengthening the relationship would enhance communication to benefit enforcement activities. Similarly, concern was stated by another IGIO representative on the communication between proponents and inspection agencies, who noted an example of a diamond mine proponent delaying reporting a spill for one-month.

An IGIO raised the idea of enabling local guardians to have a basic level of enforcement. They noted that enforcement is a missing piece in moving towards a regulatory system that fully represents co-management and provides more equity to Indigenous groups. They added that in the concept of co-management, there should be an aspect of co-management related to compliance and enforcement. Industry supported the idea of Indigenous guardians enforcing caribou harvesting limits.

IGIOs engaged in this Audit were overall confident in the inspection and enforcement regime but suggested it would improve if the separation between the inspectors and the LWBs is diminished; a similar opinion expressed by the LWBs. An IGIO shared that strengthening the relationship between these two parties would make the interpretation of the licence and permits conditions more predictable and would bring more assurance that the condition will be enforced.

An IGIO described the regulatory system as somehow “voluntary” by relying on developers prioritizing compliance to maintain their reputation and public opinion as opposed to fines and penalties due to non-compliances. An NGO discussed how fines and penalties are low and shared the perception that proponents prefer to pay fines than go to court.

Some parties pointed out the lack of enforcement related to wildlife management and monitoring plans. An IGIO suggested that caribou overharvesting is a real problem, via road access, and does not believe that the GNWT is doing enough to regulate harvesting. The interviewees highlighted the McKay Lake area hunting zone as a problematic area, in which the Beverly herd travels and there are no harvest restrictions. Parties added that more enforcement and presence from officers is required, and more enforcement is needed from Indigenous populations.

DFO noted during an interview that they see a disconnect in feedback between monitoring and managing fish and fish habitat. They identified that once approvals are secured and management plans are drafted, it is not always clear how new results from compliance programs feed into adapting the management plans.

Given our review, the level of satisfaction with compliance and enforcement efforts varied between the parties. We found that compliance and enforcement efforts in the GNWT need improvements to enhance the capacity of the existing officers and inspectors and coordination and integration efforts with boards, communities, and even proponents.

3.7.3 TOOLS AND RESOURCES FOR ENFORCEMENT ARE APPROPRIATE TO PROMOTE AND MAINTAIN COMPLIANCE BUT SOME IMPROVEMENTS ARE REQUIRED

Questionnaire respondents were asked whether enforcement tools and resources are appropriate to promote and maintain compliance. As shown in the following figure (Figure 3-19), 9% of respondents responded that enforcement tools and resources are always able to maintain compliance; 69% think they sometimes or usually do, while only 3% responded that they never do. Nineteen percent (19%) were unsure.

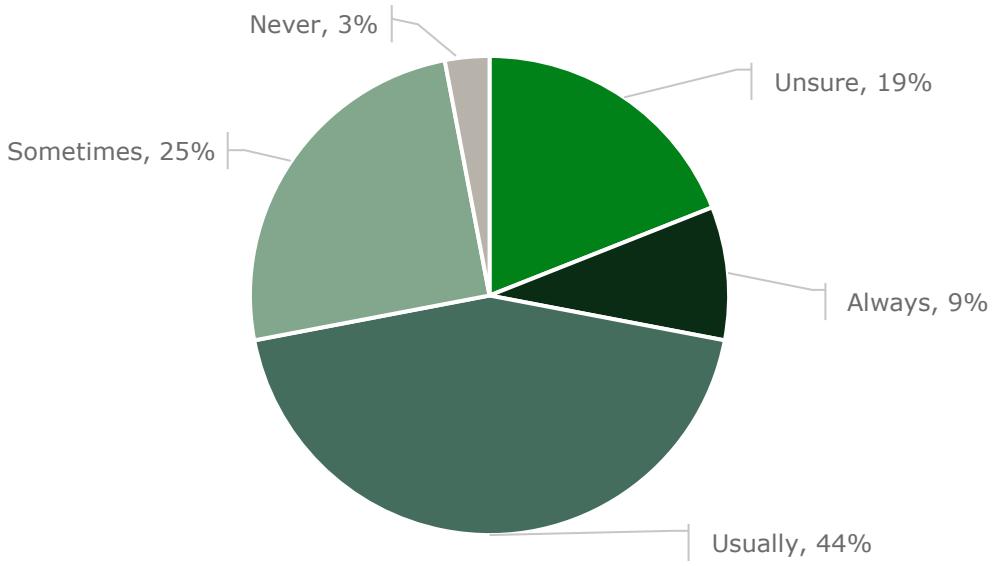


FIGURE 3-19: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON EXTENT OF ENFORCEMENT TOOLS AND RESOURCES

Respondents who thought that enforcement is sometimes or never effective cited various reasons, some of which have been discussed throughout this section. These include the limited capacity of the inspection officers, lack of political will to enforce, lack of department guidance and direction, difficulty for inspectors to proceed with enforcement based on the requirements of the *Waters Act* (Section 67), frequent and/or unchecked non-compliances, and the lack of public reporting of inspections and enforcement activities. Other concerns that we heard in follow-up interviews and

outreach included delays in inspection reports, and the lack of proper understanding of the regulatory system in the region.

According to an NGO interviewee, the frequency of inspections for a particular site, the number of available inspectors, and their capacity are not clear. The NGO representative expressed concern that it is also unclear how risk is assessed, and decisions are made, in relation to compliance and enforcement activities.

In an interview, the GNWT shared that they are working on developing training that incorporates all the aspects of their work, but that, generally, inspectors moving over to GNWT-ECC after the GNWT Lands / ENR merger already have the proper training.

Based on what we heard, improvement in the application and use of existing tools and resources for enforcement and compliance is needed, in addition to enhancing some of the tools themselves to align with the regulatory regime.

3.7.4 WATER LICENCE AND LAND USE PERMIT INSPECTIONS AND REPORTING ARE DONE IN A TIMELY MANNER, PROVIDED TO THE APPROPRIATE PARTIES, AND ARE ACCESSIBLE TO THE PUBLIC BUT SOME CONCERNS SUGGEST GAPS REMAIN

GNWT-ECC inspection reports are only provided to the LWBs and the relevant Permittee/Licencee; the LWBs post the reports to the public registry. According to a LWB representative, water licence inspections currently take place about once every two years and that frequency "could be increased." The GNWT clarified that there are examples of water license inspections occurring several times per year and provided an example from Diavik's water licence public registry page (MVLWB, n.d.). LWBs noted that frequency of land use permit inspections is sufficient and the LWBs usually receive permit inspection reports within two days of the inspection. LWBs post the reports to the online registry soon after.

The LWBs confirmed that some LWBs send out quarterly notifications to their distribution lists of all relevant activities, which includes Inspection Reports. They noted that interested parties, who wish to be notified, can sign up for notifications whenever a new document is posted to the registry.

A federal government representative noted that federal inspections are not available, mentioning a lack of public information regarding DFO inspection reports. One LWB clarified that, indeed, the results of wildlife federal inspections may not be available, however, inspection reports under a permit or water licence are submitted to the LWBs as required by their authorization and posted to the public registry.

An engaged NGO suggested there is a current lack of public reporting of aggregated inspections and enforcement activities, which the interviewee noted will be a requirement under the new *Public Land Act*. The interviewee suggested that disclosing compliance and enforcement data on an annual basis would bring transparency and accountability to the process and build the communities' confidence in the process.

The 2020 Audit identified the following recommendation to address a related reporting gap.

> **Recommendation 2020-1-19:** The GNWT develop and publish an overall project inspection scheme to assist regulators, the public, and permit holders in tracking of 'unacceptable' items from previous inspections all the way to their satisfactory conclusion and inspector sign-off. Furthermore, improvements could be made in the consistency of information collected to ensure future inspectors, the proponent, and regulators appreciate the context of an inspection. We encourage the GNWT to work with their federal counterparts on this initiative, including CIRNAC and the Canada Energy Regulator.

In 2020, the GNWT indicated they were planning upgrades to their Inspection Reporting and Assessment (IRRA) system and that they were committed to engaging with LWBs to examine ways to improve existing tools. In 2024, the GNWT indicated that progress has been slow in updating the IRRA. They also shared that they are "working to find alternative ways to track inspections while continuing to implement a risk assessment program to determine the optimum number of inspections required for compliance purposes." In a follow-up interview, the GNWT explained that IRRA has had some technical/software challenges in their attempted upgrades, so they have been using and continue to use IRRA without any enhancements.

We found that this recommendation remains **outstanding**. We understand that efforts are underway and encourage the GNWT to continue developing an enhanced reporting system and consider the details of this recommendation to improve the inspection regime.

3.7.5 PROCEDURES TO ADAPT AND MODIFY PROJECT PERMITS AND LICENCES WHEN ADVERSE IMPACTS ARE IDENTIFIED ARE SOMETIMES EFFECTIVE

Questionnaire respondents were asked whether procedures to adapt/modify permits and licences to reduce impacts are usually effective. Twenty-nine percent (29%) of questionnaire respondents think that procedures to adapt/modify permits and licences are usually effective; 34% think they are sometimes effective while 34% are unsure. There is one isolated response that selected that 'no procedures exist'.

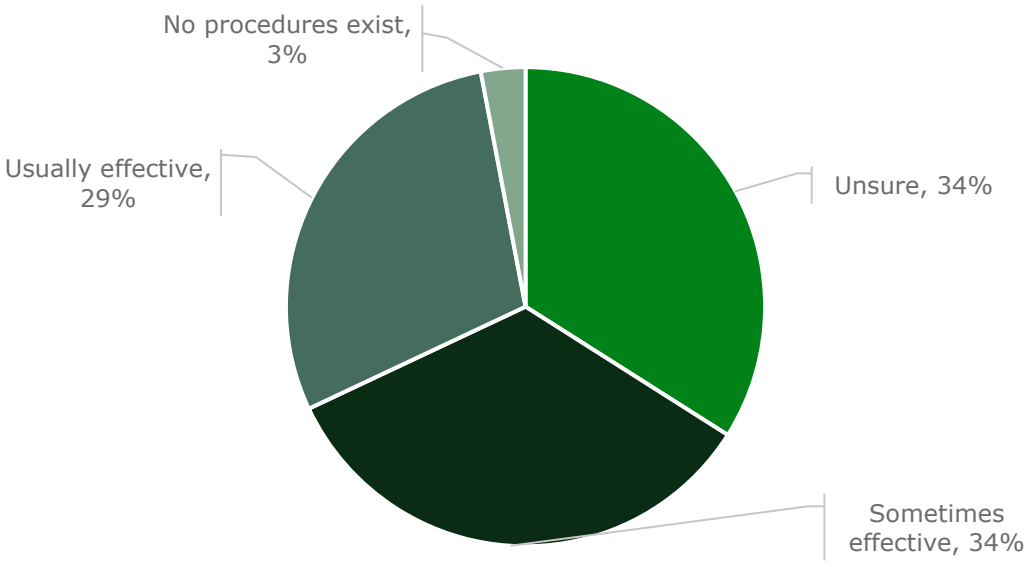


FIGURE 3-20: ORGANIZATIONAL QUESTIONNAIRE RESPONSES ON EFFECTIVENESS OF PROCEDURES TO ADAPT/MODIFY PERMITS AND LICENCES

Respondents who think that the procedure to adapt/modify permits and licences to reduce impacts are sometimes effective or are unsure mentioned that making a change to a permit/licence requires a lot of work, time, and resources. They expressed that submissions and reviews are not always matched to the scope change or projected small impacts, and that amendment applications need to be better screened for compliance with information requirements. Others said that no process exists to modify land use permits or water licences solely because of an impact.

A representative from the federal government noted that amending permits or water licences can be intensive, especially Type A water licences. LWB guidance indicates that "*An amendment is a change to a condition of an existing land use permit, not a change to its scope*" and "*An amendment is a change to the conditions and/or the scope of an existing water licence to reflect changes to project activities or new project activities"* (MVLWB, 2021). Changes outside those allowed require application for new licences/permits.

In an interview, a GNWT representative agreed that the process to amend water licences takes a long time and noted that most of the adaptive management comes into play in changes to management plans associated with a project's permit/licence, rather than changes to permit/licence conditions. They noted that this inflexibility is especially true with wildlife issues, which are captured in management plans rather than permit/licence conditions (partly because LWBs only have jurisdiction over habitat, not wildlife itself).

Several respondents emphasized the importance of adaptive management supported by monitoring programs and defined action levels (significance threshold).

One NGO noted the tendency for mine expansions, without adequate attention on cumulative impacts. They reflected on the process in Nunavut where there are terms and conditions written in

a certificate that creates an opportunity for enforcement and questioned if this could be an approach for the NWT to increase enforceability and accountability under MVRMA.

3.7.6 OVERALL OBSERVATIONS AND RECOMMENDATIONS: COMPLIANCE AND ENFORCEMENT

In summary, the Audit Team notes the following findings that emerged from the evidence around enforcement and compliance:

- Compliance and enforcement efforts in the GNWT need improved coordination and integration with boards, communities, and even proponents.
- An integrated compliance and enforcement system that eliminates the separation between the regulators and officers/inspectors and involves community in monitoring would improve compliance and enforcement.
- Streamlining and enhancing the process of modifying and adapting licences to be able to effectively respond to adverse impacts and cumulative impacts, especially in a changing climate, is crucial.
- Improvement to reporting practices and existing tools and resources for enforcement and compliance is needed.

2025 Audit Recommendations

We recommend the following 2020 recommendations be carried over**: 2020-1-18** and **2020-1-19**. Additional recommendations are outlined below.

Recommendation 2025-3-13: GNWT and LWBs to explore what would be involved in a transition of inspection and enforcement responsibilities from GNWT to LWBs. We would expect that this exploration would identify the benefits and trade-offs of a transition as well as the change management approach(es) that would be needed.

> GNWT's response: The GNWT disagrees with this recommendation. The final Devolution Agreement between Canada and the GNWT clearly transferred authorities for the administration and control of certain lands to the GNWT, of which inspections and enforcement is one of many functions. It is also important to note that GNWT inspections staff are cross appointed under a series of legislation beyond that which is administered, in part, by LWBs, which provides both operational and financial benefits.
>
> LWBs' response: The LWBs will commit to both internal exploration of such a transition and informing and requesting the GNWT conduct its own similar internal exercise, with the goal for the GNWT and the LWBs to bring their respective internal findings together in early 2026 to consider this further.

4. PART 4: ADEQUACY OF RESPONSES OF PARTIES TO THE PREVIOUS AUDIT

The 2020 Northwest Territories Environmental Audit yielded 40 recommendations directed at various parties with decision-making roles in the NWT regulatory system. This included 19 recommendations on the effectiveness of regulatory regimes, 10 on the evaluation of environmental trends in water quality and quantity, five on the role of the responsible authority in coordinating data collection and analysis for environmental trend and/or cumulative impact monitoring, and six on the effectiveness of cumulative impact monitoring in the NWT. Responses to each recommendation were provided by relevant parties and published in the Final Report. The 2020 Audit also found that four recommendations from the 2015 Audit were still outstanding (Stratos Inc., 2020).

This section includes a review of the previous audit recommendations (all 2020 recommendations and the four 2015 recommendations that were identified as outstanding in 2020) and an analysis of the adequacy of responses and actions of parties to date. The 2025 Audit focused on the following lines of inquiry:

- If actions from lead parties are underway or completed, do they adequately address the recommendations?
- Are there any recommendations that have not been addressed?
- If lead parties disagreed with a recommendation, was a satisfactory rationale provided?
- Are outstanding recommendations still relevant?

To inform this analysis, updated responses on each recommendation were collected from relevant parties in February and March 2024.

Conducting an analysis of the responses to the previous Audit recommendations is crucial to ensuring that progress is being assessed over time and that responsible parties are taking actions towards the identified needs. This is intended to support the continuous improvement of the resource management system in the NWT.

4.1.1 SUMMARY OF RESULTS

Tables 4-1 and 4-2 provide a summary of the status of responses to 2020 Audit recommendations and outstanding 2015 Audit recommendations, respectively.

TABLE 4-1: STATUS OF RESPONSES TO 2020 RECOMMENDATIONS

Status	#
Outstanding	15
Partially Implemented	17
Adequate	8

TABLE 4-2: STATUS OF RESPONSES TO OUTSTANDING 2015 RECOMMENDATIONS

Status	#
Outstanding	3
Partially Implemented	1
Adequate	0

4.1.2 ADEQUACY OF 2020 RECOMMENDATIONS

The table below outlines the recommendations from the 2020 Audit and our evaluation of the status for each. For the 2020 recommendations that do not align with the topics of focus in the 2025 Audit, our analysis is included directly within the table. Previous recommendations that align with the lines of inquiry in the 2025 Audit are discussed within the relevant sections in this report.

TABLE 4-3: STATUS OF 2020 RECOMMENDATIONS

#	2020 Audit Recommendation	Current Status and Reasoning
Part 1: Effectiveness of Regulatory Regimes		
1-1	The GNWT and ASC consider a focus on climate change for the 2025 NWT Environmental Audit to test whether the Strategic Framework and Action Plan are effective and whether additional tools (regulatory or policy) need to be developed. The outcome we expect is that climate change is recognized as a core issue underlying environmental/resource management and impacts/considerations are being adequately regulated.	**Partially Implemented** The GNWT-ECC indicated that they have initiated a full independent review of the 2030 NWT Climate Change Strategic Framework and the 2019-2023 Action Plan in 2024, which will inform the development of the 2025-2029 Action Plan to be released in early 2025. The GNWT established the NWT Climate Change Council in 2021, which serves as a platform for non-elected staff of IGIOs, community representatives, and GNWT officials to engage and exchange insights. Meeting quarterly, the council offers guidance and advice to inform and advance GNWT climate change and environmental programs, aligning with Indigenous, governmental, and community perspectives. We found the response from GNWT indicates that actions are being taken to focus on climate change but the work is not yet complete; therefore, we found this recommendation is partially implemented. We encourage GNWT to continue this work and ensure that climate change impacts/considerations are being adequately regulated as an outcome.
1-2	The GNWT and CIRNAC establish a process for parties to meet on a regular basis and discuss implementation opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. At times, this process will need to	**Partially Implemented** The GNWT and CIRNAC identified processes that exist to bring parties together and discuss opportunities, particularly MVOD, which involves sessions and workshops with input from relevant parties and the development of work plans to

#	2020 Audit Recommendation	Current Status and Reasoning
	include IGIOs and industry as appropriate. We further recommend CIRNAC ensure a record of findings, actions, and outcomes are published to ensure transparency and to facilitate monitoring and auditing of progress. The outcome we expect is for a process to be established for frequent dialogue between relevant parties in order to discuss issues as they arise with the goal of fostering an integrated system of land and water management.	address challenges. We heard concerns from industry about a lack of progress coming from MVOD, but have seen some recent progress. Continual improvements are recommended. The response to this recommendation is discussed further in Section 3.1: Regulatory Scope.
1-3	Organizations/departments with a mandate for monitoring and mitigating community well-being work together to make their efforts complementary by developing a common agenda for their goals with a set of shared measures or indicators, and a plan for making results available to decision-makers during the EA and regulatory phases of projects. The outcome we expect is that community well-being is monitored consistently, and the results are used to inform and improve regulatory decision-making.	**Partially Implemented** Actions are being taken to bring parties together and conduct reviews to improve socio-economic outcomes, such as a socio-economic forum and efforts among GNWT departments to develop indicators. However, we have not yet received evidence that the GNWT has developed a common agenda for their goals with a set of indicators or a plan for making results available. The response to this recommendation is discussed further within Section 3.1: Regulatory Scope. **Recommendation to be carried forward.**
1-4	The GNWT refresh its NWT Mineral Development Strategy with the express goal of demonstrating unity in messaging and approach. Opening statements from the Premier, the Minister, and the Chamber of Mines should be enhanced by messaging from IGIOs.	**Partially Implemented** Recommendations 1-4 and 1-5 are discussed together given their interconnected nature. In updated responses, GNWT-ITI shared related initiatives they have been undertaking, including the development of the "Priorities for Critical Minerals in the NWT" in 2023 (GNWT, 2023b). The overview document outlines priorities to respect Indigenous rights, support capacity building, seek leadership direction from partners on critical minerals, enhance the regulatory environment, and co-develop regulations for a 'made in the NWT' Mineral Resources Act. ITI hosted a workshop in 2021 with representatives of federal, territorial, provincial, and IGIOs, industry, regulatory bodies, and academics. GNWT-ITI also noted its work to address regulatory challenges through MVOD (further discussed under Section 3.1: Regulatory Scope). GNWT-ITI indicated that work planning and early engagement will commence to inform the plan for the Mineral Development Strategy, in collaboration with multiple partners, and these 2020 recommendations will be taken into consideration when being developed. They noted that an updated strategy will be developed following the completion of Mineral Resources Act Regulations. We did not receive details of expected timelines for this work.
1-5	The GNWT include a section in the Mineral Development Strategy describing aspects of the regulatory system that are important to industry, such as clarity on timelines and regulatory improvements, that are felt to be limiting mineral development. This may require engagement with a range of regulators including the LWBs to ensure the accuracy of any messages or conclusions. The outcome we expect is that the GNWT, Indigenous Governments and boards work together to create common messaging and an approach related to responsible mineral development in the NWT. Further, we expect the topics and the overall approach described in the new Mineral Development Strategy to address some of the raised needs of industry about the regulatory system. Finally, we expect this exercise should be informed	

#	2020 Audit Recommendation	Current Status and Reasoning
	by outcomes from our recommendation in Section 1.3.2.	Industry expressed continued frustration in the lack of policy direction and concrete advancement by GNWT, noting that the Mineral Development Strategy and NWT Economic Opportunities Strategy are virtually irrelevant in today's context. We found that these two recommendations have been partially implemented. The Mineral Development Strategy is yet to be updated. However, we see that this process has been started and the GNWT has intentions to address these recommendations. We encourage the GNWT to continue to advance the initiatives mentioned.
1-6	The GNWT create an updated economic development strategy and regularly examine the effectiveness of this strategy against relevant measurable economic indicators such as gross domestic product, unemployment, and economic resilience. The outcome we expect is that the NWT has an economic development strategy where it monitors indicators of success, and the results of monitoring are used to improve the strategy over time.	**Partially Implemented** In an updated response, GNWT-ITI shared the following: "As part of the mandate of the last Assembly, work was completed on five regional economic development plans (REDPs) that were tabled in fall of 2023 and include: a socio-economic profile of the Region; a summary of regional strengths, constraints, and development opportunities, and a summary of key economic development priorities for the Region which reflect the results of research and engagement with key regional stakeholders, Indigenous Governments, Community/Municipal Governments, and participants. These plans will be a useful tool for all communities and stakeholders as work continues towards growing and diversifying the NWT's regional economies." The regional plans (found here) are summaries of opportunities and potential areas of focus, as identified by participants in the process, but do not constitute 'plans' or 'strategies' with specific activities, responsible leads, timelines, and/or performance measures (GNWT, 2023c). They are useful summaries at a regional level, but do not constitute an economic development strategy as per the recommendation. We therefore found that this recommendation has been partially implemented.
1-7	That the LWBs regularly meet with key client groups outside of specific regulatory processes to discuss opportunities and challenges with the goal of continuing to improve the regulatory system. We further recommend the LWBs use the information from these engagement sessions to inform priorities and workplans. The outcome we expect is for the LWBs to create opportunities outside of specific regulatory processes, to understand the needs of groups of proponents (e.g., mineral exploration proponents). We also expect the LWBs to consider creating	**Adequate** LWBs have identified this engagement as a priority and have undertaken several initiatives to meet with groups outside of specific regulatory processes to understand needs and inform actions. The LWBs have supported coordination and training through events that bring regional practitioners together and they have also updated or developed new guidance documents to address needs. The response to this recommendation is discussed further within Section 3.2: Engagement and Consultation.

#	2020 Audit Recommendation	Current Status and Reasoning
	guidance and products that address the expressed needs identified by proponents.	
1-8	That the LWBs and the GNWT develop a standardized mineral exploration permitting bundle, in consultation with affected parties, similar to what the MVLWB has already done for municipal water licences. The outcome of such an approach would be to streamline the approval of low-risk exploration activities while maintaining the made-in-the-north environmental protection and management system operating in the Mackenzie Valley. A standardized, or "fill-in-the-blanks", permitting bundle for low-risk mineral exploration could include such items as a draft project description, draft management plans, draft engagement plans, a draft screening report, and draft authorizations.	**Partially Implemented** The LWBs and the GNWT-ITI indicated that efforts to make it easier for proponents entering the regulatory environment have been made through MVOD. In 2023 and 2024 MVOD meetings, the LWBs suggested that some concerns could be better addressed through amendments to the Waters Regulations and shared that this was well received by attendees. The GNWT reported on progress to advance amendments to the Waters Regulations and Waters Act at the MVOD virtual meeting in November 2024. LWB representatives sent a letter to Federal and Territorial Ministers in May 2024 and industry representatives sent a letter in June 2024, both emphasizing support for changes to the Waters Regulations and stating that this should be prioritized over updates to the Waters Act. Industry interviewees suggested that a permitting bundle could still be useful for the more prescriptive aspects of requirements. LWBs have more recently advanced the permitting template through a contract with an external consultant (WSP). In an update provided in March 2025, LWBs highlighted that WSP has drafted a Waste Management Plan template and Spill Contingency Plan template that are pre-filled with information typical to early exploration projects. This information will reduce the amount of information applicants need to fill in but can be customized to provide information relevant to their project (e.g., different kinds of waste or waste management techniques). In addition, LWBs note that the templates reduce duplicative information requirements and are more plain language. The LWBs plan on releasing the templates early in the summer of 2025. We found that this recommendation remains partially implemented. A potential alternative approach to addressing the concerns about difficulty entering the regulatory environment has been identified (i.e., changes to regulations) and a permitting bundle is under development. The progress on the templates is promising.

#	2020 Audit Recommendation	Current Status and Reasoning
1-9	The MVEIRB and the LWBs, in cooperation with other relevant regulators and affected Indigenous communities, establish, where necessary, a project TK Advisory Committee or talking circle to advise on the use of TK for the purpose of enhancing decision-making of the project. Such TK committees would advise project proponents and regulators and conduct monitoring, if required, from pre-regulatory though regulatory reviews, construction, operation, and beyond as required. To be most effective, a TK Advisory Committee would need to be established as early as possible, but no later than the start of an EA, and live through to the end of the project, advising both regulators as well as the project proponent. The outcome we expect is that TK has an opportunity to be meaningfully incorporated and used in decision-making throughout the life of a project from project design, through operations, and closure. Project proponents are strongly encouraged to help fund such initiatives, as it could form an important element of community engagement and increase awareness about impacts, mitigation, and best operational practices.	**Partially Implemented** We did not find evidence of TK Advisory Committees being leveraged. However, the MVEIRB demonstrates innovative and impactful processes to create space for TK through initiatives such as Cultural Impact Technical Sessions, which provide a platform for TK holders, and publishing guidelines that discuss the incorporation of TK within impact assessments and monitoring programs. The boards also demonstrate the intent of the recommendation through continued efforts to engage with TK during assessment processes. The response to this recommendation is discussed further within Section 3.6: Outcome of Regulatory Decisions. **Recommendation to be carried forward.**
1-10	The GNWT and the federal departments with responsibility for engagement and consultation under the MVRMA work with their respective clients to review and improve engagement strategies. The outcome we expect is that strategies for engagement and consultation are regularly reviewed and improved as necessary.	**Partially Implemented** Some opportunities have been identified that may support this recommendation to review and improve engagement and consultation activities and there is evidence of some improved engagement strategies or clear communication of responsibilities. The response to this recommendation is discussed further within Section 3.2: Engagement and Consultation. **Recommendation to be carried forward.**
1-11	The MVLWB re-examine its engagement process and enhance the process where appropriate to better detect emerging public concerns and to adapt their plan for engagement as required. The outcome we expect is for MVLWB to be aware of community issues prior to hearings.	**Adequate** The LWBs have addressed this recommendation through strategic planning and updated public-facing documentation. The LWBs released their Strategic Plan for the Land and Water Boards of the Mackenzie Valley (2022-2026) with a pillar focused on relationship building and outreach, as well as an updated Engagement and Consultation Policy with improvements after extensive input from relevant parties.

#	2020 Audit Recommendation	Current Status and Reasoning
		The response to this recommendation is discussed further within Section 3.2: Engagement and Consultation.
1-12	The Land Use Planning Boards work with the GNWT to identify key capacity challenges and develop and implement a plan to help alleviate the identified challenges (e.g., to share administrative components amongst planning boards). The outcome we expect is that land use planning efforts are sufficiently resourced.	**Adequate** Although capacity challenges remain, we are also pleased to hear that the Government has increased the core funding for LUPBs. We also understand that this recommendation may not be entirely suitable, as the responsibility to resource land use planning lies with the GoC and administrative components among LUPBs may be kept separate to reflect regional differences. Therefore, capacity challenges can be more appropriately addressed through other recommendations. The response to this recommendation is discussed further within Section 3.3: Land Use Plans.
1-13	The Land Use Planning Boards develop monitoring and evaluation frameworks for all established plans, using the Sahtú LUP as an example/template to reduce capacity challenges. We also recommend that those responsible for monitoring the environment and community well-being (e.g., GNWT ENR; GNWT-ITI; GNWT Education, Culture and Employment) participate in LUP reviews and updates, at a minimum, to ensure community well-being and environmental monitoring information is considered and integrated into updated plans. The outcomes we expect are monitoring and evaluation frameworks for all established plans as well as improved integration of community well-being and environmental monitoring information into the land use planning process.	**Partially Implemented** All responding parties acknowledged that the SLUPB has done great work that can be learnt from but that the approach to developing monitoring and evaluation frameworks should be specific to each region and using the SLUPB framework as a "template" may not be appropriate. The LUPBs also reiterated that they are "chronically under resourced" and adequate funding is needed to work on additional initiatives. The SLUPB shared that it has undertaken its Stream 1 Monitoring & Evaluation work, with three annual reports published. This work has involved monitoring how Regulators are evaluating the Plan's Conformity Requirements when issuing Authorizations or Dispositions. It was evident from this process that although Regulators were keen to comply, the Plan was not being implemented and further education was needed. However, the SLUPB indicated that it is too early to make a determination since there has not been much development in the region during these years. The SLUPB is also currently working on its Stream 2 Monitoring & Evaluation, which evaluates whether the Plan's Vision and Goals are being achieved. The SLUPB shared in an interview that a lesson learned from its framework-related experiences has been to work directly with the regulators to understand their capacity issues and try to make the process as easy as possible for everyone. The GLUPB indicated that they would develop a monitoring and evaluation framework in their original response to the 2020 recommendation but emphasized that capacity is a barrier. This was

#	2020 Audit Recommendation	Current Status and Reasoning
		reaffirmed in an updated response, but positive news was shared that the GLUPB core funding level has recently increased so that staff can be hired. In an interview, the GLUPB shared that it is aiming to develop a simplified framework to guide monitoring and evaluation activities, along with a policy to provide clarity on how to approach monitoring and evaluation. At the time of the interview in 2024, it was suggested that the earliest these documents could be in place is in 2025, due to the ongoing capacity constraints. In response to the second part of this recommendation, the GNWT indicated that relevant departments do participate in LUP reviews, including those responsible for monitoring environmental and community well-being. CIRNAC indicated that it would continue to contribute to the development or modification of monitoring and evaluation frameworks as requested by the boards and coordinate federal departments' participation where relevant. We found that this recommendation has been partially implemented. The GLUPB has experienced capacity challenges, which have limited work on a monitoring and evaluation framework. However, it is positive to observe that the SLUPB has made progress on its monitoring and evaluation, that GLUPB has intentions to develop a framework, and the GNWT indicated that they are involved in integrating environmental and community well-being considerations in land use planning processes.
1-14	The GNWT and the GoC work collaboratively to adequately fund land use pre-planning/planning activities in regions without settled land claims; it is incumbent on the GNWT and the GoC to adequately fund this process in these areas. The outcome we expect is that the process for development of new LUPs is adequately and consistently resourced.	**Outstanding** Although both CIRNAC and the GNWT agree with this recommendation, no progress has been made to adequately fund these activities. While some opportunities have been identified by CIRNAC, funding gaps remain and there is no evidence of collaboration between CIRNAC and the GNWT to advance this. Focus may be on land and resource negotiations rather than land use planning at this time. The response to this recommendation is discussed further in Section 3.3: Land Use Plans. **Recommendation to be carried forward.**
1-15	The GNWT offer training for LUP implementation to the broader NWT community responsible for LUP implementation and monitoring, namely the LWBs, Land Use Planning Boards, and all regulators responsible for conformance authorizations. The outcome we expect is that appropriate training is	**Outstanding** In their updated response, the GNWT indicated that it "supports working with Land Use Planning Boards to identify how best to support and deliver LUP implementation training to those who are responsible for implementation" but did not provide any updates on new developments related to collaboration and training.

#	2020 Audit Recommendation	Current Status and Reasoning
	available both for land use planners as well as others responsible for LUP implementation and monitoring.	In interviews, the LUPBs emphasized the need for training on LUP implementation and monitoring within GNWT departments and regulators, rather than for the LUPBs themselves. A LUPB also noted that working with the LWBs has been successful, as they have a strong working relationship. LUPBs expressed concerns regarding conformity with LUPs, including a lack of a conformity determination prior to the GNWT issuing licences and only looking at it when doing year-end reports, lack of knowledge among GNWT staff around LUPs and conformity requirements, lack of meaningful engagement with regulatory authorities to ensure conformities, and lack of a record of conformity determinations. A LUPB suggested in an interview that the GNWT should share their training with the LUPBs for it to be enhanced by board staff. They emphasized that training should be ongoing, and that new staff need to be onboarded with the training. They also suggested that the GNWT and all regulators should have policies to ensure conformance determination is part of their processes. We found that this recommendation is outstanding, as no new training has been offered by the GNWT since the last Audit. It is important to recognize that training should be directed towards the regulators responsible for conformance authorizations rather than for the LUPBs or LWBs themselves.
1-16	The LWBs seek to develop a participant funding program, funded by the federal and territorial governments, to support regulatory decisions within its jurisdiction. The funding would provide capacity support to Indigenous parties requiring assistance to participate in the regulatory process, as well as technical support. The outcome we expect is that Indigenous parties have adequate resources to meaningfully participate in licensing/permitting processes. In the interim, and until such time as a capacity funding program can be developed, we encourage the GNWT provide staff services (in-kind support) to provide technical advice and information to interested Indigenous parties in order to allow Indigenous parties to understand the project impacts and potential mitigations for development of recommendations to the LWBs.	**Partially Implemented** The NPFP was expanded during its renewal to include funding for dedicated non-project specific Indigenous impact assessment capacity building initiatives and limited funding for large regulatory processes (e.g., water licensing). However, gaps remain in covering regulatory processes that fall under the jurisdiction of LWBs and IGIOs continue to express concerns that the amount of funding and eligible activities do not fully meet their needs. The response to this recommendation is discussed further within Section 3.5: Adequate Resources. **Recommendation to be carried forward.**

#	2020 Audit Recommendation	Current Status and Reasoning
1-17	The GNWT introduce a multi-year funding envelope for a portion of the IRMA funds; this is a leading practice for grant and contribution funding programs. We also recommend that the GNWT increase the IRMA funding envelope by an incremental amount commensurate with an appropriate index, such as cost-of-living differential or inflation, in order to continue to support Indigenous organizations at a similar level year-over-year. We further recommend GNWT help facilitate coordination opportunities between applicants where appropriate, since only the GNWT as the fund manager can identify similar project proposals that may benefit from cooperation. The outcome we expect is reduced administrative requirements (with multi-year funds), adequate resources to meaningfully participate, and greater coordination and cooperation between applicants.	**Outstanding** GNWT is working on acquiring additional funding and has prioritized updating the IRMA Program to increase funding and improve outcomes for participants. However, these changes have not been implemented. The response to this recommendation is discussed further within Section 3.5: Adequate Resources. **Recommendation to be carried forward.**
1-18	The LWBs and the inspection units of GNWT and the GoC establish a process to meet and discuss challenges and solutions with respect to the inspection regime in the Mackenzie Valley, specifically as it relates to clarifying roles and responsibilities, ensuring adequate inspector capacity, as well as timely and transparent inspections, reporting and follow-up. We further recommend boards ensure a record of findings, actions, and outcomes are published to ensure transparency and facilitate future auditing of progress. The outcome we expect is that there is a clear understanding of roles and responsibilities related to enforcement and compliance, that inspectors have the capacity and necessary tools and resources to execute these responsibilities, and that the LWBs and GNWT Inspection work together with the goal of ensuring a functioning enforcement and compliance regime for MVRMA authorizations.	**Outstanding** There have been some efforts to address concerns through various meetings but there have been challenges with meaningful participation and subsequent actions. There could be more opportunities to review the entire scope of responsibilities and concerns regarding the inspection regime and track the outcomes of these meetings and discussions. The response to this recommendation is discussed further within Section 3.7: Compliance and Enforcement. **Recommendation to be carried forward.**
1-19	The GNWT develop and publish an overall project inspection scheme to assist regulators, the public, and permit holders in tracking of 'unacceptable' items from previous inspections all the way to their satisfactory conclusion and inspector sign-off. Furthermore, improvements	**Outstanding** Efforts were underway to upgrade the GNWT IRRA system, but technical challenges arose and the GNWT is now planning to release a new system in 2024. We encourage the GNWT to continue developing an enhanced reporting system and

#	2020 Audit Recommendation	Current Status and Reasoning
	could be made in the consistency of information collected to ensure future inspectors, the proponent, and regulators appreciate the context of an inspection. We encourage the GNWT to work with their federal counterparts on this initiative, including CIRNAC and the Canada Energy Regulator. The outcome we expect is that the GNWT adopt a publicly viewable singular common inspection scheme, to accompany the filing of multiple disparate inspector reports. Such a scheme would have a common numbering system to label an observation, event, or location. For each observation or event, the inspector would clearly describe their observation, the compliance tool deployed (surveillance, advice, direction, etc.), a description of the specific company action required, the due date for the company action, the date that the issue is closed in the opinion of the inspector, and the reason for closing the matter. Such a reporting scheme would greatly help multiple inspectors and regulators better track progress, and would assist auditing of the inspection regime.	consider the details of this recommendation to improve the inspection regime. The response to this recommendation is discussed further within Section 3.7: Compliance and Enforcement. **Recommendation to be carried forward.**
Part 2: Responses to Audit Recommendations: Evaluation of Environmental Trends in Water Quality and Quantity		
2-1	The RA work with TK holders to consider how best to recognize and utilize TK-based information in the evaluation of water quality and quantity trends and to develop a transparent process to guide the use of TK. The outcome we expect is that TK-based information is available and utilized in water trend analysis in a way that is compatible and respectful for TK holders.	**Adequate** The GNWT-ECC, as the responsible authority, has shared that it is guided by the GNWT Traditional Knowledge Policy and Implementation Framework and has a number of ongoing initiatives, including the following: "a) A NWT Water Strategy Indigenous Steering Committee, which is made up of representatives from NWT IGIOs, provides strategic advice on NWT Water Strategy implementation, including the role of IK in water stewardship; b) The Mackenzie River Basin Board, of which the GNWT is a member, uses an approach grounded in IK and community experience to assess the Basin's aquatic ecosystem health in the State of the Aquatic Ecosystem Report; c) Multi-jurisdictional development of a framework for inclusion of IK in the bilateral water management agreement implementation; and d) Annual NWT Water Strategy partner meetings that bring together water partners to share ways of knowing in implementation activities. This ongoing work continues to inform the GNWT's approach to

#	2020 Audit Recommendation	Current Status and Reasoning
		the use of IK in water-related decision-making and understanding of water quality and quantity across the NWT." We found that the response to this recommendation is adequate, given that there is a TK policy guiding the GNWT and there are multiple ongoing initiatives specifically related to water and the use of TK. Additional findings are summarized in Section 3.1 of the Audit.
2-2	The RA develop and/or provide descriptions of the rationale and study design for individual monitoring stations sampled by the federal and territorial government and make this information available at a central electronically-accessible location. The outcome we expect is that the network of long-term water monitoring stations in the NWT is described in a way that makes it possible to see gaps and overlaps and to understand the intent and purpose of monitoring stations.	**Outstanding** The GNWT agreed with the intent of this recommendation and some efforts have been underway to improve water monitoring information sharing. However, barriers remain to communicating effectively and this specific recommendation has not been implemented. The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods. **Recommendation to be carried forward.**
2-3	The RA perform a periodic review (e.g., every five years) of the overall monitoring network in the NWT to ensure that the network is sufficient to detect and explain trends in water quality and quantity. Monitoring locations should be added or dropped with the key consideration being their maintenance over the long-term. Short-term monitoring programs are of limited use unless they are intended to answer a specific question over the short-term. The outcomes we expect are that water monitoring efforts are focused on stations located at sites that are representative of relevant watersheds and that can be maintained over the long-term.	**Outstanding** GNWT-ECC indicated that evaluations are conducted in a variety of ways at the individual location or monitoring program level (e.g., NWT-wide Community-based Water Quality Monitoring (CBM) program was evaluated by a third party in 2023 as part of a ten-year review, transboundary water quality monitoring of the Slave and Hay rivers are evaluated and reported on yearly and changes are discussed by the Bilateral Management Committee established under the AB-NWT Agreement) and through engagement with water partners (e.g., NWT Water Stewardship Strategy and Indigenous Steering Committee). We found that this recommendation is outstanding. Although we recognize that regular reviews are a part of water monitoring programs across the NWT, we did not see evidence of a review of the overall network or an assessment of opportunities for improvement. **Recommendation to be carried forward.**
2-4	The RA develop a lake-specific monitoring program. While there are hundreds of thousands of lakes in the NWT, reliable tracking of environmental trends could be conducted on a small subset of lakes stratified by size, watershed area and ecoregion. Ontario's Broad Scale Monitoring Program is referenced as an example of a program addressing large numbers of lakes in a systematic manner	**Outstanding** GNWT-ECC indicated: "The NWT-wide CBM program monitors six sites within Great Slave Lake as well as Samba K' (Trout Lake). Monitoring of Great Slave Lake water quality has been expanded to 14 sites, including three deep-water sampling locations using moorings. Long-term lake monitoring is continued in the Coppermine and Lockhart basins and numerous lakes in the North Slave region. A

#	2020 Audit Recommendation	Current Status and Reasoning
	to document a) trends over time and b) the state of the resource. The outcome we expect is that long-term water trend information is available to the RA for both rivers and lakes, to provide a comprehensive picture of aquatic health.	number of lakes have been monitored through short-term studies in response to environmental concerns (e.g. algal blooms in Jackfish Lake near Yellowknife)." The GNWT also shared that "a comprehensive review of NWT CIMP's Monitoring Blueprints was initiated in 2021-22 and completed in 2022-23." Through this process, lake monitoring data was identified as a gap and included in the Blueprint, which is used as a means to prioritize funding. We found that this recommendation is outstanding. We believe that regional lake-specific monitoring in the NWT remains a major gap in current monitoring programs. High variability and seasonality in water quality in rivers can often confound interpretation of trends in long-term monitoring data, a problem which may be partially addressed by expanded lake monitoring. Great Slave Lake remains an important focus for monitoring of water quality in the NWT, however, effort to expand lake monitoring on small and medium size lakes across the NWT would be invaluable to the understanding of the impact of multiple stressors including climate change on water quality in the region. While lake monitoring has been acknowledged as a gap, no clear path forward has been identified to fill it. We therefore found that this recommendation is outstanding. **Recommendation to be carried forward.**
2-5	The various large mining operations are compiling long-term (20+ years) records of water quality and biology in lakes as part of their AEMPs. These include reference lakes which document regional and climate-related changes. These records may be lost or discontinued after mines close. We recommend the GNWT consider assuming monitoring programs (or at least key stations within those programs) initiated by industry as an efficient way to build a database for lakes and rivers. The outcome we expect is that the RA curtail the loss of millions of dollars in monitoring investments made by industry and increase their ability to detect changes over the long-term. Overall, the recommendations in this section are meant to support a cost-effective and focused network of long-term water monitoring stations that can produce data suitable for the detection of trends and their potential causes in key NWT watersheds.	**Outstanding** GNWT-ECC agreed with the intent of this recommendation and indicated that "The GNWT may consider future incorporation of these industry-led monitoring sites into the existing GNWT monitoring networks, depending on the benefits and feasibility of doing so." However, they did not provide any evidence of actions towards doing so nor any clear path forward. For this reason, we found that this recommendation is outstanding. Acknowledging that monitoring all sites will be infeasible nor useful additions to the GNWT monitoring network, we recommend that the GNWT begin by compiling a database of sites from industry programs that may be candidates for incorporation into GNWT monitoring networks. Section 2.1.2 of the 2020 Audit identified that only 8 of 13 watersheds audited were adequately monitored through stations maintained by ECCC or the GNWT or through the CBM program supported by the GNWT. The potential for data from industry-led programs to fill these gaps may be worth exploring. **Recommendation to be carried forward.**

#	2020 Audit Recommendation	Current Status and Reasoning
2-6	The GNWT improve the consistency and quality of trend analyses performed on available water monitoring data by implementing a consistent methodological framework for water. This would include: 1. Core parameter list - Additional parameters could be included per the individual study goals, but a core list of required parameters for all monitoring in the territory would greatly increase the compatibility between data sets 2. Consistent analytical laboratory methods and detection limits required for all core parameters 3. Establish a statistical framework for: a. Outlier detection and removal b. Censored data handling prior to or as part of trend analysis i. Allowable percentage of non-detect samples ii. What concentrations to substitute for non-detects c. Trend Analysis methodology i. parametric or non-parametric testing preferred trend method (Mann Kendall or other – we note that the more recent trend assessments all used Mann Kendall so some consistency seems to have established itself) ii. Critical p value for determining significance of trends iii. Defining Seasons (Flow regime vs. Calendar Year) The outcome we expect is that trend analyses for all watersheds are performed using a consistent methodological framework to support consistent interpretation of results.	**Adequate** GNWT agreed with the intent of this recommendation and stated that they are engaged in numerous initiatives to improve trend analysis through more consistent data collection, management and evaluation of trends. The GNWT highlighted several initiatives under NWT CIMP that have aimed to develop core monitoring parameters specific to water quality as a part of the Water Monitoring Blueprint. We found that the response to this recommendation is adequate, acknowledging that this work is ongoing and there will be a continued need to review and update methods as best practices evolve and to ensure that the methods developed are followed to the extent possible.
2-7	The GNWT implement a system of qualified peer-review of all internally and externally produced reports on environmental trends. The outcome we expect is that trend analyses for all watersheds are of consistent and adequate quality and that reports meet acceptable professional standards.	**Adequate** GNWT-ECC shared the following about their peer-review processes: "The GNWT will continue with the practice of qualified in-house peer-review for all internally and externally produced reports. This internal review process ensures consistency with accepted methodologies in academic peer-reviewed literature. All GNWT-led manuscripts that are published in scientific journals will be also peer-reviewed within the GNWT prior to submission to journals and undergo the respective journal's peer-review process. Reports that are developed with partner institutions (e.g., transboundary water agreement programs) will be reviewed internally by each institution prior to publication. Where possible, trend analysis will follow a consistent framework so that results are transferrable to other

#	2020 Audit Recommendation	Current Status and Reasoning
		internal and external reports evaluating hydrologic and water quality metrics." We found that this response is adequate, as it shows that the GNWT follows a system of qualified peer-review and makes efforts to ensure consistency.
2-8	The GNWT provide a framework for future trend reports to follow for the evaluation of data such as a requirement that the authors interpret the significance and potential causes of any observed environmental trends, and that they address the potential for cumulative impacts. The outcome we expect is that watershed trend reports by contractors for the GNWT follow a consistent framework of interpretation and provide a discussion of significance of any trends in order to inform the GNWT such that they can respond in an appropriate way. The overall outcome of Sections 2.1.3 and 2.1.4 is that trend analyses and summary reports prepared for each watershed accurately and defensibly describe the presence, causes and environmental significance of detected trends.	**Outstanding** GNWT-ECC indicated the following: "The GNWT continues to employ a general framework for evaluating water quality and quantity with standardized levels of significance and appropriate statistical testing, consistent with current scientific literature and best practices. Cumulative effects assessment and an interpretation of observed environmental changes are common expectations of watershed trend analysis reporting. However, watershed trend analysis objectives are often numerous, and the scope of each assessment can differ." We found that this recommendation is outstanding. Although the GNWT employs a general framework, continuing to use this does not address the inconsistencies in trend reports identified in the 2020 Audit. We encourage the GNWT to do more work to ensure consistencies across trend reports, such as by expanding on the existing framework. **Recommendation to be carried forward.**
2-9	The RA work with other appropriate GNWT divisions and parties in the NWT to evaluate how best to improve their water monitoring efforts with the goal of ensuring that any data collected reflect the information needs of residents and could be used for trend analysis and cumulative impact monitoring of water. With respect to trend analyses, the evaluation should focus on how best to optimize the availability of long-term data sets to provide good coverage of the NWT and address the gaps identified in Section 2.1.2. The outcome we expect is that water monitoring efforts in the NWT adequately address stakeholder concerns.	**Partially Implemented** GNWT acknowledged the monitoring gaps identified and the importance of partnering with others for improved monitoring efforts and addressing stakeholder concerns in the NWT. GNWT noted that the recent review of the NWT CIMP's Monitoring Blueprints included collecting input on priorities and data gaps from subject matter experts, decision-makers, and the NWT CIMP Steering Committee. We found this recommendation partially implemented. This work represents a first step towards addressing stakeholder concerns, however implementing additional monitoring to address these concerns remains outstanding. **Recommendation to be carried forward.**
2-10	The GNWT improve the communication of available water monitoring information to residents. These efforts should include increased recognition of public concerns in program design (see also Recommendation 2-9), interpretation of trend monitoring information (see also	**Adequate** GNWT-ECC indicated that water monitoring information is shared to the public in a variety of ways, including plain language summaries on the GNWT website or NWT Discovery Portal, the Mackenzie DataStream that incorporates the

#	2020 Audit Recommendation	Current Status and Reasoning
	Recommendation 2-8), the reasons for monitoring and site selection (see also Recommendation 2-2), increased emphasis on plain language summaries and interpretations derived from more detailed technical analyses and improved awareness of where and how such information can be accessed. The outcome we expect is that NWT residents are aware of and understand water trends in their regions.	rationale for sampling locations, monthly GNWT bulletins, and near-daily reports during freshet, on water levels and flow for key locations. NWT CIMP also communicates results through plain language summaries and technical reports on its website or through the NWT Discovery Portal and requires funded projects to upload data onto Mackenzie DataStream, with communicating results to the public being one of four key activities of the program. It was acknowledged by a respondent of the organizational questionnaire that the availability and synthesis of information on the Mackenzie DataStream platform is beneficial and should be employed for caribou monitoring. In the 2025 Audit public survey, 82% of respondents were aware of water monitoring programs in general, 52% were aware of water monitoring program results, and 37% were aware of where to find results. The awareness of water monitoring has increased significantly since the 2020 Audit, which showed results of 68%, 40%, and 9% respectively. When invited to provide comments on water, caribou, and fish monitoring, respondents suggested that further improvements are needed to increase public involvement in monitoring programs and provide more clarity on where to access data and plain language summaries in general. We found that the response to this recommendation is adequate, as there are established means of communications and there has been improvement to water monitoring awareness.
Part 3: Role of the Responsible Authority in Coordinating Data Collection and Analysis for Environmental Trend and/or Cumulative Impact Monitoring		
3-1	The RA identify an overarching coordinator to ensure the RAs responsibilities under MVRMA Section 146 are fulfilled; a logical coordinator could be the existing NWT CIMP. The coordinator for the RA must be given the authority including appropriate resources to direct the monitoring of other parties such that various entities collect information in a coherent manner according to an accepted monitoring structure and with the authority of regulations to ensure cooperation. The outcome we expect is that the relevant business units with responsibility for cumulative impact monitoring and trend monitoring are coordinated in delivering the RA's responsibility.	**Outstanding** The GNWT has indicated that it is fulfilling its obligations for cumulative impact monitoring under Section 146 of the MVRMA through several cumulative impact monitoring initiatives. However, we have not received evidence that a coordinator has been instated to oversee or provide guidance to the groups conducting monitoring so that they can collect information in a coherent manner to support cumulative impact monitoring. The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods. We observe that this recommendation, as written, is unlikely to be advanced or addressed in the territory.

#	2020 Audit Recommendation	Current Status and Reasoning
3-2	The GNWT, on the advice of the overarching coordinator identified in Recommendation 3-1, formally assign roles, responsibilities, and accountabilities, to relevant business units (i.e. other departments, expert divisions and programs that are involved in monitoring). The outcome we expect is that relevant business units have clarity in their contribution to fulfilling the RA's responsibility under MVRMA Section 146. We recognize that implementation of Recommendations 3.1 and 3.2 may result in several business units having increased responsibilities. Therefore, it will be important to ensure the GNWT provides adequate resources to carry out their new responsibilities.	**Outstanding** In their updated response to this Audit recommendation, the GNWT-ECC indicated its opinion that the current structure is achieving the intention of the MVRMA section 146. They noted that NWT CIMP was preparing a document outlining the roles and responsibilities of all parties involved in cumulative impact monitoring in the NWT within the existing structure. We found that the recommendation is outstanding, since these initiatives have not yet been implemented.
3-3	The RA develop a monitoring structure that will ensure that individual monitoring programs undertaken across the NWT can contribute to baseline description, trend analyses and cumulative impact monitoring by the RA. This should be done in consultation with other organizations or departments that conduct or direct monitoring in the NWT. This structure could be implemented through policy, guidelines and/or regulations and should define standards for monitoring such as: Rationale for site selection Core parameter or indicator lists for each VEC Sampling methods and analytical methods (e.g., detection limits, etc.) QA/QC and other data handling methods Statistical methodology Evidence that the results of individual monitoring programs were being reviewed by the RA, the methods and interpretation verified, and the results disseminated The outcome we expect is that there is a common set of rules and expectations to guide monitoring in the NWT such that results across a range of monitoring programs are compatible for the purpose of trend and cumulative impact monitoring analysis.	**Outstanding** NWT CIMP finalized the Cumulative Impact Monitoring Framework in early 2025, which will not address this recommendation. We found this recommendation to be outstanding and we observe that it is unlikely to be implemented by GNWT as written. The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods.

#	2020 Audit Recommendation	Current Status and Reasoning
3-4	The co-management boards use their ability to impact the design of monitoring programs to ensure the adoption of consistent monitoring requirements for proponents. The outcome we expect is that industry's monitoring efforts will be able to aid the RA in meeting its Section 146 responsibilities. The overall outcome we expect from the above sections is that existing and future monitoring programs in the NWT contribute meaningfully to environmental trends analyses and cumulative impact monitoring efforts by the RA.	**Outstanding** There are several examples within GNWT of efforts to ensure consistent monitoring techniques. However, respondents highlighted limitations such as other related programs that are not standardized, the lack of evidence provided by GNWT to lead to LWBs adding specific conditions for proponents, and ultimately the avoidance of prescriptive monitoring requirements in EA conditions. Monitoring programs do not currently consider cumulative impacts in a meaningful and consistent manner. The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods. **Recommendation to be carried forward.**
3-5	The GNWT and CIRNAC work together to develop regulations under Section 150(a) of the MVRMA to ensure implementation of a monitoring structure for the NWT that would help the RA to successfully fulfill Section 146 responsibilities. The outcome we expect is that entities that conduct monitoring or cause others to conduct it are required to contribute usable data to the RA in support of its Section 146 responsibilities.	**Outstanding** CIRNAC's updated response to the recommendation indicated that CIRNAC, GNWT, and various Indigenous partners are in the early stages of a regional study for the Slave Geological Province, as requested by the Tłı̨chǫ Government. They noted that this study will support cumulative impact considerations. This input echoes MVEIRB's above. GNWT also responded to the recommendation identifying that regulations under Section 150(a) are not a current priority, and they expressed that they are adequately addressing cumulative impact monitoring. It also pointed to several GNWT initiatives that contribute to the fulfillment of MVRMA Section 146 including the water quality reporting guideline development and adoption by the LWBs, the Cumulative Impact Monitoring Framework, and the development of a pilot project investigating a novel approach to regional long-term monitoring for water. We found that the recommendation is outstanding – although initiatives are being developed to support cumulative impact monitoring as GNWT responded, the current efficacy of these initiatives in terms of application to decision-making is unknown. The evaluation of research proposals indicates that there is some effort to align cumulative impact monitoring efforts with the needs of decision-makers, but the effectiveness of these efforts is in question. We observe that this recommendation, as written, is unlikely to be advanced or addressed in the territory.

#	2020 Audit Recommendation	Current Status and Reasoning
Part 4: Effectiveness of Cumulative Impact Monitoring in the NWT		
4-1	The MVEIRB and the LWBs clearly describe the specific information required from government, including the RA, that would aid the boards in considering cumulative impacts in making decisions. We encourage the boards to consider what data, analyses, interpretation, and significance requirements would help inform cumulative effects assessment (MVEIRB) and cumulative impacts management (LWBs). We would expect, for example, that the boards might outline requirements for government to provide baseline status of VECs subject to a development proposal and that this would form the basis of the cumulative impact assessment by the proponent. The outcome we expect is for board process participants to better understand what is expected of them allowing them to improve their submission in individual proceedings and, more broadly, to assist the RA in identifying monitoring priorities.	**Partially Implemented** Boards shared initiatives to describe the information required for considering cumulative impacts, such as the LWBs' participation in the NWT CIMP Steering Committee and MVEIRB's 2024 guidelines for major projects, which include its approach to cumulative effects. However, a disconnect remains between the cumulative impact information and guidelines that are available and their application and use by decision-makers. Decision-makers express significantly variable opinions regarding the efficacy and sufficiency of cumulative impact information in their decisions. The response to this recommendation is discussed further within Section 2.2: Sufficiency of Cumulative Impact Monitoring Information.
4-2	The RA consider a risk-based cumulative impact monitoring strategy, prescribing the design and delivery of a cumulative impact monitoring program to meet Section 146 of the MVRMA, in response to evidence that a particular VEC is demonstrating a concerning negative trend. Traditional Knowledge may be a particularly valuable method of tracking wildlife populations such as caribou, in which TK observations could alert the RAs to a change and could then inform development of a response framework. The outcome we expect is that when a substantial concern in a VEC is identified, comprehensive cumulative impact monitoring is deployed in order to help determine the possible cause of the change.	**Adequate** GNWT-ECC released its Cumulative Impact Monitoring Framework in January 2025. The Framework discusses the process by which monitoring and research priorities change to reflect risk and acknowledges the role TK has in adaptive analysis. The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods.
4-3	The RA should design a coherent cumulative impacts monitoring and assessment framework for the NWT that includes clarity on language, the role of different organizations, policy directions for boards and departments, monitoring protocols, and advice for industry to manage and consider cumulative impacts. The outcome we expect is that the roles	**Partially Implemented** NWT CIMP released a Cumulative Impacts Monitoring Framework in January 2025, which includes clarity on language but does not address the remaining elements outlined in Recommendation 2020-4-3. Therefore, we found this recommendation partially implemented.

#	2020 Audit Recommendation	Current Status and Reasoning
	and responsibilities of all entities with respect to cumulative impact monitoring in the NWT are clear and agreed upon.	The response to this recommendation is discussed further within Section 2.1: Effectiveness of Cumulative Impact Monitoring Methods. **Recommendation to be carried forward.**
4-4	The boards publish their cumulative impact monitoring knowledge gaps on a regular schedule and request a response from government on how they may assist in providing information. The outcome we expect is that the RA is consistently updated on the needs of the boards with respect to knowledge gaps that if filled would aid in the board's decision-making.	**Partially Implemented** Decision-makers are publishing some cumulative impact monitoring knowledge gaps throughout initiatives such as a report, website or forum. However, publications are limited, as are mechanisms to integrate the information into cumulative impact monitoring programs, and they are not on a regular schedule. The response to this recommendation is discussed further within Section 2.2: Sufficiency of Cumulative Impact Monitoring Information.
4-5	When evaluating NWT CIMP funding proposals, the NWT CIMP Steering Committee ensure they consider the needs of decision-makers and document how these concerns were addressed in their funding decisions. The outcome we expect is that the results of projects funded by NWT CIMP are increasingly relevant for decision-makers.	**Partially Implemented** In response to the recommendation, GNWT agreed and identified that they currently consider the needs of decision-makers when evaluating funding proposals, indicating that all funding applicants are required to provide details of the engagement and support from relevant decision-makers to ensure funded projects meet decision-makers needs. The NWT CIMP Annual Program Report also now contains a section where completed projects whose results can contribute to resource management decisions are highlighted. Although this is the case, interviews with key decision-making boards and Indigenous organizations and groups indicated that NWT CIMP information's applicability to decisions is highly variable, citing concerns with data and information accessibility. Other groups, such as the North Slave Metis Alliance, praised the communication of NWT CIMP information in decision-making. This variability in line with the measures currently undertaken by the GNWT would indicate that the recommendation is being implemented by its efficacy for decision-making is in question. We found that the recommendation is partially implemented.
4-6	The NWT CIMP continue to evaluate its monitoring priorities on a five-year cycle in response to findings from monitoring and research, and that it provide specific directions and conclusions to decision-makers in the form of memoranda, NWT CIMP-certified monitoring protocols, policies, and customized project-specific advice. The outcome we expect is that NWT CIMP enhances the delivery of	**Partially Implemented** The GNWT expressed their dedication to undertaking efforts to evaluate and refine monitoring priorities on an ongoing basis and highlighted initiatives such as a comprehensive review of NWT CIMP's Monitoring Blueprints 2022-2023. However, monitoring NWT CIMP priorities appear to be re-evaluated on an as-needed basis opposed to being based on an official 5-year cycle. There is also little evidence to suggest that NWT

#	2020 Audit Recommendation	Current Status and Reasoning
	products that are usable by decision-makers.	CIMP provides specific directions and conclusions to decision-makers. The response to this recommendation is discussed further within Section 2.2: Sufficiency of Cumulative Impact Monitoring Information. **Recommendation to be carried forward.**

4.1.3 ADEQUACY OF 2015 RECOMMENDATIONS

The following four recommendations from the 2015 audit were assessed as outstanding in the 2020 audit. For the 2015 recommendations that do not align with the topics of focus in the 2025 audit, our analysis is included directly within the table. Previous recommendations that align with the lines of inquiry in the 2025 audit are discussed within the relevant sections in this report and linked in the table.

TABLE 4-4: STATUS OF 2015 RECOMMENDATIONS

#	2015 Audit Recommendation	Current Status and Reasoning
Part 1: Effectiveness of Regulatory Regimes		
13	The *Waters Act* and Regulations should be amended to allow the LWBs to request final plans, issue letters of clearance, reconciliation of water use fees, and request the appropriate government and department to return the appropriate securities deposits to the licencee for water licences, similar to existing regulatory requirements for land use permits. The boards should revise their procedure guidelines and licences to reflect the prescribed regulatory requirements.	**Outstanding** The 2020 Audit found that the GNWT was working on amendments to the *Waters Act* and has been engaging IGIOs and regional LWBs through a Technical Working Group process to discuss these amendments. In an updated response, the GNWT-ECC indicated that work on the *Waters Act* has not been completed but remains a priority and they are planning to consider amendments to the *Act* during the 20th Legislative Assembly. We found that this recommendation remains outstanding due to the *Waters Act* not yet being updated.
15	GNWT Lands should develop policy documents outlining its approach to and timeline for establishing a structured approach to securities management within the NWT.	**Partially Implemented** In an updated response, The GNWT-ECC shared that "with the establishment of the Department of Environment and Climate Change on April 1, 2023, GNWT reclamation security authorities are consolidated under a single Minister. An overview of the GNWT's approach to securities, with links to relevant policy documents and tools, is available on the GNWT-ECC website." GNWT highlighted the following initiatives put in place since the last Audit: the RECLAIM estimation models and user manuals for mining and oil and gas; a GNWT security tracking system; securities required under land use permits and water licences;

#	2015 Audit Recommendation	Current Status and Reasoning
		identification of a priority for amending legislation to require posting and the acceptance of security deposits, collaboration on security estimation and guidance initiatives such as the *LWB/ GNWT/ CIRNAC Guidelines for Closure and Reclamation Cost Estimates for Mines* (issued in 2017 and updated in 2022) and the LWB Reference Bulletin on Split-Interest Projects (issued in 2020). We found that the response to this recommendation is partially implemented. Additional information on securities can be found in Section 3.6.5.
17	The GNWT should develop a clear policy and program to address and communicate its responsibilities for consultation and public engagement.	**Outstanding** Recommendations 2015-17 and 2015-18 are closely related and therefore discussed together. The GNWT indicated that its approach to consultation is reflected in existing guidance documents. CIRNAC originally indicated that it would develop guidelines and enact regulation-making authority under the *NWT Devolution Act* but in an updated response, indicated that it was not identified as a priority for partners. Our findings conclude that the roles and responsibilities of the GNWT and the federal government with respect to engagement and consultation are still not clear to parties. The response to this recommendation is discussed further within Section 3.2: Engagement and Consultation.
18	INAC should make the development of regulations on consultation a priority to add further clarity and certainty to the regulatory process.	

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APPENDICES

APPENDIX A – 2025 NWT ENVIRONMENTAL AUDIT CRITERIA AND LINES OF INQUIRY

APPENDIX B – 2025 PUBLIC SURVEY RESULTS SUMMARY

APPENDIX C – CARIBOU TREND ANALYSIS DETAILS

APPENDIX D – LIST OF AUDIT RECOMMENDATIONS

APPENDIX A 2025 NWT ENVIRONMENTAL AUDIT CRITERIA AND LINES OF INQUIRY

The Table A-1 outlines the criteria and lines of inquiry addressed in the 2025 NWT Environmental Audit. These criteria and lines of inquiry were developed by the ASC and included in the Request for Proposals.

TABLE A–1: CRITERIA AND LINES OF INQUIRY FOR 2025 NWT ENVIRONMENTAL AUDIT

Criteria	Lines of Inquiry
Environmental Trends	
1(a) Data Availability • Science-based and TK-based information is available for each trend of interest.	• Is scientific monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality? • Is TK-based monitoring data/information available for each trend of interest? If so, is the data/information of a high-quality? • Are there specific trends of interest related to barren-ground caribou for which scientific or TK-based monitoring should be prioritized (with rationale as to why they should be prioritized)?
1b) Availability of Trend Analyses • Trend analyses are available for each trend of interest.	• Has a trend analysis been done for each trend of interest? If so, what was the quality of the trend analysis? • Were any environmentally or culturally significant trends detected? • Were any other changes detected? • Was there an absence of detected changes where changes might be expected? • Are there specific trends of interest related to barren-ground caribou for which trend analyses should be prioritized (with rationale as to why they should be prioritized)?
1(c) Potential Contributing Factors and Consequences • For the trends of interest that were environmentally or culturally significant, there is sufficient information to evaluate the contributing factors that led to those trends and the environmental or cultural consequences of those trends.	• Is there sufficient information to evaluate the potential contributing factors of any environmentally or culturally significant trends detected? If not, what are the information gaps? • Is there sufficient information to evaluate the consequences of any environmentally or culturally significant trends detected? If not, what are the information gaps?

Criteria	Lines of Inquiry
1(d) Ability of Available Information to Address Concerns • Available trend analyses and supporting information address known concerns of decision-makers and communities.	• Were decision-makers and communities engaged in the collection of information related to each trend of interest? If so, how? • Were decision-maker and community concerns documented and addressed as part of these research projects? • Have the results of the trend analyses been made available or communicated to the relevant decision-makers and communities? • How easily accessible are the results?
Cumulative Impact Monitoring	
2a) Effectiveness of Cumulative Impact Monitoring Methods • The monitoring methods used by parties responsible for conducting environmental monitoring of caribou, fish and water in the NWT are effective at detecting cumulative impacts.	• Do the parties responsible for conducting environmental monitoring of caribou, fish, and water use standardized monitoring techniques when designing and implementing monitoring programs, such that the information can be used in cumulative impact monitoring? • Do the parties responsible for conducting environmental monitoring of caribou, fish and water have established processes for collaborating and/or sharing results? If not, what are the barriers? • Are there specific cumulative impact monitoring methods used by parties responsible for conducting environmental monitoring of caribou, fish, and water? If so, what are their respective approaches for data/information collection, analysis, and reporting? • Are cumulative impact analysis strategies being updated as required?
2(b) Sufficiency of Cumulative Impact Monitoring Information • There is sufficient and targeted information available to be able to mitigate or manage potential cumulative impacts	• Do decision-makers have sufficient information about cumulative impacts to be able to make decisions that manage and/or mitigate the impacts? • Is cumulative impact monitoring targeted to areas of major proposed development, areas of natural change, or other areas? • Where is cumulative impact monitoring information is most needed by decision-makers?
2(c) Ability of Available Information to Address Concerns • Available cumulative impact monitoring information addresses known concerns of communities and other decision-makers and is communicated broadly.	• Were communities and decision- makers engaged in the cumulative impact monitoring of caribou, fish and water? If so, how? • Were community and decision- maker concerns documented and addressed as part of these studies?

Criteria	Lines of Inquiry
	• Have the results of cumulative impact monitoring been made available or communicated to decision-makers and communities? • How widely and easily accessible are the results?
Regulatory Regimes	
3(a) Regulatory Scope • The scope of the regulatory regime adequately covers valued components of the physical and socio-economic environment (refer above for the list of valued components).	• Are there any outstanding areas where there is a real or perceived effect on key environmental components but is currently unregulated? If so, what approaches are in place to mitigate any regulatory gaps? • Are the roles and responsibilities of the boards and other parties involved in co-management clearly defined, understood and coordinated? • Are impacts regulated to the satisfaction of parties participating in the process? If not, what are the barriers? • Are transboundary issues adequately addressed and communicated? • Are impacted parties satisfied with how impacts are regulated in those areas without a land claim agreement?
3(b) Engagement and Consultation • Interested parties have access to and input into regulatory decision-making processes.	• Do the boards and other decision-makers follow processes and procedures to engage and consult with interested parties, and is there any engagement coordination amongst responsible organizations? What are the barriers? • Do parties have adequate access to information to provide input to regulatory processes? If not, what are the barriers? • Are parties satisfied with the quantity, quality, and outcome of engagement? What are the barriers? How can engagement be improved?
3(c) Land Use Plans • There is a clear and transparent process for establishing, managing, and evaluating Land Use Plans in the MV.	• Is there a clear process to track progress of land use planning? • Is there clear progress for establishing Land Use Plans in areas without Land Use Plans? If not, what are the barriers? • Are impacted parties satisfied with how resource development planning is being done in those areas without Land Use Plans?
3(d) Land Claims • There is a clear process to track progress of land, resource and self-government negotiations.	• Is there a clear process to track progress of land, resource, and self- government negotiations? If not, what are the barriers and potential solutions?

Criteria	Lines of Inquiry
3(e) Adequate Resources • The boards established by the MVRMA are adequately staffed and funded to meet their mandate. Indigenous Governments and Indigenous Organizations, non-government organizations, and community members and the public have access to adequate resources to meaningfully participate in regulatory processes.	• Are boards able to reach quorum when required? If not, what are the barriers to achieving and maintaining quorum? • Do boards have adequate access to the information needed for consideration during decision-making? If not, what are the barriers? • Are the relevant working units of the federal and territorial governments appropriately staffed and funded to be able to provide the needed information to boards? • Do Indigenous Governments and Indigenous Organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers? • Do non-government organizations have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers? • Do community members and the general public have access to funding aligned with the scope and scale of regulatory decision-making? If not, what are the barriers?
3(f) Outcome of Regulatory Decisions • Regulatory decisions are protecting the key environment components.	• Are board decisions available and written in a manner to be accessible to the public, as well as to other interested parties? • Are Land Use Plan requirements complied with in decision-making? • Are board decisions evidence-based and unfettered from political or other influences to the satisfaction of parties participating in the decision- making process? • Are parties satisfied with the outcome of the security requirements process? • Is there evidence of significant adverse impacts to the environment?
(g) Compliance and Enforcement • The comprehensive system in place to promote and maintain compliance with legislation, regulations, permits, licences, and EA/ environmental impact review commitments functions to ensure protection of key components of the environment from significant adverse impact.	• Are the boards satisfied with the compliance and enforcement activities? • Are interested parties, other than the boards, satisfied with the compliance and enforcement activities? • Are the tools and resources for enforcement appropriate to promote and maintain compliance? • Are inspections and reporting done in a timely manner and provided to the appropriate parties? • Are there procedures to adapt and modify project permits and licences when adverse impacts are identified? • Is there evidence of adaptation/ modification?

Criteria	Lines of Inquiry
Past Audit Recommendations	
4(a) Impact of Past Audit Recommendations • 2020 Audit recommendations, as well as outstanding 2015 Audit recommendations, have been or are in the process of being implemented.	• If actions from lead parties are underway or completed, do they adequately address the recommendations? • Are there any recommendations that have not been addressed? • If lead parties disagreed with a recommendation, was a satisfactory rationale provided? • Are outstanding recommendations still relevant?

APPENDIX B 2025 PUBLIC SURVEY RESULTS SUMMARY

OVERVIEW

The purpose of the public survey is to enable NWT residents to participate in the Audit. Through this survey, the public can provide their input on the processes and outcomes of the environmental management system in the NWT. The survey for the 2025 Audit included questions on the effectiveness of the regulatory system, including the management and monitoring of environmental resources in the NWT, the progress made in the last 5 years, and satisfaction with the system.

For this Audit, there were 61 responses in total. However, not every respondent replied to every question, as respondents were not required to answer questions that were not relevant to them as individuals. To collect responses, a link to the survey was posted to the GNWT's website, https://www.gov.nt.ca/, sent to email distribution lists (e.g., NWT CIMP), and advertised online. Survey responses were collected from February to May 2024.

Figure B-1 below shows the distribution of respondents by community of residence. NWT residents across 11 communities responded, and there were 10 responses from individuals residing outside of the NWT.

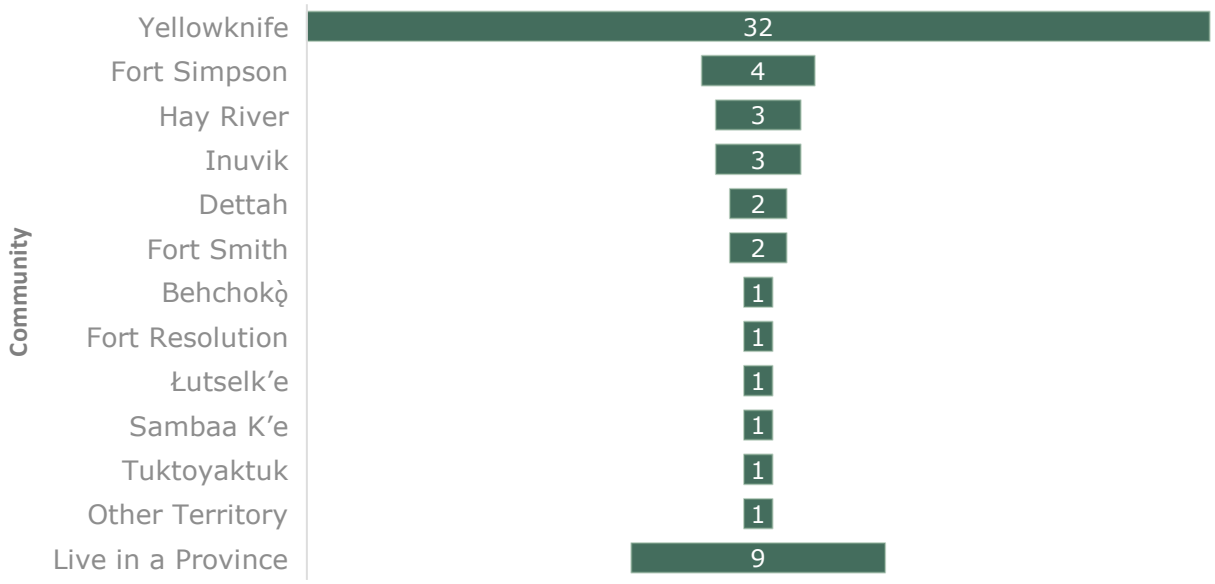


FIGURE B-1: PUBLIC SURVEY RESPONDENTS BY COMMUNITY

The survey was divided into four thematic areas: (1) managing environmental resources in the NWT, (2) monitoring environmental resources in the NWT, (3) measuring progress, and (4) satisfaction with resource management.

MANAGING ENVIRONMENTAL RESOURCES IN THE NWT

The survey asked members of the public about their experiences with the processes and components of the NWT's environmental management system, i.e., the Audit, EA, land use permitting, water licensing, land use planning, wildlife management, and environmental agreements.

Of the 61 respondents, 75% (46 individuals) were familiar with the Audit (Figure B-2). Of those who were familiar with the Audit, 39% (18 individuals) said that they had previously been involved in the Audit (Figure B-3). The level of familiarity and involvement has increased since the 2020 Audit's public survey: According to the 2020 Audit results, 37% of the respondents were familiar with the Audit and of those, 16% had previously been involved.

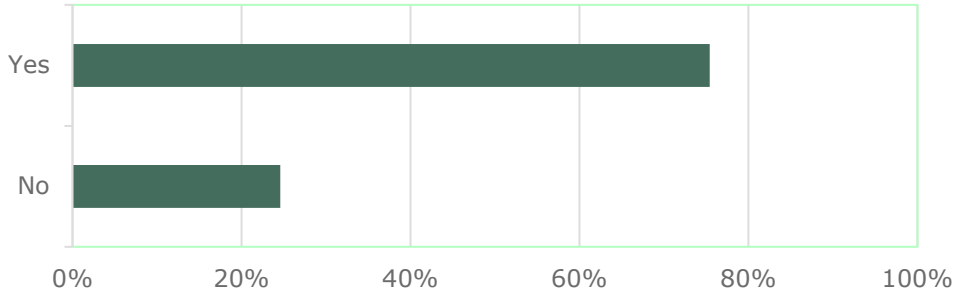


FIGURE B-2: RESPONDENTS' FAMILIARITY WITH THE NORTHWEST TERRITORIES ENVIRONMENTAL AUDIT

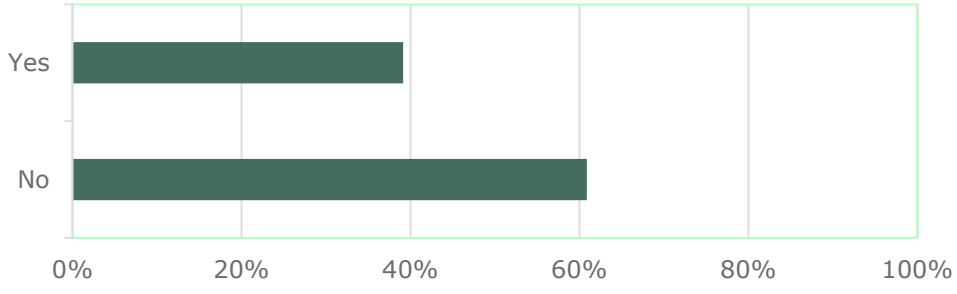


FIGURE B-3: RESPONDENTS' PREVIOUS INVOLVEMENT IN THE NORTHWEST TERRITORIES ENVIRONMENTAL AUDIT

Of the respondents who were familiar with the Audit, 24% (11 individuals) answered that they were either "satisfied" or "very satisfied" with previous Audits, with more than half (54%) being "neither satisfied nor dissatisfied" (Figure B-4). These levels of satisfaction are similar to the 2020 Audit results.

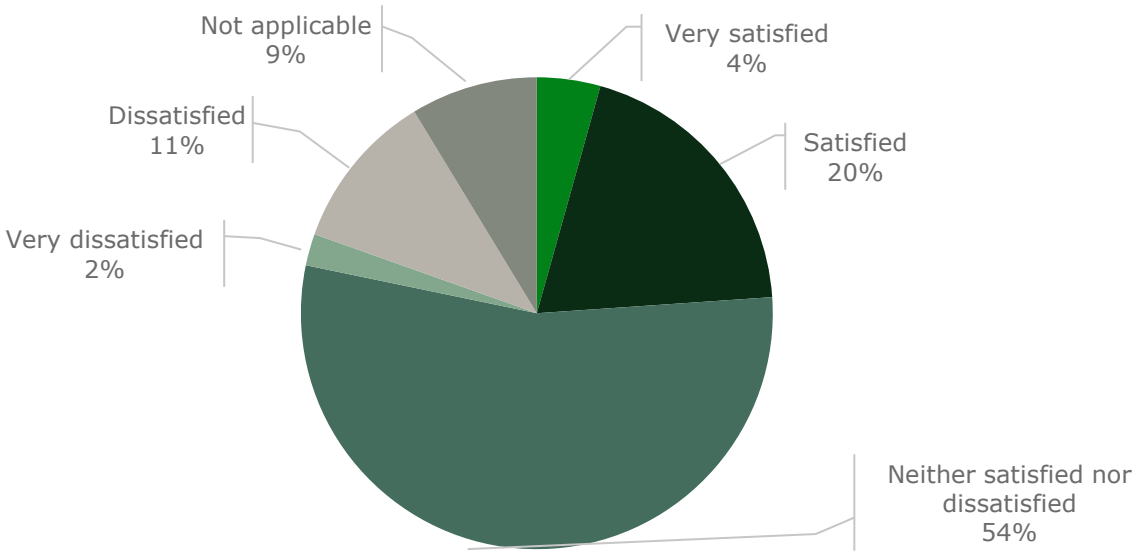


FIGURE B-4: RESPONDENTS' LEVEL OF SATISFACTION WITH PREVIOUS AUDITS

Respondents were asked to rate how true they perceived various statements about having access to information; whether they had enough time to provide input into the process; and whether final decisions reflected that they were heard throughout EA, land use permitting, water licensing, and land use planning processes, by answering "not at all true," "somewhat true," "true," or "unaware" (Table B-1). Most respondents perceived these statements to be "somewhat true" or "true". However, the percentage of respondents who were "unaware" of the answer to each question ranged from 11% to 32%. Also of note, was that more respondents perceived that it was "not at all true" that decisions reflected their input (ranging from 8% to 16% across the different processes), whereas very few individuals perceived this for the statements on access to information and having enough time to provide input.

TABLE B-1: RESPONDENTS' PERSPECTIVES ON ACCESS TO INFORMATION, TIMING, AND DECISIONS MADE IN THE NWT'S REGULATORY SYSTEM

I had access to information that helped me understand how to participate.

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
Not at all true	0%	0%	0%	2%
Somewhat true	38%	38%	39%	39%
True	51%	51%	45%	29%
Unaware	11%	11%	16%	29%

I had enough time to give my input into the process.

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
Not at all true	2%	0%	3%	2%
Somewhat true	45%	50%	47%	34%
True	41%	32%	29%	34%
Unaware	11%	18%	21%	29%

The decisions made at the end of the process considered my input—"I was heard."

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
Not at all true	16%	16%	8%	10%
Somewhat true	34%	42%	45%	41%
True	27%	19%	18%	17%
Unaware	23%	23%	29%	32%

Respondents were also asked if they perceived that the decisions made at the end of the EA processes helped to protect the land and water and to ensure social and economic benefits to the NWT (Table B-2). Most individuals responded that these statements were "somewhat true" or "true," while some were "unaware". More respondents answered that it was "not at all true" that the system ensures social and economic benefits across the regulatory processes (8% to 16%) than those who responded that it was "not at all true" that the system ensured the protection of land and water (3% to 7%).

The lowest awareness was about land use planning, which is in line with the public survey results from the 2020 Audit. The perceptions reflected by these statements are mostly aligned with the perceptions reflected in the public survey from the 2020 Audit, with most respondents answering "true" or "somewhat true" to the questions. However, there were higher percentages of "not at all true" and "unaware" responses in the 2025 Audit, as compared to the 2020 Audit. In the 2020 results, when asked about protecting the land and water, "not at all true" responses ranged from 0% to 4% and "unaware" responses ranged from 4% to 15%. When asked about ensuring social and economic benefits, "not at all true" responses ranged from 4% to 11%, and "unaware" responses ranged from 4% to 18%.

TABLE B-2: RESPONDENTS' VIEWS ON THE EFFECTIVENESS OF REGULATORY PROCESSES IN PROTECTING THE LAND AND WATER AND ENSURING SOCIAL AND ECONOMIC BENEFITS TO THE NWT

The decisions made at the end of the processes help to protect the land and water.

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
Not at all true	7%	7%	3%	5%
Somewhat true	37%	48%	44%	39%
True	41%	30%	38%	29%
Unaware	15%	16%	15%	27%

The decisions made at the end of the processes ensure social and economic benefits to the NWT.

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
Not at all true	13%	16%	15%	8%
Somewhat true	50%	40%	54%	43%

Perception of Truth	Environmental Assessment	Land Use Permitting	Water Licensing	Land Use Planning
True	24%	26%	18%	23%
Unaware	13%	19%	13%	28%

Respondents were asked about two other components of the resource management system, namely wildlife management planning (Figure B-5) and environmental agreements (Figure B-6). Only those who were aware of, and had been previously involved in these components, answered the questions on their level of satisfaction (37 individuals for wildlife management planning and 42 individuals for environmental agreements).

Regarding wildlife management planning, most respondents were "dissatisfied" (27%; 9 individuals), followed by "satisfied" (22%; 8 individuals), "neither satisfied nor dissatisfied" (22%; 8 individuals), and "very dissatisfied" (19%; 7 individuals). Only one respondent was "very satisfied," and some answered "not applicable." Compared to the 2020 Audit survey results, the level of dissatisfaction increased in this survey (2020 Audit results: 34% were "neither satisfied nor dissatisfied," 22% were "satisfied," 20% were "dissatisfied," 12% answered "not applicable," 7% were "very satisfied" and 5% were "very dissatisfied").

When asked about the cause of dissatisfaction with wildlife management planning, key concerns included:

- Species at risk or endangered species being designated by outside parties rather than communities;
- A lack of data and information on populations and effectiveness of mitigation measures;
- Concerns with the way wolves and caribou are managed, and a decline in caribou populations;
- Long processes with engagement not being considered in decision-making, and a lack of transparency in communicating decisions;
- A lack of consideration for Indigenous cultural significance and Traditional Knowledge in protecting wildlife and wildlife habitat; and
- Placing too much of a burden on small developers.

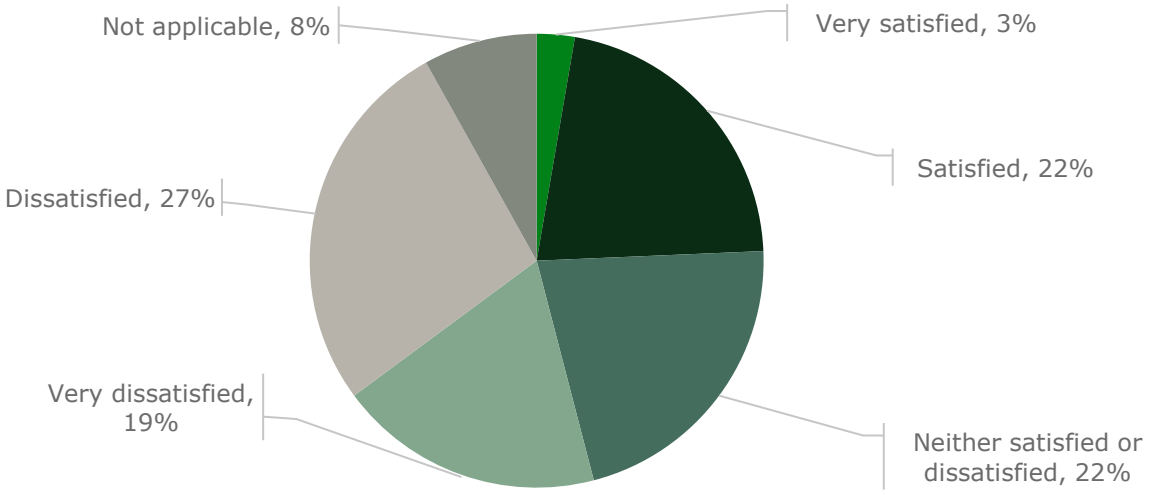


FIGURE B-5: RESPONDENTS' LEVEL OF SATISFACTION WITH WILDLIFE MANAGEMENT PLANNING

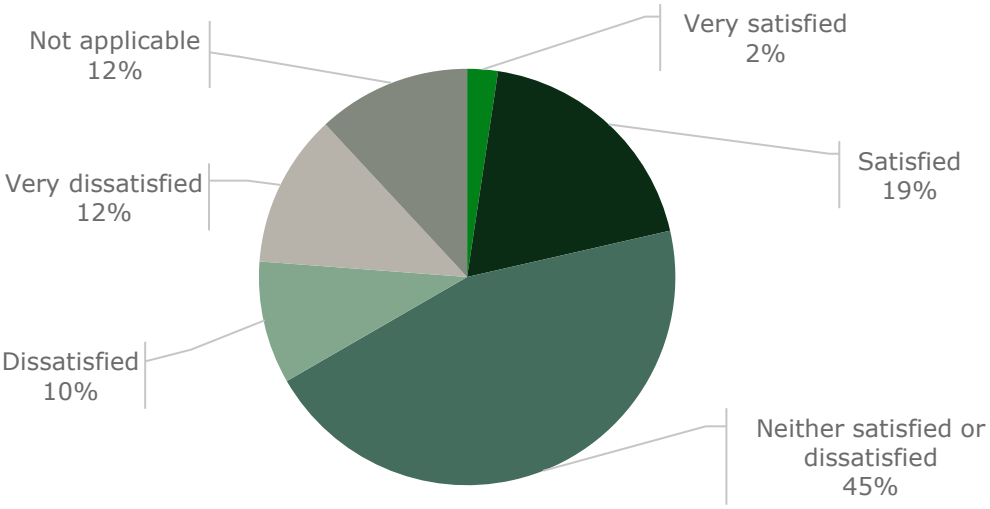


FIGURE B-6: RESPONDENTS' LEVEL OF SATISFACTION WITH ENVIRONMENTAL AGREEMENTS

Regarding environmental agreements, most respondents were "neither satisfied nor dissatisfied" (45%; 19 individuals), followed by "satisfied" (19%; 8 individuals), "very dissatisfied" (12%; 5 individuals), and "dissatisfied" (10%; 4 individuals). Only one respondent was "very satisfied," and some answered "not applicable." Once again, compared to the 2020 Audit survey results, the level of dissatisfaction increased in this survey (2020 Audit results: 58% were "neither satisfied nor

dissatisfied," 21% answered "not applicable," 15% were "satisfied," 3% were "dissatisfied," 3% were "very dissatisfied," and none were "very satisfied").

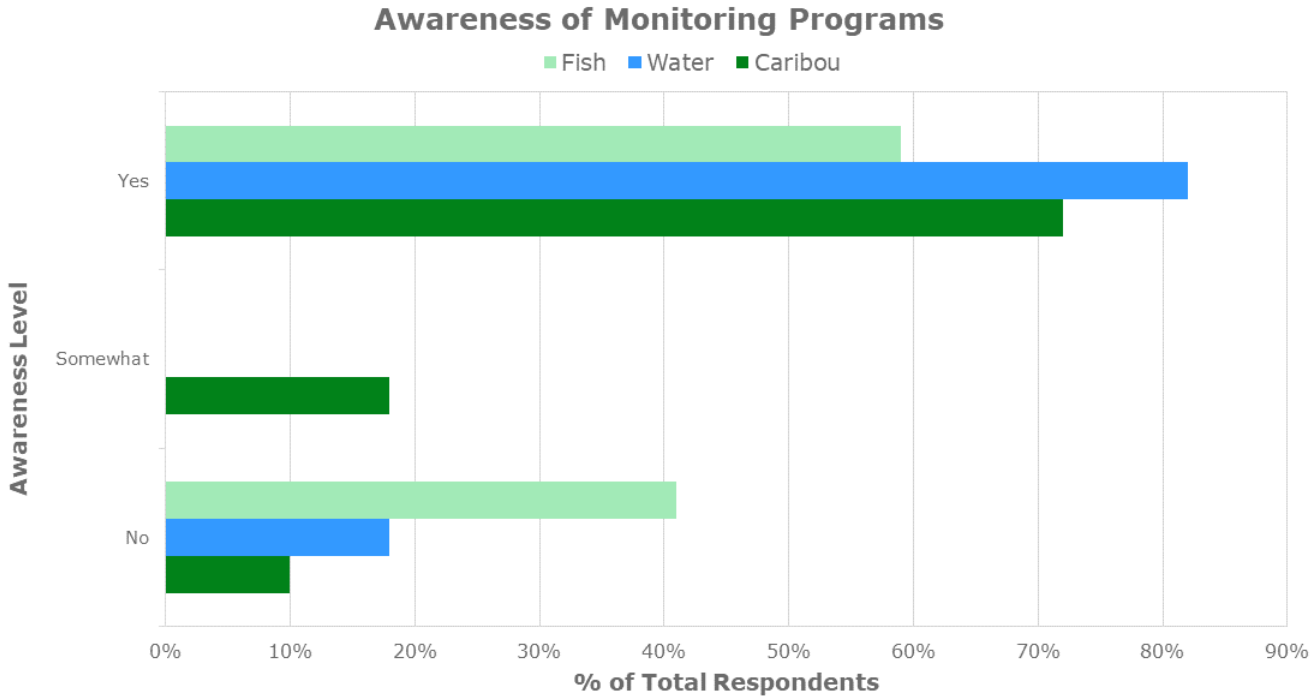
When asked about the cause of dissatisfaction with environmental agreements, key focus points included:

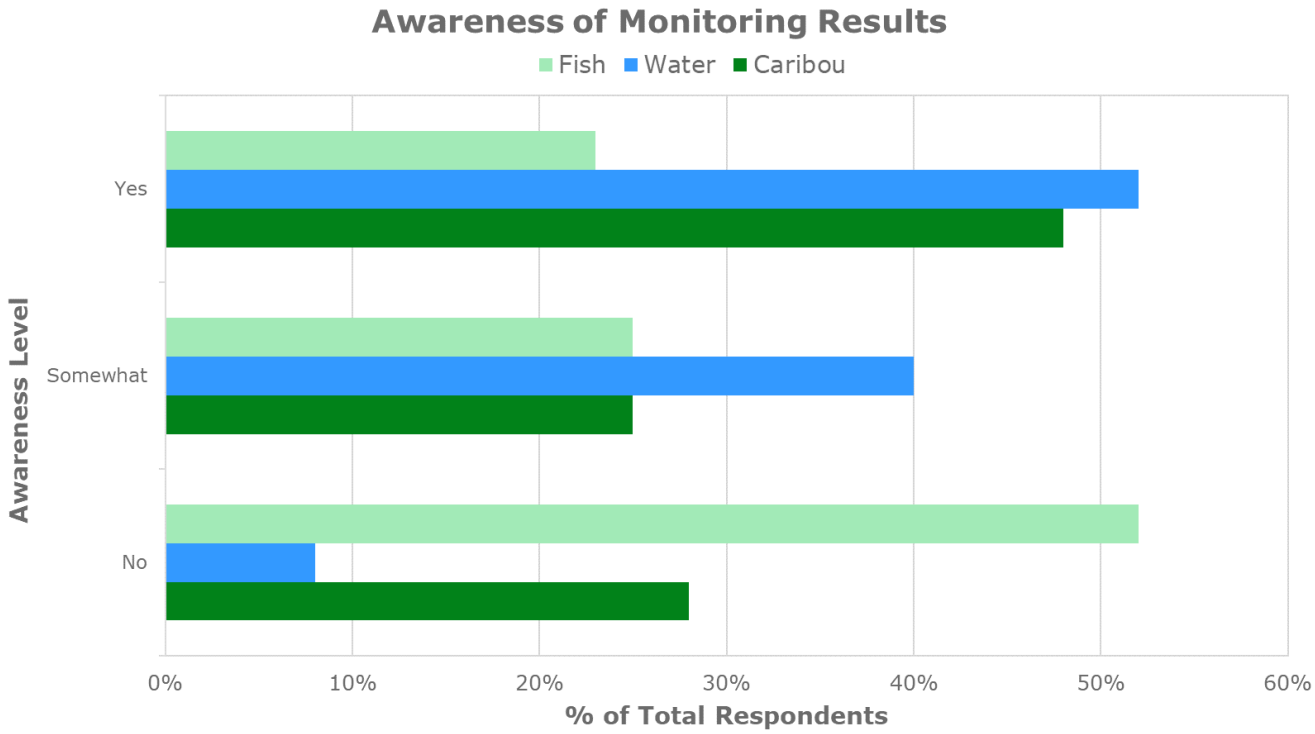
- The terms seem subjective, and agreements are outdated;
- It can be difficult to reach a resolution when there is disagreement between the parties;
- There are concerns about respecting Indigenous rights and the consideration of economic profit over the environment;
- There is a lack of people with experience on the land involved in the process; and
- The environmental agreements place a financial burden on industry.

MONITORING

The level of awareness of existing monitoring programs was high, with most individuals responding "yes" to being aware of monitoring programs for water (82%), caribou (72%), and fish (59%) (Figure AX-7). Some respondents were aware of water (52%) and caribou (48%) monitoring results but there was a low level of awareness about fish monitoring results (23%). There was a lower level of awareness of where to find monitoring results across fish, water, and caribou, with most individuals responding that they are "somewhat aware" or "not aware" of where to find them. Following the same order, the highest levels of awareness of where to find results were for water (37%) and caribou (36%), with fish (18%) being the lowest (Figure B-7).

Compared to the 2020 Audit public survey, the awareness of fish monitoring has decreased, particularly when it comes to awareness of the monitoring results for fish. The awareness of water monitoring programs and monitoring results has increased significantly since the 2020 Audit. For caribou monitoring, the awareness of monitoring programs has remained the same, the awareness of monitoring results has decreased, and the awareness of where to find results has increased.


Awareness of Monitoring Programs
Fish
Water
Caribou
Yes
Somewhat
No
Awareness Level
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
% of Total Respondents


Awareness of Monitoring Results
Fish
Water
Caribou
Yes
Somewhat
No
Awareness Level
0%
10%
20%
30%
40%
50%
60%
% of Total Respondents

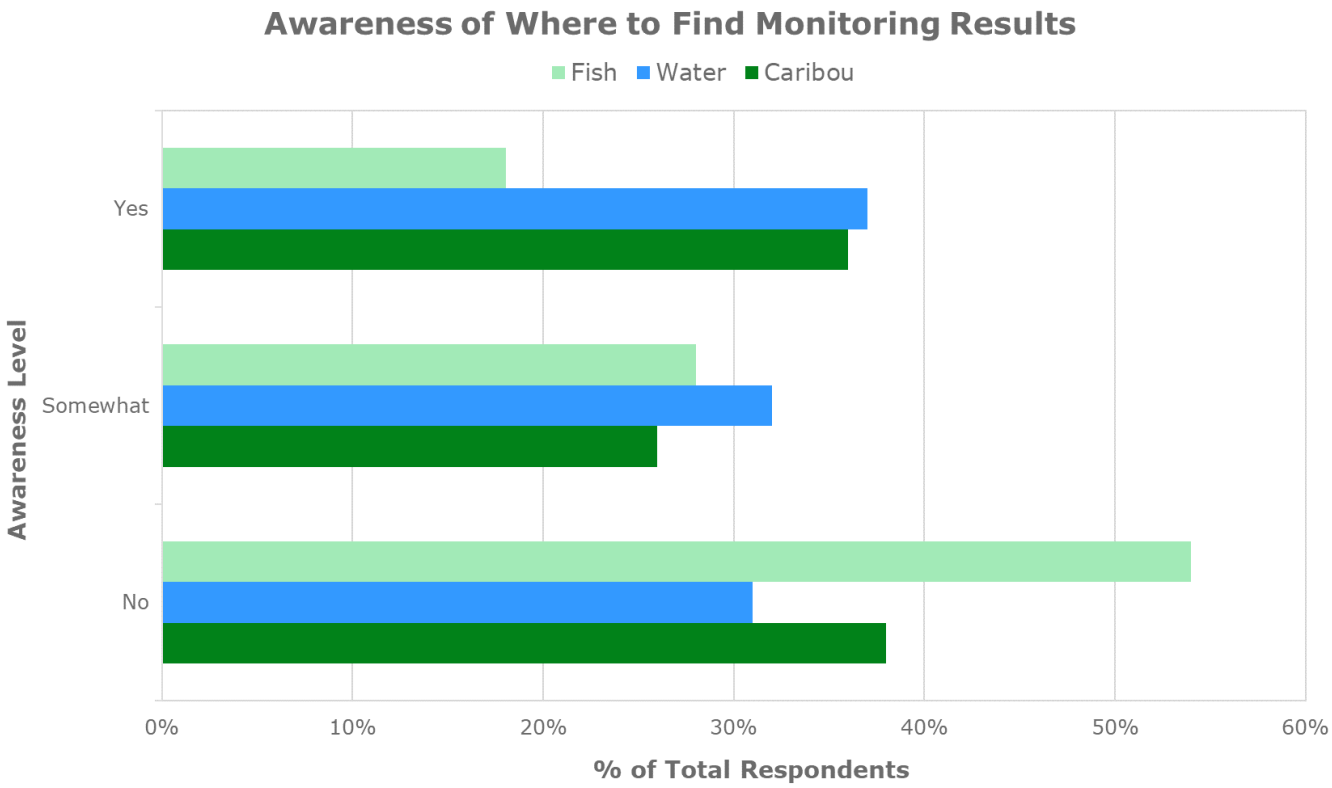


FIGURE B-7: RESPONDENTS' AWARENESS OF MONITORING PROGRAMS, RESULTS, AND WHERE TO FIND RESULTS

Respondents were invited to provide additional comments or suggestions with respect to water, caribou, and fish monitoring.

General suggestions included:

- Increasing public engagement on monitoring programs and improving the awareness of how to find information and get involved;
- Providing more clarity on how to access raw data and plain language summaries;
- Involving and respecting Indigenous Governments and communities more across the planning, development, and execution of monitoring programs;
- Providing more funding, educational resources, and tools to support community involvement and locally led programs;
- Undertaking more baseline studies to understand areas before development;
- Having standardized data collection protocols;
- Investigating the effects of climate change and development on wildlife and their habitats further; and

- Reviewing the decision to focus on caribou, fish, and water.

With respect to water, respondents emphasized the importance of water monitoring and transboundary water impacts, as well as the need for more frequent and widespread training sessions for communities to do their own water monitoring.

With respect to caribou, some respondents expressed concern about overharvesting and a lack of harvesting data, the impacts of industrial and road development, and a lack of annual caribou count data. One respondent expressed concern over sharing real-time mobile herd data with "just anyone," while others emphasized the importance of having as much data available as possible.

When asked about what components are the most important for the government to monitor over the next 5 years, most individuals (42%) chose "regional changes to the environment due to climate change" (Figure B-8). This was followed by "other" (18%), "current industrial developments" (17%), "transboundary environmental effects" (17%), and "future industrial developments" (7%). Some of the "other" responses that were different from the options provided included animal welfare, internal processes and accountability, and collaboration with Indigenous Governments.

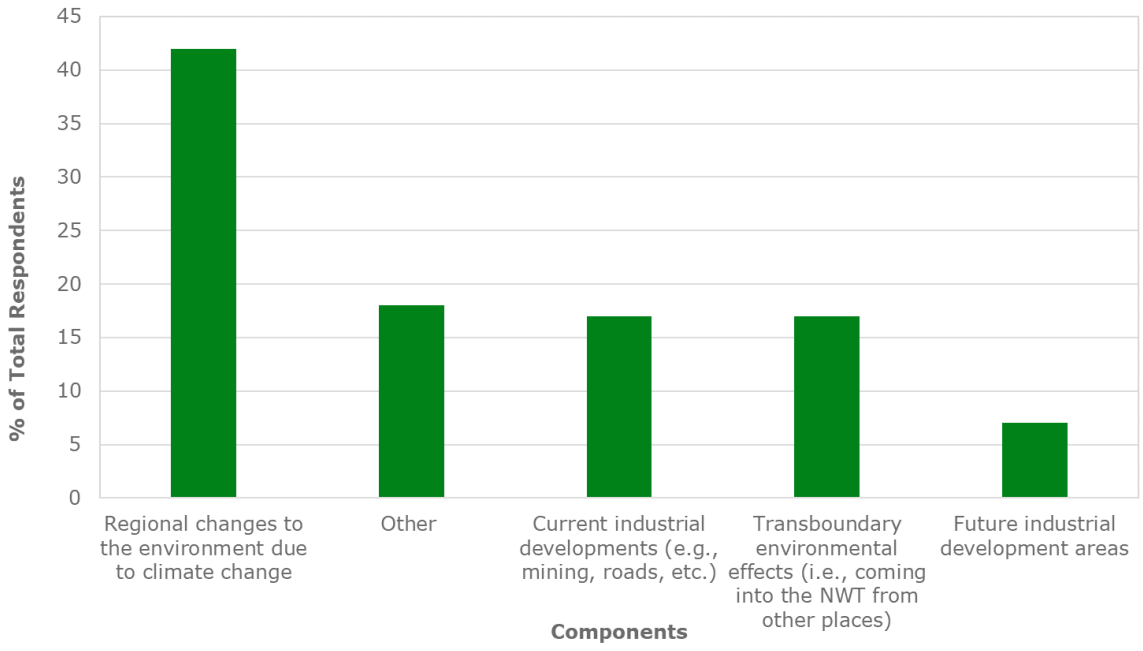


FIGURE B-8: COMPONENTS THAT RESPONDENTS CONSIDERED TO BE MOST IMPORTANT FOR THE GOVERNMENT TO MONITOR IN THE NEXT FIVE YEARS

MEASURING PROGRESS

The public was asked to rank the level of progress that has been made in the last 5 years in the following areas:

- Completing unsettled land claims;
- Completing LUPs;
- Increasing funding for Indigenous Governments and Indigenous Organizations and others to participate in land and resource management activities;
- Considering things like community wellness when making decisions about land and resource management or development; and
- Improving communication on Government-Indigenous consultation.

As shown on Figure B-9, there was a lack of awareness of progress across the areas mentioned above, with those responding "unaware" ranging from 18% to 35%. Many respondents considered progress across these areas to be "insufficient," ranging from 35% to 73%. The areas viewed as having the most insufficient progress were "completing unsettled land claims" (73%) and "completing land use plans" (55%).

The areas with the highest percentage of respondents perceiving sufficient progress were "increasing funding for Indigenous Governments and Indigenous Organizations and others to participate in land and resource management activities" (35%) and "considering things like community wellness when making decisions about land and resource management or development" (30%).

These patterns are similar to those from the 2020 Audit, although the perception of progress made on completing unsettled land claims and LUPs has decreased slightly, while the perception of progress made in the other areas has increased slightly.

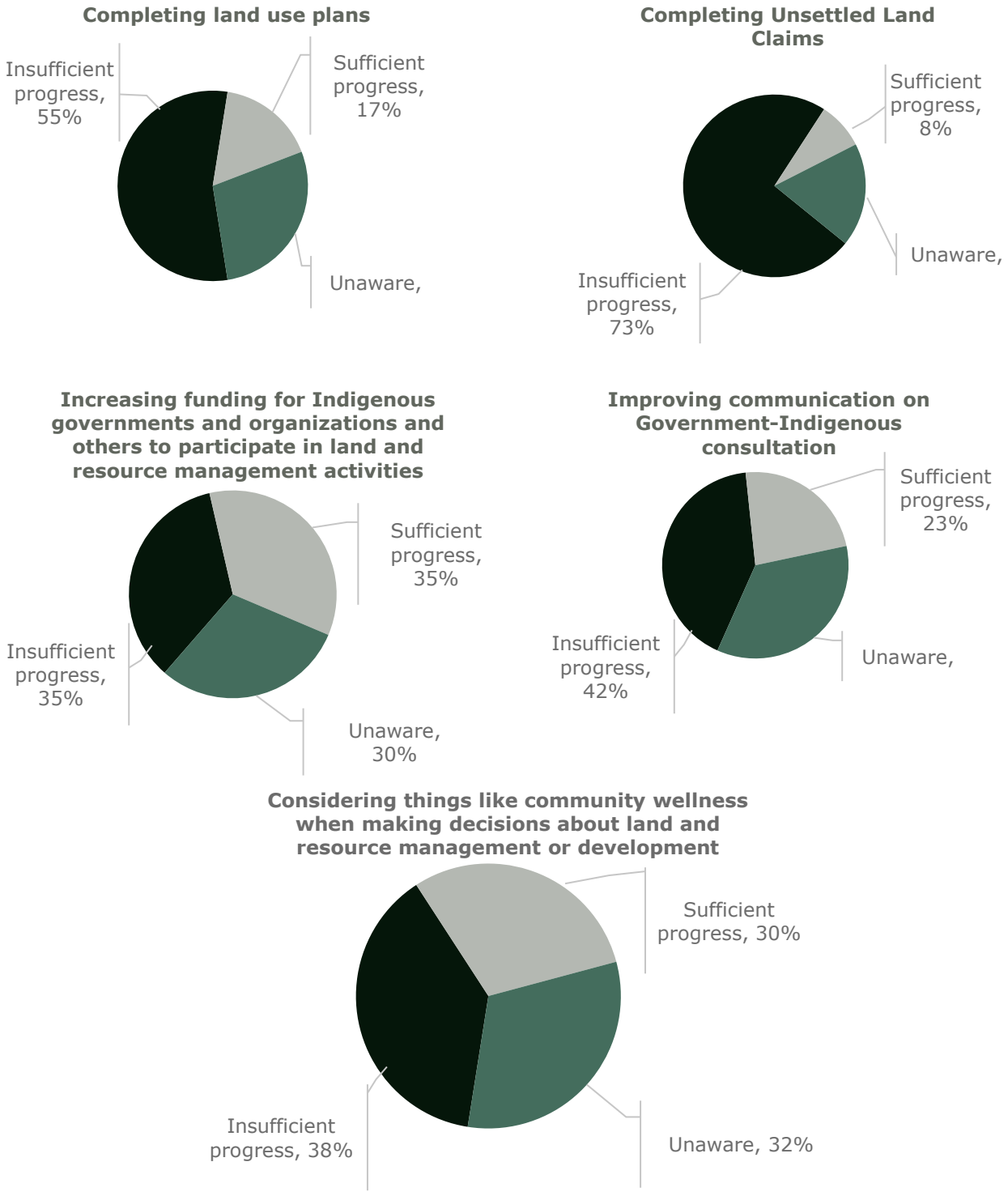


FIGURE B-9: PUBLIC PERCEPTIONS OF PROGRESS ON FIVE KEY AREAS OF ENVIRONMENTAL

SATISFACTION WITH RESOURCE MANAGEMENT

Respondents were also asked to rate their level of satisfaction on whether:

- The current management of land, water, and resources is protecting the environment; and
- The current environmental regulatory processes are protecting the social, cultural, and economic well-being of NWT residents.

As shown on Figures B-10 and B-11, most members of the public were "dissatisfied" (37% and 37%) or "very dissatisfied" (8% and 10%) with both areas of protection respectively. More respondents answered that they were "satisfied" or "very satisfied" with the protection of the environment (41%) than the protection of the social, cultural, and economic well-being of NWT residents (24%). Some were "neither satisfied nor dissatisfied" (14% for the protection of the environment and 29% for the protection of NWT residents).

Compared to the 2020 Audit, fewer people gave a neutral response. As a result, both the level of satisfaction and the level of dissatisfaction with the protection of the environment increased. However, regarding the protection of the well-being of NWT residents, the level of satisfaction decreased, while the level of dissatisfaction increased in the latest survey.

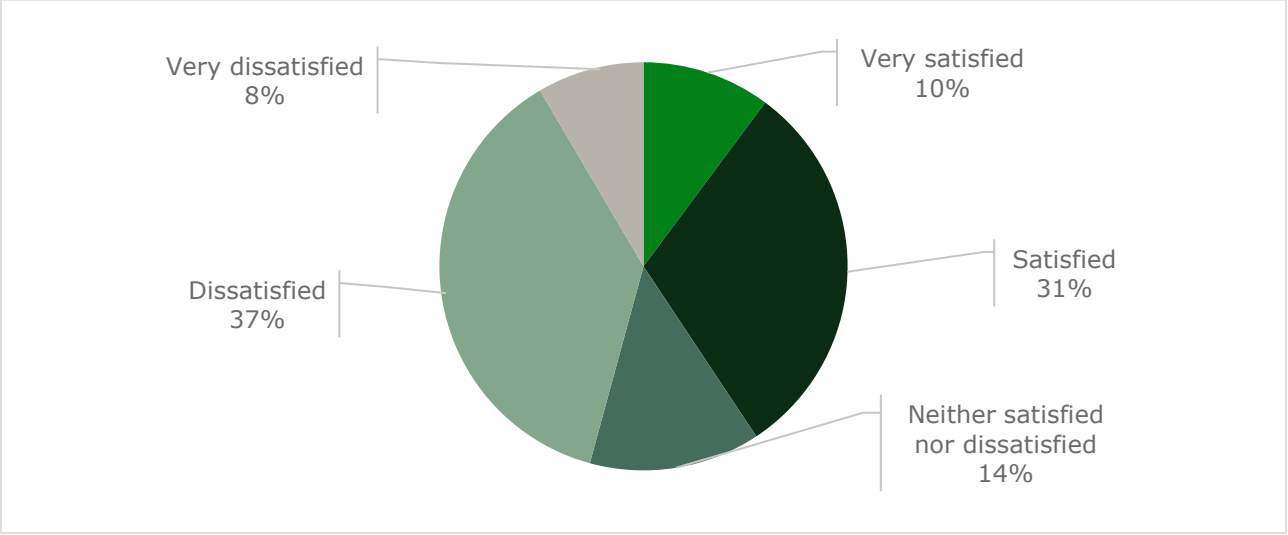


FIGURE B-10: RESPONDENTS' LEVELS OF SATISFACTION THAT THE CURRENT MANAGEMENT OF LAND, WATER, AND RESOURCES IS PROTECTING THE ENVIRONMENT

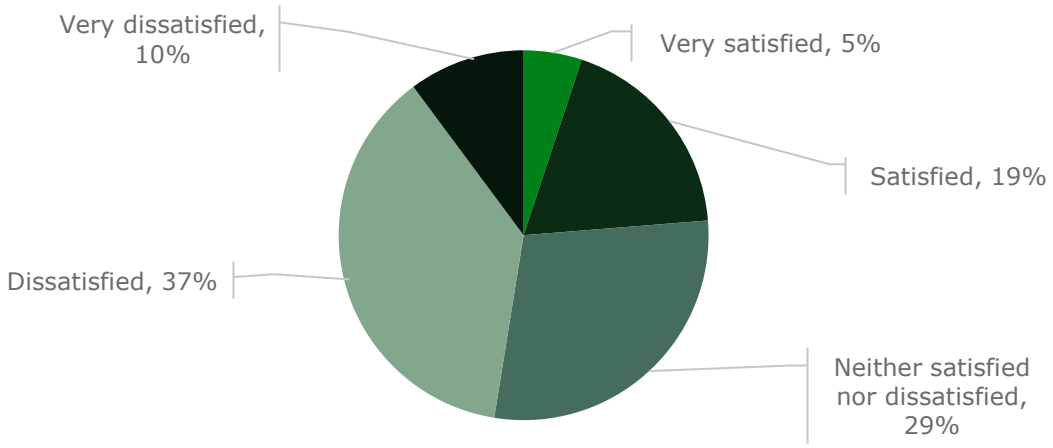


FIGURE B-11: RESPONDENTS' LEVELS OF SATISFACTION THAT THE CURRENT ENVIRONMENTAL REGULATORY PROCESSES ARE PROTECTING THE SOCIAL, CULTURAL, AND ECONOMIC WELL-BEING OF NORTHWEST TERRITORIES' RESIDENTS

Respondents were asked to comment on what is working well and what could be improved across these areas of protection. A summary of responses is provided in Tables B-3 and B-4.

TABLE B-3: RESPONDENTS' COMMENTS ON ENVIRONMENTAL PROTECTION

What is Working Well	Suggested Improvements
• Comprehensive regulatory processes and inclusion of Indigenous input across these processes • Co-management • Access to information created by the website and repositories • Improved community engagement • Increased collaboration between the land and water boards, Indigenous Governments and the GNWT • Funding provided by the GNWT to conduct research • Cumulative impact monitoring • The existence of an audit process • Water management being seen as a high priority • Establishment of protected areas • Accurate reporting of non-Indigenous hunting	• Consistency in processes • A longer timeline for Indigenous participation in processes • Shorter timelines for processes • More engagement in communities • Increased funding for Indigenous Governments and Indigenous Organizations to participate in processes and more partnership • More involvement of Métis governments • More focus on settling land claims to improve clarity • More consideration for Traditional Knowledge • Greater enforcement of permits and licences • More consistency with inspectors • Making it easier to find information online and using more plain language to make data easier to understand

What is Working Well	Suggested Improvements
• Development of management plans for wildlife, lands, and waters	• More consideration of climate change across resource management • More and improved baseline data and data sharing • More use of communication tools, such as maps and graphics, about cumulative impacts • Better management of beavers and their impacts on water • Improved water legislation • Using non-lethal ways of managing wildlife

TABLE B-4: RESPONDENTS' COMMENTS ON SOCIAL, CULTURAL, AND ECONOMIC WELL-BEING

What is Working Well	Suggested Improvements
• Consideration of social, cultural, and economic well-being in environmental assessments • Increased awareness due to the United Nations Declaration on the Rights of Indigenous Peoples (United Nations 2007) and truth and reconciliation • Regulatory processes providing leverage to protect from industrial impacts • Creation of avenues for various groups to provide input into processes • More engagement • Consideration of Traditional Knowledge • Funding for on-the-land programming • Jobs provided	• More support for, and monitoring of impacts, as well as taking accountability for issues impacting the well-being of residents, such as fires, smoke, heat, flooding, wildlife loss, and substance abuse. • More consideration for economic well-being • Stronger communication from regulatory boards to increase certainty among members of the public • Having engagement formats that are less intimidating than public hearings • Updating legislation • More education for outsiders on cultural awareness and the interconnectedness of environmental and human well-being • More funding and capacity supported in communities to build participation and increase understanding of well-being in decision-making • Better alignment with Indigenous rights, particularly allowing Indigenous people to exercise their right to hunt, fish, and trap on their land • Involvement of Métis governments • More fair land use • More on-the-land programs and education for middle-aged people • Greater focus on agriculture

APPENDIX C CARIBOU TREND ANALYSIS DETAILS

HERDS STUDIED FOR EACH TREND OF INTEREST

Note: Studies include those found from 2015 – present. These are inclusive of all publications and not only those with trend analysis.

TABLE C-1: HERDS STUDIES FOR EACH TREND OF INTEREST

Trend: Population Abundance

Herd	Government Studies (12 Total)	Academic Studies (9 Total)	Total Studies Available (21)
Bathurst	8 (67%)	7 (78%)	15 (71%)
Bluenose-East	8 (67%)	5 (56%)	13 (62%)
Bluenose-West	1 (8%)	5 (56%)	6 (29%)
Cape Bathurst	1 (8%)	5 (56%)	6 (29%)
Tuktoyaktuk Peninsula	1 (8%)	3 (33%)	4 (19%)

Trend: Herd Productivity

Herd	Government Studies (13 Total)	Academic Studies (6 total)	Total Studies Available (19)
Bathurst	9 (69%)	5 (83%)	14 (74%)
Bluenose-East	8 (62%)	3 (50%)	11 (58%)
Bluenose-West	0	2 (33%)	2 (11%)
Cape Bathurst	0	2 (33%)	2 (11%)
Tuktoyaktuk Peninsula	0	2 (33%)	2 (11%)

Trend: Seasonal Range/Habitat Use

Herd	Government Studies (10 total)	Academic Studies (24 total)	Total Studies Available (34)
Bathurst	5 (50%)	21 (88%)	26 (76%)
Bluenose-East	3 (30%)	15 (63%)	18 (53%)
Bluenose-West	1 (10%)	9 (38%)	10 (29%)
Cape Bathurst	2 (2%)	9 (38%)	11 (32%)
Tuktoyaktuk Peninsula	2 (2%)	2 (8%)	4 (12%)
Not herd specific	-	2 (8%)	2 (6%)

Trend: Habitat Condition

Herd	Government Studies (1 total)	Academic Studies (20 total)	Total Studies Available (21)
Bathurst	1 (100%)	17 (85%)	18 (86%)
Bluenose-East	0	6 (30%)	6 (29%)
Bluenose-West	0	6 (30%)	6 (29%)
Cape Bathurst	0	6 (30%)	6 (29%)
Tuktoyaktuk Peninsula	0	1 (5%)	1 (5%)

Trend: Predation

Herd	Government Studies (1 total)	Academic Studies (4 total)	Total Studies Available (5)
Bathurst	1 (100%)	3 (75%)	4 (80%)
Bluenose-East	1 (100%)	2 (50%)	3 (60%)
Bluenose-West	0	1 (25%)	1 (20%)
Cape Bathurst	0	1 (25%)	1 (20%)
Tuktoyaktuk Peninsula	0	1 (25%)	1 (20%)

Trend: Community Food Security

Herd	Government Studies (none)	Academic Studies (2 total)	Total Studies Available (2)
Bathurst	0	0	0
Bluenose-East	0	0	0
Bluenose-West	0	0	0
Cape Bathurst	0	0	0
Tuktoyaktuk Peninsula	0	0	0
Not herd specific	-	2 (100%)	2 (100%)

Trend: Harvest Management

Herd	Government Studies (9 total)	Academic Studies (3 total)	Total Studies Available (12)
Bathurst	5 (56%)	1 (33%)	6 (50%)
Bluenose-East	6 (67%)	1 (33%)	7 (58%)
Bluenose-West	0	1 (33%)	1 (8%)
Cape Bathurst	0	1 (33%)	1 (8%)
Tuktoyaktuk Peninsula	0	1 (33%)	1 (8%)
Not herd specific	-	1 (33%)	1 (8%)

Trend: Land Use [i.e., anthropogenic land use (e.g., mines) and associated impacts to caribou]

Herd	Government Studies (2 total)	Academic Studies (11 total)	Total Studies Available (13)
Bathurst	1 (50%)	8 (73%)	9 (69%)
Bluenose-East	0	3 (27%)	3 (23%)
Bluenose-West	0	1 (9%)	1 (8%)
Cape Bathurst	1 (50%)	1 (9%)	2 (15%)
Tuktoyaktuk Peninsula	1 (50%)	1 (9%)	2 (15%)
Not herd specific	-	2 (18%)	2 (15%)

Trend: Wildfires

Herd	Government Studies (none)	Academic Studies (7 total)	Total Studies Available (7)
Bathurst	0	5 (71%)	5 (71%)
Bluenose-East	0	3 (43%)	3 (43%)
Bluenose-West	0	2 (29%)	2 (29%)
Cape Bathurst	0	2 (29%)	2 (29%)
Tuktoyaktuk Peninsula	0	1 (14%)	1 (14%)
Not herd specific	-	1 (14%)	1 (14%)

Trend: Climate Change

Herd	Government Studies (none)	Academic Studies (17 total)	Total Studies Available (17)
Bathurst	0	13 (76%)	13 (76%)
Bluenose-East	0	7 (41%)	7 (41%)
Bluenose-West	0	6 (35%)	6 (35%)
Cape Bathurst	0	6 (35%)	6 (35%)
Tuktoyaktuk Peninsula	0	1 (6%)	1 (6%)
Not herd specific	-	3 (18%)	3 (18%)

Trend: Parasites/Disease

Herd	Government Studies (1 total)	Academic Studies (4 total)	Total Studies Available (5)
Bathurst	1 (100%)	4 (100%)	5 (100%)
Bluenose-East	0	4 (100%)	4 (80%)
Bluenose-West	0	2 (50%)	2 (40%)
Cape Bathurst	0	2 (50%)	2 (40%)
Tuktoyaktuk Peninsula	0	1 (25%)	1 (20%)

Trend: Environmental Contaminants/Pollution

Herd	Government Studies (none)	Academic Studies (6 total)	Total Studies Available (6)
Bathurst	0	4 (67%)	4 (67%)
Bluenose-East	0	2 (33%)	2 (33%)
Bluenose-West	0	1 (17%)	1 (17%)
Cape Bathurst	0	2 (33%)	2 (33%)
Tuktoyaktuk Peninsula	0	1 (17%)	1 (17%)
Not herd specific	-	1 (17%)	1 (17%)

Management Plans/Strategies (16 total):

Herd	Proportion
Bathurst	15 (94%)
Bluenose-East	7 (44%)
Bluenose-West	5 (31%)
Cape Bathurst	5 (31%)
Tuktoyaktuk Peninsula	4 (25%)

Total Studies:

Herd	Government (39 total)	Academia (47 total)	Combined (86)
Bathurst	30 (77%)	36 (77%)	66 (77%)
Bluenose-East	19 (49%)	23 (49%)	42 (49%)
Bluenose-West	8 (21%)	13 (28%)	21 (24%)
Cape Bathurst	9 (23%)	14 (30%)	23 (27%)
Tuktoyaktuk Peninsula	8 (21%)	4 (9%)	12 (14%)
Not herd specific	-	9 (19%)	9 (10%)

DATA AVAILABILITY

Population Abundance

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for population abundance. This included 12 studies since 2015, of which 25% included TK. Studies that included a focus on population abundance accounted for 31% of reports reviewed from the government website. There were nine studies reviewed from academic sources with a focus on population abundance, of which 44% included TK as part of the study. Population abundance studies accounted for 21% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of population abundance was explored for all caribou herds of interest (15 studies included information on Bathurst, 13 studies included information on Bluenose-East, 6 studies included information on each Bluenose-West and Cape Bathurst, and four studies included information on Tuktoyaktuk Peninsula).

We observed through document review how survey designs for population abundance are consistent over time. Population surveys, conducted by means of calving ground photography, were completed approximately every 3 years.

Herd Productivity

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for herd productivity. This included 13 studies since 2015, of which 23% included TK. Studies that included a focus on herd productivity accounted for 33% of studies reviewed from the government website. There were six studies reviewed from academic sources with a focus on herd productivity, of which 67% included TK as part of the study. Herd productivity studies accounted for 13% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of herd productivity was explored for all caribou herds of interest (14 studies included information on Bathurst, 11 studies included information on Bluenose-East, and two studies included information on each Bluenose-West, Cape Bathurst, and Tuktoyaktuk Peninsula). There were no studies reviewed from government sources that explored herd productivity in the Bluenose-West, Cape Bathurst, or Tuktoyaktuk Peninsula herds.

Seasonal Range/Habitat Use

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for seasonal range/habitat use. This included 10 studies total since 2015, of which 40% included TK. Studies that included a focus on seasonal range/habitat

use accounted for 26% of studies reviewed from the government website. There were also 24 studies reviewed from academic sources with a focus on seasonal range/habitat use, of which 46% included TK as part of the study. These studies accounted for 51% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of seasonal range/habitat use was explored for all caribou herds of interest (26 studies included information on Bathurst, 18 studies included information on Bluenose-East, 10 studies included information on Bluenose-West, 11 studies included information on each Cape Bathurst, and four studies included information on Tuktoyaktuk Peninsula). There were also two academic studies that explored seasonal range/habitat use in a method not specific to any herd in particular.

Habitat Condition

From the literature review of government studies, there was limited information available for the barren-ground caribou herds of interest for habitat condition. One study since 2015 addressed habitat condition and it included TK. The singular study only included data on the Bathurst herd. Twenty papers reviewed from academic sources had a focus on habitat condition, of which 60% included TK as part of the study. These studies accounted for 43% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of seasonal range/habitat use was explored for all caribou herds of interest (18 studies included information on Bathurst, 6 studies included information on each Bluenose-East, Bluenose-West, and Cape Bathurst, and one study included information on Tuktoyaktuk Peninsula). The only herd included in government studies that explored habitat condition was the Bathurst herd.

Predation

From the literature review of government studies, there was one study regarding predation since 2015, and it included TK. The study only included data on the Bathurst herd and the Bluenose-East herd.

There were four studies reviewed from academic sources with a focus on predation, of which 75% included TK as part of the study. These studies accounted for 9% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of predation was explored for all caribou herds of interest (4 studies included information on Bathurst, 3 studies included information on Bluenose-East, and one study included information for each of Bluenose-West, Cape Bathurst, and Tuktoyaktuk Peninsula).

Community Food Security

From the literature review of government studies, there were no recent (2015-present) studies completed on the topic of community food security for any of the barren-ground caribou herds of interest. However, there were two studies reviewed from academic sources with a focus on community food security, of which both included TK as part of the study. Both studies were also not herd specific but instead completed in the general region of the barren-ground caribou herds of interest.

Harvest Management

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for harvest management. This included nine studies total since 2015, of which 33% included TK. Studies that included a focus on harvest management accounted for 23% of studies reviewed from the government website.

There were also 3 papers reviewed from academic sources with a focus on harvest management, all of which included TK as part of the study. These studies accounted for only 6% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of harvest management was explored for all caribou herds of interest (7 studies included information on Bluenose-East, 6 studies included information on Bathurst, and one study included information for each of Bluenose-West, Cape Bathurst, and Tuktoyaktuk Peninsula). There was also one additional harvest management academic study that was not herd specific. The only herds included in government studies that explored harvest management was the Bathurst and Bluenose-East herds.

Land Use [i.e., anthropogenic land use (e.g., mines) and associated impacts to caribou]

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for land use. However, this only included two studies total since 2015, of which 50% included TK. Studies that included a focus on land use accounted for 5% of studies reviewed from the government website.

However, there were 11 papers reviewed from academic sources with a focus on land use, of which 55% included TK as part of the study. Studies that included a focus on land use accounted for 23% of total academic studies considered as part of the literature review.

Across government and academic studies, data or assessment of harvest management was explored for all caribou herds of interest (9 studies included information on Bathurst, 3 studies included information on Bluenose-East, two studies included information for each of Cape Bathurst and Tuktoyaktuk Peninsula, and only one study included information on the Bluenose-West herd). There were also two additional land use academic studies that were not herd specific. The only

herds included in government studies that explored land use were the Bathurst, Cape Bathurst, and Tuktoyaktuk Peninsula herds.

Wildfires

From the literature review of government studies, there were no recent (2015-present) studies completed on the topic of wildfires for any of the barren-ground caribou herds of interest. However, there were seven studies reviewed from academic sources with a focus on wildfires, of which 86% included TK as part of the study. Studies with a focus on wildfires accounted for 15% of total academic studies considered as part of the literature review. These studies included data or assessment of all caribou herds of interest (5 studies included information on Bathurst, 3 studies included information on Bluenose-East, 2 studies included information on each Bluenose-West and Cape Bathurst, and only one study included information on Tuktoyaktuk Peninsula). There was also one additional wildfire paper that was not herd specific.

Climate Change

From the literature review of government studies, there were no recent (2015-present) studies completed on the topic of climate change for any of the barren-ground caribou herds of interest. However, there were 17 studies reviewed from academic sources with a focus on climate change, of which 65% included TK as part of the study. Climate change studies accounted for 36% of total academic studies considered as part of the literature review. These studies included data or assessment of all caribou herds of interest (13 studies included information on Bathurst, 7 studies included information on Bluenose-East, 6 studies included information on each Bluenose-West and Cape Bathurst, and only one study included information on Tuktoyaktuk Peninsula). There were also 3 studies that were completed for the area overlapping the caribou herds of interest, however these were not specific to particular herds.

Parasites/Disease

From the literature review of government studies, there was information available for the barren-ground caribou herds of interest for parasites and/or disease. However, this only included one study since 2015, which included TK. This study only focused on the Bathurst caribou herd.

There were also four studies reviewed from academic sources with a focus on parasites and/or disease, of which 50% included TK as part of the study. Studies that included a focus on parasites and/or disease only accounted for 9% of total academic studies considered as part of the literature review. These studies included data or assessment of all caribou herds of interest (4 studies included information on each Bathurst and Bluenose-East, 2 studies included information on each Bluenose-West and Cape Bathurst, and only one study included information on Tuktoyaktuk Peninsula). There was also one academic study with a focus on parasites/disease that was completed for the area overlapping the caribou herds of interest, however it was not specific to any particular herd.

Environmental Contaminants/Pollution

From the literature review of government studies, there were no recent (2015-present) studies completed on the topic of environmental contaminants or pollution for any of the barren-ground caribou herds of interest. However, there were six studies reviewed from academic sources with a focus on environmental contaminants and/or pollution, of which 50% included TK as part of the study. These studies accounted for 13% of total academic studies considered as part of the literature review. These studies included data or assessment of all caribou herds of interest (4 studies included information on Bathurst, 2 studies included information on both Bluenose-East and Cape Bathurst, and one study included information on each Bluenose-West and Tuktoyaktuk Peninsula). There was also one study that was completed for the area overlapping the caribou herds of interest; however, was not specific to particular herds.

SIGNIFICANCE OF TRENDS DETECTED

Across government publications reviewed, significant trends were detected for population abundance and herd productivity.

Across academic studies, significant trends were detected for:

- Population abundance [e.g., the significance of population cycling (Bongelli, Dowsley, Velasco-Herrera, & Taylor, 2020)].
- Seasonal range/habitat use (e.g., the significance of zones of influence between 2003 and 2018 around mine sites in NWT (Boulanger, Poole, Gunn, Adamczewski, & Wierzchowski, 2021)).
- Climate change (e.g., significant declines in snow depth for Bluenose-East and Bathurst herds (Russell & Gunn, 2016)).
- Environmental contaminants/pollution (e.g., significance of dust deposition in (Watkinson, et al., 2021), spatial significant trends in soil pH and reduction in vascular plant percent cover, from a haul road detected in Chen et al. (2017)).
- Predation (only one paper with significant results (Klaczek, Johnson, & Cluff, 2016), detected significant relationships between pup recruitment and late-summer den occupancy and the late-summer distribution of caribou).
- Wildfires – Various academic papers were found that describe trends in wildfires in the NWT.
- Habitat condition was explored more spatially than temporally; however, significant spatial trends were detected [e.g., significance of zones of influence in (Boulanger, Poole, Gunn, Adamczewski, & Wierzchowski, 2021); significance of dust deposition in Watkinson et al. (2021)]. Examples of significant temporal trends explored included increase in Enhanced Vegetation Index and productivity (Rickbeil G. J., 2018), as well as lichen mat volume (Rickbeil et al. 2017) from 1984 to 2012.

- Changes in condition and health of caribou, associated with arctic oscillation, were detected in an academic paper (Mallory, Campbell, & Boyce, 2018). No other notable changes were detected outside of the trends of interest reviewed in this Audit.

Of the papers reviewed that included trend analyses, the only trend of interest that did not find significant trends was for parasites/disease.

CONTRIBUTING FACTORS

Is there sufficient information to evaluate the potential contributing factors of any environmentally or culturally significant trends detected? If not, what are the information gaps?

Government Studies:

- Population Abundance: Yes, estimate survey reports outline potential contributing factors. For example, a portion of female caribou may have been missed based on limited survey coverage, some female caribou may have moved to adjacent calving grounds, and demographic factors including reduced survival of adult caribou, reduced pregnancy rates, and reduced calf survival.
- Herd Productivity: Yes, there is mention in studies of influence from decreasing calf survival (possible gap in calf survival trends and/or linkages in calf survival and other demographic parameters), as well as mention of adult cow survival being an important determinant. Other contributing factors explored in studies include harvest pressure, parasites (lower calf survival), and increase in bull:cow ratios (increased productivity). Lower fecundity is thought to potentially be associated with high drought conditions and severe insect harassment (Boulanger and Adamczewski, unpublished).

Academic Studies:

- Population Abundance (significance of population cycling): Somewhat, acknowledgement that barren-ground caribou subpopulation dynamics are not well understood, but potential factors (such as drought index, forage availability, predators, insect harassment, pathogens, decadal winter severity, habitat disturbance [industrial activity]) highlight areas for increased research. COSEWIC (2016) suggests barren-ground caribou subpopulation cycles are either synchronized or are currently influenced by a common factor that has interrupted their natural population trajectory. From Bongelli et al. (2020): "Periods of synchrony might be coincidental rather than caused by some factor affecting all barren-ground caribou subpopulations simultaneously." TEK suggest that all barren-ground caribou subpopulations have experienced fluctuations in abundance across North America for at least the last 100 years (Zalatan, Gunn, & Henry, 2006; Legat, 2014) with population fluctuations linked to natural variability (Dokis-Jansen 2015; Sandlos 2007; Parlee 2005).

- Seasonal Range/Habitat use: Yes, contributing factors noted in studies include zones of influence around industrial development, drought (attraction of caribou to lakes), maternal body condition (factor in earlier spring migration), weather conditions (e.g., wind speed/high temperatures; factors in migration/calving areas), industrial development (mines; TK - Dokis-Jansen 2015), climatic patterns (TK), northerly advance of treeline (TK), human activities (roads), wildfires (forage availability).
- Habitat Condition (spatial trends, temporal trends in EVI/productivity): Yes, quality and quantity of available food sources (Dokis-Jansen 2015), wildfires, land use, climate change, dust deposition from industrial development.
- Climate change: Yes, contributing factors are well understood, however, not explicitly stated in papers. Related predicted trends in the Arctic include warmer temperatures, higher snowfall, warmer ground with associated changes in nitrogen dynamics and increased plant growth (Russell & Gunn 2016; Jeffries et al. 2015; ACIA 2005).
- Environmental contaminants/pollution: Yes, mining, industrial development, roads, oil and gas exploration, noise pollution, long range atmospheric transport from more industrialized region *(Gamberg, et al., 2020)* s.
- Predation (one paper; significant spatial trend): Somewhat, there are difficulties surrounding lack of territoriality on the winter range, and the influence of immigration of wolves from adjacent caribou herds in times of range overlap *(Wilson, 2023)*. The extent that wolves influence the decline and recovery of caribou herds is unknown, although results suggest wolves exhibit a relatively strong numerical response to a single, declining prey base (Klaczek et al. 2016).
- Wildfires: Yes, contributing factors noted in studies reviewed include climate/climate change, melting permafrost, forest fire severity increased with distance to treeline, vegetation composition (size and severity of fires).
- Parasites/disease: Yes, contributing factors noted in studies reviewed include climate change, seasonality, age/sex of the host (intensity), although for some parasites, the impacts of climate change are uncertain.

ABILITY OF AVAILABLE INFORMATION TO ADDRESS CONCERNS

Were decision-makers and communities engaged in the collection of information related to each trend of interest? If so, how?

Government Studies:

Government studies describe including decision-makers and communities in the collection of information for the following trends of interest:

- Population Abundance: Yes, individuals from communities (e.g., North Slave Métis Alliance, Tłı̨chǫ Government, Yellowknives Dene First Nation, Northwest Territories Métis Nation, Kugluktuk Hunters and Trappers Organization) and WRRB involved in aerial survey counts.
- Herd Productivity: Yes, see above (for estimate surveys).
- Seasonal range/habitat use: Yes, see above (for estimate surveys).
- Habitat condition: Yes, for example, one study involved collaboration with WRRB.
- Harvest management: Yes, harvest has been monitored by a combination of community monitors, check-stations and officer patrols through joint proposals between Tłı̨chǫ Government and GNWT-ECC to WRRB.
- Land use: Yes, individuals from GNWT-ECC provided input and discussion on wildlife effects monitoring program objectives.

Academic Studies:

In academic studies, decision-makers and communities were engaged in the collection of information for the following trends of interest:

- Population Abundance: Yes, inclusion of authors from GNWT, collaboration with SRRB, WRRB, GRRB.
    - Studies included authors such as Regional Biologist North Slave Region, ENR GNWT and Regional Wildlife Biologist Kivalliq Region, Wildlife Research Division.
    - The "Decision support tools to assess Cumulative Impacts…" study by Carlson et al. (2023) included partnership with SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change, GNWT, Parks Canada, CWS, and barren-ground caribou knowledge holders.
    - CircumArctic Rangifer Monitoring and Assessment (CARMA), an open network for historical and current information on Rangifer, utilize information from community, industry, university and government agency partners.
- Herd Productivity: Yes, inclusion of authors from GNWT, Tłı̨chǫ government, and WRRB. The GNWT also provided collar data.
    - CARMA (see above under population abundance).
    - Studies included authors from GNWT-ECC, Tłı̨chǫ Government, WRRB.

  - Individuals from Wekweètì participated in community-based monitoring and the GNWT provided collar data (Chen et al. 2018).
- Seasonal range/habitat use: Yes, including collaboration and involvement of communities in surveys and interviews. The GNWT provided collar data.
  - CARMA (see above under population abundance).
  - See above note for Carlson et al. (2023).
  - J. Adamczewski (GNWT-ECC Wildlife Management Division) was included as an author on many papers.
  - Local community members engaged in the capture/collaring of caribou (Gurarie, et al., 2019; Couriot et al. 2023).
- Interviewed elders, community members from Lutsel K'e Dene First Nation (Dokis-Jansen 2015; Baydack 2018).
  - Collaboration with WRRB on studies.
  - Correspondence with Beverly/Qamanirjuaq Caribou Management Board *(Bongelli E. , 2019)*.
  - Use of collar data provided by GNWT.
- Habitat condition: Yes, including collaboration and involvement of communities in monitoring. The GNWT provided collar data.
  - J. Adamczewski (GNWT-ECC Wildlife Management Division) included as an author on many papers.
  - Use of collar data provided by GNWT.
  - Community-based vegetation monitoring (Wekweètì).
  - Co-authors from WRRB, Tłı̨chǫ Government.
  - See above for Carlson et al. (2023).
  - Correspondence with Beverly/Qamanirjuaq Caribou Management Board *(Bongelli E. , 2019)*.
  - Discussions with community members of Wekweètì, and feedback from WRRB, Tłı̨chǫ Government, and GNWT.
- Predation: Yes, including collaboration with resource boards and inclusion of authors from GNWT. The GNWT also provided collar data.
  - "Technical report (wolf management program)": Tłı̨chǫ Government (TG) and the GNWT collaboration on management actions. TG's Community-based Dìga Harvest Program.
  - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
  - GNWT provided collar data used in studies.

- Community food security: Yes, including participation of community members, consultation with co-management boards and government organizations.
    - "Caribou and Inuit Nutrition Security in Canada" (Kenny et al. 2018): a health survey of Inuit adults included consultation with northern wildlife experts from Inuit organizations, wildlife co-management bodies and Territorial governments.
    - "The role of multiple stressors in adaptation to climate change in the Canadian arctic": included research/interviews in Paulatuk, oversight committee including members of the Paulatuk Community Corporation and Hunters and Trappers Committee. Research findings were also discussed with the community afterwards.
- Harvest management: Yes, through consultation and collaboration with stakeholders.
    - "Caribou and Inuit Nutrition Security in Canada" *(Kenny, Fillion, Simpkin, Wesche, & Chan, 2018)* a health survey of Inuit adults included consultation with northern wildlife experts from Inuit organizations, wildlife co-management bodies and Territorial governments.
    - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
    - "Behavioural, physiological, and movement relationships between barren-ground caribou and industrial infrastructure": Collar data supplied by GNWT.
- Land use: Yes, including interviews with stakeholders and community participation/engagement. The GNWT also provided collar data.
    - Dokis-Jansen (2015) included documentation of oral histories from elders and harvesters, respondent observations, and community-based research.
    - Smith (2022) used collar data from GNWT, although the level of engagement with communities is unclear.
    - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
    - Baydack (2018) included community interviews with Łutsel K’e Dene First Nation as part of the study.
    - Smith & Johnson (2023a & b) included collar data shared from GNWT in their study.
    - The "Bathurst Caribou Winter Range Resource Selection" report includes datasets acquired from NWT CIMP and MVLWB.
- Wildfires: Yes, including interviews with stakeholders and community participation/engagement. The GNWT also provided collar data.
    - Dokis-Jansen (2015) included documentation of oral histories from elders and harvesters, respondent observations, and community-based research.

    - Boulanger & Adamczewski (2017) included collar fate data provided by the GNWT.
    - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
    - The "Bathurst Caribou Winter Range Resource Selection" report includes datasets acquired from the NWT CIMP and MacKenzie Valley LWB.
    - The study by Dearborn & Danby (2021) conducted as part of NWT CIMP-funded project CIMP187, included discussions with community members of Wekweètì and staff of the WRRB, the Tłı̨chǫ Government and the GNWT.
- Environmental contaminants/pollution: Yes, community involvement in sampling, GNWT provided collar data.
    - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
    - A study by Gamberg, et al., (2020) included samples collected by local hunters or during community hunts under the Arctic Caribou Contaminants Program. Hunters and Trappers organizations and associations and territorial governments helped facilitate the collections. NWT CIMP supported the collection from the Bluenose-East caribou. The GNWT also provided historical data.
    - "Levels and trends of current-use pesticides in the arctic": community collection of biological samples
- Climate change: Yes, data provided from GNWT, and communities are involved in research.
    - Russell & Gunn (2016) used collar data provided by GNWT.
    - "Tactical departures and strategic arrivals...": Local community members engaged in the capture and collaring of caribou, partially funded by the GNWT
    - Couriot et al. (2023) included engagement of local community members in caribou capture and collaring. The study was partially funded by the GNWT.
    - Chen, et al. (2017) included community-based vegetation monitoring (Wekweètì), GNWT provided collared cow GPS data and range map. Guidance, suggestions, and technical assistance was provided by the GNWT, Tłı̨chǫ Government, Wek’èezhìi Renewable Resources Board, and CircumArctic Rangifer Monitoring and Assessment Network (CARMA).
    - Dokis-Jansen (2015) included documentation of oral histories from elders and harvesters, respondent observations, and community-based research.
    - Boulanger & Adamczewski (2017) included collar fate data provided by the GNWT.
    - The "Decision support tools to assess Cumulative Effects..." study by Carlson et al. (2023) included partnership between SRRB, WRRB, Wildlife Management Advisory

Committee (NWT), GRRB, Department of Environment and Climate Change (GNWT), Parks Canada, and CWS.
    - Correspondence with Beverly/Qamanirjuaq Caribou Management Board (Bongelli 2019)
    - Virgl, W, & Coulton, (2017) used caribou collar data provided by the GNWT.
    - A study by Dearborn & Danby (2021) conducted as part NWT CIMP-funded project CIMP187, included discussions with community members of Wekweètì and staff of the WRRB, the Tłı̨chǫ Government and the GNWT.
    - Lede et al. (2021) included research/interviews in Paulatuk and had an oversight committee including members of the Paulatuk Community Corporation and Hunters and Trappers Committee. Research findings were also discussed with the community afterwards.
    - In a study by Paquette et al. (2023), community workshops were organized in Uqsuqtuuq (the Nattilik Heritage Centre, Kitikmeot Inuit Association, Hamlet of Gjoa Haven, Uqsuqtuuq Hunters and Trappers Association, and Ikaarvik: Barriers to Bridges).
- Parasites/disease: Yes, through the use of GNWT provided collar data and involvement of hunters and trappers in data collection.
    - A study by Boulanger & Adamczewski (2017) utilized collar fate data provided by the GNWT.
    - A study Buhler et al. (2023) included hunter-harvested samples and involvement with hunters and trappers organizations for data collection.
- NWT CIMP is also funding research that works with Tłı̀chò Elders and the Ekwǫ̀ Nàxoèhdee K'è (ENK) team to explore parasites/disease in barren-ground caribou herds.

APPENDIX D LIST OF AUDIT RECOMMENDATIONS

The following table provides the list of 2025 Audit recommendations as well as the 2020 and 2015 recommendations we recommend are carried forward. Responses to each recommendation are included in the second column.

#	Audit Recommendation	Response
Part 1: The availability and use of barren-ground caribou trend information in the NWT that is required to make decisions		
1.1 Data Availability		
2025-1-1	GNWT to provide plain language summaries for all GNWT and GNWT/academic studies on caribou in an accessible location and include links to the full studies where available. We would expect that stakeholders and rightsholders will be able to access and understand the full scope of caribou research beyond what is currently provided in NWT CIMP-funded project summaries (NWT Environmental Research Bulletins).	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The development of plain language summaries on caribou studies led by GNWT is feasible moving forward. Other academic literature on barren-ground caribou is aggregated and promoted with a simple summarization on the Northern Caribou Canada website (https://www.northerncaribou.ca/). This website is led by the WRRB with support from the GNWT. The GNWT commits to: • Providing plain language summaries and links to GNWT-led research on barren-ground caribou on its website.

#	Audit Recommendation	Response
2025-1-2	GNWT to work with partners to support and enable caribou monitoring TK, especially for those IGIOs who have been unable to provide it due to lack of capacity or funding. We would expect that additional support will lead to greater capacity and additional TK caribou studies.	GNWT: The GNWT agrees with the intent of this recommendation and is already fulfilling part of the actions that it is able to address. The GNWT supports the use of TK in caribou monitoring and management. The GNWT is already fulfilling part of the recommendation by providing proposal-based funding for TK studies addressing cumulative impacts to caribou through the NWT Cumulative Impact Monitoring Program. The GNWT is also committed to working with Indigenous governments and Indigenous organizations to source external funding for the collection of TK related to caribou, as needed for specific projects. The GNWT is not able to commit to providing additional financial support, beyond what is already provided, for TK studies on an ongoing basis due to fiscal limitations, but will continue to aid in identifying external funding sources and/or partnering on funding proposals.
1.2 Availability of Trend Analyses		
2025-1-3	GNWT to provide an overview or links to summaries or academic studies on trends in caribou harvest. We would expect GNWT to provide what is already known or what estimates are being made and used when making decisions on management of various caribou herds.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. Caribou harvest is discussed at annual meetings with IGIOs at the Bathurst Caribou Advisory Committee (BCAC) Meetings, and the Advisory Committee for Cooperation in Wildlife Management (ACCWM) but the GNWT does not collect trends in caribou harvest. The harvest information is reported by co-management partners in the annual meeting reports of the BCAC and ACCWM. Annual reports for the Cape Bathurst, Bluenose-West and Bluenose-East barren-ground caribou herds are

#	Audit Recommendation	Response
		available on the ACCWM website. Annual Action Plans for the Bathurst herd are available from the BCAC member organizations. The GNWT commits to: • Provide links on the GNWT ECC website to the publicly available ACCWM and BCAC annual reports where harvest of Cape Bathurst, Bluenose-West, Bluenose-East and Bathurst caribou is reported.

2025-1-4	GNWT to prioritize trend analyses of the following trends of interest related to barren-ground caribou: community food security, wildfires, climate change, environmental contaminants/pollution, habitat conditions, harvest, predation and parasites/disease, with a particular focus on community food security for which there is no trend analysis available.	GNWT:
		
		The GNWT agrees with this recommendation and commits to partially fulfilling the recommendation prior to the next Audit.
		
		The GNWT does not have the resources required to conduct all the noted trend analyses. Instead, the GNWT commits to prioritizing trend analyses on the key environmental factors that impact barren-ground caribou populations.
		
		The GNWT commits to:
		
		• Partnering on research related to environmental factors that impact barren-ground caribou populations, summarizing and making available, where possible, trends in the following key environmental factors:
		  ○ Climate change influences on habitat quality and habitat use
		  ○ Seasonal habitat and range use
		  ○ Parasites/disease in targeted barren-ground caribou herds

#	Audit Recommendation	Response
1.4 Ability of Available Information to Address Concerns		
2025-1-5	GNWT and co-management boards to work together to provide an overview of how decision-makers collaborate and integrate community perspectives to answer questions about caribou. Enhance descriptions of how decision-maker and community concerns drive caribou study design (like what is found in NWT Environmental Research Bulletins). What we expect is that the information about collaborative efforts will extend beyond what is currently included on the GNWT website, which focuses on the work being carried out by GNWT.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in the recommendation prior to the next Audit. The GNWT works with Indigenous governments and Indigenous organizations in many decision-making processes with respect to caribou research and management. These include Indigenous governments, Indigenous organizations, renewable resources boards, advisory committees, Guardian programs and other co-management forums. Through these collaborative programs and decision-making processes community perspectives are brought forward to inform research and management decisions. The GNWT commits to: • Describing on its website and providing links to existing webpages and information sources that outline collaborative caribou research and management programs, forums and decision-making processes. GRRB: The GRRB would be happy to provide information on how we work with RRCs, community members, and GNWT to centre our work around the communities' research priorities. WRRB: The WRRB reviews and responds to all GNWT wildlife research proposal applications individually after seeking initial IGIO and public input through the Board's

#	Audit Recommendation	Response
		Management Proposal website page. For proposed wildlife and wildlife management actions, the WRRB requires Parties to the Tłı̨chǫ Agreement (TG, GNWT, Canada) to provide evidence of community consultation and integration into management proposals submitted to the Board. The Board seeks input from affected IGIOs and the public through its online Public Registry or through direct communication with community members (phone, email, letter) when a Proceeding is initiated. The Board considers both science and TK evidence in its decision making, when available. Community perspectives and input from IGIOs and the public are reflected in the WRRB's decision making as shown in Reasons for Decision reports or written responses, which can be found on the Board's website on the Public Registry or the Management Proposals page.
2025-1-6	GNWT to enhance the Browse function on the NWT Discovery Portal to improve access to topics, like "Caribou: population trends". Provide a clear instructional welcome on the home page to direct users to the Browse function. What we expect is that it will be easier for visitors to access the information of most interest to them.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The NWT Discovery Portal provides multiple search functions but finding relevant materials on topics of interest can be challenging. The GNWT will work in the next several years to update the search and browse function. The GNWT commits to: • Updating the NWT Discovery Portal's default search option and search instructions on the homepage of the NWT Discovery Portal to aid users in searching for materials of interest.

#	Audit Recommendation	Response
2025-1-7	GNWT to work with its partners (e.g., other government agencies, such as ECCC or Government of Nunavut, and/or academic partnerships) to develop population models of caribou herds that incorporate a wider list of variables, e.g., habitat alteration through climate change and fires, insects, disease, etc. We would expect that these models would help determine the sensitivity of caribou to various environmental perturbations to identify likely current and future drivers of change (e.g., climate change, harvest, predation, etc.) and data gaps for the herds.	GNWT: The GNWT is already fulfilling the actions being proposed by this recommendation. The GNWT and its partners have developed and currently use population models of caribou herds to explore sensitivity of caribou to environmental changes. These models incorporate a wide list of variables that may impact caribou. The GNWT will continue to work with partners and to improve existing models and develop new tools to understand the drivers of caribou population change, particularly the relative contribution of habitat change, harvest and to the extent possible, effects of predation.
Part 2: The Effectiveness of cumulative impact monitoring in the NWT		
2.1 Effectiveness of Cumulative Impact Monitoring Methods		
2025-2-1	LWBs/GNWT-ECC to identify and pilot tool(s) to aid applicants in providing cumulative impact monitoring information that is considered in preliminary screening decisions. We would expect that a more consistent approach is taken to the provision of cumulative impact monitoring	GNWT: The GNWT agrees with this recommendation and commits to partially fulfilling the GNWT's role in this recommendation prior to the next Audit. The GNWT agrees that developing tools to support Preliminary Screening for water licenses and land use permits to effectively and consistently address cumulative impacts consistently would be beneficial. This would require the LWBs to identify what cumulative impact information is needed and for the LWBs and the GNWT to

#	Audit Recommendation	Response
	information under the water licensing and land permitting system.	jointly identify what information is currently feasible to provide for all projects at the screening stage. If specific tools are identified as feasible, the GNWT and the LWBs will identify pros and cons of implementing such a tool before proceeding to pilot. Where information is lacking, targeted funding calls (e.g., upcoming *Road Development Impacts: Understanding and mitigating cumulative impacts from road development* led by NWT CIMP) may be able employed to support tool development. <u>The GNWT commits to:</u> • Work with the LWBs to identify information and tools that would be most helpful to support the LWBs and project proponents to address cumulative impacts in pre-screening decisions. A pilot may be started depending on available information and feasibility. LWBs: The LWBs are committed to collaborating with GNWT-ECC to identify opportunities that will help applicants, affected parties, reviewers, and decision-makers consider cumulative impacts for small-scale projects that do not require an Environmental Assessment (EA), which would otherwise include a cumulative impact evaluation. Funding from NWT CIMP's targeted funding calls could support collaboration and identification of opportunities to more effectively address cumulative impacts. An example of this is their upcoming "Road Development Impacts: Understanding and mitigating cumulative impacts from road development" call, which LWB staff intend to participate in through attendance at workshops and other meetings as necessary. LWB staff could also participate in any future NWT CIMP funding calls that could help create the guidance discussed above.

#	Audit Recommendation	Response
		The LWBs invite NWT CIMP to co-develop standard permit conditions to address cumulative impacts and/or on specific project components where gaps in addressing cumulative impacts and associated monitoring and mitigation measures have been identified. The LWBs provide the process for input into permit and licence applications. Staff will continue to follow the LWB Rules of Procedure, distributing applications for land use permits and water licences – including draft management plans – and drafting permit and licence conditions for public input. To better inform preliminary screening decisions, NWT CIMP could provide information and recommended conditions to address cumulative impacts for permit and licence applications.
2025-2-2	GNWT, GoC and RRBs to describe and communicate (e.g., through plain language examples) how resource managers respond to evidence that a particular VEC is demonstrating a concerning negative trend (as described in the Cumulative Impact Monitoring Framework). We would expect that this information would be available for each of the three priority VECs.	GNWT: The GNWT agrees with the recommendation and commits to fulfilling the GNWT's role in the recommendation prior to the next Audit. When considering the three priority VECs (fish, water, and caribou), the GNWT's main role in resource management decision making related to water and fish is to provide information and advice to co-management boards related to water, aquatic life and habitat. The GNWT is a resource management decision maker for caribou in conjunction with renewable resources boards and advisory committees. The GNWT commits to: • Summarizing and providing plain language summaries on its websites or links to co-management partner websites describing co-management decision making processes that guide management actions when caribou are at different phases of their population cycle including the decline phase.

#	Audit Recommendation	Response
		CIRNAC: CIRNAC acknowledges the need for an integrated monitoring and response framework for cumulative impacts and declining trends among the priority VEC's. CIRNAC will continue to engage officials from other federal departments to ensure they have awareness of this recommendation. GRRB: The GRRB would be happy to provide input on this. WRRB: The WRRB collaborates with the GNWT and TG through the Barren-ground Caribou Technical Working Group to discuss and provide input on caribou research, management, and monitoring. The WRRB, GNWT, and TG have collaboratively developed an Adaptive Co-Management Framework, which provides a way of implementing adaptive management and will benefit herd management planning through the experience of developing indicators, setting benchmarks, applying them to management activities, and monitoring the results. The adaptive management framework is directed at the annual implementation and evaluation of management actions for the Bathurst and Bluenose-East caribou herds. The framework seeks to incorporate an array of indicators to assess whether management actions are modifying caribou trends and recognizes the complexity and interconnectedness of contribution factors affecting caribou demography. The WRRB participates in annual review processes to determine herd status for the Bathurst and Bluenose-East caribou through the Advisory Committee for Cooperation on Wildlife Management and the Bathurst Caribou Advisory Committee.

#	Audit Recommendation	Response
		The WRRB is a member of the Conference of Management Authorities, which is responsible for management of species at risk, and participates in consensus agreements for listings, recovery documents, and implementation. SRRB: The SRRB recognizes the importance of clear communication about how resource managers respond to concerning trends in VECs. We support efforts by GNWT, GoC, and the regional boards to provide plain-language explanations and real examples of management actions triggered by monitoring results. In the Sahtú region, the SRRB actively facilitates community-led monitoring programs that gather Indigenous knowledge and scientific data. We communicate results using plain language in workshops, infographics, graphic recordings, and videos- tools designed to make complex information accessible and meaningful to community members. The SRRB also advises resource managers by integrating community concerns and knowledge into decision-making, ensuring that responses to negative trends reflect Sahtú priorities and values. We encourage partners to develop communication materials that are accessible and reflect Indigenous perspectives to enhance transparency and trust.
2025-2-3	GNWT to finalize and share the cumulative impact monitoring roles and responsibilities document and identify the steps it will take annually (over the next five years) to progress collaboration with others on cumulative impact monitoring. We would expect that this information would include	GNWT: The GNWT is already fulfilling part of the actions being proposed by this recommendation and agrees with the remainder. The GNWT commits to fulfilling the remainder of the recommendation prior to the next Audit.

#	Audit Recommendation	Response
	all parties with responsibilities and would aid in understanding of and the accountability for monitoring in the territory.	Identifying the steps the GNWT will take annually to progress collaboration with others on cumulative impact monitoring will continue to be part of NWT CIMP's annual work planning actions. The GNWT commits to: • Developing and releasing a high level "Cumulative Impact Monitoring Roles and Responsibilities in the NWT" document, outlining the roles and responsibilities of all entities that conduct cumulative impact monitoring.
2020-2-2	The RA develop and/or provide descriptions of the rationale and study design for individual monitoring stations sampled by the federal and territorial government and make this information available at a central electronically-accessible location.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. Providing clear, accessible information on the rationale and study design for individual monitoring sites/stations is critical for transparency, collaboration, and network optimization. Water monitoring networks and programs in the NWT are operated by numerous responsible agencies and are intended to address a wide range of objectives. GNWT-ECC is committed to improving transparency around its water quality monitoring efforts. As part of this commitment, the rationale and study design for each monitoring site will be clearly documented and made publicly accessible on Mackenzie DataStream. This enhanced metadata will support public understanding and informed use of water quality data. GNWT-ECC will continue to complete water quality status and trends reports for individual watersheds every five to 10 years. These status and trend reports also provide information about the rationale and study design for specific programs.

#	Audit Recommendation	Response
		The federal Water Survey of Canada (WSC) operates hydrometric stations across the territory. The WSC's website makes hydrometric data publicly accessible on its website. GNWT-ECC partners with WSC to run the hydrometric network, and the hydrometric network is based on shared needs across multiple agencies. While hydrometric data are available on WSC's website, GNWT-ECC will integrate water quantity and groundwater station metadata into existing platforms (e.g. GNWT-ECC website, GNWT ATLAS). The GNWT commits to: • Providing water quality, water quantity and groundwater station metadata online. LWBs: No LWB response required. However, the LWBs would like to note that much of the water quality monitoring data collected by the GNWT is available through the Mackenzie Data Stream, and the LWBs have committed to working with the DataStream team to facilitate the harvesting of LWB public registry water quality data into the DataStream as well.
2020-3-4	The co-management boards use their ability to impact the design of monitoring programs to ensure the adoption of consistent monitoring requirements for proponents. The outcome we expect is that industry's monitoring efforts will be able to	LWBs: The LWBs updated their response to this recommendation in January 2024. This update highlighted the LWBs' adoption of the GNWT Standards for Reporting Water Quality Information in the NWT (2020), a requirement now referenced in various LWB guidance and policies. Currently, the LWBs are developing a template for Surveillance Network Programs (SNPs) for all undertakings. This template is considering requiring SNP reporting to align with the GNWT's Standards. For

#	Audit Recommendation	Response
	aid the RA in meeting its Section 146 responsibilities.	example, the SNP template could mandate through a required Quality Assurance/Quality Control (QA/QC) Plan that the Standard's metadata be provided for each dataset and SNP reports incorporate the Standard's outlined reporting criteria. While we are working to standardize SNPs, the LWBs reiterate that monitoring programs required by permits or water licences are not designed to specifically understand cumulative impacts or contribute to environmental trend analysis by ensuring data comparability across sites. Instead, these programs are project specific and are designed to monitor and mitigate land and water use, along with waste deposition, based on evidence from regulatory proceedings. If GNWT-ECC wishes to further standardize monitoring programs, the GNWT should present supporting evidence during a proceeding or through a joint and focused initiative. The LWBs acknowledge that GNWT CIMP recently developed a Cumulative Impact Monitoring Framework (CIMF). The CIMF's Analysis section suggests that data for cumulative impact modeling could come from external sources, including the LWBs. It would be helpful for the LWBs to understand how datasets from monitoring programs such as SNPs and Aquatic Effects Monitoring Programs (which may be more relevant to cumulative impact modeling as AEMPs focus on sampling in the receiving environment) are screened for their usability in GNWT CIMP's modeling. This understanding could help the LWBs better grasp the necessity of standardizing monitoring programs WRRB: The WRRB reviews and comments on Wildlife Management & Monitoring Programs (WMMPs) that industry submits for projects in Wek'èezhìı. For WMMPs submitted by Parties to the Tłı̨chǫ Agreement (TG, GNWT, Canada), after seeking IGIO and public

#	Audit Recommendation	Response
		input through the Board's Management Proposal website page, the Board reviews and approves the WMMP. The WRRB reviews and comments on the annual reporting of all WMMPs. The WRRB also reviews and comments on all wildlife and wildlife habitat protocols, policies, plans, and guidelines developed.
2020-4-3	The RA should design a coherent cumulative impacts monitoring and assessment framework for the NWT that includes clarity on language, the role of different organizations, policy directions for boards and departments, monitoring protocols, and advice for industry to manage and consider cumulative impacts.	GNWT: The GNWT agrees with this recommendation and commits to partially fulfilling the recommendation prior to the next Audit. In 2025, the GNWT released the NWT CIMP Cumulative Impact Monitoring Framework, which provides strategic guidance for NWT CIMP activities to monitor and assess cumulative impacts. It also outlines the roles of NWT CIMP with respect to other ECC programs and those of other departments, governments or organizations that conduct long-term environmental monitoring. The GNWT does not provide policy direction to co-management boards as the boards are under federal authority. The GNWT commits to: • Developing and releasing a high-level "Cumulative Impact Monitoring Roles and Responsibilities in the NWT" document to accompany the Framework outlining the roles and responsibilities of all entities that conduct cumulative impact monitoring in the NWT (see GNWT's response to recommendation 2025-2-3). MVEIRB: MVEIRB continues to support the purpose and intent of this recommendation. It

#	Audit Recommendation	Response
		continues to have measures in reports of environmental assessment that specify the need for post-EA follow up monitoring that is intended to look at the impacts of the development both at a project and cumulative level. The Board supports the development of consistent and measurable cumulative impact monitoring frameworks developed by CIMP, GNWT or LWBs for key valued components. MVEIRB believes that future regional studies, such as the proposed Slave Geological Province Regional Study, can assist in the collection of relevant cumulative effects monitoring data, as well as identify trends to monitor further.
2.2 Sufficiency of Cumulative Impact Monitoring Information		
2025-2-4	GNWT to provide narrative descriptions of predictions of impacts and/or expected interactions from development (e.g., linear development; lithium mining) to decision-makers, working with decision-makers to determine the VECs and development-type of most interest. We would expect that the limited resources available to NWT CIMP may be directed to better support decision-making in the NWT	GNWT: GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. While in many cases it is impossible to develop quantitative predictions of the cumulative impacts from development due to data limitations, scientific and Traditional Knowledge can help provide high-quality qualitative predictions. By developing narrative reports detailing expected direction and relative magnitude of impacts from development and natural processes, the GNWT can support decision-makers to address the most pressing concerns. The *Collaborative Barren Ground Caribou Initiative* was developed to address many unanswered questions posed by the federal, territorial and Indigenous governments and organizations, co-management partners and communities about what is driving changes in caribou abundance and what the future holds.

#	Audit Recommendation	Response
		Current investment and focus in the NWT on roads, including both the development of new roads and transitioning winter roads to all-season roads, has raised public interest regarding potential impacts that road developments may have on caribou herds, and previously inaccessible waterbodies and fish. In response, this topic will be the subject of a second directed funding call and narrative report. As opportunities allow, the GNWT will solicit input for decision-makers and partners to determine additional priorities for collaborative initiatives such as those described above. The GNWT commits to: • Releasing a plain language synthesis report about the outcome of the *Collaborative Barren Ground Caribou Initiative*. • Releasing one or more additional narrative descriptions of the impacts from development and the interactions with other environmental stressors (e.g., cumulative impacts from road development on caribou, water, and fish).
2020-4-6	The NWT CIMP continue to evaluate its monitoring priorities on a five-year cycle in response to findings from monitoring and research, and that it provides specific directions and conclusions to decision-makers in the form of memoranda, NWT CIMP-certified monitoring protocols, policies, and customized project-specific advice.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. NWT CIMP last updated its Monitoring Blueprints in 2022. The next 5-year update is scheduled in 2026. The next update will reflect the most up-to-date cumulative impact monitoring and research priorities for caribou, water, and fish. Input from decision-makers and partners will be solicited to ensure that their priorities are reflected in these Blueprints and the outcomes of funded products are usable by decision-makers.

#	Audit Recommendation	Response
		NWT CIMP does not provide policy direction to the co-management boards as the boards are under federal authority. NWT CIMP does make recommendations on monitoring protocols and project-specific advice as appropriate. The GNWT commits to: • Updating NWT CIMP Monitoring Blueprints in 2026.
2.3 Ability of Available Information to Address Concerns		
2025-2-5	GNWT work with its partners to identify and establish similar initiative(s) to that of the Barren Ground Caribou Initiative to focus VEC research and to better integrate TK studies and western science studies. We would expect that GNWT would work closely with decision makers to identify specific questions that need addressing and that the collaboration would lead to useful decision-making tools (e.g., risk maps) and plain language summaries.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The 2023-2026 *Collaborative Barren Ground Caribou Initiative* (CBGCI) has been extremely successful. This directed funding call, a joint initiative with Polar Knowledge Canada and NWT CIMP, provided funding to 7 separate projects to research and monitor multiple different threats to barren ground caribou. Project leads meet regularly to discuss their work, which leads to increased collaboration across projects and better outcomes. The project leads will also be writing a plain language synthesis report for decision makers, which will summarize and interpret the key findings from all projects, but with a focus on understanding how different threats interact across the full-annual lifecycle. This report will be available on the NWT Discovery Portal. Based on the success of the CBGCI and guidance by the NWT CIMP Steering Committee, NWT CIMP is running a 3-year directed funding call entitled *Road Development Impacts: Understanding and mitigating cumulative impacts from road development*, with funding to start in 2026-27. Like the CBGCI, this directed funding

#	Audit Recommendation	Response
		call will bring together multiple projects working on similar topics and result in a synthesis report for decision makers that informs the mitigation of the impacts to caribou, water, and fish from road development. Additionally, given the success of the first CBGCI, the GNWT will include the exploration of additional options and priority topics for future directed funding calls in NWT CIMP's Action Plan for 2026-2030, to be released in 2026. The GNWT commits to: • Running a 3-year directed funding call entitled *Road Development Impacts: Understanding and mitigating cumulative impacts from road development*. • Including the exploration of options and priority topics for additional directed funding calls in future years, as funding allows.
Part 3: The Effectiveness of Regulatory Regimes in the Mackenzie Valley		
3.1 Regulatory Scope		
2015-16	LWBs and MVEIRB should work with interested parties to identify approaches to better utilize and integrate TK information into the decision-making processes.	LWBs: The LWBs agree with this recommendation, as this is an organizational goal that we have, and continue, to work towards. The LWBs are updating their engagement guidelines to reflect a more holistic approach. While not solely focused on Traditional Knowledge (TK), the LWBs support early and ongoing engagement through regulatory reviews and into closure, emphasizing that local and traditional knowledge are best applied at the individual project and development level.

#	Audit Recommendation	Response
		Improving guidance to proponents and stakeholders on how to carry out more effective early engagement provides an opportunity to work with the parties that provide TK to gain a better understanding of how we can work together to make sure the holders of TK are engaged at times and in ways that allow TK to be woven into project planning and implementation from the beginning and throughout the project life. The goal is that TK is already integrated to some degree into the application and evidence submitted to the Board by the applicant during a regulatory proceeding. In licences and permits, this approach is then maintained through the implementation of the Engagement Plan over the project life, and in licences, through the standard conditions that require the licensee to incorporate both scientific and traditional knowledge, and to identify how TK and associated recommendations have been integrated into every submission; in each submission required by this Licence or by any directive from the Board, the Licensee shall identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission, and provide justification for any recommendation not adopted. These standard conditions will be incorporated into new authorizations moving forward and existing authorizations as renewals and amendments take place. The volume of scientific information presented typically outweighs that of TK. However, when TK information is available, it is incorporated into the permitting or licensing process. For example, more extensive mitigation measures and reporting requirements may be imposed. While the volume and extent of the TK data vs scientific data is different, the merit and weight of the evidence is equal in the Boards' process. The Boards have also formally adopted the MVEIRB's *Guidelines for Incorporating Traditional Knowledge into Environmental Impact Assessment* (since the LWBs are

#	Audit Recommendation	Response
		primarily responsible for carrying out Preliminary Screenings which are the first level of the environmental impact assessment process). MVEIRB: The Mackenzie Valley Review Board continues to improve the integration of Indigenous Traditional Knowledge (TK) into its environmental assessment processes. In 2024, the Board hosted a successful Traditional Knowledge Workshop with Indigenous governments, Elders, knowledge holders, and co-management partners. The results of the workshop are being used to inform the update to the Review Board's Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment (2005). The updated Guidelines will look at improving the "braiding" of Traditional Knowledge Systems and western science in Environmental Impact Assessment. The guidelines will focus on respectful use, consent, validation of TK, and provide guidance to developers on ethical and effective TK engagement practices. This work is being led by both the Board's Indigenous Engagement, Outreach, and Partnerships Team, a fully staffed unit established in 2023, along with the new Policy and Planning Team. This response is aligned with Strategic Objective 2.2 of the Board's Strategic Plan (2023–2028): 'Enhance the integration of Indigenous Knowledge and worldviews into all aspects of the environmental assessment process.' The MVEIRB will be working with other resource co-management partners to host a Traditional Knowledge Conference in early 2026, intended to support the improved integration of Traditional Knowledge in all aspects of resource management in the Mackenzie Valley.

#	Audit Recommendation	Response
2020-1-2	The GNWT and CIRNAC establish a process for parties to meet on a regular basis and discuss implementation opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. At times, this process will need to include IGIOs and industry as appropriate. We further recommend CIRNAC ensure a record of findings, actions, and outcomes are published to ensure transparency and to facilitate monitoring and auditing of progress.	GNWT: The GNWT is already fulfilling the GNWT's role in the actions being proposed by this recommendation. As noted in response to the 2020 Audit, there are several processes currently in place for parties to meet on a regular basis and discuss implementation opportunities and challenges with respect to the integrated system of land and water management in the Mackenzie Valley. The GNWT has been participating in initiatives such as the Mackenzie Valley Operational Dialogue (MVOD) which was established in 2020 to provide an opportunity for parties to meet and discuss issues with the northern regulatory system and identify areas for improvement. The key concerns were that there was a lack of opportunity for partners to explore/discuss regulatory challenges and perspectives outside of project-specific venues, so MVOD was developed as a venue to discuss regulatory challenges (both real and perceived) and to share perspectives, identify common regulatory priorities, and collaboratively advance operational actions. CIRNAC: The Government of Canada considers this recommendation implemented and continues to support its operational elements in the following initiatives. As stated in the 2020 joint response with the GNWT, there are several venues for partners to meet and discuss opportunities and challenges related to the integrated resource management system that are ongoing, including the Mackenzie Valley Operational Dialogue (MVOD) the Mackenzie Valley resource co-management workshop, and the NWT Board Forum. The MVOD, convenes partners regularly to

#	Audit Recommendation	Response
		share updates on Mackenzie Valley Operational Dialogue-related actions and external initiatives, provides opportunities at each meeting for partners to share regulatory challenges and co-develop solutions towards these issues, and encourages participants to reach out to others outside of Mackenzie Valley Operational Dialogue whenever challenges arise. MVOD workshop summary reports and presentations are already publicly available on the Mackenzie Valley Land and Water Board website to ensure transparency on discussions and commitments. CIRNAC continues to dialogue with partners whenever the need or opportunity arises. CANNOR's NPMO also hosts the annual Pan-Territorial Board Forum and this has occurred since 2015. The annual forum brings together representatives of each of the assessment and licencing boards across the Yukon, Northwest Territories and Nunavut with the aim of facilitating discussion on initiatives and matters of common interest. LWBs: No LWB response required. However, the LWBs have dedicated significant resources towards its active participation in the Mackenzie Valley Operational Dialogue initiative and have completed several actions that it took on (e.g., updating the ORS analytics, completing a scan of the Land Use Permitting process to identify any additional opportunities to scale requirements to the proposed activities). The LWBs also serve as the primary hosts, in collaboration with the GNWT and GoC, and contribute significant resources for the bi-annual MVRMA Workshop that is intended to provide education and a forum for discussion of challenges and opportunities within the co-management system. MVEIRB:

#	Audit Recommendation	Response
		The Review Board actively contributes to cross-institutional forums such as the MVRMA Practitioners' Workshop, Mackenzie Valley Operational Dialogue (MVOD), and ad hoc co-management meetings. These forums allow shared learning, policy alignment, and coordinated responses to systemic issues. The Board shares outcomes through public-facing summaries and presentations. MVEIRB participates in several other initiatives, such as the NWT Board Forum, Pan-territorial Board Forum and the Environmental Impact Assessment Improvement Initiative to discuss similar issues at the territorial, pan-territorial and national level, respectively. This aligns with MVEIRB's Strategic Plan Objective 1.3: "Promote consistent implementation of the MVRMA through coordination with co-management partners."
2020-1-3	Organizations/departments with a mandate for monitoring and mitigating community well-being work together to make their efforts complementary by developing a common agenda for their goals with a set of shared measures or indicators, and a plan for making results available to decision-makers during the EA and regulatory phases of projects.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. The GNWT recognizes the importance of monitoring and mitigating effects to community well-being from projects and supports this through the creation of a list of common indicators that can be applied to projects. There is currently work being done by multiple GNWT departments to identify a set of indicators that better reflect community wellbeing. Improving reporting on community wellbeing has been a focus of EA work within the GNWT. However, there are ongoing privacy concerns regarding reporting sensitive information at the community level and certain indicators are not available at the community level for some communities. The GNWT commits to: • Identifying a list of indicators to be used when monitoring community well-being.

#	Audit Recommendation	Response
		• Following the development of a list of community well-being indicators, the GNWT commits to engage with regulatory bodies to determine the most appropriate and practicable manner in which to make this data accessible to decision-makers. MVEIRB: In 2024, MVEIRB published its Guideline for the Optional Pathway for Major Projects to Enter Environmental Assessment, which includes enhanced expectations for proponents to understand social, cultural, and economic well-being early in project planning. MVEIRB support the development of community specific that reflect Indigenous definitions of well-being, such as family stability, cultural continuity, and intergenerational knowledge transfer. The Board supports further collaboration with GNWT and Indigenous governments to align monitoring and impact mitigation to improve assessment of impacts on community well-being and socio-economic conditions in future impact assessment processes.
2020-1-9	The MVEIRB and the LWBs, in cooperation with other relevant regulators and affected Indigenous communities, establish, where necessary, a project TK Advisory Committee or talking circle to advise on the use of TK for the purpose of enhancing decision-making of the project. Such TK committees would advise project proponents and regulators and conduct monitoring, if required, from pre-regulatory though regulatory reviews, construction,	LWBs: The specific approach of identifying methods suggested in the 2015 Audit is no longer considered the most effective way for TK to be integrated. Instead, when Traditional Knowledge is submitted to the LWBs it is now consistently addressed; how it was considered or why it was not. TK has always been treated equally as evidence within the formal regulatory proceedings and is explicitly considered in the Boards' Reasons for Decision. This demonstrates a more direct integration of TK, recognizing its evidentiary value alongside scientific and technical information. When appropriate, the LWBs have required the establishment of TK Panels with respect to Closure Planning (e.g., development of Closure Objectives and Criteria)

#	Audit Recommendation	Response
	operation, and beyond as required. To be most effective, a TK Advisory Committee would need to be established as early as possible, but no later than the start of an EA, and live through to the end of the project, advising both regulators as well as the project proponent.	and within the requirements for Aquatic Effects Monitoring Programs (AEMPs) (e.g., there are required TK camps to conduct fish sampling and tasting). MVEIRB: MVEIRB continues to support the intent of this recommendation, while looking to expand the focus from a project specific approach, to one that includes guideline and policy development, as well as an approach that informs the environmental assessment process overall. MVEIRB has also utilized independent third-party Traditional Knowledge experts and Knowledge Interpreters to assist the Board during project specific EAs, such as during the Prairie Creek Road and Mackenzie Valley Highway environmental assessments. MVEIRB continues to respect and promote the use of local protocols for knowledge ownership and sharing, interpretation, peer review, and use in environmental impact assessment. MVEIRB will ensure that it uses a respectful and consultative approaches with relevant Indigenous governments and organizations to determine if and when a TK Advisory Committee is the preferred approach during an environmental assessment.
3.2 Engagement and Consultation		
2025-3-1	GoC to work with GNWT on developing clear communication materials that describe consultation responsibilities in the NWT. We would expect that these communication materials would be in plain language and would support improved understanding of consultation and engagement roles and responsibilities.	GNWT: The GNWT is already fulfilling the GNWT's role in the actions being proposed by the recommendation. The GNWT's approach to consultation with Indigenous governments and Indigenous organizations is clearly outlined and publicly available online (https://www.eia.gov.nt.ca/en/priorities/meeting-gnwts-legal-duty-consult-aboriginal-governments). This approach is consistent with the honor of the Crown, ensuring that consultation is done in good faith, with the goal of continued mutually

#	Audit Recommendation	Response
		respectful relationships. The GNWT recognizes that consultation is an evolving field, and commits to meet obligations with its consultation efforts, and adjusting its approach when necessary. The GNWT has developed tools and templates to aid GNWT Departments when corresponding with Indigenous governments regarding consultation. With the support of the United Nations Declaration on the Rights of Indigenous Peoples Implementation Act, the GNWT recognizes and supports Indigenous peoples right to self-determination and their right to participate in decision-making in matters which would affect their rights. CIRNAC: The Government of Canada agrees that clear communication materials outlining consultation and engagement roles and responsibilities in the NWT would be beneficial for all. This is best accomplished in coordination with the GNWT, the co-management Boards and Indigenous Governments. The Government of Canada is committed to continuing its efforts and collaborating with the GNWT and Renewable Resource Boards toward fulfilling this recommendation. Towards meeting this recommendation, CANNOR's Northern Projects Management Office (NPMO) intends to work with GNWT officials to develop an MOU and related terms of reference to support joint consultation efforts with IGIO's during environmental assessments in the Mackenzie Valley. This approach has been taken in the Yukon and provides a framework for developing a similar model with the GNWT to support improved understanding of territorial and federal consultation roles and responsibilities.

#	Audit Recommendation	Response
2025-3-2	LWBs and MVEIRB to work with other parties of the regime to identify the appropriate level of effort for early engagement to support boards' evidence-based decision-making. We would expect that parties to the regime work together to create shared expectations and guidelines that are consistent with the principle of free, prior, and informed consent.	LWBs: The LWBs and MVEIRB have different roles in helping the crown to satisfy its s. 35 Duty to Consult, so understandably the level of early engagement during permitting and licensing processes are much different than that during an environmental assessment or impact review process. The LWBs agree the level of engagement effort should be commensurate to the proposed or ongoing activities, so have embarked on updating its *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*. Amongst other objectives, this update is intended to identify opportunities to clarify engagement requirements for smaller scale projects. On an administrative/editorial note, the LWBs would suggest using a different word than 'regime', in an effort to decolonize the language in the Audit wherever possible. MVEIRB: MVEIRB has outlined expectations for early engagement in its Guideline for the Optional Pathway for Major Projects to Enter Environmental Assessment and also directs developers to reference the LWB's pre-submission engagement guidelines for further detail on early engagement approaches. MVEIRB, additionally directs developers to work with the consultation units of the GNWT and the Federal Government (NPMO and CIRNAC) for further guidance. The level of pre-EA engagement required, due to the complexity, scale and scope of projects that generally go through an environmental assessment, results in the expectations for pre-engagement to vary greatly from the majority of regulatory processes that might only require a land use permit. The Board will continue to work with Indigenous Governments, Federal and Territorial Governments and other parties when updating

#	Audit Recommendation	Response
		or implementing its guidelines to set engagement expectations that reflect the principles of free, prior and informed consent.
2025-3-3	LWBs to find ways to further reduce engagement burden, such as targeting notifications to stakeholders and rightsholders to be more 'forward facing' and relevant (e.g., use of key words) and improving the searchability of the ORS for regulatory decisions. We would expect that stakeholders/rightsholders would reduce time spent on searching / navigating LWBs communications and materials.	LWBs: The LWBs, MVEIRB, and the GNWT use the Online Review System (ORS) to carry out public reviews of applications submissions required by active Permits and Licences. Further refinement and customization of user notifications and other system improvements would reduce the burden on potentially affected parties; however, additional funding is needed to work towards this goal. Regulatory decisions are available on the LWBs' public registries. The searchability and accessibility of this platform continues to evolve in response to feedback from all participants in the co-management system.

#	Audit Recommendation	Response
2025-3-4	MVEIRB and LWBs to create opportunities for skills-based capacity building at annual MVRMA resource co-management workshops. For example, building capacity of regulators regarding TK and/or building capacity of IGIOs regarding how to input into the regulatory process (e.g., How to make a compelling presentation at a hearing? How to make a good written submission and presentation in front of a board? How to do questions for an expert witness?). We would expect that practical training sessions would lead to improved skills.	LWBs: As of 2024, the LWBs began participating as a technical host at the Annual GeoScience Forum on the topic of engagement. This included an education-component, an interactive information sharing and gathering activity, followed by a panel answering questions related to challenges and ideas. This is something the LWBs intend to continue in 2025 with a different focus. The LWBs have also begun secondments of staff to IGs to provide additional capacity, are supporting the joint LWB/MVEIRB Outreach Team and its strategy, and are beginning to explore additional topics that participants in the co-management system would like to learn more about (e.g., walking through a Land Use Permit Application process, how to make an effective public hearing presentation, and how to prepare and submit effective recommendations to the Boards). MVEIRB: The MVEIRB supports the use of the MVRMA resource co-management workshops as a venue for informing and instructing participants, including Boards, Governments, IGIOs and the public, on how they can best participate in EIA and Regulatory processes. Skills development is an ongoing focus for the MVEIRB, and our newly established engagement, outreach and partnership team, including region specific community liaisons, will help determine specific knowledge gaps that can help guide skill development initiatives going forward. MVIERB also supports the development of NWT Board Forum training courses that not only supports capacity of Board members and staff, but are also available to IGIOs, Federal and Territorial government staff and the general public.

#	Audit Recommendation	Response
2020-1-10	The GNWT and the federal departments with responsibility for engagement and consultation under the MVRMA work with their respective clients to review and improve engagement strategies.	GNWT: The GNWT is already fulfilling the GNWT's role in the actions being proposed by this recommendation. The GNWT is continually reviewing its consultation approach and tools in light of new court guidance regarding consultation. It is always in a state of updating and refinement. While GNWT-EIA does provide consultation training, tools, and advice, consultation is a GNWT responsibly across all departments. The GNWT is in the process of initiating a process to review and renew engagement strategies with Indigenous governments. Where items relate to MVRMA processes, the GNWT will work through appropriate channels, including through the Intergovernmental Council Secretariat. CIRNAC: The Government of Canada is committed to refining consultation and engagement strategies and acknowledges this is best done in collaboration with all those who have consultation responsibilities under the *Mackenzie Valley Resource Management Act*. The Government of Canada is committed to continuing its efforts and notes that strategies will need to be adaptable to an evolving consultation landscape. As part of these continuing efforts, CANNOR's NPMO intends to explore opportunities for developing project-specific consultation protocols to support consultation efforts with IGIO's during environmental assessments in the Mackenzie Valley

#	Audit Recommendation	Response
3.3 Land Use Plans		
2025-3-5	GNWT and GOC to explore with Indigenous Governments, and fund if interest from Indigenous Governments, the development and implementation of Indigenous-led development policies, plans or strategies. We would expect that this approach would help ensure that Indigenous Governments' self-determined priorities for social, cultural, and economic well-being and development can be considered by others while other formal mechanisms are under development (e.g., Modern Treaties, LUPs, etc.).	GNWT: The GNWT is already fulfilling the actions being proposed by this recommendation. The GNWT currently offers programs that support the development and implementation of Indigenous-led development policies, plans, and strategies. The GNWT provides funding that supports Indigenous-led conservation and stewardship initiatives, such as guardians programs, management plans and work towards Indigenous and Conserved Protected Areas as described in the Healthy Lands, Healthy People workplan. This funding, alongside other non-GNWT funding sources, such as through the Our Land for the Future Agreement support Indigenous Government's self-determined priorities. Indigenous governments can access funding through the Industry, Tourism and Investment (ITI) Support for Entrepreneurs and Economic Development (SEED) Policy under the Community Economic Development Program. This program provides funding to support Indigenous and community governments in developing their economies, advancing regional economic development initiatives, and/or investing in events promoting economic opportunities, including feasibility studies, strategic plans, evaluations and planning costs that investigate economic opportunities and build on existing community resources. Regional Economic Development Plans (REDPs), developed as a mandate item during the 19th Legislative Assembly, were completed in 2023. These plans are designed as evergreen strategic frameworks, REDPs support regional growth across sectors such

#	Audit Recommendation	Response
		as agriculture, fisheries, and manufacturing. They also will help inform the development of a broader NWT Economic Vision. In areas where there is no established regional land use planning process the GNWT puts out an annual call for proposals to support pre-planning activities. This provides an opportunity for Indigenous governments and Indigenous organizations to access limited funding to support capacity building and other activities that will help them prepare for future regional land use planning. (See GNWT's response to recommendation 2020-1-14.) Community governments are responsible for community planning within their municipal boundary. These plans manage land use and through zoning bylaws manage development more specifically. These plans are to be completed every eight years. MACA supports community governments through the development of request for proposals in acquiring a consultant to complete the community plan. MACA is responsible to complete section 35 consultation on the plans before they are approved by the Minister. The Minister of ITI has a mandate to develop an Economic Vision and Investment Strategy for the NWT. This process will involve engagement with Indigenous governments, residents, sectors, and communities. This work is a mandate commitment of the 20th Legislative Assembly. From 2016 to 2020, the GNWT supported Indigenous Governments and Indigenous Organizations in developing Regional Mineral Development Strategies (RMDS). All regions were engaged, and two RMDS documents were released: • Gwich'in Regional Mineral Development Strategy (2020) • Inuvialuit Regional Mineral Development Strategy (2020)

#	Audit Recommendation	Response
		CIRNAC: The Government of Canada agrees with the importance of Indigenous-led development policies, plans and strategies, and commits to discussing priorities with the GNWT and Indigenous Governments and identifying avenues to advance this recommendation, recognizing current funding limitations.
2025-3-6	GNWT and GoC to provide regular updates on progress of the review process of LUPs. We would expect that LUPB's would be kept up to date on the status of LUP reviews.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in this recommendation prior to the next Audit. The GNWT is committed to maintaining ongoing and open communication with planning boards during the review of regional land use plans and land use plan amendments. <u>The GNWT commits to:</u> • Providing regular email updates on the status of the review of regional land use plans or land use plan amendments to the respective Land Use Planning Board. CIRNAC: The Government of Canada contributes to the reviews of Land Use Plans led by the Land Use Planning Boards. The Government of Canada has and will continue to fulfill that role and we continue open and regular communication with the Land Use Planning Boards and other planning partners on these tasks.
2020-1-14	The GNWT and the GoC work collaboratively to adequately fund land use	GNWT:

#	Audit Recommendation	Response
	pre-planning/planning activities in regions without settled land claims, recognizing the distinction that GNWT funds pre-planning and GoC fund planning activities.	The GNWT is already fulfilling the actions being proposed by this recommendation. In areas where there is no established regional land use planning process the GNWT puts out an annual call for proposals to support pre-planning activities. This provides an opportunity for Indigenous governments and Indigenous organizations to access limited funding to support capacity building and other activities that will help them prepare for future regional land use planning. CIRNAC: CIRNAC commits to continue working with GNWT to search for funding to support planning activities in areas without concluded land claims and to actively participate in ongoing initiatives, including the Dehcho planning process and planning discussions as part of ongoing land claim negotiations in the southeastern NWT. Currently, the Northern Regulatory Initiative (NRI), which aims to increase confidence and efficiencies in northern regulatory regimes by advancing Indigenous participation in resource management processes, includes funding supports for Indigenous participation in land use planning processes. LWBs: No LWB response required. However, the LWBs have heard from various parties that advancing Land Use Planning discussions in areas without settled Land Claims where IGs would prefer to focus on Land Claims, is actually causing delays in advancing both initiatives due to resource constraints.

#	Audit Recommendation	Response
3.4 Comprehensive Land Claims		
2025-3-7	GNWT and GoC to coordinate on establishing a consistent online information source (e.g., webpage) that provides annual updates on the status of land claim negotiations, including related expenditures for the year. The status could follow a set categorization, e.g., "Active", "Inactive". We would expect that this reporting would better enable a public evaluation of progress**.**	GNWT: The GNWT disagrees with this recommendation. The identified barrier in this section is the absence of settled land claims: "*The absence of settled land claims has been consistently highlighted as a barrier*" (page 119). The GNWT and the GoC already maintain public facing websites about the status of negotiations. There is no content in this report upon which to conclude that updates to either of those websites are connected to or a barrier to the progress or outcomes of negotiations. Generally, negotiations are confidential and without prejudice to the parties. The GNWT cannot determine what GoC publishes, nor can it commit GoC to fulfil this recommendation, which would be required for GNWT to do so. What is publicly available on the GNWT website is information about the stage of negotiations and updated results in so far as when public-facing milestones are reached. CIRNAC: The Government of Canada acknowledges a public, coordinated and consistent information source that provides annual updates could be useful, however information on land claim negotiations is sensitive and confidential. The Government of Canada is willing to work with GNWT to discuss if and how best to meet the intention of this recommendation.

#	Audit Recommendation	Response
3.5 Adequacy of Resources		
2025-3-8	GoC to fund dedicated and long-term positions (e.g., 10 years) for IGIOs to participate in northern regulatory processes (including by providing TK), until formal, structural mechanisms are in place (i.e., modern treaties and funding implementation agreements). We would expect that this would create greater equity for participation in the NWT regulatory regimes, regardless of treaty status, and will ensure that public funds are directed to long-term sustainable capacity within IGIOs.	CIRNAC: CIRNAC's Northern Participant Funding Program currently supports Indigenous governments and organizations, and other northerners to facilitate their meaningful participation in the impact assessment and regulatory processes established under land claims agreements in Canada's three territories; funding is made available for impact assessments and water licencing of large, complex or controversial resource development or infrastructure projects (i.e., "major" projects). While CIRNAC agrees with the intent of the recommendation, the department notes that this application-based program is for Indigenous governments and organizations with and without settled (modern) treaties and having a settled treaty may not address funding and capacity challenges and are willing to explore alternate funding models in the future (see 2025-3-9). CIRNAC's Northern Regulatory Initiative has provided some initial funding to the Mackenzie Valley Land and Water Board to support a pilot secondment initiative with Indigenous Governments and Organizations and will gather key lessons learned to feed into addressing this recommendation.
2025-3-9	GoC and GNWT to explore models for direct funding in NWT to ensure that IGIOs (without modern treaties) have stable resources for regulatory capacity. We would expect that this approach would move away from the need for funding applications (like IRMA), which results in	GNWT: The GNWT is already fulfilling the GNWT's role in the actions being proposed by this recommendation. The GNWT supports the recommendation's intent to sufficiently resource Indigenous governments and to address capacity shortcomings related to project assessment and reviews.

#	Audit Recommendation	Response
	administrative burden and is a drain on capacity.	The existing IRMA (Interim Resource Management Application) program has two components: 1. Base Funding – This funding is allocated once a year on a per capita basis. Indigenous governments and Indigenous organizations can elect to apply for multi-year base funding for a term of 3 years. 2. Resource pressures funding – this funding covers additional costs related to major project developments. Eligible organizations may also submit proposals. Application processes ensure that limited funds are allocated fairly, according to resource pressures in different regions, and to maintain the integrity and responsiveness of the IRMA program. The GNWT has and continues to meet with federal counterparts to find ways to improve the amount of funds available and funding processes, as the program is consistently fully subscribed. CIRNAC: The Government of Canada agrees with the intent of the recommendation to provide sustainable funding to Indigenous Governments and Organization's for impact assessments and regulatory reviews, and, along with the GNWT, is committed to completing land claim and self-government agreements that will provide stable resources for regulatory capacity. The Government of Canada also echoes the GNWT in its caution of direct funding to result in inconsistent and potentially inadequate funding for organizations with higher regulatory burdens that may vary year to year.

#	Audit Recommendation	Response
		The Government of Canada also recognizes the administrative burden posed by application-based funding programs. As noted in the response to recommendation 2025-3-8, project-specific funding through the Northern Participant Funding Program provides equitable funding regardless of modern treaty status. Further, the Northern Participant Funding Program has dedicated general capacity-building funding for participating in environmental assessments and regulatory processes that is separate from project-specific funding. LWBs: No LWB response required. However, the LWBs are currently participating in a secondment initiative funded by the GoC and the LWBs to support regulatory capacity for organizations in areas without settled Land Claims.
2025-3-10	CIRNAC to ensure board members are fairly recognized for their time. We would expect that honoraria would be sufficient to attract and retain board members for the proper functioning of the system.	CIRNAC: CIRNAC commissioned an independent report on Board remuneration (completed in 2024), and based on the report, is currently advancing recommendations on next steps.
2025-3-11	Like the LWB example under Section 3.5.5, all parties should seek input from IGIOs to identify process improvements (or step-change improvements) that will reduce the capacity burden on IGIOs. We would expect	GNWT: The GNWT agrees with this recommendation but cannot commit to a timeframe for fulfilling based on the role of other contributors.

#	Audit Recommendation	Response
	parties to identify, communicate, and implement these changes.	Funding support through the Our Land for the Future Project Finance for Performance (OLF NPFP) should be considered to address IGIO capacity burdens with respect to land use plans and conservation efforts. CIRNAC: CIRNAC's Northern Participant Funding Program includes both project-specific participation funding for environmental assessments and dedicated capacity-building funding to Indigenous Governments and Organization's. Officials with the Northern Participant Funding Program conducted engagement sessions in with NWT communities in 2019, 2022 (virtual) and 2024 and received valuable feedback. The Program is always willing to consider feedback from recipients, and will continue to receive input through engagement and activity reports. CIRNAC's Northern Regulatory Initiative has provided some initial funding to the Mackenzie Valley Land and Water Board to support a pilot secondment initiative with Indigenous Governments and Organization's and will gather key lessons learned to feed into addressing this recommendation. This was triggered by discussions through the Mackenzie Valley Operational Dialogue (MVOD), which also convenes Indigenous partners regularly and provides opportunities to share regulatory challenges and co-develop solutions towards these issues. LWBs: See response above for recommendation 2025-3-4. The LWBs have been seeking input on overall improvements to LWB processes as well.
2020-1-16	The LWBs seek to develop a participant funding program, funded by the federal and territorial governments, to support	GNWT: The GNWT is already fulfilling the GNWT's role in the actions being proposed by this recommendation.

#	Audit Recommendation	Response
	regulatory decisions within its jurisdiction. The funding would provide capacity support to Indigenous parties requiring assistance to participate in the regulatory process, as well as technical support.	The GNWT provides in kind support to Indigenous governments by answering inquiries, providing information and submitting its recommendations to the Land and Water Boards for consideration as part of evidence for projects. The GNWT's submissions are intended to cover the interest of the public and balance development and with environmental protection. Additionally, the GNWT already administers the Interim Resource Management Assistance (IRMA) program, a fund which is intended to strengthen the ability of Indigenous governments and Indigenous organizations without land and resource agreements in the NWT to participate in management activities affecting surrounding land use areas. CIRNAC: CIRNAC's Northern Participant Funding Program is sunsetting on March 31, 2028, and the department may consider other funding approaches through policy analysis and program evaluation to capture the needs of Indigenous Governments and Organizations. As noted in CIRNAC's previous responses to this recommendation, CIRNAC's Northern Participant Funding Program was renewed and expanded in 2023 and now includes pilot funding for water licencing processes for large or complex projects across both NWT and Nunavut. While funding for participation in water licencing has been made available for two projects (Norman Wells and Diavik), more proceedings will be eligible in the future. Engagement with NWT partners on the program's design and operation was undertaken in March 2019, January 2022 (virtual), and most recently in May 2024. LWBs: The LWBs agree that the Northern Participant Funding Program (NPFP) needs to be expanded to include the gaps remaining in covering regulatory processes that fall

#	Audit Recommendation	Response
		under the jurisdiction of the LWBs. The NPFP is key in providing capacity support, and its benefits have already been evident in the recent Diavik renewal water licence proceeding, as it helped increase the participation of parties. However, the LWBs wish to reiterate that a funding program, including its administration, is a responsibility held by the territorial and federal governments. The LWBs are quasi-judicial decision-making bodies and as such, administering a participant funding program could 1) create a perception of bias towards groups who do or do not receive funding, and 2) become an unnecessary burden on the LWBs. The LWBs propose that Recommendation 2020-1-16 is now more appropriately covered by Recommendations 2025-3-8 and 2025-3-9.
2020-1-17	The GNWT introduce a multi-year funding envelope for a portion of the IRMA funds; this is a leading practice for grant and contribution funding programs. We also recommend that the GNWT increase the IRMA funding envelope by an incremental amount commensurate with an appropriate index, such as cost-of-living differential or inflation, in order to continue to support Indigenous organizations at a similar level year-over-year. We further recommend GNWT help facilitate coordination opportunities between applicants where appropriate, since only the GNWT as the fund manager can identify similar project	GNWT: The GNWT is already fulfilling part of the actions being proposed by this recommendation and agrees with the remainder. The GNWT commits to partially fulfilling the remainder of the recommendation prior to the next Audit. **Multi-year funding envelope:** The GNWT has already fulfilled the multi-funding option for IRMA funds. In response to the findings of the 2020 Audit and internal review, a multi-year funding option was added in an update to the IRMA Guidelines in 2022, modeled closely after the multi-year approach used by the Cumulative Impact and Monitoring Program. This reduces the administrative burden and increases spending flexibility for communities who currently struggle with capacity issues year-to-year. **Increase funding envelope:**

#	Audit Recommendation	Response
	proposals that may benefit from cooperation.	As noted, relative to Recommendation 2020-1-16, the IRMA program is oversubscribed and the GNWT has been unsuccessful in receiving additional funding from the federal government. The federal government has announced its own funding programs that are intended to be provided directly to Indigenous governments and not to the GNWT, and we encourage Canada to implement these additional supports over the long term. As noted, the federal government has developed the Northern Regulatory Initiative, which provides support for Indigenous participation in Northern resource management. The GNWT has and will continue to collaborate with CIRNAC to facilitate the distribution of additional funding to IRMA recipients, for example through funding for Critical Minerals potential, where possible. **Coordinated Opportunities:** The IRMA Guidelines were updated as a result of a previous audit and include the option to coordinate spending when eligible recipients have similar projects or spending requirements. At this time, the IRMA program allows joint submissions between eligible recipients for a specific development. However, this option has not been used by applicants. A shortcoming of this option is that for this type of application to be considered fairly and adequately, it would require additional information from Indigenous governments. Requiring additional details and information from IRMA applicants undermines Recommendation 2025-3-9. <u>The GNWT commits to:</u> • Consult with IRMA recipients to verify whether there is interest and/or benefit in having program staff help to facilitate coordination opportunities between applicants where appropriate, and how this could be achieved.

#	Audit Recommendation	Response
3.6 Outcome of Regulatory Decisions		

2025-3-12	LWBs, GNWT, and CIRNAC collaborate to create a communication material that explains the securities process in an accessible way. We expect that increased public understanding of the securities process will enhance public trust in NWT securities.	GNWT:
		
		The GNWT agrees with this recommendation and commits to fulfilling the GNWT's role in this recommendation prior to the next Audit.
		
		The GNWT recognizes the importance of clear and collaborative communication in building public trust in the resource management system. This commitment complements existing GNWT legislative commitments to report on security holdings and the GNWT's commitments under the Open Government Policy.
		
		The GNWT has discussed this recommendation with LWB and CIRNAC counterparts and understands that both organizations intend to accept the recommendation and work with GNWT to implement it.
		
		The GNWT commits to:
		
		• Work with the LWBs and CIRNAC to establish a small working group with membership from each organization to implement the recommendation
		
		• Subject to the agreement of all three organizations, this working group will:
		  ○ establish a workplan,
		  ○ define the materials,
		  ○ develop draft materials for review within the three organizations,
		  ○ update the draft materials based on comments received, and
		  ○ submit the final draft materials for approvals within the three organizations.

#	Audit Recommendation	Response
		• GNWT will incorporate the products into GNWT communications, as applicable. • GNWT will seek to work with the LWBs and CIRNAC to review and update the products at regular intervals. CIRNAC: CIRNAC agrees with this recommendation and commits to working with the GNWT and LWB's to develop accessible communication material(s) that clarify the securities process and builds public trust in the resource co-management system in a way that aligns with CIRNAC's limited role regarding securities in the NWT. CIRNAC has discussed this recommendation with the Land and Water Boards and GNWT and understands that both organizations intend to accept the recommendation and work with CIRNAC to implement it; The Government of Canada further supports the GNWT and Land and Water Boards commitment to establish a working group and develop these communication materials in a timely manner. LWBs: The LWBs, GNWT, and CIRNAC are in the process of updating the Land Use Permit Closure Cost Estimator (Estimator) and associated Support Manual (Manual) to replace the Land Use Permit Application Security Template. A public review of the draft Estimator and Manual took place in 2023, and this project is ongoing. The LWBs, GNWT, and CIRNAC jointly developed the Guidelines for Closure and Reclamation Cost Estimates for Mines in 2017, and those guidelines were updated in 2022. The LWBs have offered to display more security information on each public registry project page if the GNWT is able to share that information with the LWBs. Initial

#	Audit Recommendation	Response
		discussions with the GNWT appear that this approach is reasonable and should be feasible to implement in the near future. As this is the platform where participants in the co-management system go to search for documents and decisions, this information being displayed with each project should increase the awareness and trust in the securities process. The LWBs, the GNWT, and CIRNAC will commit to developing a standard message regarding: what security is and how it is held, so that this message can also accompany the display of this information and be used in other communications (e.g., LWB/GWNT websites, future ppt presentations, etc.)
3.7 Compliance and Enforcement		
2025-3-13	GNWT and LWBs to explore what would be involved in a transition of inspection and enforcement responsibilities from GNWT to LWBs. We would expect that this exploration would identify the benefits and tradeoffs of a transition as well as the change management approach(es) that would be needed.	GNWT: The GNWT disagrees with this recommendation. The final Devolution Agreement between Canada and the GNWT clearly transferred authorities for the administration and control of certain lands to the GNWT, of which inspections and enforcement is one of many functions. It is also important to note that GNWT inspections staff are cross appointed under a series of legislation beyond that which is administered, in part, by LWBs, which provides both operational and financial benefits. LWBs: The LWBs will commit to both internal exploration of such a transition and informing and requesting the GNWT conduct its own similar internal exercise, with the goal for

#	Audit Recommendation	Response
		the GNWT and the LWBs to bring their respective internal findings together in early 2026 to consider this further.
2020-1-18	The LWBs and the inspection units of GNWT and the GoC establish a process to meet and discuss challenges and solutions with respect to the inspection regime in the Mackenzie Valley, specifically as it relates to clarifying roles and responsibilities, ensuring adequate inspector capacity, as well as timely and transparent inspections, reporting and follow-up. We further recommend boards ensure a record of findings, actions, and outcomes are published to ensure transparency and facilitate future auditing of progress.	GNWT: The GNWT is already fulfilling most of the actions being proposed by this recommendation and disagrees with the remaining action being proposed. The aspects of the recommendation that are already being fulfilled include the clarification of roles and responsibilities; ensuring adequate inspector capacity; ensuring that inspections, reporting and follow-up are timely and transparent; and publishing all records of findings, actions, and outcomes. The roles and responsibilities for all parties with respect to enforcement and compliance are clearly outlined by federal and territorial legislation. There is a close working relationship between LWB staff and GNWT inspectors who collaborate on the ground to improve compliance while respecting each party's individual roles. To determine the appropriate frequency for conducting inspections, the GNWT follows Inspection Reporting and Risk Assessment (IRRA) protocols which dictate minimum frequencies for inspections to be completed. Beyond the minimum number of required inspections, the inspector has discretion to decide if additional inspections are warranted. This flexibility allows inspectors to adapt the number of inspections to the conditions observed at the site. All reporting, and follow-up is made available via the LWBs public registry, thereby making reporting on all inspections and outcomes timely and transparent. Given the close working relationship between LWBs and GNWT Inspectors, the GNWT disagrees that a specific process needs to be established to meet and discuss challenges and solutions with respect to the inspection regime in the Mackenzie

#	Audit Recommendation	Response
		Valley, as it is an ongoing conversation as we work to implement our close responsibilities. CIRNAC: CIRNAC continues to support information sharing, coordination, and collaboration with respect to enforcement and compliance. CIRNAC participates in spills working group meetings and has been involved in recent meetings with territorial and federal partners to discuss environmental assessment measures. Roles and responsibilities for enforcement and compliance are clearly outlined in federal and territorial legislation. Inspection reports and any required follow-up from inspector's directions are made available on the LWB's public registry, providing openness and transparency. CIRNAC continues to use a risk-based framework to determine inspection frequencies, and CIRNAC inspectors work collaboratively with GNWT inspectors, particularly on split-interest projects, coordinate inspections when feasible, and communicate directly as needed. CIRNAC has an established working relationship with the LWBs, regularly participating in project-specific discussions regarding compliance, and commits to annual meetings with the GNWT and Land and Water Boards to discuss inspection activities. CIRNAC suggests that a specific process for meeting and information sharing is not necessary at this time when considering the existing working relationships and communication between CIRNAC, the Land and Water Boards, and the GNWT. LWBs: The LWBs will be reaching out to both the federal and territorial departments responsible for inspections as outlined in response to recommendation 2025-3-13. Those departments responsible for inspections submit Inspection Reports for permits and licences issued by the LWBs. These reports indicate instances of non-compliance

#	Audit Recommendation	Response
		to the Boards, which are then subsequently posted and available on the public registry.
2020-1-19	The GNWT develop and publish an overall project inspection scheme to assist regulators, the public, and permit holders in tracking of 'unacceptable' items from previous inspections all the way to their satisfactory conclusion and inspector sign-off. Furthermore, improvements could be made in the consistency of information collected to ensure future inspectors, the proponent, and regulators appreciate the context of an inspection. We encourage the GNWT to work with their federal counterparts on this initiative, including CIRNAC and the Canada Energy Regulator.	GNWT: The GNWT disagrees with this recommendation. Rather than publishing an overall project inspection scheme, GNWT inspectors follow Inspection Reporting and Risk Assessment (IRRA) risk assessment protocols to identify the minimum number of required inspections for a permit or license, then it is up to the inspector's discretion from there. This flexibility is important as it allows inspectors to make decisions regarding inspection needs for compliance promotion on each permit or license. This approach is in line with the objective of reaching compliance through education first, before using enforcement. IRRA itself is not publicly accessible, but Inspection reports generated in IRRA are available on the Public Registry. With respect to tracking of 'unacceptable' items from previous inspections, the GNWT tried to include features to track unacceptable items during enhancements of IRRA, but this enhancement to the program was not successful. The GNWT is looking at options to replace IRRA with the proposed enhancements

#	Audit Recommendation	Response
2020 Audit Part 2: Responses to Audit Recommendations: Evaluation of Environmental Trends in Water Quality and Quantity		
2020-2-3	The RA perform a periodic review (e.g., every five years) of the overall monitoring network in the NWT to ensure that the network is sufficient to detect and explain trends in water quality and quantity. Monitoring locations should be added or dropped with the key consideration being their maintenance over the long-term. Short-term monitoring programs are of limited use unless they are intended to answer a specific question over the short-term.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. GNWT-ECC recognizes the importance of prioritizing long-term monitoring stations that provide representative data for key watersheds and support the detection of trends in water quality and quantity. It is also acknowledged that short-term water quality monitoring efforts should be carefully scoped and used strategically to address specific, time-bound questions. GNWT-ECC evaluates its water quality monitoring through network evaluations, status and trend reporting, and frequent engagement with water partners. GNWT-ECC commits to integrate periodic reviews into the monitoring program planning cycle and consider criteria for adding or removing monitoring locations based on their long-term value and scientific relevance. To support this work, GNWT-ECC is currently conducting a comprehensive review of its water quality monitoring network. This includes assessing site coverage, sampling frequency, and alignment with both water stewardship priorities and hydrometric (water quantity) data. The review will help ensure that monitoring efforts are scientifically robust, regionally relevant, and integrated with broader ecosystem and hydrological assessments. GNWT-ECC will continue to participate in discussions with provincial and federal partners regarding hydrometric network station optimization and client needs.

#	Audit Recommendation	Response
		The GNWT commits to: • Completing the water quality network review. • Completing a station-by-station analysis of existing hydrometric gauges to assess their role in the larger hydrometric network.
2020-2-4	The RA develop a lake-specific monitoring program. While there are hundreds of thousands of lakes in the NWT, reliable tracking of environmental trends could be conducted on a small subset of lakes stratified by size, watershed area and ecoregion. Ontario's Broad Scale Monitoring Program is referenced as an example of a program addressing large numbers of lakes in a systematic manner to document a) trends over time and b) the state of the resource.	GNWT: The GNWT disagrees with this recommendation. GNWT-ECC does some lake monitoring on a case-by-case basis; however, a full lake monitoring program is not feasible given available resources, the large number or lakes and vast size of the NWT and the remote location of so many of the lakes. GNWT-ECC will continue to carry out long-term water quality lake monitoring in the Coppermine and Lockhart basins and numerous lakes in the North Slave region, including Great Slave Lake. Partnerships with academia will continue with research work in smaller lakes in the Yellowknife region (e.g., Jackfish Lake, Upper Baker basin). GNWT-ECC may explore the feasibility of implementing a stratified, lake-specific monitoring program, considering logistics, resource availability, and partnerships with Indigenous governments, academia and other stakeholders. GNWT-ECC's goal is to ensure that robust, long-term data are available to support comprehensive assessments of aquatic health across both lake and river systems in the NWT.

#	Audit Recommendation	Response
2020-2-5	The various large mining operations are compiling long-term (20+ years) records of water quality and biology in lakes as part of their AEMPs. These include reference lakes which document regional and climate-related changes. These records may be lost or discontinued after mines close. We recommend the GNWT consider assuming monitoring programs (or at least key stations within those programs) initiated by industry as an efficient way to build a database for lakes and rivers. The outcome we expect is that the RA curtail the loss of millions of dollars in monitoring investments made by industry and increase their ability to detect changes over the long-term.	GNWT: The GNWT disagrees with this recommendation. The GNWT acknowledges the concern about potential data loss following mine closure. The GNWT does not have the resources to adopt additional monitoring sites. It is important to note that monitoring records generated through AEMPs are submitted to and housed with the Mackenzie Valley, Wek'èezhìı, Sahtu, and Gwich'in Land and Water Boards, where they remain publicly accessible. This provides a level of continuity and transparency, even after mines cease operations. The GNWT will continue to monitor the regulatory requirements for current mining operations, including reference lakes, and will provide input to final closure requirements when required, including long-term monitoring requirements by industry. Industry-led monitoring will be required for several years during and following closure as a part of the closure process and post-closure monitoring and maintenance requirements. GNWT-ECC's Regulatory and Assessment Division is actively participating in closure planning for all mine sites.
2020-2-8	The GNWT provide a framework for future trend reports to follow for the evaluation of data such as a requirement that the authors interpret the significance and potential causes of any observed environmental trends, and that they	GNWT: The GNWT is already fulfilling the actions being proposed by this recommendation. A clearly defined reporting framework enhances the ability of contractors to deliver scientifically robust and defensible analyses, while ensuring that the resulting information is actionable for decision-makers. This also helps ensure that trend

#	Audit Recommendation	Response
	address the potential for cumulative impacts. The outcome we expect is that watershed trend reports by contractors for the GNWT follow a consistent framework of interpretation and provide a discussion of significance of any trends in order to inform the GNWT such that they can respond in an appropriate way.	analyses meaningfully inform GNWT's water management responses and long-term planning efforts. The GNWT currently employs a general framework for evaluating water quality and quantity with standardized levels of significance and appropriate statistical testing, consistent with current scientific literature and best practices. GNWT reports show the data, explain what the trends mean, what might be causing them, and how they might be connected to other environmental changes. Examples of these reports are the NWT-wide Community-based Monitoring program 5, 10 (2019, 2024) year report, Hay, (2020) Slave and Coppermine River trend reports (2025). Cumulative effects assessment and an interpretation of observed environmental changes are common expectations of watershed quality trend analysis reporting. These assessments and interpretations help identify pressures on ecosystems, evaluate potential risks, and guide adaptive management strategies. GNWT-ECC is working with technical experts from Yukon, British Columbia, Alberta and Saskatchewan (jurisdictions of the Mackenzie River Basin) to develop consensus-based methods to assess regional water quality (status and trends and trigger/objective development). Reaching consensus allows for meaningful water quality assessments which in turn will better inform decision making. Trends in flows and water levels across the Mackenzie River basin are presented in the State of the Aquatic Ecosystem Report that is published every five years, as well as in reporting on specific transboundary rivers for the NWT's bilateral water management agreements. GNWT-ECC also communicates the results of trend analyses and other statistical analyses related to water quantity through technical reports, peer-reviewed journal publications, and monthly water bulletins.

#	Audit Recommendation	Response
		GNWT-ECC currently employs a peer-reviewed framework for trend analyses and statistical analyses that is both parameter and context-dependent.
2020-2-9	The RA work with other appropriate GNWT divisions and parties in the NWT to evaluate how best to improve their water monitoring efforts with the goal of ensuring that any data collected reflect the information needs of residents and could be used for trend analysis and cumulative impact monitoring of water. With respect to trend analyses, the evaluation should focus on how best to optimize the availability of long-term data sets to provide good coverage of the NWT and address the gaps identified in Section 2.1.2.	GNWT: The GNWT agrees with this recommendation and commits to fulfilling the recommendation prior to the next Audit. GNWT-ECC currently works with other appropriate GNWT divisions and parties in the NWT to understand and address the information needs of residents. Water monitoring, data management and communication are pillars of the NWT Water Stewardship Strategy, which is co-developed, implemented and reviewed annually by GNWT-ECC, other GNWT departments and water partners. Continued implementation of the NWT Water Strategy facilitates improved coordination of water monitoring efforts, such as through network partnerships, to ensure information needs are met and to address monitoring gaps in the NWT. Partnerships, including those for community-based water quality monitoring programs, also allow for direct input by NWT communities and stakeholders. GNWT-ECC collaborates with water partners - communities, municipalities, other government departments, academia, Indigenous governments and organizations, neighboring jurisdictions as well as the federal government to ensure that water monitoring efforts are coordinated, and spatial coverage is addressed. GNWT-ECC's Water Monitoring and Stewardship Division works closely with MACA, Infrastructure and Forestry to evaluate the needs for hydrologic information for emergency preparedness (flooding, wildfire and maritime transport). GNWT-ECC is currently conducting a water quality network review and will use this assessment to clarify study design and identify gaps for trend analysis. This includes

#	Audit Recommendation	Response
		assessing opportunities to improve geographic and temporal coverage, fill the data gaps identified in Section 2.1.2, and enhance the utility of datasets for long-term water quality trend detection and cumulative effects assessments. Given the large spatial scale of the NWT, the GNWT prioritizes cumulative impact monitoring resources towards understanding the causes of concerning trends, so that we can better predict future water status and trends. NWT CIMP funds cumulative impact projects that address the NWT CIMP Monitoring Blueprints. The water Blueprint will be updated in 2026 based on input from decision-makers and water partners to reflect monitoring gaps and information needs of residents with respect to cumulative impact monitoring of water. The GNWT commits to: • Completing the water quality network review. • Updating NWT CIMP Monitoring Blueprints for Water in 2026 to reflect the information needs of residents.

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ISBN: 978-0-7708-0313-1

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